

**AGREEMENT FOR NMB WATER OPERATIONS, MAINTENANCE, AND
PROGRAM MANAGEMENT SERVICES**

between

CITY OF NORTH MIAMI BEACH, FLORIDA

and

CH2M HILL ENGINEERS, INC.

Dated

May 22, 2017

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**AGREEMENT FOR NMB WATER OPERATIONS, MAINTENANCE, AND PROGRAM
MANAGEMENT SERVICES**

This Agreement for NMB Water Operations, Maintenance, and Program Management Services (“Agreement”) is made and entered into on this 22nd day of May, 2017 (“Execution Date”), by and between the City of North Miami Beach, Florida, a municipal corporation of the State of Florida (the “City”) and CH2M Hill Engineers, Inc., a corporation authorized to do business in the State of Florida, with a business address of 9191 S. Jamaica Street, Englewood, Colorado, 80112 (the “Contractor”).

WITNESSETH:

WHEREAS, the City owns and operates the water and wastewater utilities serving the City of North Miami Beach and other municipalities and is responsible for the supply, treatment and distribution of potable water, the collection and transport of wastewater, and water and wastewater billing and collection in the service areas for such services;

WHEREAS, in furtherance of the City’s mission to provide excellent municipal services in a financially responsible and environmentally conscious manner, the City has determined that it is in the City’s best interests to contract with a private entity to operate, maintain, and manage, including customer billing and service functions of, the City’s water and wastewater system in order to meet the requirements of applicable law, and to perform program management services;

WHEREAS, on November 18, 2016, the City advertised its Request for Qualifications RFQ-2016-08 “NMB Water Operations, Maintenance and Program Management Services” (“RFQ”) for purposes including hiring a firm to provide Operations, Maintenance and Program Management Services for the City’s Water and Wastewater Utility and Program Management;

WHEREAS, the City provided firms which participated in the RFQ with reasonable access to the water and wastewater system to allow them the opportunity to review documentation and to conduct such inspections and reviews as they deemed necessary to become familiar with the water and wastewater system prior to submission responses in connection with the RFQ;

WHEREAS, Contractor submitted a response to the RFQ and was ranked as the most qualified firm for that solicitation, and pursuant to the City’s procurement procedures and the resolution of the City Commission, the City requested Contractor, to commence negotiations with the City for an agreement to provide the services contemplated in the RFQ;

WHEREAS, CH2M Hill Engineers, Inc. is the prime contracting entity on non-federal consulting and construction projects within the United States for the CH2M HILL companies;

WHEREAS, CH2M Hill Engineers, Inc. is one of the largest entities within the families of CH2M HILL companies and provides full suite of services including design, operations and construction services for water, wastewater, transportation, environmental clients, and CH2M Hill Engineers, Inc. is a wholly owned subsidiary of CH2M HILL Companies Ltd.

WHEREAS, based upon the negotiations between the City and Contractor, on May 16, 2017, the City of North Miami Beach, in accordance with the City’s Code of Ordinances, adopted Resolution No. R2017-47, thereby finding that engaging Contractor to perform the services set forth herein in accordance with the representations, warranties, terms, covenants, conditions and agreements set forth in this Agreement was in the best interests of the City;

WHEREAS, the City intends by the execution of this Agreement to enter into a contract with Contractor for the scope and terms of the utility operations and maintenance, customer service and billing and program management services to be provided by the Contractor at the standards and levels of service as specified herein;

WHEREAS, the scope of utility operations, maintenance, and program management services to be provided for the City's Utility Facilities as incorporated in this Agreement is intended to meet or exceed the objectives of the City, including the following:

- (1) provide reliable, efficient, cost effective water treatment, supply and distribution, wastewater collection and transmission, and fire protection supply and distribution services to the City and the customers without unnecessary interruption;
- (2) collect and transport wastewater in a manner that meets or exceeds the requirements of applicable Law;
- (3) treat, store and distribute potable water that meets or exceeds the requirements of applicable Law;
- (4) treat and distribute fire protection water that meets or exceeds the requirements of applicable Law and is suitable for fire protection;
- (5) operate and maintain all treatment plants, pump stations, collection systems, distributions systems and other Utility Facilities to their design capability and efficiency consistent with the requirements, standards and levels of service set forth in this Agreement;
- (6) conserve the capital investment in the Utility Facilities for the long-term integrity, sustainability, reliability and efficiency of the Utility Facilities by performing adequate predictive, preventive, periodic, routine, and corrective maintenance and upgrading and replacing of the Utility Facilities consistent with prevailing industry standards;
- (7) read all meters in accordance with City routes and schedules, and perform routine meter repair and replacement and collect, store and analyze meter data for purposes including planning and maintenance purposes relating to NMB Water;
- (8) provide customer billing and collection services;
- (9) provide program management services for NMB Water as required by the City;
- (10) develop, implement and deploy a plan and program of outreach and communication with customers, the City, governmental agencies, and other stakeholders;
- (11) provide responsive customer service and work order processing on all issues relating to the performance and delivery of Services;
- (12) provide public benefit services, contributions and activities;
- (13) perform such other services as specified in the scope of this Agreement;
- (14) perform emergency planning and response services; and
- (15) perform other City services outside of NMB Water as requested.

WHEREAS, the Contractor represents that it currently has, and will have throughout the term of this Agreement, the financial resources, experience, expertise, resources and professional skill to perform the Services and to manage, operate and maintain the Utility Facilities in accordance with the terms of this Agreement, and to timely and efficiently perform all the other activities contemplated by this Agreement; and

WHEREAS, the water and wastewater system will continue to be owned by the City and certain water and wastewater assets described herein will be operated, maintained, repaired, replaced and managed by the Contractor.

NOW, THEREFORE, in consideration of the mutual promises, covenants, representations and agreements contained herein, including to be bound hereby, the parties to this Agreement do agree for themselves, their successors and assigns as follows:

**ARTICLE 1.
DEFINITIONS AND CONSTRUCTION**

Section 1.1 **Definitions.** As used in this Agreement all capitalized words and terms herein shall have the following meanings unless the context requires otherwise:

“Act of God” means hurricane, tornado, epidemic, landslide, lightning, earthquake, flood, fire, explosion, or similar occurrence, war, strikes, lockouts, blockade, acts of public enemies, insurrection, riot, general unrest, civil disturbance, sabotage, terrorism or similar occurrence.

“Additional Services” means the provision of services by Contractor at the request of City for the services which do not constitute Basic Operation and Maintenance Service, and Repair and Replacement Services or Program Management Services which are not necessitated by the failure or delay by Contractor to perform the Basic Operation and Maintenance Services or Maintenance and Repair Services and its obligations are not reasonably considered by industry standards to be a service incidental to the provision of management, operation and maintenance service under this Agreement.

“Affiliate” means a person that directly or indirectly, through one or more intermediaries, controls or is controlled by, or is under common control with, a specified person; for purposes of this definition, "control" means the ability to control the management and policies of a person, whether through ownership of equity securities or other ownership interests which represent more than fifty percent (50%) of the voting power in the controlled person or entity, by common directors or officers, by contract or otherwise. Any officer, director, joint venture, partner or direct or indirect subsidiary of Contractor shall be deemed to be a Contractor's Affiliate.

“Agreement” means this Agreement for NMB Water, Operations, Maintenance, and Program Management Services including all exhibits, any amendments and supplements hereto executed and delivered in accordance with its terms.

“Annual Preventive Maintenance Plan” means the annual plan submitted by the Contractor and approved by the City documenting the scheduled services and activities to be performed by Contractor in connection with the Routine Maintenance of the Utility Facilities for the applicable year as required in Section 3.1 and Exhibit 1.

“Basic Operation and Maintenance Services” shall generally mean the performance by the Contractor of routine, normal and ordinary operation and maintenance services and Routine Maintenance of the Utility Facilities as described in Article 3 - Operation and Maintenance Service and Exhibit 1 and the performance of services consistent with Prudent Utility Practice and standard industry practice. Basic Operation and Maintenance Services hereunder shall include Customer Services, Meter Reading, Building / Facilities Maintenance and community relations and outreach.

“Basic Operation and Maintenance Services Fee” means a predetermined, fixed lump-sum payable annually in twelve (12) equal installments for performance of the Basic Operation and Maintenance Services in accordance with the terms, covenants and conditions hereof, which fee includes all management, supervision, administration, labor, services, equipment, materials, supplies, systems, tools, components, devices, intellectual property, technology, processes, controls, techniques, insurance, guarantees, warranties, electricity (as measured at the meters identified in Exhibit 29) and other items provided by

Contractor in connection with the operation and maintenance of the Utility Facilities, which fee shall be computed as set forth in Exhibit 6.

“Basic Operation and Maintenance Service Performance Standards” means those specific operations and maintenance activities and standards consistent with industry standards and Prudent Utility Practice, the original version of which shall be developed and prepared by the Contractor specifically for the Utility Facilities and approved by the City during the Transition Period, which guide and define the operation and maintenance responsibility of the Contractor and the responsibilities of Contractor with respect to customer service, customer billing and collection and community relations and outreach.

“Basic Operation and Maintenance Service Report” means the report described in Section 3.5(b) required to be prepared by the Contractor on a monthly basis describing the nature and extent of the Basic Operation and Maintenance Service performed, the performance of the Utility Facilities, the attainment of and/or the deviation from the Basic Operation and Maintenance Service Performance Standards in the prior month and other matters as requested by the City, the form of which shall be developed by Contractor and approved by the City as part of the Transition Services.

“Building / Facilities Maintenance” means Routine Maintenance activities relating to building and facilities maintenance, including Routine Maintenance of HVAC units, building control systems, elevators, smoke/fire detection devices, window cleaning, office/furniture relocations (for Contractor occupied areas), light bulb replacement, janitorial and other routine tasks involving environment/health/safety, fire safety, security, maintenance/testing/inspections, cleaning, business continuity planning (for Contractor occupied areas), and space allocation/changes (for Contractor occupied areas) for NMB Water buildings and facilities, including, the Norwood Water Treatment Plant, the Wastewater Facility, the Operations Center, the Public Services Administration Building and the Customer Service/Cashier areas on first floor of City Hall. Building/Facilities Maintenance does not include Repair and Replacement Expenses which will be charged to the Repair and Replacement Fund. Examples of Repair and Replacement Expenses include HVAC unit repairs, building control systems repairs, elevator repairs, carpet/floor areas and window repair.

“Business Day” means any day other than a Saturday, Sunday, City holiday or any other day on which banking institutions in the State of Florida are authorized or obligated by law to close.

“Capital Expenditures” means any expenditures treated as capital expenses by the City, as determined by the City Manager in his/her complete discretion, which are not incurred in connection with the NMB Capital Improvement Program projects, which depending on the circumstances might be for (i) purchases of new equipment or Facility items that expand the capacity and capability of the Utility Facilities which cost more than Fifty Thousand Dollars (\$50,000.00) (indexed); (ii) major Repair and Replacement Services that significantly extends equipment or Facility service life which cost more than Fifty Thousand Dollars (\$50,000.00) (indexed); or (iii) capital expenditures that are planned, non-routine, and budgeted by City. The City Representative shall have full discretion to determine whether Capital Expenditures for which the City engages Contractor to provide services will be treated as Maintenance and Repair Services payable from the Repair and Replacement Fund or Additional Services. If the Repair and Replacement Fund is exceeded by more than fifty percent (50%) in any one Contract Year, with the City’s written approval, due to accumulated Capital Expenditures and/or Repair and Replacement Services that are over \$50,000, any additional amounts more than fifty percent (50%) over the Repair and Replacement Fund amount will be treated as an Additional Expense.

“Capital Expenditures Plan” means an annual report of projected Capital Expenditures projects for the Utility Facilities for the subsequent 5-year period prepared and submitted by Contractor in accordance with Section 3.1(i) of this Agreement.

“Changes” is defined in Section 3.2(a)(i).

“Change in Law” means (a) the enactment, adoption, promulgation, modification or repeal after the Commencement Date of any Law (excluding changes in applicable income tax or other tax rules and

regulations of any kind or the interpretation thereof) or the change in interpretation after the Commencement Date, of any Law by any Governmental Authority having jurisdiction with respect to the operation or maintenance of the Utility Facilities, and (b) the imposition, after the Commencement Date, of any material conditions resulting from the issuance, modification or renewal of any Governmental Authorization necessary for the operation and maintenance of the Utility Facilities which, in either case, necessitates or makes advisable a Capital Expenditure or increases the Contractor's costs by establishing requirements with respect to the operation or maintenance of the Utility Facilities which are demonstrably more burdensome than the requirements in effect at such time, provided, however, that any issuance, modification, or renewal of any Governmental Authorization necessary for the operation and maintenance of the Utility Facilities which is due in whole or in part to the Contractor's negligence, willful misconduct, or failure to fulfill responsibilities under this Agreement shall not be considered a Change in Law.

"Change Order" means a written agreement executed by the City and the Contractor, covering modifications to all or any portion of the Services approved by the City Manager and/or City Commission.

"Change Order Proposal" is defined in Section 3.2(a)(ii)(A).

"CMMS" is defined in Section 3.1(l).

"CIP" means the City's Capital Improvement Program.

"City" means the City of North Miami Beach, the City of North Miami Beach City Commission, or NMB Water, as may be applicable, in the capacity as the owner of the Utility Facilities.

"City Agreements" means the contracts, master agreements, service agreements, purchase orders, statements of work, work orders and other agreements between the City and a third party relating to the Facilities and listed in Exhibit 23.

"City Commission" means the governing legislative body of the City.

"City Manager" means the chief executive officer of the City, or such person as may from time to time be authorized in writing by such administrative official to act for her/him with respect to any or all matters pertaining to this Agreement.

"City Representative" means the person or persons designated by the City to assist in monitoring and inspecting the performance by the Contractor of its obligations, duties and responsibilities under this Agreement.

"Code" is defined in Section 6.3.

"Commencement Date" means the date the provision of full scope Services for operation and maintenance of the Utility Facilities by Contractor to begin in accordance with this Agreement.

"Commencement Date Certificate" means a written certification substantially in the form of Exhibit 4 executed by an authorized representative of Contractor certifying among other things that (A) Contractor is not in breach or default of the Agreement or its representations and warranties, (B) there has been no change in the key personnel to be involved in the Services as identified in Exhibit 9; and (C) no event, occurrence, condition, or circumstance has occurred since the Execution Date which would materially adversely impact Contractor's ability to perform and fulfill the terms, covenants and conditions of the Agreement and specified Deliverables.

"Commencement Deliverables" means the documents and items to be delivered by Contractor to the City on or before the Commencement Date, including (i) proof of insurance policies required to be procured by Contractor; (ii) copies of all Governmental Authorizations required for Contractor to perform the Services and its obligations hereunder, (iii) the Transition Plan, and (iv) the Commencement Date Certificate.

“Contract Documents” means this Agreement, Exhibits, the RFQ and all written addendum, instructions and clarifications issued by the City thereunder and Contractor’s submissions to the City in response to the RFQ.

“Contract Price” means the entire compensation payable by City to Contractor for performance of the Services in accordance with the terms and conditions of this Agreement, which shall be comprised of the Basic Operation and Maintenance Service Fee, the Repair and Replacement Services expenditures and the Program Management Services fee.

“Contract Year” means each one (1) year period during the term of this Agreement, beginning on October 1, and ending on September 30; subject to proration for amounts paid on an annual basis hereunder for the period of time between the Commencement Date and September 30, 2017 and for the period commencing on the October 1 before the expiration or earlier termination of the Agreement and the date of such expiration or termination.

“Contractor” is defined in the recitals.

“Contractor’s Cost” means the sum of the Contractor’s Material, Supply and Plant Equipment Cost and the Contractor’s Outsource and Additional Labor Cost.

“Contractor’s Material, Supply and Plant Equipment Cost” means the Contractor’s reasonable and prudent direct cost of materials, parts, supplies and Plant Equipment used in the performance of Repair and Replacement Services, including applicable taxes.

“Contractor’s Outsource and Additional Labor Cost” means: (i) the Contractor’s reasonable and prudent (consistent with relevant market prices, if any) direct cost of subcontracted and hired work, parts, materials, supplies, construction equipment, and fixture and equipment rental, including applicable taxes; (ii) reasonable and prudent direct cost to Contractor (consistent with relevant market prices, if any) charged by a Contractor’s Affiliate (which cost shall include such Affiliate’s customary mark-up for overhead and profit), including applicable tax; and (iii) Contractor’s reasonable and prudent additional labor costs beyond the labor requirements for services comprising Basic Operations and Maintenance Services.

“Contractor Representative” means the person or persons designated by the Contractor to represent the Contractor in the performance of the Contractor’s duties and responsibilities under this Agreement.

“County” means the county or counties where the Utility Facilities are located.

“CPI” means the final non-seasonally adjusted Consumer Price Index-All Urban Consumers as reported by the U.S. Department of Labor, Bureau of Labor Statistics.

“Customer Service” means performance through competent, qualified personnel of Contractor of utility customer service including account setup and maintenance, monthly account billing and delinquency processing, new service request and deposit processing, answering customer questions, walk-in payments, and investigating and referring customer complaints.

“Day” means a calendar day of 24 hours measured from midnight to the next midnight.

“Deliverables” means the plans, models, performance dashboards, applications, manuals, training materials, procedures, budgets, schedules, timelines, programs, standards, criteria and other documents and items to be prepared by Contractor in the course of the performance of the Services under this Agreement in connection with development and implementation of methods, techniques, processes and procedures to attain and maintain levels of legal, regulatory and permit compliance, information management, asset management and maintenance, facility, equipment, system and equipment integrity, efficiency and reliability, environmental sustainability, service quality, community relations and stakeholder communications, product and service performance consistent with industry standard water and wastewater utility facilities, systems and operations as contemplated by this Agreement.

“Eisenhardt Report” means the “Operational Assessment and Strategic Plan for Operation and Maintenance of NMB Water” prepared by the Eisenhardt Group for NMB Water.

“Emergency Condition” means a condition which could likely result in an interruption of an essential service to the customer which threatens the public health and safety or the safety of the environment, or is likely to result in material loss or damage to personal, private, or public property.

“EPA” means the United States Environmental Protection Agency.

“Event of Default” means those events set forth in Section 5.7.

“Execution Date” is defined in the recitals.

“Expiration Date” means the date of expiration of this Agreement.

“FDEP” means the Florida Department of Environmental Protection.

“Fees and Costs” means reasonable fees and expenses of attorneys, architects, engineers, accountants, expert witnesses, contractors, consultants and other persons, and costs and expenses of any legal proceeding.

“Fiscal Year” means the City’s fiscal year, which as of the Execution Date is the period commencing on October 1 of each year and continuing through the next September 30th.

“Governmental Authority” means the City and any federal, state, local or foreign government, department, commission, board, bureau, agency, court or other regulatory, administrative, judicial, tax, governmental or quasi-governmental authority.

“Governmental Authorization” means any license, permit, approval, authorization, consent, waiver, variance, exemption, exception declaratory order, exception, notice, filing, registration or other requirement of any Governmental Authority that is applicable to the Utility Facilities, the Services, the City or Contractor. Attached as Exhibit 10 is a list of permits, licenses and authorizations which Contractor shall comply with in performance of the Services as of the Execution Date.

“Guarantor” means the parent company of Contractor.

“Guaranty” means the guaranty of payment and performance executed by Guarantor and delivered to the City, the form and substance of which is acceptable to City in its reasonable discretion.

“Influent Substances” means any substance or combination of substances contained in the Norwood Water Treatment plant influent in sufficiently high concentrations so as to interfere with the processes necessary for the removal of the organic and chemical constituents of the water required to meet the water quality requirements of any of Governmental Authorizations which set forth such requirements. Influent Substances include but are not limited to heavy metals, phenols, cyanides, pesticides, and herbicides.

“Key Personnel” means the personnel of Contractor listed in Exhibit 9, as such exhibit may be updated as provided herein.

“KPI(s)” means the key performance indicators for the performance by Contractor of the Services hereunder, as agreed by the parties from time to time through the term hereof, which as of the Execution Date as described in Exhibit 12, as such exhibit may be updated by agreement of the parties.

“Law” means (i) all of the Governmental Authorizations required for the performance by the parties under this Agreement; (ii) all federal and State of Florida constitutional restrictions; (iii) all statutes, laws, rules, regulations, codes and directives of the State of Florida; (iv) all City and County ordinances, laws or directives, including specifically County Ordinance 99-152 False Claim Ordinance; (v) all judicial judgments, declarations, orders or decrees by courts, tribunals and other Governmental Authorities having jurisdiction with respect to the Utility Facilities, the Services or the parties; (vi) all federal, State, County or City administrative orders or directives, which are in effect during the term of this Agreement, including

those enacted, adopted, promulgated, issued or enforced subsequent to the Execution Date; and (vii) all federal, State of Florida, County or City consent decrees, stipulations or settlement agreements, in any manner relating to the operation, management, safety, security, the environment, finance, maintenance, repair, alteration, upgrade, enhancement, retirement or expansion of the Utility Facilities, the ownership of the Utility Facilities and the parties' respective obligations hereunder.

“Logo” means the logos of the City and Contractor attached as Exhibit 26 and Exhibit 27, respectively.

“Losses and Expenses” means any and all losses, liabilities, obligations, damages, delays, fines, penalties, judgments, deposits, costs, claims, demands, charges, assessments, taxes, or expenses, including all Fees and Costs.

“Maintenance and Repair Services” means those non-routine and/or non-repetitive repair and/or replacement activities required or recommended by the equipment or facility manufacturer or by Contractor or otherwise required under Article 3, Exhibit 1 and applicable Law, Governmental Authorizations, Prudent Utility Practice and/or standard industry practices to bring the Utility Facilities up to and/or maintain the Utility Facilities in good to excellent condition, ordinary wear and tear excepted, and optimize the performance, function, integrity and reliability of the Facilities to maximize the service life of the Facilities.

“Meter Reading” means performance by competent and qualified personnel of Contractor of meter reading services, including monthly reading of meters, disconnection and connection services, checking for leaks, and delivery of notifications to the property where the meter is located.

“NMB CIP” means the Capital Improvement Program of NMB.

“NMB Water” means the NMB water and wastewater utility owned by the City of North Miami Beach.

“Non-Fixed Assets” means the non-fixed assets owned by the City which are described in Exhibit 18, which Contractor shall use solely and exclusively in performance of the Services.

“Notice to Proceed” means the notice by the City to Contractor to commence performance of Transition Services, the form of which shall be substantially similar to Exhibit 2.

“OHSA” means the United States Occupational Safety and Health Administration.

“One-Call Notification System” means the statewide toll-free telephone notification system established by Sunshine State One-Call of Florida, Inc., a not-for-profit corporation created pursuant to Chapter 556, Florida Statutes, for the purpose of notifying underground facility operators of potential excavation activities within the proximity of their facilities so that such facilities may be located and their location marked accordingly.

“Performance Bonds” means any payment bond, performance bond, fidelity bond, guaranty, letter of credit, deposit and other instruments securing the Contractor’s performance of its obligations under this Agreement, the form, substance, terms and conditions and issuer are reasonably acceptable to the City and the cost of which shall be borne by the City.

“Plant Equipment” means machines and devices consisting of various components which by themselves provide a specific function which represents an end function or contributes to a broader function, including operating and processing equipment and special tools in use as of the Commencement Date or procured or provided pursuant to this Agreement for use at or associated with the Utility Facilities (exclusive of equipment owned or leased by the Contractor and used by the Contractor to perform its obligations under this Agreement).

“Program Management Services” means program management and controls, project management, technical oversight and validation, design management, analysis, design, scheduling, cost estimating, permitting, procurement, construction, construction management, and planning services which City

engages Contractor to perform pursuant to the terms and conditions of Work Orders executed by the parties in accordance with this Agreement.

“Prudent Utility Practice” means those means, methods, techniques, standards, criteria and practices which, at the time they are to be employed and in light of the circumstances known or reasonably believed to exist at such time, are generally recognized and accepted as good operation, maintenance, repair, replacement and management practices in the municipal water and wastewater industry as observed in the United States and as consistent with sound business practices as relate to safety, security, reliability, environmental compliance, cost effectiveness and expedience, which shall include the American Water Works Association (AWWA) Standards and Manuals of Practice.

“Public Benefits” means the commitment of the Contractor to developing and implementing a program for the performance and promotion of public benefit activities during the term of the Agreement, including an annual twenty-five thousand dollar (\$25,000) contribution to the NMB Public Library as well as other important community activities, as further described in Section 2.16.

“Repair and Replacement Expense” means the direct cost incurred by Contractor to perform Repair and Replacement Services, which cost does not include wages and other costs associated with Contractor’s normal on-site labor, including uniform expenses, cell phone expenses, fuel for vehicles and equipment, and insurance, all of which are within the Basic Operation and Maintenance Services Fee.

“Repair and Replacement Fund” means the total Repair and Replacement Services Expenses for the Utility Facilities budgeted in the applicable Contract Year by mutual agreement of the parties and billed by Contractor as specified in Exhibit 6.

“Repair and Replacement Services” means Maintenance and Repair Services and equipment or material replacements of the Utility Facilities not caused by the negligence or willful misconduct of Contractor and not included in Routine Maintenance, general non-routine/non-repetitive activities required for operational continuity, safety, and performance generally resulting from failure or necessary to avert a failure of the equipment, sewer, or facility or some component thereof. Repair and Replacement Services includes but is not limited to the repair, replacement and renewal of items including but not limited to the following: membrane replacement, filter media replacement, roofing material repair and replacement, manhole cover replacement, installation and repair of cathodic protection systems, painting other than incidental touch up painting, repairs to City owned rolling stock and fleet, repairs and renovations to City owned facilities, replacement of City owned specialty tools and portable equipment, replacement of City owned computers, servers, and software, repair and appurtenances, and replacement of City owned radio telemetry and communication systems, repair and replacement of City owned hand-held radios and related systems, repair and replacement of fire hydrants, repair and replacement of meters, repair and replacement of back flow preventers, subcontracted distribution and collection system repairs (e.g., some excavations deeper than four (4) feet of cover) and related repair parts and equipment, repair of streets, sidewalks and driveways associated with distribution and collections system repairs.

“Reports” means all final forms of studies, compilation, apparatus, evaluations, assessments, test results, and reports including monthly operating reports, annual reports and any other reports as required by applicable Law, Governmental Authorizations or manufacturers or requested by the City, which shall be prepared by Contractor, and to the extent applicable shall be delivered to the City for execution.

“Revenue Procedure” is defined in Section 6.3.

“RFQ” is defined in the recitals.

“Routine Maintenance” means routine and/or repetitive activities required or recommended by the equipment or facility manufacturer or Contractor to maximize the service life of the Utility Facilities equipment, components, systems, vehicles, and facilities, including but not limited to: oil changes, lubrication, incidental touch up painting, and routine grinder pump maintenance.

“Services” means (i) the Basic Operation and Maintenance Service; (ii) the Maintenance and Repair Services; (iii) the Program Management Services; (iv) Customer Service (as part of the Basic Operation and Maintenance Services); (v) the services (whether Basic Operation and Maintenance Services, Maintenance and Repair Services, and/or Program Management Services) required to address matters recommended in the Eisenhardt Report as preliminarily described in Exhibit 30; (vi) work, services, activity, involvement and funding of Public Benefits (which shall be included in the Basic Operation and Maintenance Services; and (vii) shared services set forth in Exhibit 24, if any, and any additional services, work, activities agreed by Change Order.

“Service Area” means the NMB Water areas where customers are provided utility services by NMB Water, including areas in which the City agrees to provide utilities to in the future by City Commission approval, which as of the Execution Date consists of areas depicted on Exhibit 5.

“SFWMD” means the South Florida Water Management District.

“Subcontractor” means an individual, firm or corporation which enters into a written contract, agreement, purchase order, statement of work or other arrangement with Contractor for the supply, delivery, furnishing, provision or performance of any part of Contractor’s Services.

“Succession Transition Plan” means a plan to be developed by Contractor and approved by the City within ninety (90) days after the Execution Date (or other date agreed upon by the parties) to describe the process for transition of Services from Contractor to the City or its designee at the expiration or earlier termination of this Agreement.

“Transition Period” means the period from the Execution Date to the Commencement Date.

“Transition Plan” means the plan for transition of operation and maintenance of the Utility Facilities from the City to Contractor at the Commencement Date, which shall include the activities, tasks and deliverables to be performed and delivered during the Transition Period consistent with Exhibit 3.

“Transition Services” means the services, tasks and activities to be performed by Contractor during the Transition Period as generally described in Exhibit 3 and Exhibit 14.

“Uncontrollable Circumstance(s)” means any act, event or condition that materially and adversely affects the ability of the Contractor or the City to meet or perform its obligations under this Agreement, if such act, event or condition is beyond the reasonable control of and not caused by or resulting from the negligence, lack of diligence, willful misconduct or breach by the party relying thereon or its contractors or subcontractors as justification for not meeting or performing such obligations. Such acts, events or conditions may include, but shall not be limited to, the following:

(a) an Act of God; provided that lightning, tornados, hurricanes or floods shall only relieve Contractor of its obligations to operate and maintain the Utility Facilities if such events cause physical damage to the Utility Facilities or result in the inability of the Contractor to access the Utility Facilities;

(b) the order, injunction or judgment of any Law, Governmental Authority with jurisdiction over the City and acting in its governmental capacity, including any exercise of the power of eminent domain, police power, condemnation or other taking by or on behalf of any public, quasi-public or private entity, except decisions interpreting federal, state and local tax laws;

(c) the suspension, termination, interruption, denial, failure to issue or failure of renewal of any permit, license, consent, authorization or approval necessary for the operation and maintenance of the Utility Facilities;

(d) the loss or inability to obtain utility services, for reasons other than price or the breach, negligent, willful or wrongful action or inaction of the Contractor, such services including sewage, sludge disposal and standby electric power, necessary for the operation and maintenance of the Utility Facilities directly resulting in a partial or total curtailment of operations at the Utility Facilities;

(e) the presence of Influent Substances in the influent or the presence of hazardous wastes, materials or liquids in the influent or raw water supply, the nature, concentration or combination of which materially detrimentally affect the machinery, infrastructure or processes at the project; and

(f) with respect to Contractor only, the receipt of raw water that cannot be adequately treated given the design capacity or capabilities or physical limitations of the Utility Facilities.

An Uncontrollable Circumstance shall not include: (i) any event, condition or circumstance with respect to which the Contractor has assumed the "as-is" risk; (ii) any event, condition or circumstance that would not have occurred if the affected party had performed and/or complied with its obligations, covenants and agreements or had been accurate with respect to representations and warranties by it hereunder; (iii) changes in interest rates, inflation rates, wage rates, insurance costs, commodity prices, currency values, exchange rates or other general financial or economic conditions; (iv) changes in the financial condition of the City, Contractor, the issuer of any Performance Bond, Affiliates or Subcontractors affecting the ability to perform their respective obligations; (v) the consequences of error, neglect, omissions or violations of Law by the affected party; (vi) union or labor work rules, requirements or demands which increase the cost to Contractor to perform the Services; (vii) weather conditions normal for the Service Area except as otherwise expressly provided herein; (viii) failure of Contractor to secure any patent or other intellectual property right which is or may be necessary for the performance of the Services; (ix) any changes in utility rates, charges, surcharges, assessments or costs, in the availability of utility service or in the market for utility service; (x) Change in Law pertaining to taxes; (xi) any Change in Law which does not impose more stringent or burdensome requirements on Contractor than required under this Agreement; and (xiii) labor disputes involving employees of Contractor, its Affiliates or Subcontractors.

"Utility Facility(ies)" or "Facilities" means all of the real and personal property, tangible and intangible, contract and permit rights, and other rights and interests, that the City owns, leases, licenses or uses or subsequently acquires, purchases, leases, licenses or uses in conjunction with the delivery of service to NMB Water customers, including the following:

(a) The Norwood Water Treatment Plant, the Wastewater Facility, the Operations Center, the Public Services Administration Building and the Customer Service/Cashier areas of the first floor of City Hall;

(b) Water supply wells and storage tanks;

(c) Buildings, structures, warehouses, yards and areas;

(d) Computers, telemetry, SCADA systems, communications systems (excluding any Contractor provided computers);

(e) All real property and interests, whether recorded in the public records or not;

(f) All easements in favor of the City or its predecessors in interest;

(g) All water and wastewater facilities, including treatment plants, wells, collection, transmission, distribution, pumping and disposal facilities of every kind and description, including, all trade fixtures, lift stations, pumps, generators, controls, tanks, distribution, collection or transmission pipes or facilities, valves, meters, fire hydrants, service connections, and all other physical facilities and property installations used in the operation of the City's water and wastewater systems;

(h) All fire protection facilities, including treatment plants, wells, transmission, distribution and pumping facilities of every kind and description, including all trade fixtures, pumps, generators, controls, tanks, intake pipes and structures, distribution pipes or facilities, bleed down valves and related facilities and transfer lines, water management structures, valves, meters, filters, fire hydrants, service connections, and all other physical facilities and property installations used in the operation of the City's water and wastewater systems;

(i) All equipment, machinery, tools, parts, laboratory equipment, systems and other property owned or used by the City in connection with the operation of the City's water and wastewater systems;

(j) All vehicles and other rolling stock owned or used by the City in connection with the operation of the City's water and wastewater systems;

(k) All customer records and contractor, engineer, and supplier lists, as-built surveys and water and wastewater plans, plats, engineering and other drawings, designs, blueprints, plans and specifications, maintenance and operating manuals, engineering reports, calculations, computer models, reports and studies, finance, procurement, accounting, budget, and business records and all other information controlled by or in the possession of the City that relates to the description and operation of the City's water and wastewater systems; and

(l) All necessary regulatory approvals subject to all conditions, limitations or restrictions contained therein; all permits and other Governmental Authorizations and approvals of any kind necessary to construct, install, operate, modify, upgrade, expand, use and maintain the City's water and wastewater systems.

"**Work Order**" means a work order agreed upon and signed by the parties in accordance with the terms of this Agreement pursuant to which Contractor will perform Program Management Services.

Section 1.2 Instructions; Construction. The headings of Articles and Sections in this Agreement are provided for convenience of reference only and will not affect the construction, meaning or interpretation of this Agreement. All references to "Articles," "Sections," or "Exhibits" refer to the corresponding Articles, Sections or Exhibits of or to this Agreement. All Exhibits to this Agreement are hereby incorporated by reference. All words used in this Agreement will be construed to be of such gender or number as the circumstances require. Unless otherwise expressly provided, the words "include," "includes" and "including" and "such as" shall be interpreted to mean "including without limitation." An illustration in this Agreement is made for purposes of demonstrating a concept only. Unless otherwise stated, any reference to a person, whether or not a party, includes its permitted successors and permitted assigns and, in the case of any Government Authority, any person succeeding to its functions and capacities. Other grammatical forms of defined words or phrases have corresponding meanings. References to a writing include any mode of representing or reproducing words, numbers or symbols in a lasting and visible form, including electronic. Unless otherwise provided, a reference to a specific time of day for the performance of an obligation is a reference to the time in the place where that obligation is to be performed. A reference to a document, law, code, contract or agreement, including this Agreement, includes a reference to that document, code, contract or agreement as amended, supplemented, replaced or restated from time to time in accordance with the relevant provisions thereof. If any payment, act, matter or thing hereunder would occur on a day that is not a Business Day, then such payment, act, matter or thing shall, unless otherwise expressly provided for herein, occur on the next succeeding Business Day. The words "hereof," "herein" and "hereunder" and words of similar import shall refer to this Agreement as a whole and not to any particular provision of this Agreement. The parties shall act reasonably and in accordance with the principles of good faith and fair dealing in the performance of this Agreement and, unless expressly provided otherwise in this Agreement, (a) where this Agreement requires the consent, approval, or similar action by a party, such consent or approval shall not be unreasonably withheld, conditioned or delayed, and (b) wherever this Agreement gives a party a right to determine, require, specify or take similar action with respect to a matter, such determination, requirement, specification or similar action shall be reasonable under the applicable circumstances.

Section 1.3 Representations and Warranties.

(a) As an inducement to the Contractor to execute this Agreement and perform its obligations hereunder, the City makes the following representations and warranties:

(i) The City is duly organized, validly existing and in good standing as a legal entity and public body created pursuant to Florida Statutes and the City has the requisite power and authority to enter into the transactions and perform its obligations contemplated by this Agreement.

(ii) The execution and delivery and performance of this Agreement has been duly authorized by all necessary action on the part of the City and this Agreement constitutes a valid and legally binding obligation of the City, enforceable in accordance with its terms and conditions subject to bankruptcy, moratorium, and general limitations on creditor's rights.

(iii) Neither the execution and delivery of this Agreement by the City nor the consummation by the City of the transactions contemplated herein will not materially violate the provisions of any applicable Law or any applicable order or regulation of any Governmental Authority or conflict with or result in breach of any terms, conditions, or provisions of any agreement or instrument to which the City is now a party, or constitute a default thereunder which would materially impair performance by the City of its obligations under this Agreement.

(iv) There is no action, suit, investigation or proceeding pending or, to the City's actual knowledge, threatened in writing against or affecting the City at law or in equity in any state or federal court or before any Governmental Authority, wherein any decision, ruling or finding would adversely and materially affect the transactions contemplated herein or which in any way would adversely and materially affect the validity of this Agreement or any other agreement or instrument to which the City is a party and which is used or anticipated to be used in the consummation of the transactions contemplated hereby which would materially impair performance by the City of its obligations under this Agreement.

(v) This Agreement has been duly executed and delivered by the City and constitutes a valid and binding obligation of the City, enforceable in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws affecting creditors' rights generally or by general equitable principles.

(b) As an inducement to the City to execute this Agreement and perform its obligations hereunder, the Contractor makes the following representations and warranties:

(i) Contractor is a business entity duly organized, validly existing and in good standing under the laws of the jurisdiction of its organization, is authorized to do business in the State of Florida with all requisite corporate power and authority to enter into and perform the transactions and obligations contemplated by this Agreement.

(ii) The execution and delivery and performance of this Agreement has been duly authorized by all necessary action on the part of the Contractor and this Agreement constitutes a valid and legally binding obligation of the Contractor, enforceable in accordance with its terms and conditions.

(iii) Neither the execution and delivery of this Agreement by the Contractor nor the consummation by the Contractor of the transactions contemplated herein will violate the provisions of any applicable Law or any applicable order or regulation of any Governmental Authority or conflict with or result in breach of any terms, conditions, or provisions of any agreement or instrument to which the Contractor is now a party, or constitute a default thereunder.

(iv) There is no action, suit, investigation or proceeding pending or, to the Contractor's knowledge, threatened against or affecting the Contractor at law or in equity in any state or federal court or before any Governmental Authority, wherein any decision, ruling or finding would adversely and materially affect the transactions contemplated herein or which in any way would adversely and materially affect the validity of this Agreement or any other agreement or instrument

to which the Contractor is a party and which is used or anticipated to be used in the consummation of the transactions contemplated hereby.

(v) This Agreement has been duly executed and delivered by the Contractor and constitutes a valid and binding obligation of the Contractor, enforceable in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws affecting creditors' rights generally or by general equitable principles.

ARTICLE 2. UTILITY FACILITY OPERATION GENERAL OBJECTIVES

Section 2.1 General Objectives.

(a) Overview. The purpose of this Agreement is to define the Services to be delivered to the City by Contractor in connection with the operation, maintenance, and repair of the Utility Facilities, the performance of billing and customer service functions, program management services, community outreach and public benefit and the terms and conditions under which such Services will be provided. As more particularly described herein, the objective of this Agreement is to support the City's water and wastewater utility in the attainment and delivery of cost-effective, reliable services to the City's utility customers and the implementation of plans, procedures, practices and programs for the attainment of the standards and the levels of service and performance set forth in the Eisenhardt Report.

(i) Contractor will perform three (3) categories of services under this Agreement as follows: (A) Basic Operation and Maintenance Services, which are generally necessary for and incidental to the day to day operation and maintenance of the Utility Facilities, which will be performed on a lump-sum, fixed cost annual fee basis; (B) Repair and Replacement Services, which are those services relating to non-routine and/or non-repetitive activities required to bring the Utility Facilities up to and/or maintain them in a good operating condition and to optimize the performance, function, integrity and reliability of the Utility Facilities to optimize service life; which services will be paid on a cost basis as they are performed, and (C) Program Management Services, which generally entail activities, documentation and planning to manage the development and implementation of projects which are authorized by and financed by the City, all of which Program Management Services will be performed pursuant to Work Orders agreed upon by the parties for compensation on a lump-sum, time and materials or cost-plus fee basis.

(ii) Contractor acknowledges that in the performance of the Services and its other obligations hereunder, for purposes including regulatory and legal compliance as well as compliance with the terms, covenants and conditions of indentures and other finance documents, Contractor will be required to maintain separate certain accounts and records relating to assets, property, equipment and items used solely for purposes of providing water treatment and distribution services from accounts and records relating to other assets, property, equipment and items used solely for purposes of providing wastewater collection and transportation services.

(iii) Attached as Exhibit 14 is a schedule of Basic Operation and Maintenance Services and Program Management Services milestones and deliverables for the period from commencement of Transition Services to December 31, 2017.

(b) Contractor Due Diligence. Contractor acknowledges that it has and will at its cost conduct all due diligence investigations, evaluations and other activities which it determines to be necessary in order to perform the Services and its obligations under the Agreement, and further acknowledges that in the performance of the Services and its obligations under the Agreements it will rely solely and exclusively on the results of such due diligence, evaluations and activities and its experience and expertise and not on any statement, projection, estimate, description, information, data or document furnished by the City.

(c) **Ownership, Rate Setting.** The City retains sole ownership of the Utility Facilities and all other property, rights, and interests used or useful in the operation, maintenance, repair and management of the Utility Facilities as of the Execution Date and as may be acquired, added, replaced, altered, modified or expanded in the future. Representatives of the City shall have the right to enter into and upon the Utility Facilities for purposes of exercising the City's rights under and examining and inspecting the same for any reason relating to the obligations of parties to this Agreement. It is expressly understood and agreed that no part, parcel, building, structure, equipment or space comprising or used in the operation of the Utility Facilities is leased to Contractor. The City grants Contractor the right to access the Utility Facilities and operate, maintain, repair and replace the Utility Facilities in accordance with this Agreement, but such right of access shall continue only so long as the Contractor complies with the undertakings, provisions, agreements, stipulations and conditions of this Agreement. Contractor shall not use the Utility Facilities for any purpose other than the performance of the Services and Contractor's obligations hereunder without the prior express written consent of the City in its sole discretion. In the event that Contractor desires to potentially provide services to other utility systems in the vicinity of the Service Area and the City, in its sole discretion consents thereto, the parties shall execute a Change Order and/or other documents setting forth the terms and conditions under which Contractor may provide services to third parties at no cost, expense or risk to the City. The City retains the sole power, authority and responsibility for establishing policy and setting rates, charges, rents, surcharges and other amounts payable for and the terms of service by NMB Water concerning all aspects relating to the Utility Facilities and the service provided to the City's utility customers and interpreting and administering those policies, rates, and other procedures or directives. The City does not delegate any authority or discretion to Contractor in regard thereto.

(d) **Objectives.** The parties' objectives in entering into this Agreement include undertaking and implementing plans, programs and procedures consistent with applicable Laws, industry standards and Prudent Utility Practices which will facilitate implementation of recommendations contained in the Eisenhardt Report, as well as the following, provided that nothing in this section reduces or enlarges the parties' rights and obligations otherwise set forth in this Agreement:

(i) **Management Program.** Contractor shall provide an innovative and efficient management program that formulates and implements high quality, timely, efficient, reliable, sustainable, and cost-effective utility services. The program must be environmentally sustainable, embody sound financial concepts, and engage and serve the community while continuously focusing on improving customer service and support.

(ii) **Quality.** Contractor shall develop, document, implement and monitor performance of quality assurance, control and management processes and standards and performance monitoring and evaluation through meaningful indicators that leads to continuous process improvement. The parties will provide for clearly defined goals supported by detailed task requirements and performance measures. Included within Exhibit 11 is an outline of the Quality Control Plan to be developed and implemented by Contractor hereunder.

(iii) **Cooperative Relationship.** The City and Contractor shall establish a cooperative relationship that establishes a mutual understanding of the respective roles and responsibilities of the parties. The parties will develop communication, documentation and information exchange strategies and processes which facilitate timely decision making and support Contractor's achievement of quality Services in a timely, efficient, reliable, sustainable manner within budget and on schedule. The parties intend that a cooperative relationship will facilitate negotiated resolution of disagreements and differences before they develop into formidable conflicts and disputes. Notwithstanding any provision of this Agreement to the contrary, such cooperative relationship and the other provisions of this Agreement will not, however, create any partnership, joint venture or joint ownership between the parties. The parties agree to the following principles: (A) promoting the timely transition of Services from the City to Contractor during the initial Transition Period ending as of the Commencement Date, and from Contractor to the City and/or

the City's designee in connection with the expiration or early termination of this Agreement or Contractor's obligations; (B) ensuring the Services comply with all applicable Laws and Governmental Authorizations; (C) making timely review and decisions; (D) effectively communicating and providing documents and information promptly; (E) maintaining quality control and ensuring quality Services; and (F) cooperating and being courteous, respectful, and honest with each other and utility customers.

Section 2.2 Contractor's General Responsibility.

(a) Except for the responsibilities and activities which are expressly allocated to the City herein, Contractor shall provide all required personnel, and associated wages, salaries and benefits, services, materials (including fuel), vehicles, tools, equipment, safety devices, information technology, intellectual property, utilities, commodities and other consumables necessary to perform the Services specified herein in a cost-effective manner in accordance with the requirements of this Agreement.

(b) Based on review of the design drawings, plans and specifications pertaining to the Utility Facilities, inspections of the Utility Facilities, and other inquiries and investigations made by the Contractor and its Subcontractors and consultants prior to the Contract Date, which the Contractor acknowledges to be sufficient for this purpose, the Contractor acknowledges and agrees that it does not have actual knowledge as of the Execution Date of any fact, condition or circumstance that may affect the ability of the Contractor to comply with applicable Law, meet the performance and service standards required hereunder and meet the Contractor's maintenance, repair and replacement obligations or perform any of its other obligations in accordance with the terms, covenants and conditions of this Agreement.

(c) Contractor acknowledges and agrees that City reserves the right to require Contractor to obtain a Performance Bond as security for Contractor's performance of its obligations hereunder (except with regard to the Program Management Services), subject to City's payment of the premium or fees therefor. In the event that the City requests that Contractor obtain a Performance Bond, Contractor shall make commercially reasonable efforts to obtain a Performance Bond having such terms and conditions and in an amount and from an issuer reasonably acceptable to the City.

Section 2.3 Contractor Staffing.

(a) Contractor shall at all times provide a sufficient number of certified, qualified personnel, including operational, technical, and laboratory personnel, who meet the relevant State of Florida requirements, licensing and certifications regarding water and wastewater operations and maintenance and program management services and are capable and demonstrate the skill and experience necessary to manage, operate and maintain the Utility Facilities. Contractor is responsible for maintaining all required staff certifications, training, and licensing. In connection with the performance of Transition Services, Contractor shall submit to the Director of NMB Water a list of all personnel of Contractor that will be performing Services at the Utility Facilities and the office or other location at the Utility Facilities where such personnel will be assigned. Contractor shall include graphic logos reflecting mutually agreed upon joint branding including NMB Water logo and Contractor's logo on Contractor-provided employee apparel. Contractor shall ensure that all Contractor employees closely adhere to professional image guidelines for personal appearance, dress, grooming, and hygiene as mutually agreed upon by Contractor and Director of NMB Water.

(b) Contractor must hire all existing full-time AFSCME employees of NMB Water subject to the Contractor's requirements regarding physical condition, background check and drug testing. AFSCME personnel hired by Contractor shall be offered a salary, wage and/or other compensation and benefits which are equal to or better than the package taken as a whole comprised of the salary, wage and/or other compensation and benefits provided on average to the employees as of the Execution Date. Contractor shall accept and consider applications for employment submitted by other employees of NMB Water.

(c) The Organizational Chart attached as Exhibit 8 contains a listing of functions and positions which Contractor will assign for performance of initial Transition Services and the commencement of performance of the full scope of the Services as of the Commencement Date. Exhibit 9 identifies the Key Personnel of Contractor with responsibility for the management of the performance of the Services by Contractor. Upon request by City, Contractor shall provide the background and experience of those individuals assigned to the positions set forth in Exhibits 8 and 9. Contractor's full-time Program Manager and Program Director will reside in Miami-Dade County or Broward County or not be more than two (2) hours from the City. Contractor's Program Managers shall be one hundred percent (100%) committed to the project. Contractor's initial Program Manager shall be committed to the project for a minimum of two (2) years. The Contractor's Program Director shall be assigned to the program for the term unless otherwise approved by the City. The City shall have the right to request and receive information regarding the experience and credentials of any successor to Contractor's full-time Program Manager and/or Program Director, and to interview any prospective Program Manager and/or Program Director.

(d) Contractor shall provide staff for the Utility Facilities in such a manner that the Utility Facilities are properly staffed in accordance with all applicable FDEP permits. Contractor shall continuously monitor the Utility Facilities twenty-four (24) hours per day, seven (7) days per week.

(e) Contractor shall provide, at a minimum, all staff at the Norwood Water Treatment Plant and as otherwise necessary to perform and fulfill the Services and so as to comply with this Agreement and the requirements of applicable Law and Governmental Authorizations.

(f) Contractor shall have operations staff on-site as needed, up to twenty-four (24) hours per day seven (7) days per week, to ensure proper operation, prepare for and respond to hurricanes and other disruptive events, and protect against and respond to spills and overflows at any of the Utility Facilities, including during any period when the Utility Facility experiences a power outage, disruption in communication, or other condition that would require an on-site presence at the Utility Facility.

(g) Contractor shall provide representatives to coordinate with the City and the City Representative in the performance of the Contractor's duties and responsibilities under this Agreement. Representatives of the parties shall establish a committee which shall meet periodically at the City's offices for the purpose of exchanges of information relating to the Services. In the event that the City reasonably determines that Contractor and City are not communicating effectively or that Contractor's or City's obligations herein are not effectively managed, City shall have the right to require Contractor to provide different representatives.

(h) Contractor shall provide a single contact telephone number that is answered twenty-four (24) hours per day, seven (7) days per week by Contractor staff that have the experience and knowledge to timely respond to circumstances that may arise or that have the information necessary to direct calls to other Contractor personnel with the capacity to timely respond. Circumstances include main line breaks, service line breaks, water plant operational problems, water quality issues, and wastewater collection system back-ups and overflows. The single contact telephone number may be answered directly by Contractor staff, or calls to the number may be forwarded to on-call Contractor staff.

(i) Contractor shall not unlawfully discriminate against any worker, employee or applicant, or any member of the public, because of race, color, religion, gender, gender identity, sexual preference, sexual orientation, marital or familial status, national origin, age, disability, ancestry, or disabled veteran status, nor commit any other unlawful or unfair employment practice and shall comply with applicable federal, state or local Laws. Contractor shall comply with the requirements of applicable Law regarding affirmative action provisions for minority hiring.

(j) Contractor shall create and maintain employee cross-training and retention programs to minimize turnover among employees.

(k) Contractor shall implement an appropriate drug and alcohol abuse testing policy as required or permitted by applicable Laws. Reports of drug and alcohol testing programs, showing non-confidential information, shall be kept on file and made available to the City upon request.

(l) Contractor shall conduct appropriate background checks including criminal record and employment eligibility and checks, subject to applicable Laws.

(m) Contractor acknowledges and agrees that personnel providing services within the scope of work to the City hereunder shall be supported as and whenever necessary by the Contractor's entire network of Affiliates, equipment, systems, and employees operating water, wastewater, irrigation, reclaimed water and utility systems nationally and internationally.

(n) In the event that the City determines that any employee, representative or personnel of Contractor or any Subcontractor engaged in performance of Services or related activities is not complying with the City's policies or is disrupting, interfering with or interrupting the operation of the Utility Facilities or delivery of services to customers or presents a risk to the safety, security, and integrity of the Utility Facilities and/or the operation, maintenance, repair and reliability thereof, or when, in the opinion of the City, it is in the best interest of the City and/or the City's utility customers, the City shall have the right to request that Contractor cause such person to be removed from the Services and Utility Facilities. After receipt of such notice (which may be oral depending on the circumstances), Contractor will promptly remove such person (and in no case later than twenty-four (24) hours after such notice) and replace such person as soon as practicable (and in no case later than ninety (90) days after such person is removed), unless Contractor can demonstrate that services under this Agreement can be provided without replacing the person.

(o) Contractor covenants and agrees that upon the expiration or earlier termination of this Agreement it will not enforce any term, condition or requirement of employment with Contractor which would delay, hinder, or prevent then current non-managerial employees of Contractor engaged in the operation and maintenance of Utility Facilities from applying for and accepting employment with the City or the successor operator of the Utility Facilities. Contractor agrees that for a one (1) year period commencing on the Commencement Date, Contractor shall not solicit, recruit or hire directly or indirectly the Director of NMB Water or the Deputy Director of NMB Water or any other employee of the City who performs similar functions and responsibilities related to NMB Water.

Section 2.4 Training Program.

(a) Contractor shall provide a training program for employees of the Contractor performing the Basic Operation and Maintenance Service to ensure they have a full understanding of water treatment processes, water distribution processes, wastewater collection processes, safety, security, and billing, customer service and community outreach functions to which they are assigned. Contractor's training program shall place special emphasis on safety and security procedures and protocols and on those processes that employees will utilize in daily operations.

(b) Contractor shall ensure that all management and personnel education and training relative to the operation, maintenance, repair, and customer service is continually updated on a regular basis, and that such management and personnel shall be recertified or relicensed, as applicable, as required or as recommended pursuant to applicable Law. It is the sole responsibility of the Contractor to ensure that all personnel are capable and fully knowledgeable of and trained for performance of their duties, functions and responsibilities. All personnel who come in contact with the public in the performance of their duties and functions must complete a sensitivity training/disability awareness course. Contractor shall develop, implement, maintain and update a formal training and retraining program for all personnel. The program must provide a fixed minimum number of hours of training for new employees, including classroom instruction, and in-service training. The program must provide formal retraining methods, including criteria for determining the success of retraining efforts.

Section 2.5 Safety.

(a) Contractor shall be responsible for initiating, maintaining and supervising all safety and security precautions and programs in connection with the Services. The parties acknowledge that as of the Commencement Date Contractor shall utilize existing safety and security precautions and programs in accordance with the level of security provided at the Utility Facilities before the Execution Date of this Agreement, and thereafter Contractor shall utilize any augmented, additional, expanded, modified, upgraded or enhanced safety and security precautions and programs implemented with respect to the Utility Facilities. Any safety and security enhancements or upgrades of the Utility Facilities not contemplated in the Capital Improvement Program shall be the responsibility of the City and shall be handled as a Capital Expenditure if City engages Contractor to provide any labor, services, management, supervision, equipment, materials, supplies, items or intellectual property therefor. Contractor, consistent with applicable Law and Prudent Utility Practices, shall take reasonable precautions, including security measures designed to guard against normal workplace accidents, for the safety of and to prevent injury to all employees, whether at the Facilities, in transit or in the field, and other persons or entities who may be affected by the work and service to be performed and provided under this Agreement. Contractor shall also take all reasonable precautions to provide the necessary protection to prevent damage or loss to Utility Facilities or property adjacent thereto and the property of third parties.

(b) Contractor shall comply with applicable Law relating to the safety of persons or property or protection thereof from damage, injury or loss. Contractor shall ensure that all employees are furnished and use all appropriate personal protective equipment, wear, and gear. Contractor shall at all times erect and maintain reasonable signs, lighting, signals, safeguards or barriers for access control, safety and protection. Included in Exhibit 11 is an outline of the Field Safety Plan to be developed and implemented by Contractor.

(c) Without limiting the Contractor's obligations as otherwise provided in this Section 2.5, Contractor shall ensure compliance with OSHA regulations. All employees shall be trained and required to adhere to safety guidelines. Contractor shall provide to its employees safety training which enables such employees to learn the best way to safely perform the tasks, functions and activities of their respective position. Safety training shall be provided when new employees commence performance of Services; whenever new equipment or treatment processes are introduced; or when existing procedures have changed. Contractor's training programs shall meet and adhere to all applicable governmental rules, regulations and requirements. Training programs shall include: hazard communication - "Right To Know"; confined space entry procedures; respiratory protection; electrical safety; and injury and accident investigation processes.

Section 2.6 Initial Program Management Work Orders. Attached as Exhibit 15 are Work Orders One through Five agreed upon by the parties with respect to Program Management projects for which Contractor will provide Program Management Services. Within ninety (90) days after the Execution Date, Contractor shall provide to the City for its review and approval a preliminary listing of any recommended Capital Expenditures, Capital Improvement Projects or other projects that Contractor believes will be required during the period ending December 31, 2018. Contractor will not be relieved of the responsibility to perform all Services up to the capabilities of the existing Facilities if the recommendations are not implemented.

Section 2.7 Non-Fixed Assets and City Equipment.

(a) For a period of up to one hundred twenty (120) days after the Commencement Date the City shall transfer possession (but not ownership) of the vehicles identified in Exhibit 16-A and Exhibit 16-B to the Contractor for use by licensed operators in connection with the performance of the Basic Operations and Maintenance Services and Maintenance and Repair Services; provided that Contractor removes all license tags, logos and signs from such vehicles and obtains and maintains license tags, vehicle registrations, automobile liability insurance and property damage insurance meeting the requirements of this Agreement. No later than one hundred twenty (120) days after the Commencement Date Contractor

shall purchase all vehicles identified in Exhibit 16-A at the price set forth in such exhibit. Contractor and the City will cooperate and coordinate in the expeditious sale of motor vehicles owned by the City which Contractor does not purchase in accordance with this Section 2.7(a). The City shall be responsible to furnish title and other documents to facilitate the sale of the vehicles by Contractor, and the City shall be responsible for the payment of taxes incurred and the fees and charges of third parties engaged in connection with the sale of such vehicles. All proceeds from the sale of the vehicles shall be paid to the City.

(b) At the Commencement Date, the City will transfer possession and the right of use (but not ownership) of all Non-Fixed Assets from the City to Contractor and assign to Contractor the contracts and agreements identified in Exhibit 23, as such exhibit may be updated by the parties. Contractor shall use the Non-Fixed Assets exclusively for the purpose of providing the Services. Contractor shall be responsible for the maintenance, repair, and security of all Non-Fixed Assets used by the Contractor in performance of Services. The responsibility for the cost of maintenance, repairs and replacements of Non-Fixed Assets not included in the Basic Operation and Maintenance Fee shall be governed by the provisions relating to Repair and Replacement Services or Routine Maintenance, as applicable, and any Repair and Replacement Services expenses will be charged to the Repair and Replacement Fund. Contractor shall maintain an inventory of non-fixed assets at a level necessary to provide prompt and efficient operation, procurement, maintenance and repair of the Utility Facilities. Contractor, consistent with Prudent Utility Practice may adjust the inventory to allow for more efficient operation, maintenance and repair of the Utility Facilities. Contractor shall affix graphic signage to vehicles reflecting mutually agreed upon joint branding including NMB Water logo and Contractor's logo.

(c) Contractor shall have the use of all City-owned heavy equipment rolling stock listed in Exhibit 17 solely and exclusively for the provision of the Services. The parties agree that Exhibit 17 can be modified by the City as necessary. Contractor shall maintain all required insurance, licenses, tags, and permits associated with the City-owned heavy equipment rolling stock. Contractor shall be responsible for insurance, fuel, maintenance, and repairs of the City-owned equipment. The responsibility for the cost of maintenance, repairs and replacements shall be governed by the provisions of the Repair and Replacement Services or Routine Maintenance and; with any Repair and Replacement Services expenses will be charged to the Repair and Replacement Fund. City reserves the right in its reasonable discretion to replace fully depreciated equipment or equipment that has become obsolete, inefficient or unserviceable. Whenever Exhibit 17 is modified, an updated copy will be provided to the parties.

(d) The parties' respective responsibilities with respect to procuring and maintaining IT equipment, hardware, software, licenses and services necessary for the operation of NMB Water and performance of the Services is set forth in Exhibit 20.

(e) The City will transfer to Contractor ownership of the furniture, fixtures and equipment and the products inventory described in Exhibit 19 at no cost to Contractor. All transfers of such furniture, fixtures and equipment and products shall be made as-is, where-is with no representation or warranty by the City, either express or implied. At the expiration of the Agreement, Contractor shall have in stock a supply of products inventory which will be sufficient for the continued, uninterrupted operation of the Utility Facilities for a period of thirty (30) days or such longer period of time specified in the Succession Transition Plan. Contractor shall transfer ownership of such product inventory to the City at no cost, as-is, where-is with no representation or warranty by Contractor, either express or implied, and to the extent of any variation in the quantities and items in the initial inventory conducted in connection with the original transfer from the City to Contractor, the parties shall perform a reconciliation at the expiration or termination of the Agreement to replace any items.

Section 2.8 Contractor's Vehicles. No later than one hundred twenty (120) days after the Commencement Date, Contractor shall provide through purchase or lease all vehicles and rolling stock necessary to perform the Services with the exception of City-owned rolling stock identified in Exhibit 17, and similar heavy equipment rolling stock mutually agreed to between the parties. All such vehicles shall

be professionally and safely maintained in a mechanically sound manner and provide a clean and mechanically sound image. Contractor shall provide uniform signage (using the logos attached as Exhibits 26 and 27, as they may be modified by agreement of the parties) acceptable to the City on all vehicles, except as specifically excluded by the Director of NMB Water, that indicates that the vehicles are used in the service of the Utility Facilities. Certain vehicles that are designated for extensive public contact may have full graphic vehicle wraps affixed. The signage to be provided on each vehicle must be completed within ninety (90) days after the Commencement Date. Contractor is responsible for verifying that all of its employees that operate a Contractor or City vehicle maintain a valid Florida driver's license appropriate for the class of vehicle operated. At the expiration or earlier termination of this Agreement, Contractor shall make available for acquisition (by purchase or assignment) of all vehicles owned or leased by Contractor and used in connection with NMB Water and/or performance of the Services.

Section 2.9 Subcontracting.

(a) For subcontracts over \$100,000 annually or any subcontracts with Affiliates, Contractor shall not subcontract services or work included in the Basic Operation and Maintenance Service to subcontractors that have not received prior written approval of the City. Contractor shall have the duty to evaluate all Subcontractors and to inspect all work of Subcontractors and make a determination as to the capability of any subcontractors to perform services and activities competently in accordance with the terms of this Agreement.

(b) Contractor may subcontract any work or services which are not a part of the Basic Operation and Maintenance Service with the written consent of the City or City Representative, which consent shall not be unreasonably withheld or delayed.

(c) Contractor shall submit a list of proposed subcontractors for City approval. The list shall be supplied to the City within ninety (90) days after the Commencement Date. The City reserves the right to remove any subcontractors from the approved list should circumstances or performance issues arise that in the opinion of the City are reasonable grounds for their removal. Contractor and City will coordinate regarding any subcontractors to be removed from the approved list so that the Contractor will have sufficient time to propose and receive approval for a replacement subcontractor.

(d) At any time determined by the Contractor, additional subcontractors may be submitted to the City for their approval, which approval shall not be unreasonably withheld or delayed.

(e) In the event of an Emergency Condition, if the use of a subcontractor is required, the Contractor shall endeavor to use an approved subcontractor. However, should an approved subcontractor not be available or have the required capabilities, the Contractor is allowed to use a subcontractor for whom Contractor has not previously requested approval and act in the best interest of the City to protect public health and safety, protect the environment, and/or prevent damage to the Utility Facilities or surrounding property.

(f) Contractor shall be fully responsible for performance of the services and compliance with the terms of this Agreement regardless of the engagement of any subcontractor or vendor to perform any services or activities under this Agreement. All subcontracts must be in writing and provided to the City upon request and provide that they are assignable to the City in its sole discretion at no cost upon termination or expiration of this Agreement.

(g) The City is a party to certain contracts and agreements with third parties pursuant to which such third parties have agreed to perform and furnish certain services, goods and materials in connection with the operation, maintenance and repair of the Utility Facilities. The parties agree that the City may provide the option to assign to Contractor and Contractor may elect to will assume the contracts and agreements identified in Exhibit 23 for use by Contractor in the performance of the Services, as such Exhibit 23 may be updated by the parties. The parties acknowledge and agree that Contractor shall only be

responsible for the performance and payments of the obligations of the City under such contracts and agreements commencing on the Execution Date of such assignment.

Section 2.10 Damage to Utility Facilities.

(a) Contractor shall inform the City by telephone and confirm in written notice by facsimile or other electronic mean, of any event, occurrence, act, omission, circumstance or condition which causes damage to the Utility Facilities and any items owned or leased by City which are in the possession of Contractor within two (2) hours of when Contractor knew or reasonably should have known about the occurrence in the exercise of all due diligence and submit such information as may be required by the City and is reasonably available to the Contractor. Such information shall include, at minimum, the name, address and telephone number of the party or entity responsible for the damage or a description of the event or occurrence, reports submitted to Governmental Authorities, photographs, videos and any other depictions of the occurrence and/or the damage; copies of claim documentation submitted to insurers; copies of documentation establishing cost of repair or replacement of the Utility Facilities; cost of customer notification, if any, required as a result of the damage to the Utility Facilities, cost of remediation to the environment, if any, and any other information as may reasonably be required by the City. If such information is not within the Contractor's knowledge within two (2) hours of when Contractor knew or reasonably should have known of the occurrence, the Contractor must provide any missing or outstanding information to the City once it becomes known to the Contractor until all required information has been provided to the City. Contractor must exercise all due diligence in collecting all required information and providing it to the City in a timely manner.

(b) Contractor shall expeditiously repair damage done to the Utility Facilities; and take other corrective actions as necessary. Subject to subsection (e) of this Section 2.10, Contractor shall submit an itemized invoice to the City for Repair and Replacement Services to accomplish such repair and corrective action, and the City shall reimburse the Contractor for costs incurred by the Contractor.

(c) Repairs in response to Emergency or Non-Emergency Conditions shall follow the timeframes, notification, approval, and documentation procedures set forth in this Agreement.

(d) The City with the support and assistance of Contractor shall have the priority right to claim and recover costs identified in subsection (a) of this Section 2.10 from the responsible party or entity and the City may make reasonable efforts to recover qualified costs identified in subsection (a) of this Section 2.10 from any third party, including insurance providers or governmental assistance programs.

(e) Notwithstanding the foregoing or any other provision of this Agreement, if the Utility Facilities or real or personal property contiguous to the Utility Facilities are damaged due to the breach, negligence or wrongful conduct of the Contractor, the Contractor shall be responsible to promptly restore or repair the Utility Facilities and real or personal property contiguous to the Utility Facilities at the sole cost and expense of the Contractor.

Section 2.11 Intellectual Property Ownership.

(a) Work Product. All Deliverables created or developed by or on behalf of Contractor or any Subcontractor, by itself or jointly with the City or others, including the data and information contained with the Deliverable, are, shall be and shall remain the property of the City and may not be used by Contractor or any Subcontractor or their respective personnel for any other purpose except for the benefit of the City; provided that to the extent embedded within any such Deliverable is intellectual property of Contractor or any Subcontractor, Contractor and/or such Subcontractor, as applicable, will retain ownership of such embedded intellectual property. Contractor grants to the City an irrevocable, royalty free, prepaid, non-exclusive, assignable license and right to use such intellectual property and embedded property for all purposes relating or incidental to ownership and operation of NMB Water assets, properties, interests, rights and facilities.

(b) **Ownership.** The Contractor shall have all right, title and interest, including worldwide ownership of all intellectual property rights in and to the work product.

(c) **Contractor Intellectual Property.** All intellectual property developed by Contractor prior to the Commencement Date, all derivatives thereof created by Contractor and all intellectual property developed by Contractor for purposes and applications for the performance of the Services and derivatives thereof, as well as intellectual property of Contractor embedded in work product shall be owned by the Contractor subject to the terms and conditions of this Section 2.11, and is hereby licensed to the City on a non-exclusive, pre-paid, royalty free, irrevocable, perpetual and assignable basis for use by the City and its designees for the purposes for which it was intended in connection with the operation of NMB Water and the management, operation, maintenance, repair and construction of Utility Facilities. Such intellectual property shall include technology, inventions, innovations, processes, know-how, formulas and software, whether protected as propriety information, trade secrets, or patents. The City shall not otherwise license, transfer or otherwise make available such intellectual property to any third party without the written consent of the Contractor. The City's use of any such intellectual property for purposes other than in connection with the ownership or operation of NMB Water assets, properties, interests, rights and facilities shall be at its own risk and the Contractor shall have no liability therefor.

(d) **Audit Rights.** Contractor agrees, and shall require that its Subcontractors agree, that the City shall have the right to have an independent accounting firm to conduct an audit at Contractor's and its Subcontractors' premises during normal business hours and upon reasonable advance notice to verify that neither Contractor, nor any of its Affiliates or Subcontractors, are furnishing any of the Work Product created hereunder to any third party. The cost of such audit shall normally be at the City's expense, except that Contractor will bear the reasonable cost of the audit if the audit reveals that Contractor or any Subcontractor or Contractor or Subcontractor personnel are furnishing, or have furnished, any such Work Product to any third party.

Section 2.12 Documents and Data. In the course of Contractor's performance of this Agreement, Contractor acknowledges and agrees that information, documents and data pertaining to the City utility service customers received by Contractor from the customers, the City, or the City's other contractors is and shall remain the sole and exclusive property of the City, free and clear of any and all claims of Contractor. Contractor shall comply with the requirements of the City and applicable Law with respect to the acquiring, storage, use, access, control and deletion of customer personal information. All such City information, documents and data shall be immediately delivered to the City in the format to be mutually agreed upon by the parties as requested or upon commencement of activities relating to the transition of the performance of Services to the City or a replacement contractor upon expiration or termination of this Agreement. The City agrees that anything (excepting City information) held by Contractor on Execution Date or created or developed in whole or in part by Contractor and/or its Affiliates and/or its Subcontractor at any time and not work product are and shall remain the sole and exclusive property of Contractor or its licensors.

Section 2.13 City's Obligations.

(a) The City's obligations under this Agreement are the following:

(i) Cooperate reasonably with the Contractor in carrying out its Transition Period responsibilities;

(ii) For information purposes only and without representation or warranty of any kind, express or implied with respect thereto, make available to the Contractor upon request all documents relating to the Utilities Facilities which are in the possession of the City and material to the Contractor's performance of its obligations hereunder;

(iii) Grant the Contractor access to the Utility Facilities for the performance of its obligations hereunder;

(iv) Make available for the Contractor's purchase for use in performance of its obligations hereunder the City's light vehicles identified on Exhibit 16 for a period ending no later than one hundred twenty (120) days after the Commencement Date;

(v) Support reasonably the Contractor in obtaining and maintaining all Governmental Authorizations and performing legal and regulatory compliance activities and filings;

(vi) Comply with applicable Law pertaining to the City as owner of the Utility Facilities with respect to Laws which are not the responsibility of the Contractor hereunder in performance of the Services, including the City's duty to enforce the industrial pretreatment program;

(vii) Enforce applicable City ordinances, rules and regulations pertaining to the use of sewers, back flow prevention and cross connection which are required in order for the City as owner of the Utilities Facilities to comply with applicable Law;

(viii) Provide the Contractor customer payment information necessary for the Contractor to perform the customer billing and service requirements hereunder;

(ix) Pay the undisputed amount of the Basic Operations and Maintenance Services Fee and any other amounts due the Contractor in accordance with the terms and conditions of this Agreement;

(x) Provide access to all existing vehicles identified in Exhibit 16-A and 16-B for the first one hundred twenty (120) days of the Agreement at no cost to Contractor. Contractor will obtain tags and registration, obtain insurance and perform fleet maintenance for such vehicles from Commencement Date of this Agreement. During the first one hundred twenty (120) days, pre-existing conditions affecting the function or safety and requiring major repairs shall be charged to the Repair and Replacement Fund or paid for by the City, as the City elects;

(xi) In the event that the City requires that Contractor obtain any Performance Bond as security for the performance of its obligations with respect to the Basic Operation and Maintenance Services, cashier services, and Maintenance and Repair Services, City shall pay the premium for any such Performance Bond;

(xii) Provide access to all existing rolling stock identified in Exhibit 17 (as such exhibit may be modified) for the full term of the Agreement at no cost to Contractor. Contractor will obtain tags and registration, obtain insurance and perform vehicles fleet maintenance for such rolling stock from Commencement Date of this Agreement;

(xiii) Provide Contractor use of Vactors, dump trucks, crane trucks and excavators which will be owned or leased by City, with insurance, maintenance and operating costs covered by Contractor as part of the Basic Operation and Maintenance Services Fee. The cost of acquisition of future replacement of Vactors, dump trucks, crane trucks and excavators not required as a result of negligence or fault by Contractor is not included in the responsibility of the Contractor and not included in the Basic Operations and Maintenance Service Fee.

(b) The City shall be responsible to pay for the cost of Repair and Replacement Services in excess of the Repair and Replacement Fund and Capital Expenditures provided that the Contractor has received proper authorization from the City in advance of performance of such Repair and Replacement Services. Contractor shall have the right to proceed with such Repair and Replacement Services if the cost thereof does not exceed ten thousand dollars (\$10,000.00). Prior approval of the City Manager or the City Manager's designee, as applicable, will be required for Repair and Replacement Services costing greater than ten thousand dollars (\$10,000.00) and for any Capital Expenditure.

(c) The City shall be responsible to pay costs incurred by Contractor in connection with an Emergency Condition affecting the safety or protection of persons, the Utility Facilities, or property

adjacent thereto, or to avoid imminent environmental contamination, for which the Contractor is obligated to act to prevent such threatened damage, injury or loss.

(d) Upon execution of this Agreement, the City will, in accordance with this Agreement, provide the Contractor with timely information and access to the City's operating guidelines, policies, procedures, information systems and databases, leadership, management and employees in order for the Contractor to perform the Services contemplated in this Agreement, including providing Deliverables.

(e) On or before the Commencement Date the City shall make available for occupancy and use by Contractor at Contractor's cost the areas designated therefor in Exhibit 22, as such exhibit may be updated by the parties. Contractor shall be responsible for furnishing, equipping and maintaining such areas such that they are suitable for use by Contractor in the performance of the Services and its obligations under this Agreement. Contractor's responsibilities shall include controlling access to and maintaining signage, safety, security and the condition of such areas in accordance with applicable Laws, Governmental Authorizations, the City's rules and the requirements of this Agreement. Contractor acknowledges that the City shall have no obligation or responsibility with regard to any equipment, materials, supplies, parts, components, tools, consumables, chemicals or other items received, handled, stored or used in such areas. At the expiration or earlier termination of this Agreement Contractor shall vacate all such areas and remove Contractor's personal property therefrom unless the parties otherwise agree.

Section 2.14 Contract Administration Guidelines.

(a) Organizational Contact Matrix.

(i) Key Personnel. The parties agree that in order for efficient and effective communication to occur, clear lines of authority and areas of responsibility need to be identified for each party. The parties shall maintain an organizational chart and contact matrix that denotes the Key Personnel and their duties relating to this Agreement. Attached as Exhibit 9 is a list of the Key Personnel of Contractor responsible for the management of the Services. Each party shall promptly notify the other in the event of any change in Key Personnel, address, or telephone number. Contractor shall provide the City not less than thirty (30) days' advance notice prior to removing Key Personnel of Contractor from the City Utility account. In the event of any replacement or additional Key Personnel, Contractor shall provide the City with a comprehensive resume of the candidate's licenses, training, experience, skills and, to the extent applicable, the candidate's approach to management and customer relations. The City shall have the right to interview proposed candidates under consideration to fill the anticipated vacancy.

(ii) Contract Administrator. Each party shall designate a Contract Administrator who will be responsible for maintaining this Agreement during the term of this Agreement. The Contract Administrator for the City shall be the Director of NMB Water, 17050 NE 19th Avenue, North Miami Beach, Florida 33162. The Contract Administrator for the Contractor shall be designated in Exhibit 9 or by notice to the City delivered within three (3) days after the Execution Date. Each party shall provide prompt written notice to the other party of any changes to the Contract Administrator or his/her contact information.

(iii) Contract Manager. Each party will designate a Contract Manager during the term of this Agreement whose responsibility shall be to oversee the party's performance of its obligations under this Agreement. Each party shall provide prompt written notice to the other party of any changes to the party's Contract Manager or his/her contact information. The City's Contract Manager will be designated to be the City Manager, NMB Water, 17011 NE 19th Avenue, North Miami Beach, Florida 33162. Contractor's Contract Manager shall be designated in Exhibit 9 or by notice to the City delivered within three (3) days after the Execution Date.

(b) **Meetings.**

(i) **Periodic Meetings.** The parties will mutually determine an appropriate set of periodic meetings to be held between them and calendar those meetings at least thirty (30) days' in advance of the date of applicable meetings. These meetings will include: (A) a weekly management meeting; (B) a monthly business review meeting to review and discuss various operational issues; (C) monthly security review meeting to discuss any past, current, or new security issues, policies, processes, or audits; and (D) a monthly executive leadership meeting to review status of ongoing tasks, schedules, changes, challenges and such other matters as appropriate. If mutually agreed upon, meetings may be combined.

(ii) **Meetings.** The monthly meetings shall be held at the City offices in North Miami Beach, Florida, or by conference call, as determined by the City. Contractor shall provide to the City a proposed agenda for its approval at least five (5) Business Days in advance of the scheduled meeting dates. Contractor shall publish and distribute an agenda and related documents and/or handouts within two (2) Business Days prior to the meeting dates. For weekly meetings, a detailed agenda is not required, but Contractor shall provide the City meeting documents and/or handouts no later than two (2) Business Days prior to the meeting dates.

(iii) **Minutes.** Contractor shall provide detailed and well-documented minutes for all meetings. Draft meeting minutes shall be distributed by the Contractor to individuals who attended the meetings on behalf of the City within five (5) Business Days after each meeting for review and comment. Within three (3) Business Days after receipt of the City's written approval of draft meeting minutes, Contractor shall provide the City with final meeting minutes.

(iv) **City Government Meeting.** Contractor shall cooperate with the City regarding City Commission meetings and meetings of any regulatory bodies with jurisdiction over the City. Contractor shall be available to attend meetings and/or present requested information, as directed by the City.

(v) **No Fee.** Contractor shall not be entitled to additional compensation for any meeting preparation or attendance.

(c) Program initiation deliverables by Contractor hereunder will provide additional detail regarding the means, methods and scheduled activities to coordinate the administration of the Agreement and the nature and extent of information, documents and data to be prepared, reviewed and exchanged in connection therewith.

Section 2.15 Communication Plan. Prior to the Commencement Date the parties shall agree upon a communications plan that includes, but not limited to, information addressing the following: (a) the manner in which information regarding construction projects will be communicated to the City/residents; (b) the manner in which emergencies will be communicated to the City/residents/media; (c) a description of events which will be reported to the City Public Utilities Commission (PUC), Director of NMB Water, the City Manager and the City Commission (including but not being limited to line breaks, boil water, equipment failure and others relating to the reliability and safety of delivery of service); (d) a description of circumstances in which communications will be presented to the City and the nature and form of such communications (including samples of foreign language notifications, website, door hangers, notice to media outlets); and (e) the terms of an agreement by Contractor to participate in the City's Code Red (or successor system) emergency notifications. The parties anticipate that the communication plan will be updated and revised in connection with program initiation activities and the performance of Program Management Services. Included in Exhibit 11 is substantial draft of the Communications and Outreach Plan to be implemented by Contractor.

Section 2.16 Public Benefits. Through the public outreach of the Public Benefits program, Contractor will initiate, organize and promote activities and measures towards resiliency of NMB Water

facilities. Contractor will also support public education and information initiatives, including conservation and reduced consumption of water and energy. Through the technical work of the program, the Contractor will develop and implement policies, practices and programs to promote conservation of resources and use of alternative sources of energy, including use of alternative fuel vehicles and solar power at NMB Water facilities, when appropriate. Contractor will also recommend measures to adapt to sea level rise and propose other measures that protect NMB Water assets.

ARTICLE 3.

OPERATION AND MAINTENANCE SERVICE; CUSTOMER SERVICE

Section 3.1 Basic Operation and Maintenance Service.

(a) Contractor shall perform all routine, normal and ordinary maintenance of the machinery, equipment, buildings, structures, improvements, yards, installations and all other property constituting the Utility Facilities, shall keep the Utility Facilities in good working order, condition and repair, in a neat and orderly condition and in accordance with applicable Laws, Governmental Authorizations, Prudent Utility Practices and industry standards. Contractor shall provide or make provisions for all labor, materials, supplies, equipment, machines, devices, applications, software, hardware, vehicles, rolling stock, spare parts, consumables, intellectual property and services which are necessary for the routine, normal and ordinary maintenance of the Utility Facilities and shall conduct routine, predictive, preventive and corrective maintenance. Contractor shall keep logs and records of operation, maintenance and repair activities in accordance with the maintenance, repair and replacement plans developed by Contractor hereunder.

(b) Contractor shall provide all reporting, record keeping, plans, policies, procedures, qualified supervision, training, labor, tools, vehicles, equipment, materials and personnel necessary to perform the Basic Operation and Maintenance Service. The Basic Operation and Maintenance Service shall be provided and performed in accordance with the requirements of this Agreement and consistent with Prudent Utility Practice. Subject to the limitations set forth in this Agreement, the following general operation and maintenance services shall be required of and timely provided by the Contractor in the operation and maintenance of the Utility Facilities:

(i) During the first ninety (90) days after the Execution Date, Contractor shall complete conditions assessments, as needed and approved by the City, of certain of the Utility Facilities. This assessment should include vibration, infrared, alignment analysis, or other appropriate analyses. Contractor shall provide a risk management plan and/or process safety management plan for the Facilities as required by state and federal regulations. Included in Exhibit 11 is an outline of the matters to be addressed in such risk management plan.

(ii) Contractor shall have full responsibility for the daily operation and maintenance of the Utility Facilities in a manner consistent with the Basic Operation and Maintenance Service Performance Standards. Contractor shall provide uninterrupted, safe, timely, professional and reliable service in accordance with this Agreement and Prudent Utility Practice.

(iii) Contractor shall perform all Routine Maintenance and Repair and Replacement Services which does not require prior authorization from the City in a timely manner consistent with Prudent Utility Practice.

(iv) The Repair and Replacement Fund does not include labor costs for Repair and Replacement Services performed by Contractor staff assigned to the project, all of which costs are included in the Basic Operation and Maintenance Service Fee. However, Contractor's specialized maintenance personnel not assigned to the staff assigned to the Utility Facilities, who provide specialized services, including, but not limited to, vibration, thermographic and electrical analyses, instrumentation repairs, as Maintenance and Repair Services, will be charged to the Repair and

Replacement Fund. The Repair and Replacement Fund is subject to annual adjustment as agreed upon by City and Contractor.

(v) Repair and Replacement Services required to be performed after the Repair and Replacement Fund has been exhausted in a Contract Year shall not be performed without the prior written approval of the City unless such activity is necessary in response to an Emergency Condition. If the cost of any Repair and Replacement Services will be between ten thousand dollars (\$10,000.00) and fifty thousand dollars (\$50,000.00), the prior written approval of the Director of NMB Water will be required therefor. The prior written approval of the City Manager or designee will be required for such work the cost of which will exceed fifty thousand dollars (\$50,000.00). In the event of an Emergency Condition affecting the safety or protection of persons, the Utility Facilities, or property adjacent thereto, or to avoid imminent environmental contamination, the Contractor, without special instruction or authorization from the City is obligated to act to prevent or minimize such threatened damage, injury or loss, including Repair and Replacement Services to the extent required. In the event of an Emergency Condition, Contractor shall act in the best interest of the City and coordinate with the City to the greatest extent possible while still providing immediate response to the Emergency Condition.

(vi) Contractor shall on a monthly basis provide a report of any Repair and Replacement Services performed by Contractor in the prior month to the City, the form, substance, detail and medium of which will be acceptable to the City.

(vii) Contractor shall secure and maintain all Governmental Authorizations and licenses required in the Contractor's name for the performance of the Services and activities described in this Agreement.

(viii) To the extent requested by City, Contractor shall cooperate in and facilitate the identification, scheduling and completion of all works constituting Capital Expenditures. Contractor shall cooperate with the City's engineers and other contractors to support their scheduling design and construction of Capital Expenditures for which they are engaged.

(ix) Contractor shall maintain responsive working relationships with the City, City Representative, Director of NMB Water, Miami-Dade County and other local Government Authorities within the City's service area, as well as federal and state regulatory authorities, utility suppliers and vendors, and the public.

(x) Contractor shall perform plan review and receive and process requests for water, wastewater, and pipeline locations from the One-Call Notification System and from builders or contractors seeking to connect to the NMB Water system. Contractor shall provide on-site location assistance and marking as a Basic Operation and Maintenance Service.

(xi) Contractor shall provide Repair and Replacement Services, and maintenance consistent with Prudent Utility Practice, industry standards, equipment manufacturer's instructions, and approved operation and maintenance manuals and procedures so that upon termination of this Agreement, the Utility Facilities are returned to the City in good condition consistent with the requirements and standards of this Agreement, normal wear and tear excepted.

(xii) The quality of the Services and activities performed by Contractor and/or Subcontractors shall be at or better than the levels of quality normally associated with work of the kind in which the Contractor is engaged.

(xiii) Contractor shall employ predictive, preventive, periodic, routine, and corrective operations and maintenance programs, shall enforce existing equipment warranties and performance guarantees, and shall maintain all warranties on equipment placed into service after the Commencement Date.

(xiv) Contractor shall perform all Routine Maintenance and Repair and Replacement Services in a timely manner. If, in the opinion of the City, Routine Maintenance and Repair and Replacement Services have been unreasonably delayed, the City shall so inform the Contractor in writing. Contractor shall complete the necessary action within three (3) Business Days. If the Contractor fails to complete the work, the City may take steps outlined in Section 5.6.

(xv) Contractor shall promptly inform the City of any needed maintenance and Repair and Replacement Services that have rendered the Utility Facilities inoperable as soon as possible, but in all cases within twenty-four (24) hours of being notified or otherwise learning of such condition, and provide a maintenance and/or Repair and Replacement Services schedule to the City for City approval.

(xvi) Contractor shall provide building and grounds maintenance at the Utility Facilities. Contractor shall maintain the appearance and cleanliness of all buildings and plants included as Utility Facilities in a neat and orderly condition and provide custodial services normally associated with maintenance of a business office or plant, as applicable. Contractor shall regularly water, mow, fertilize, prune, and otherwise maintain as necessary the turf, landscaping, and grounds adjacent to warehouses, buildings and other improvements and fenced plant sites included as part of the Utility Facilities.

(xvii) Contractor shall maintain adequate access control, safety and security of all work sites, Utility Facilities and equipment. As of the Commencement Date, Contractor shall utilize existing security systems and approaches as implemented prior to Commencement Date until such security systems and approaches are augmented, expanded, modified, upgraded, enhanced or replaced.

(xviii) Contractor shall complete installation of new commercial meters in the frequency and manner consistent with the City's applicable policies and programs. Installation shall be in a meter-ready service installed by Contractor or a third party contractor.

(xix) Contractor shall provide all personnel necessary to perform the customer service, billing, collection, public relations, meter reading, meter field service, meter installation, and meter change-out as provided in this Agreement.

(xx) Contractor and City will cooperate and coordinate the development, implementation and performance of public outreach, public information programs, community relations and stakeholder communications plan no later than ninety (90) days after the Execution Date.

(c) Laboratory Services. Contractor shall be responsible for all sampling and laboratory testing required by applicable Law in connection with the operation and maintenance of the Utility Facilities. A qualified and appropriately licensed or certified laboratory shall perform testing services. Contractor shall be responsible for collection and analysis of all samples required pursuant to applicable Law or Governmental Authorizations, inclusive of any confirmatory sampling and analyses that may be required. Any laboratory testing requested by City which is not required by applicable Law will be paid by the City. Non-required laboratory testing shall be pre-approved by the City and billed monthly. Monthly billing shall include full documentation of the testing performed, purpose of the testing, the testing results and any deviation from standards of requirements.

(d) Potable Water Facilities. Contractor shall operate and maintain all potable water related to the Utility Facilities in such a manner that the water quality is maintained at a level equal to, or better than, the water quality limitations established by applicable Law, Governmental Authorizations and Prudent Utility Practice and to maintain current on all publicly known potential and actual Changes in Law. In the event the water quality achieved is not in compliance with applicable Law, Governmental Authorizations and Prudent Utility Practice, the Contractor shall immediately notify the City and submit a report to the

City detailing the non-compliance and the cause and outlining the proposed corrective action and a schedule to accomplish such corrective action. All such corrective action shall be taken on an expedited basis. Contractor's responsibility is to operate and maintain the Utility Facilities in compliance with all applicable Laws, Governmental Authorizations and regulations, to the extent of their design and physical capacity. Unless otherwise agreed by the parties, it is not part of Contractor's scope to test for or eliminate water borne bacteria or viruses except as required by applicable Laws and regulations. In the event of a Change in Law that change permit limits or maximum contaminant levels that are beyond the capability of the City's Facilities, Contractor will provide notice thereof to City, and prepare and submit to City a proposed Change Order to address such issue.

(e) Residuals. Contractor shall cause all residuals and sludge to be managed, transported, and disposed of in compliance with applicable Law, Governmental Authorizations and Prudent Utility Practice. In the event residuals constituents, levels or quality achieved is not in compliance with applicable Law, Governmental Authorizations and Prudent Utility Practice, the Contractor shall immediately notify the City upon learning of such non-compliance and submit a report to the City detailing the non-compliance and the cause and outlining the proposed corrective action and schedule to accomplish such corrective action as soon as reasonably practicable. All such corrective action shall be taken on an expedited basis. Notwithstanding the services provided by the Contractor regarding the disposal of residual sludge from the Utility Facilities, nothing herein shall be construed to transfer title and ownership of such sludge to the Contractor.

(f) Odor Control. Contractor shall operate the Utility Facilities using methods and daily process scheduling which will minimize odor and noise levels and disturbances within the limits and capabilities of the Utility Facilities and its equipment.

(g) Utility Facility Improvements. Contractor shall perform improvements to the Utility Facilities, including cleaning, repairing, replacing, and maintaining existing water and sewer pipes, sewer lift stations, water distribution and sewer collection systems, and fire protection systems as provided in the Basic Operation and Maintenance Service Performance Standards.

(h) Annual Preventive Maintenance Plan. Contractor shall prepare, submit to the City, and implement an Annual Preventive Maintenance Plan for the Utility Facilities. The minimum standards of the plan shall include the following:

(i) The Annual Preventive Maintenance Plan shall include a description and schedule of maintenance and cleaning activities to be performed, including the maintenance activities and services listed in the Basic Operation and Maintenance Service Performance Standards. The performance standards for the predictive and preventive maintenance and cleaning of all Utility Facilities shall be consistent with the Basic Operation and Maintenance Service Performance Standards and consistent with requirements of applicable Laws and Governmental Authorizations.

(ii) The Annual Preventive Maintenance Plan shall describe additional maintenance activities and increased frequency of maintenance activities shall be performed by the Contractor as necessary to operate and maintain the Utility Facilities in accordance with industry standards and Prudent Utility Practice.

(iii) The Annual Preventive Maintenance Plan for the next Fiscal Year shall be submitted to the City for review, comment and approval by April 1st of each year. The approved plan shall incorporate changes reasonably requested by the City be completed in the applicable fiscal year.

(i) Capital Expenditures Plan. On an annual basis in connection with the City's preparation of its plan and budget for the next Fiscal Year, Contractor shall prepare and submit to the City a recommended list of Capital Expenditures for the Utility Facilities which, in Contractor's professional judgment and pursuant to Prudent Utility Practice, should be included in the City's budget and plan for

Capital Expenditures for the ensuing Fiscal Year. The Capital Expenditures list prepared by the Contractor shall include an estimate of the cost and schedule to construct or acquire the recommended Capital Expenditures and a description of the financial, performance, efficiency, reliability, operating cost and other benefits to be realized through construction or acquisition of the Capital Expenditures. In addition to the projected or recommended Capital Expenditures for the ensuing Fiscal Year, the Capital Expenditure list prepared by the Contractor shall contain recommended Capital Expenditures for an additional five (5) Fiscal Years for use by the City in financial planning for the provision of future Capital Expenditures to the Utility Facilities. The Capital Expenditures list shall be submitted to the City for approval by April 1 of each year. Contractor will not be relieved of any obligations, duties or responsibilities to perform additional services required in connection with recommended Capital Expenditures if the recommended Capital Expenditures are not implemented by the City unless Contractor provides notice to the City of the impact of such non-implementation of the Capital Expenditures and the City's failure to implement such recommendations prevents the Contractor from complying with specific obligations or duties under this Agreement which would arise from the Capital Expenditures. Capital Expenditures projects shall be completed during the proposed fiscal year unless extenuating circumstances prevent project completion.

(j) Quality Control. Contractor shall employ a quality assurance system to ensure that performance of the Basic Operation and Maintenance Services are consistent with this Agreement and Prudent Utility Practice. Contractor shall summarize the results of this effort in an annual report submitted to the City at the commencement of each Fiscal Year and make all records available to the City upon request. Included in Exhibit 11 is an outline of the contents of the Quality Control Plan which will be prepared by Contractor in connection with such quality assurance program.

(k) Safety Records. Contractor shall maintain safety records in connection with its operation of the Utility Facilities. Contractor must record the relevant details regarding any accidents or injuries occurring in connection with the Services or on the property of the City. Contractor shall prepare a monthly report for the City detailing its safety record from the time of the last report. Contractor shall comply with the provisions of Section 6.7 of this Agreement in reporting potential claims. Included in Exhibit 11 is an outline of the Field Safety Instructions which will be prepared and implemented by Contractor hereunder.

(l) AMS/CMMS. Contractor shall provide, implement, and maintain the use of an Asset Management System (AMS) and a Computerized Maintenance Management System ("CMMS") for the Utility Facilities. The AMS/CMMS software shall be maintained and upgraded, as necessary consistent with industry standards for water and wastewater utility system operations, for the duration of this Agreement. The AMS/CMMS system shall generate reports which enables the City to efficiently monitor compliance by the Contractor with its maintenance and repair obligations hereunder. The City shall have real time access to the AMS/CMMS. Contractor shall permit and facilitate the replication of all electronic data and access thereto by the City. AMS/CMMS must be able to perform functions necessary to support efficient cost effective performance maintenance of the Utility Facilities, including:

(i) Implementation and support for a predictive, preventive and corrective maintenance program that is consistent with Prudent Utility Practice and considered to be a state-of-the-art program as of the Commencement Date. Such predictive, preventive and corrective maintenance program shall be installed and fully operational no later than ninety (90) days after the Commencement Date. Such program is subject to subsequent review and replacement upon mutual agreement of the parties and shall be upgraded and modified as and when appropriate during the term to account for removals from and additions to the Utility Facilities;

(ii) Allow electronic remote access by City personnel and City Representatives to review the maintenance, Repair and Replacement Service activities of the Contractor, enter and track work orders, and make other investigations as may be necessary;

(iii) Identification of potential trends and maintenance problem areas;

- (iv) Provide adequate information to support facility and operational planning;
- (v) Status reports for management and compliance monitoring; and
- (vi) Provide for an effective, secure communication link to be established between the City's utility billing system and the CMMS system.

(m) Telemetry. Contractor shall operate and maintain the telemetry systems for the Utility Facilities, including troubleshooting, basic cleaning and repair, and testing of the functional operation of the system.

(n) Condition Assessment. Contractor shall perform a condition assessment as part of the Program Management Services and provide a report to the City on all Utility Facilities including pumps, motors, tanks, above ground piping and valves, electrical equipment, control panels, wet wells, buildings, mechanical equipment, instrumentation, SCADA equipment, chemical feed equipment, and other equipment associated with water plants, and pump stations. Condition assessment methods shall be appropriate to the component being assessed and shall include vibration analysis, oil analysis, motor performance and efficiency analysis, alignment analysis, infrared imaging, pipe thickness analysis and other analysis consistent with industry standards and Prudent Utility Practice and as agreed to by the City.

(o) Emergency Plan and Response.

(i) Within thirty (30) days following the Execution Date, the Contractor shall provide the City with a final Emergency Response Plan (the contents of which shall include coverage of topics outlined in Exhibit 11) to be implemented in the event of an emergency, including hurricane storm or warning, weather, tidal surge, flooding, environmental, health, safety and other potential emergency conditions. The Emergency Response Plan shall designate emergency team members and identify the standard operating procedures to be followed. The Emergency Response Plan shall: (i) provide for appropriate notifications to the City and all other Governmental Authorities having jurisdiction and for measures which facilitate coordinated emergency response actions by the City and all such other appropriate Governmental Authorities; (ii) specifically include hurricane and storm preparation and post-event restoration of service and cleanup; (iii) specifically include spill prevention and response measures; (iv) comply with all Homeland Security, FEMA and EPA risk, response, reporting, recover and management plan requirements; and (v) assure the timely availability of all personnel required to respond to any emergency in accordance with the Performance Guarantees. The Emergency Response Plan shall be reviewed by the parties no less than annually and updated when necessary or requested by the City. In the event of an evacuation, the Contractor shall report to the City's designated emergency management location or other site to be designated by the City.

(ii) Contractor acknowledges that the Utility Facilities are owned by the City and that in the event of any type of Act of God, emergency situation or natural disaster, including a hurricane or other extreme weather event, the City Manager may determine that the City's use of some of the Utility Facilities is necessary to protect the health, safety, and welfare of the residents and visitors of the City. Upon that determination, and upon verbal or written notice to the Contractor Manager, Contractor shall promptly cooperate and coordinate with the City with respect to use by the City of the designated Facilities or any portion thereof free of charge, during the pendency of the emergency event and/or natural disaster (including the time period(s) immediately preceding and following the actual occurrence of such event).

(iii) Notwithstanding any requirement of this Agreement requiring City approval or consent to reports or submittals, if at any time Contractor determines in good faith that an emergency situation exists such that action must be taken to protect the safety of the public or its employees, to protect the safety or integrity of Utilities Facilities, or to mitigate the immediate consequences of an emergency event, then Contractor shall take all such action it deems in good

faith to be reasonable, prudent and appropriate under the circumstances. As promptly thereafter as is reasonable, Contractor shall inform the City of an emergency phone number from a list supplied by the City of the event and the Contractor's response thereto. The cost of Contractor's response measures shall be borne by the Contractor except to the extent the emergency event was caused by an Uncontrollable Circumstance, in which case the City shall bear the cost, and Contractor shall cooperate with the City and support the City's efforts to obtain funding and reimbursement for emergency response costs and expenses.

(iv) Contractor shall provide all necessary assistance to the City in the event of a hurricane or other natural disaster and shall appoint a representative of Contractor to serve on the City's emergency response team. As an important member of the community, Contractor shall make the necessary labor and equipment resources available to assist the City with its response to any hurricane or natural disaster for the duration of the emergency, as determined by the City.

(p) Water Quality. Contractor shall prepare and deliver to the City the consumer confidence reports on the quality of drinking water in a timely manner and in compliance with applicable Law. In no case shall the FDEP-approved consumer confidence reports be delivered to the City later than April 1 of the applicable year, unless such delay is caused by FDEP or circumstances beyond the reasonable control of the Contractor. As soon as the Contractor becomes aware that the final approved consumer confidence reports will not be available by April 1, the Contractor shall notify the City and City Representative and describe the action being taken by Contractor to complete such reports.

(q) Assets. Contractor shall not alter, transfer, dispose of, or abandon any asset owned or leased by the City related to or used in the operation of the Utility Facilities without the prior written consent of the City.

(r) Compliance. Contractor shall assist the City in evaluating proposed, pending or final regulatory changes or other changes in applicable Law from an operational and compliance perspective to determine the effect on the Utility Facilities' operations, policies and procedures. Contractor shall recommend changes to the City's operations, policies and procedures necessary to achieve and/or maintain compliance with all applicable Laws and provide necessary information to support these recommendations.

(s) Meetings. Upon the request of the City or City Representative, the Contractor shall attend City Commission meetings, Public Utilities Commission meetings, other special City meetings, workshops, hearings, and meetings. Regarding Basic Operation and Maintenance Service, Contractor shall meet with the City weekly for the first six (6) months after the Commencement Date and then two (2) times per month thereafter. The frequency of routine meetings between the City and Contractor may be modified at the discretion of the City. Contractor shall also meet with federal, state, and local agencies that have an interest in the operation and maintenance of the Utility Facilities, as necessary, to meet and maintain compliance with all regulations and foster good relationships with the regulatory agencies. The City and Contractor both reserve the right to request additional meetings as may be necessary to ensure proper operation and maintenance of the Utility Facilities and address and resolve any circumstances that may arise.

(t) Homeland Security Act. Contractor shall, in accordance with Prudent Utility Practice, undertake and perform those obligations pursuant to the Homeland Security Act that are provided in the Vulnerability Assessment for the City system on file with the EPA, as it may be amended. In the event that new systems are acquired or implemented, the cost to achieve compliance, if any, will be treated as an Additional Service.

(u) Hazardous Substances. If Contractor unexpectedly encounters or suspects asbestos or hazardous substances in any form on the Utility Facilities, Contractor will stop its own work in the affected portions of the facilities to permit testing and evaluation of such substances and will immediately provide notice thereof to the City. In such circumstance, with the cooperation, support and coordination of the Contractor, the City, in accordance with its procurement policies and procedures, will engage a qualified

contractor perform remediation services. The engagement of such contractor by City shall not release, relieve or discharge Contractor from any Loss or Expense incurred by City to the extent the hazardous materials were released as a result of the breach, negligence or willful misconduct of Contractor. Contractor will have no obligation to resume its performance of the Services affected by the unexpected presence of asbestos until it receives reasonable proof that the affected area is treated consist with the requirements of applicable Law. If Contractor suspects hazardous substances other than asbestos on the facilities where Contractor performs services, the parties may agree for Contractor to conduct tests to determine the extent of the hazardous condition and recommend necessary remedial measures. Contractor will perform these services under a separate agreement negotiated by the parties and for an additional fee. Contractor will not be liable for any delays in performing the services caused by or related to the presence of asbestos or another hazardous substance unless the presence or release thereof was caused by or resulted from the breach, negligence or willful misconduct of Contractor. Contractor assumes no risk and/or liability for any hazardous waste or conditions present at the Facilities prior to the commencement of this Agreement or for any hazardous waste or conditions attributable to any party other than Contractor. In the event that City requests Contractor, in the performance of the Services set forth herein, to execute hazardous waste manifests on its behalf, City must execute a letter of authorization, the form of which will be agreed upon by both parties, delegating such authority to Contractor prior to Contractor undertaking this duty. Subject to Florida Statutes 768.28, and without waiver of any rights, immunities, defense or limitations of liability under sovereign immunity, City agrees to hold harmless, indemnify, and defend Contractor from and against any and all claims, losses, damages, liability, and costs including, but not limited to, costs of defense arising out of or in any way connected with the presence, discharge, release, or escape of hazardous substances of any kind, unless such claims, losses, damages, liability or costs arises out of or is in any way connected with the breach, negligence or willful misconduct of Contractor, its employees or its subcontractors in the performance of Services under this Agreement.

Section 3.2 Change Orders; Payment for Additional Services.

(a) Change Orders.

(i) Generally. The parties recognize that changes (including additions and deletions) to the Services (“Changes”) are normal and that an orderly process should be established for those occasions. The City will pay the Contractor for Changes authorized by the City as provided in this Section 3.2(a)(i). Time required by the Contractor to develop a proposal for a Change or cost estimate for a Change is considered a cost of doing business and shall not be included in the cost of the Change Order or separately billed by Contractor to the City. A Change Order is used to document the requirements and costs.

(ii) Change Order Process.

(A) Proposal. To propose any Change, a party’s Contract Manager shall deliver a written proposal (the “Change Order Proposal”) to the Contract Manager of the other party specifying (i) the proposed Change, (ii) the objective or purpose of such Change, and (iii) the requirements and specifications of the Services or Deliverables to be delivered pursuant to such Change.

(B) Assessment. The parties shall cooperate in discussing the scope and nature of the Change Order Proposal, the availability of Contractor personnel, expertise and resources to provide such proposed Change, and the time period during which such proposed Change will be implemented. Within ten (10) Business Days of receipt of the Change Order Proposal, the other party shall, at its expense, prepare a written assessment of the Change Order Proposal, (i) describing any changes in Deliverables, Services, assignment of personnel and other resources that the other party believes will be required, (ii) specifying the plan, approach and timetable by which the proposed Change would be implemented, (iii) describing the impacts, if any, such proposed Change would have on the

Agreement, (iv) estimating all costs and resources (other than existing dedicated staff) required to implement such Change, (v) describing the delivery risks and associated risk mitigation plans relating to the proposed Change, and (vi) providing such other information as may be relevant to the proposed Change or requested by the party.

(C) Timing. To the extent that a proposed Change is of such magnitude or complexity that it is not feasible for the other party to produce a detailed Change assessment within ten (10) Business Days, the other party shall prepare a summary Change assessment outlining such details regarding the proposed Change as the other party can ascertain within ten (10) Business Days, and the parties shall agree upon a schedule for the production of a more detailed assessment of the Change Order Proposal. The party proposing the Change will timely provide any information or cooperation reasonably requested by the other party that is necessary to prepare a Change assessment and any delay in providing such information or cooperation may delay the delivery of the assessment of the Change Order Proposal.

(iii) Time for Approval. The party submitting the Change Order Proposal shall review the assessment of the Change Order Proposal and respond within ten (10) Business Days, indicating whether it desires the Change pursuant to the assessment and, if so, the parties shall execute a Change Order based upon the assessment. The Change Order shall describe the Changes to be made to the scope of Services and the manner or method of providing the Services, and include the fees with the Change, the assumptions upon which the fees were determined, the performance schedule, start and expiration dates, and any other terms and conditions the parties agree upon. The Change Order shall be made in writing executed by the parties' authorized representatives and otherwise in accordance with the terms of this Agreement. A party will have no obligation or authority to commence work in connection with any Change Order Proposal until the written Change Order is signed by the parties.

(iv) Price Reduction. If a Change is expected to result in net savings to Contractor over the remaining term, there will be an equitable reduction to the Basic Operations and Maintenance Services Fee. The price reduction will be credited to the next monthly invoice(s) for Basic Operation and Maintenance Services Fees. However, the Contractor is not required to pass along any savings resulting from internal cost efficiency measures implemented by the Contractor that are unrelated to a particular Change.

(b) Additional Services. Except in connection with Emergency Conditions, the parties shall negotiate additional compensation prior to delivery by the Contractor of Additional Services not identified in this Agreement. The parties shall agree in a written instrument signed by the parties the terms and conditions for the performance of any Additional Services and with regard to any additional compensation for such Additional Services prior to performance by Contractor. Fees for Additional Services shall be based on Contractor's Cost. The City shall pay the Contractor for Additional Services upon receipt of the Contractor's itemized invoice and supporting documentation, including details for any Contractor's Outsource and Additional Labor Costs, in form and content acceptable to the City, in a manner consistent with the Florida Prompt Payment Act. The City shall pay for any costs incurred by Contractor to respond to an Act of God, regardless of if there is physical damage to the Utility Facilities that are outside of the Basic Operations and Maintenance Services Fee.

Section 3.3 Standards for Capital Improvements and Repair and Replacement.

(a) During the term of this Agreement, Contractor shall use the then-existing equipment and material specifications and standards developed by Contractor hereunder consistent with Prudent Utility Practice and industry standards as the minimum standards for Capital Expenditures and Repair and Replacement Services that are performed by the Contractor or a subcontractor to the Contractor. All Capital

Improvements and Repair and Replacement Services shall be performed in a manner consistent with Prudent Utility Practice.

(b) If any installed component of a Utility Facility carries a manufacturer's warranty that exceeds the warranty period specified herein, the Contractor shall be responsible for any activities necessary for maintenance of the warranty.

Section 3.4 Use of Facilities; Fieldwork. Contractor is responsible for implementing and managing an appropriate protocol for the safety and security of the Utility Facilities. Contractor shall, in a manner consistent with Prudent Utility Practice (i) confine all operation, maintenance and construction equipment, (ii) store all materials and equipment, (iii) limit the work of all employees and subcontractors to the Utility Facilities and other areas permitted by Law, rights-of-way, Governmental Authorizations and easements, (iv) as of the Commencement Date use existing security systems and approaches as implemented prior to the Commencement Date and thereafter such any augmented, expanded, additional, modified, upgraded or enhanced security systems and approaches installed or implemented for the Utility Facilities, and (v) control access to and lock all buildings. City shall be provided access to open all locks. Contractor shall not unreasonably place or maintain at the Utility Facilities or other land areas any materials, equipment or vehicles of the Contractor not necessary for performance of the Services. At all times, the Contractor shall use and administer the Utility Facilities in a professional, neat and orderly fashion. Contractor shall assume full responsibility for any damage, direct or indirect, caused by the Contractor to the Utility Facilities or real or personal property near the Utility Facilities arising out of, relating to or resulting from Services. Contractor shall repair or replace streets, sidewalks, driveways and other property damaged as a consequence of distribution or collection systems operations, maintenance, or repair activities.

Section 3.5 General Reporting and Records Responsibilities.

(a) **Government Reports.** Contractor shall prepare and file with appropriate Governmental Authorities all reports, notices and filings required by applicable Law. If requested to do so by the City or City Representative, the Contractor shall timely provide copies of drafts and the proposed filing version for review and comment prior to filing. If required pursuant to applicable Law, the Contractor shall attest to the accuracy and completeness of the data collected and reported.

(b) **Basic Service Report.** In addition to the recommended Annual Preventive Maintenance Plan and the recommended annual Capital Expenditures list, Contractor shall on a monthly basis timely prepare and deliver to the City Representative the Basic Operation and Maintenance Service Report for the prior month.

(c) **Format.** The City or City Representative shall have the right to add, delete, or modify any report format required of the Contractor, as necessary, for the management of the Basic Operation and Maintenance Services to be performed by Contractor hereunder. Such changes shall not be considered a modification to the Contractor's scope of services.

(d) **Response.** Upon reasonable request from the City or City Representative, the Contractor shall provide assistance in responding to reasonable requests for information from auditors, state and local governments, customers, media and public records requests.

(e) **Medium.** Contractor shall provide all reports required under this Agreement in an electronic data format and by electronic means to the City and/or City Representative, as directed by the City.

(f) **Compliance Support.** Contractor shall assist the City or City Representative in preparing and responding to regulatory compliance inspections, permit applications and requests, regulatory communication, and other reports and communication that require and make available information relating to the operation, maintenance, repair, safety and/or security of the Utility Facilities.

(g) **Record Keeping.** Contractor shall maintain and make available records and documentation related to its performance of Services under this Agreement and related to the Utility Facilities, including through a portal developed by Contractor in a format (including electronic) and organized form as requested by the City and in accordance with applicable Laws and Prudent Utility Practice. Records and documentation shall be prepared, maintained, kept and made available in accordance with generally applicable requirements and any specific policies of the City. The City or City Representative shall have access within forty-eight (48) hours (or such shorter period reasonable under the circumstances) to physical records and documentation related to the Utility Facilities for inspection, audit, and copying.

(h) All records and data, including operation reports, laboratory reports, and monitoring documentation, but excluding Contractor's internal budgetary and financial information, are the property of the City and cannot be destroyed by the Contractor without written the prior consent of the City after request by Contractor.

ARTICLE 4. PROGRAM MANAGEMENT SERVICES

Section 4.1 General Description. Contractor, separate from the Basic Operation and Maintenance Services and the Maintenance and Repair Services which Contractor will provide under the Agreement, will provide Program Management Services as requested by the City pursuant to the terms of individual Work Orders mutually agreed upon and executed by the parties. Attached as Exhibit 7 are the rates at which the specialized personnel of Contractor involved in performance of Program Management Services will be computed. In connection with Contractor's involvement in the definitive planning, design, design management, permitting, scheduling, cost estimating, procurement, program management and controls, project management, technical oversight and validation, construction management, and construction of projects, City retains full control and discretion over the scope of such Program Management Services to be furnished by Contractor. Attached as Exhibit 15 are copies of the first five (5) Work Orders relating to Program Management Services.

Section 4.2 Program Management Services. The portion of the Services to be provided by Contractor for integrated Capital Program Management as part of the Agreement include the following:

(a) **Establish Program Scope.** Collect data from NMB Water's Master Plan, condition assessments, the Capital Improvement Program, and other applicable plans and identify projects and compile and present information in a comprehensive format.

(b) **Program Reporting.** Establish a Program Management Services reporting format, including developing appropriate level reports suitable for distribution to City management, and when appropriate to the Public Utilities Commission, Mayor/City Commission, and to the public. Contractor shall provide reports monthly, quarterly, annually, or at other frequency as determined by City.

(c) **Program Scheduling Services.** Prepare an overall program schedule to include all projects and validate project schedules from project implementation status, including all design, permitting, procurement and construction and commissioning requirements. Conduct initial validation and prioritization of the program projects and follow up with annual or semi-annual program validation and prioritization as requested by the City. Generate individual project schedules as requested by the City. Develop, review, and monitor program schedules at various levels appropriate to the required management level. Identify and analyze dependencies, controls, and interfaces between projects, with other operational activities, and with external projects by other Governmental Agencies. Review and monitor design and construction schedules. Provide schedule reporting and analysis services at the appropriate management level.

(d) **Program Budget and Funding Tracking.** Provide program level cost and trend Program Management Services, including implementation of a cost management software tool. Maintain accurate cost data from all NMB Water consultants, subconsultants, contractors, subcontractors, and other vendors

and inform the City when required cost data is not provided. Provide construction cost estimates, including conceptual and budgetary estimates. Establish cost management system in alignment with, and supportive of City budgeting and accounting requirements and systems. Establish, review, and support management of appropriate owner's contingencies. Provide budget and funding report services, documenting sources of funds and cash flow projections for projects. Develop and maintain procedures to forecast project and program costs and advise City of budget issues. Assist City staff in the identification of funding sources as well as the preparation of grant applications if applicable. Maintain program cost to complete data at all times.

(e) Document Control Services (as required under Florida State Law). Maintain files of all Master Plan Program documentation in an integrated, accessible electronic format with hard copy, electronic format to be stored in a retrievable system, which will be the property of the City. Maintain status logs of project and program documents including contractor requests for information, submittals, and substitution requests. Assess current document control/reporting systems and recommend upgrades or replacement to support implementation plan and record keeping. Develop and maintain systems for the efficient distribution of project documents to contractors, subcontractors, consultants, subconsultants, agencies, City departments, and other stakeholders as directed.

(f) Program Coordination. Assist City staff in program coordination efforts with organizations such as the South Florida Water Management District, the Florida Board of Health in Miami-Dade County, the Miami-Dade County Department of Environmental Regulatory Management, the Florida Department of Environmental Protection, the U.S. Environmental Protection Agency, and any other local governments and regulatory agencies. Assist with the development, establishment, implementation, and modification of program administrative procedures and processes. Implement and support an action item system to track key program activities and required decisions. Identify dates and timelines for action items and decisions to be completed.

(g) Program Planning and Permitting. Assist in development and implementation of program instructions. Develop a program level field safety instruction plan. Develop the overall program level quality management plan. Conduct, assist, and manage program permitting for all projects as delegated by the City. Develop and implement a public outreach plan in conjunction with City staff. Develop and assist with planning and programming studies and coordination with stakeholders. Assist with, and develop other pre-design activities.

(h) Design Phase Services. Perform formal partnering session between City and other stakeholders. Prepare design documents for review at completion levels of 30%, 60%, 90% and 100% design for each project. Provide constructability review at each such completion levels above. Develop progressive construction cost estimates at each such completion levels. Prepare work packages to allow competitive bidding of firms. Evaluate bids and select the best value bidders. Prepare Guaranteed Maximum Price ("GMP") at 90% design for review by the City. Develop critical path method schedule to be submitted with the Guaranteed Maximum Price. Acquire the necessary permits for construction. Provide design management and administration of subconsultants. Provide code analyses and detailed code reviews along with other required reviews. Provide geotechnical investigations and/or hazmat inspection and testing services as required. Assist in the development of project design standards. Provide project controls support. Support City Public Information and Community Outreach program with suitable documentation in a variety of media.

(i) Construction Phase Services. Perform informal and formal partnering session facilitation between City and other stakeholders. For project for which Contractor or an Affiliate of Contractor are not performing the construction of the project pursuant to a design-build agreement with the City or other agreement or arrangement which has been approved by the City in its discretion, oversee the construction of the project in accordance with the contract documents. Develop project specific quality management plan. Review, monitor, and assess construction activities, change management and risk management.

Prepare construction quality assurance/quality control plans. Provide schedule and budget control. Prepare field safety instructions and emergency response plan. Prepare inspection and engineer's reports for submission to City and/or other agencies. Prepare as-built drawings, and documentation necessary for substantial and final completion. Prepare agenda and lead job site meetings. Develop meeting minutes for distribution. Develop and manage owner controlled contingency. Provide construction management personnel. Perform startup and commissioning. Perform project closeout activities.

(j) **Program Management Work Plan.** Responsible for creating program management services work plan to be approved by the City. Elements of the work plan will include activities and services such as the following: contract administrator for coordination of consultant services; design phase work plan; procurement planning; staffing plan for providing all program management services such as cost control, trend analysis, safety, permitting, schedule support, cost estimating services construction management, and project closeout. Performance based baseline work plan to be reviewed and modified as needed.

Section 4.3 Work Order Proposals.

(a) Contractor shall submit a proposal for Work Order upon the request of the City. The proposal shall be in form and substance acceptable to the City in its sole discretion. Contractor acknowledges that no payment shall be made by the City for the Contractor's time or service in connection with the preparation of any such proposal. The City shall confer with the Contractor before any Work Order or notice to proceed thereunder is issued in order to discuss and agree upon the scope, time for completion, and fee for services to be rendered pursuant to the Work Order, subject to the terms and conditions of this Agreement.

(b) Upon receipt of authorization from the City to proceed with the Program Management Services under a Work Order, the Contractor agrees to perform commence performance of Program Management Services associated in accordance with the negotiated terms of the applicable Work Order.

Section 4.4 Contractor Authority. Contractor does not have the power or authority to bind the City in any promise, agreement or representation other than as expressly, specifically provided for in this Agreement or an executed Work Order. Contractor shall supply competent employees to perform Program Management Services, and such employees shall have no conflict of interest. Contractor shall not replace any key employee assigned to a Work Order or project initially proposed by the Contractor without prior approval from the City. In connection with each Work Order executed hereunder, Contractor shall submit a list of employees intended to be engaged in the Program Management Services, including their classification and the rates at which their services and work will be charged, which shall be consistent with the City-approved therefor rates, which as of the Execution Date shall be the rates set forth in Work Orders 1-5 attached as Exhibit 15.

Section 4.5 Obligations and Responsibilities. In connection with the Program Management Services to be rendered pursuant to this Agreement, the Contractor agrees to:

(a) Use the same degree of care and skill ordinarily exercised by other similar professionals in the field under similar conditions.

(b) Maintain an adequate staff of qualified personnel at all times to meet completion requirements of the Program Management Services within the term specified in the applicable Work Order.

(c) Comply with all Laws applicable to the Program Management Services.

(d) Cooperate fully with the City in the scheduling and coordination of all phases of the Program Management Services.

(e) Provide a written report on the status of the Program Management Services to the City in accordance with the schedule therefor set forth in the Work Order and upon request and hold pertinent data and other products open to the inspection of the City Representative or his/her designee at any reasonable time and during normal business hours.

(f) Submit for City review design computations, sketches, and other data representative of the Program Management Services progress at the percentage stages of completion which may be stipulated in the applicable Work Order. Submit for City approval the final work product prepared in performance of the Program Management Services upon incorporation of any modifications requested by the City during any previous review.

(g) Confer with the City at any time during the effective term of the Agreement and implementation of improvements for which the Contractor has provided design or other services as to interpretation of plans and other documents, correction of errors and omissions and preparation of any necessary plan thereof. Contractor shall not be compensated for the correction of mistakes, incomplete and omitted items on the part of the Contractor.

(h) Prior to final approval of the Program Management Services by the City, complete a preliminary check of any construction documents which require a permit or other Governmental Authorization from a Governmental Authority from which a permit or other Governmental Authorization is required.

(i) Use computer and networking hardware, software and firmware standards as approved by the City. IT staff must be involved in the design phase of an application and in developing the testing, training and acceptance criteria of the application before it is placed into production. All applications and/or systems to be transferred to the City must have adequate end user and systems support documentation and as part of the design process for a Program Management Services project, any system needs should be identified and will require the approval of the City. All electronic data performed or produced in the performance of this Agreement shall be transferred in an approved media and format approved by the City.

(j) All systems developed by the Contractor in connection with the performance of the Program Management Services pursuant to this Agreement shall become the property of the Contractor, provided, however, that if any such systems are necessary for the continued operation of the City after the expiration or termination of this Agreement Contractor shall provide an irrevocable, royalty free, prepaid, non-exclusive, assignable license and right to use such systems for such purpose.

(k) Application design, operation and security shall follow standard industry practice, Prudent Utility Practice and the requirements of the City. Costs incurred to comply with these standards if the system is developed outside these parameters will be the burden of the Contractor.

(l) The City reserves the right to require background checks on Contractor's staff working on sensitive City infrastructure information, including Geographic Information System layers. The City may require non-disclosure agreements to be signed regarding infrastructure information and shall hold the Contractor responsible for the security of this data.

Section 4.6 Commencement and Completion. Program Management Services to be rendered by the Contractor hereunder shall commence on the date set forth in the applicable Work Order and/or upon receipt of a written task authorization to proceed from the City Representative or his/her designee as required in the applicable Work Order, and shall be completed within the time stated in the Work Order.

Section 4.7 No Delay Claims.

(a) No claim for damages or any claim other than for an extension of time shall be made or asserted against the City by reason of any delays in the performance of Program Management Services. Contractor shall not be entitled to an increase in the sum, payment or compensation of any kind from the City for Program Management Services beyond that set forth in this Agreement nor shall the Contractor be entitled to direct, indirect, consequential, impact or other costs, expenses or damages, including but not limited to: costs of acceleration or inefficiency arising because of delay, disruption, interference or hindrance from any cause whatsoever affecting the performance of the Program Management Services.

Contractor shall be entitled only to extensions of the time as the sole and exclusive remedy for such resulting delay, in accordance with and to the extent specifically provided below.

(b) The time to perform Program Management Services under this Agreement shall be extended only if the Contractor is delayed in performing any obligation under this Agreement due an Uncontrollable Circumstance. The Contractor shall request in writing a time extension from the City Representative within ten (10) days of said force majeure or inevitable accident or occurrence.

Section 4.8 Compensation for Services. City agrees to pay and the Contractor agrees to accept a fee representing full compensation for the performance of the Program Management Services provided pursuant to a Work Order. The Contractor shall submit monthly invoices for all Program Management Services in progress using a format and procedure provided by City. The City may withhold payment of any invoices from the Contractor if the City determines that the Contractor submitted and received payment of an inaccurate invoice, without limitation to any other legal or equitable rights or remedies. Fees and other compensation will be computed in accordance with one or a combination of fixed, lump-sum, time and materials or cost-plus methods as agreed by the parties.

Section 4.9 Subcontractors.

(a) Contractor shall not subcontract, assign or transfer to others Program Management Services performed under this Agreement without thirty (30) days written notice to the City Representative. The request must be approved by the City Representative in writing. Contractor shall not allow any Subcontractor to utilize, assign or transfer Program Management Services to others for Program Management Services performed under this Agreement without the written consent of the City Representative. When applicable and upon receipt of such consent in writing by the City Representative or his/her designee, the Contractor shall cause the names of the firms responsible for the major portions of each separate specialty of the Program Management Services to be inserted in the pertinent documents or data. Nothing contained in this Agreement shall create any contractual relationship between the City and the Subcontractors.

(b) All payments to Subcontractor(s) employed for the performance of Program Management Services hereunder shall be the sole responsibility of the Contractor. Contractor shall not submit invoices, which include charges for services by Subcontractor(s), unless such services have been performed satisfactorily and the charges are, in the opinion of the Contractor, payable to such Subcontractor(s) in accordance with the terms of the applicable subcontract.

(c) Contractor shall promptly make all payments to such Subcontractor(s) following receipt by the Contractor of corresponding payment from the City. Prior to any payments to Subcontractor(s), Contractor shall, if requested by the City Representative, furnish to the City a copy of the agreement(s) providing for such payments. Compensation rates for Subcontractors(s) authorized by the City Representative for the performance of Program Management Services shall not exceed the Contractor's rates.

Section 4.10 Non-Performance; Delay. In the event that Contractor fails to perform its Program Management Services within the time frames outlined and such failure causes a delay in the progress of the Program Management Services, the Contractor shall be liable for any direct damages to the City resulting from such delay. Notwithstanding anything to the contrary, the Contractor's aggregate liability under this Agreement for damages resulting from the Contractor's performance or non-performance of such Program Management Services shall be limited to the value of the applicable Work Order.

Section 4.11 City Discretion. It is expressly understood and agreed that the City may terminate this Agreement as respects the performance of Program Management Services, in total or in part, without cause or penalty, by thirty (30) days prior written notification. Contractor further acknowledges and agrees that the City has the absolute right to decline to execute any proposed Work Order submitted by Contractor.

Upon such termination of Program Management Services hereunder, the City's sole obligation to the Contractor shall be payment for those units or sections of Program Management Services previously authorized. Such payment shall be determined on the basis of the hours or percentage of work performed by Contractor up to the time of termination. In the event partial payment has been made for Program Management Services not performed or not performed in accordance with the requirements of this Agreement or the applicable Work Order, the Contractor shall return such sums to the City within ten (10) days after receipt of written notice that said sums are due. Upon such termination, the City may, without penalty or other obligation to the Contractor, elect to employ other persons or entities to perform the same or similar services provided by Contractor relating to the Capital Improvement Program.

Section 4.12 Labor and Material Costs. In providing opinions of cost, financial analyses, economic feasibility projections, and schedules in the performance of Program Management Services hereunder, Contractor has no control over cost or price of labor and materials; unknown or latent conditions of existing equipment or structures that may affect operation or maintenance costs; competitive bidding procedures and market conditions; time or quality of performance by operating personnel or third parties; and other economic and operational factors that may materially affect the ultimate program cost or schedule. Therefore, in the performance of Program Management Services for a project, Contractor makes no warranty that City's actual project costs, financial aspects, economic feasibility, or schedules will not vary from Contractor's opinions, analyses, projections, or estimates. Notwithstanding the preceding sentence, if City requests in writing that Contractor provide such assurance as to any element of project cost, feasibility, or schedule, Contractor will employ an independent cost estimator, contractor, or other appropriate advisor and provide such assurance at rates agreed upon by the parties.

Section 4.13 Limitations of Contractor Responsibility in Performance of Program Management Service.

(a) The presence or duties of personnel of Contractor performing Program Management Services at a construction site, whether as onsite representatives or otherwise, do not make Contractor or such Contractor's personnel in any way responsible for those duties that belong to City and/or the construction contractors or other entities, and do not relieve the construction contractors or any other entity of their obligations, duties, and responsibilities, including, but not limited to, all construction methods, means, techniques, sequences, and procedures necessary for coordinating and completing all portions of the construction work in accordance with the construction contract documents and any health or safety precautions required by such construction work.

(b) In the performance of Program Management Services hereunder, Contractor and Contractor's personnel have no authority to exercise any control over any construction contractor or other entity or their employees in connection with their work or any health or safety precautions and have no duty for inspecting, noting, observing, correcting, or reporting on health or safety deficiencies of the construction contractor(s) or other entity or any other persons at the site except Contractor's own personnel.

(c) City and Contractor acknowledge and agree that the design services for projects for which Contractor performs Program Management Services may be separately engaged by City through retention of separate design professionals. If so, then notwithstanding any provision to the contrary, in the performance of the Program Management Services in accordance with the terms and conditions of this Agreement and the applicable Work Order, unless the Work Order provides otherwise, Contractor shall have no responsibility for the accuracy or sufficiency of documentation prepared by those third party design professionals. Contractor will notify City of any errors, discrepancies and inconsistencies it may discover in such documents. If such errors, discrepancies or inconsistencies directly cause an increase in cost or the time for performance of the Program Management Services, to the extent consistent with the terms of the Work Order Contractor shall be entitled to an equitable adjustment. In the event Contractor is required under a Work Order to perform constructability reviews, value engineering or any other reviews or tasks involving the design for the project for which Contractor is providing Program Management Services, it is

understood that unless the Work Order provides otherwise, the conduct of such reviews will not render Contractor liable in any manner for the duties of City's separately-retained design professionals.

(d) Unless the terms of a Work Order provide otherwise, the presence of Contractor's personnel at a construction site in the performance of Program Management Services under a Work Order is for purposes set forth in the Work Order and providing to City a greater degree of confidence that the completed construction work will conform generally to the construction documents and that the integrity of the design concept as reflected in the construction documents has been implemented and preserved by the construction contractor(s). Contractor neither guarantees the performance of the construction contractor(s) nor assumes responsibility for construction contractor's failure to perform work in accordance with the construction documents.

(e) Recommendations by Contractor to City for periodic construction progress payments to the construction contractor(s) will be based on Contractor's knowledge, information, and belief from selective sampling that the work has progressed to the point indicated. Such recommendations do not represent that continuous or detailed examinations have been made by Contractor to ascertain that the construction contractor(s) have completed the work in exact accordance with the construction documents; that the final work will be acceptable in all respects; that Contractor has made an examination to ascertain how or for what purpose the construction contractor(s) have used the moneys paid; that title to any of the work, materials, or equipment has passed to City free and clear of liens, claims, security interests, or encumbrances; or that there are not other matters at issue between City and the construction contractors that affect the amount that should be paid.

(f) To the extent consistent with the City's procurement policies, practices, rules and procedures, the City agrees to require construction contractor(s) and third party designer(s) to name City and Contractor as additional insureds on their general liability insurance policy and include Contractor as an indemnified for all projects for which Contractor is engaged by the City to perform Program Management Services relating to the design and construction of a project.

ARTICLE 5. TERMS AND TERMINATION

Section 5.1 Term.

(a) **Initial Term.** The initial term of the Agreement commences on execution and delivery of the Agreement ("Execution Date") and expires on the day that is ten (10) years after the Commencement Date for the Basic Operation and Maintenance Services unless extended in accordance with the terms of Section 5.1(b). The term of this Agreement will not be extended as a result of the occurrence of any Uncontrollable Circumstance or other event except as set forth in Section 5.1(b), as applicable. During the Transition Period, Contractor will perform the Transition Services to facilitate the transition of operation, maintenance and repair of NMB Water from City to Contractor, including the preparation of certain plans, procedures, processes and systems to be utilize in the performance of the Services, outlines for certain of which are attached as Exhibit 11. Contractor shall commence performance of the Transition Services upon receipt of the City's Notice to Proceed, which shall be substantially similar to the form attached as Exhibit 2, and commence performance of the Program Management Services on May 22, 2017. The Commencement Date and commencement of the Basic Operation and Maintenance Services by Contractor is projected to be on or about July 17, 2017, and on or prior to that date Contractor shall execute and deliver the Commencement Date Certificate confirming satisfaction of all conditions to commencement of the Services and commence full scope performance of the Services to operate, maintain and repair NMB Water.

(b) **Five Year Renewal Period.** The parties have agreed that at the expiration of the initial ten year term of this Agreement, the Agreement shall be automatically renewed for one (5) year term, provided that as the date which is one year prior to expiration of the initial term of this Agreement and as of the date of expiration of the initial term of this Agreement, the following are true: (i) Contractor is in good standing

and in compliance with all Laws governing the performance of the Services; (ii) there is no Contractor Event of Default as of the expiration of the initial term of this Agreement or circumstance which would, with notice or passage of time become a Contractor Event of Default, (iii) there is no dispute pending between the parties involving an amount in controversy greater than fifty thousand dollars (\$50,000) or the termination of the Agreement; (iv) Contractor continues to operate, manage, and maintain the Utility Facilities and perform the Services in accordance with the terms, covenants and conditions of this Agreement. In the event the City determines to exercise its right to cause the Agreement to terminate as of the expiration of the initial term of the Agreement as set forth in this Section 5.1(b), it shall to the extent practicable under the circumstances notify the Contractor of same, in writing, no less than one (1) year prior to the expiration of the initial term. Unless otherwise agreed to in writing by the parties, all terms and conditions set forth in this Agreement shall be applicable to the renewal term.

(c) Upon expiration of the initial term of this Agreement of, if applicable, the expiration of the renewal term of this Agreement, and upon the earlier termination of the Agreement in accordance with the terms of this Agreement, Contractor shall for a period of up to six (6) months assist the City or the incoming contractor in assuming operation and maintenance of the Utility Facilities pursuant to the end Succession Transition Plan developed by Contractor and approved by the City.

Section 5.2 Compensation and Payment.

(a) Compensation and payment for the Basic Operation and Maintenance Service Fee and the Repair and Replacement expenses is more fully described in Exhibit 6, as such exhibit may be modified by agreement of the parties. Payment of any amount by City to Contractor in respect of the Basic Operation and Maintenance Services, the Repair and Replacement Services and Program Management Services shall not be deemed to be a waiver of any breach, non-performance, failure or default by Contractor under the terms, covenants, agreements, provisions and conditions of this Agreement, or waiver or forbearance from exercise of any right, remedy which the City may be entitled to exercise under this Agreement. Invoices for Basic Operation and Maintenance Services and the Repair and Replacement Services shall be substantially in the form attached as Exhibit 13, as such exhibit may be modified from time to time by agreement of the parties. Invoices for Program Management Services shall be in a form developed by the Contractor and approved by the City.

(b) The Basic Operation and Maintenance Service Fee is an annual amount payable in equal monthly amounts. Contractor shall submit invoices for Basic Operation and Maintenance Service Fees on monthly basis no more than thirty (30) days in advance of the month in which the Basic Operation and Maintenance Services invoiced will be performed. The City shall pay the undisputed amount of invoices for Basic Operation and Maintenance Service Fees in accordance with the Florida Prompt Payment Act. The cost of Routine Maintenance shall be included in the Basic Operation and Maintenance Service Fee and no additional compensation shall be due to the Contractor for the performance of Routine Maintenance. Contractor shall perform all Routine Maintenance without prior authorization from the City as a part of the provision of the Basic Operation and Maintenance Services.

(c) (i) The cost of Repair and Replacement Services shall be included in the Repair and Replacement Fund. Contractor shall submit invoices for Repair and Replacement Services on a monthly basis, and the amount of each monthly invoice shall be equal to one-twelfth of the amount of the Repair and Replacement Fund in the applicable Contract Year. Unless the Repair and Replacement Services are in response to an Emergency Condition, the Contractor shall not proceed with Repair and Replacement Services if the cost of such work exceeds \$10,000 without the prior approval of the City. Additionally, Contractor shall not proceed with Repair and Replacement Services if the cost of such work, when added to the cost of prior Repair and Replacement Services, is in excess of the Repair and Replacement Fund without the prior written authorization from the City issued after Contractor's request for such authorization. Except for response to an Emergency Condition, if the Contractor proceeds with any Repair

and Replacement Services above the Repair and Replacement Fund without prior written authorization of the City, the Contractor shall be responsible for all costs incurred above the Repair and Replacement Fund.

(ii) The cost of Repair and Replacement Services that are the result of an Act of God will be paid by the City. The performance of such services and all such costs shall be subject to prior approval from the City unless the activity is in response to an Emergency Condition.

(iii) Contractor shall submit a separate itemized invoice and supporting documentation for the Contractor's Costs for Repair and Replacement Service projects that are the result of an Act of God. The City shall pay its applicable portion of the Contractor's invoice for such Repair and Replacement Services in a manner consistent with the Florida Prompt Payment Act.

Section 5.3 Termination for Convenience.

(a) **City Termination.** Upon written notice of no less than ninety (90) days prior to termination, City may terminate for convenience without cause all or any part of this Agreement or all or any part of Contractor's obligations and responsibilities with respect to the operation, management, maintenance, and repair of the Utility Facilities and the performance of Program Management Services. If City exercises the right to terminate the Agreement for convenience during the initial ten (10) year term of this Agreement, City shall pay to Contractor a termination charge in accordance with Exhibit 28. In the event of a partial termination of Services pursuant to this Section 5.3(a), Contractor's fee shall be adjusted to reflect such reduction in the scope of Services to be performed by Contractor and this Agreement shall remain in full force and effect with respect to the remaining Facility(ies).

(b) **Contractor Termination.** Contractor has the one-time right to terminate this Agreement for convenience on the tenth (10th) anniversary of the commencement of performance of Basic Operation and Maintenance Services upon written notice of no less than three hundred sixty-five (365) days prior to termination on such tenth anniversary. The exercise by Contractor of its right to terminate this Agreement for convenience shall not relieve Contractor of its obligations with respect to the performance of services to facilitate the transition of the performance of the Services to the City or its designee.

(c) **Obligations.** Except for accrued obligations and liabilities and as otherwise provided herein, upon termination of this Agreement for convenience by either party, as of the Execution Date of the termination, the parties shall be relieved from further obligations hereunder, except with regard to those provisions of this Agreement which survive termination or expiration hereof.

Section 5.4 Performance-Based Incentive Program. The City and the Contractor agree to implement Key Performance Indicators (KPIs) during the term of this Agreement with respect to certain elements or aspects of Contractor's performance of the Services and attainment of specified levels of performance agreed upon by the parties. The initial KPIs and the amounts at risk to Contractor for non-attainment of the levels of performance required for each KPI are set forth in Exhibit 12. The parties agree to establish not less than ten (10) additional KPIs within ninety (90) days after the Execution Date.

Section 5.5 Regulatory Compliance; Fines and Penalties.

(a) Contractor shall implement a regulatory compliance plan approved by the City within ninety (90) days after the Execution Date. Contractor shall be responsible for payment of any fines and penalties imposed by any Governmental Authority arising out of or resulting from (i) breach of this Agreement, (ii) faulty or negligent operation or maintenance, (iii) operation or maintenance not in conformance with this Agreement, or (iv) operation or maintenance not in compliance with applicable Law and/or Governmental Authorizations, provided, however, that the Contractor will not be responsible for payment of fines and penalties resulting from failure to comply with applicable Law and Governmental Authorizations that are directly caused solely by the City's refusal to implement Capital Expenditures or Repair and Replacement Services that are timely recommended in writing by the Contractor and necessary to comply with applicable Law and Governmental Authorizations, nor will Contractor be responsible for

payment of fines and penalties resulting from noncompliance related to Uncontrollable Circumstances. Contractor shall also not be held liable for payment of fines and penalties arising out of or resulting from violations, actions, or inactions which occurred prior to the Commencement Date or for those that result from inadequate infrastructure or investment in the technology necessary to comply with the requirements or permits and Governmental Authorizations and/or changes in applicable regulations. Contractor shall immediately inform and provide notice to City of the existence of any such inadequate infrastructure, required investments in technology, proposed or actual changes in applicable regulations and actual or threatened imposition of any fine or penalty and details of the basis, if any, for City to be responsible for any such fines or penalties.

(b) Without limiting the City's rights under this Agreement, Contractor may be required to pay the City compensation for the following operation, maintenance, and reporting deficiencies which shall be in addition to any other costs, expenses or fees paid by the City. The amount of such compensation as of the Execution Date is set forth below, and such amounts may be adjusted by mutual agreement of the parties. Prior to the implementation of any monetary damages, the City and the Contractor agree to diligently pursue resolution to the deficiencies.

(i) Intentional or reckless falsification/misrepresentation of any reports or records required to be filed or maintained by the Contractor pursuant to this Agreement, compensation in the amount of \$500 per incident may be assessed. If such falsification/misrepresentation results in a governmental fine and/or required curative action, Contractor shall pay such fines and costs of curative action and compensation in the amount of \$5,000 per incident may be assessed.

(ii) Failure to timely respond to an Emergency Condition (within two hours of notification or becoming aware of the condition), compensation in the amount of \$250 per incident may be assessed.

(iii) Failure to timely submit any reports required pursuant to applicable Law or Governmental Authorizations in accordance with the timeframe specified, compensation in the amount of \$100 per day may be assessed for each day the report is late.

(c) The City may withhold the amount of any fines or penalties or compensation that are due from or the responsibility of the Contractor from the payment of the Basic Operations and Maintenance Services Fee upon a final determination of such fine or penalty or compensation pursuant to Section 5.5(a) or (b), as applicable. If any balance of fines or penalties or compensation is due at the termination of this Agreement, it shall be reimbursed to the City.

Section 5.6 Self Help by City.

(a) Within three (3) Business Days after being notified by City in writing of defective work, unacceptable work or failure to perform any portion of the Services required by this Agreement, if the Contractor fails to correct such work or perform such Services, City may cause the unacceptable or defective work to be corrected or perform the Services. If the City undertakes to correct the work or perform the Services, the City shall be entitled to set off against and deduct from any monies due, or which may become due to Contractor, the reasonable cost incurred by the City. If the corrective work or Services cannot reasonably be completed within such three (3) Business Day period, and the Contractor immediately begins corrective work or Services, and City reasonably determines that the Contractor is diligently pursuing the completion of such corrective work or Services, City agrees to allow Contractor to complete correction of the defective or unacceptable work or perform Services within a reasonable period of time.

(b) If Contractor fails to reimburse monies due to a customer in accordance with the timelines provided in the Florida Prompt Payment Act, after determining Contractor's negligence, City reserves the right to reimburse the customer and set off against and withhold such monies from payments due to the Contractor.

(c) All costs and expenses incurred by City pursuant to this Section 5.6 shall be deducted by the City from monies due, or which may become due, to Contractor for performance of the Services and its obligations herein.

(d) The provisions of this Section 5.6 are cumulative to all other provisions of the Agreement and it is not intended that any deductions in payment taken pursuant to this Section 5.6 shall diminish or waive City's right to declare the Contractor in default in accordance with applicable provisions of the Agreement or to exercise any other right or remedy available to City.

Section 5.7 Default.

(a) An event of default occurs if there is a persistent, repeated, or substantial failure or refusal by either the City or the Contractor to substantially fulfill any of its material obligations in accordance with this Agreement, provided, however, that no such event shall constitute a default unless and until:

(i) the non-defaulting party has given written notice to the defaulting party that a default or defaults exist which will, unless corrected, constitute an event of default on the part of the defaulting party; and

(ii) the defaulting party either has not corrected such default, or has not initiated reasonable steps to expeditiously correct such default within five (5) Business Days from the date of such written notice and thereafter used diligent efforts to correct such default.

(b) The events by which the Contractor shall be deemed to have failed to fulfill a material obligation of this Agreement shall include the following:

(i) failure to begin or discontinuing without authorization the performance of any element of the Basic Operation and Maintenance Service required by this Agreement;

(ii) failure of the Contractor to comply with a material provision of applicable Law or Governmental Authorization, whether willfully or negligently;

(iii) failure to permit the City, City Representative, any of their representatives or agents or any representative of a Governmental Authority to enter upon the Utility Facilities to inspect the Utility Facilities, materials, permits, books or records in accordance with this Agreement;

(iv) breach of any material covenant, condition or warranty in this Agreement or the making of any representation in this Agreement that is materially untrue, incomplete and/or misleading at the time of its making;

(v) failure to pay, when due, any sums owed to City, a subcontractor, vendor or other party for services or materials provided pursuant to this Agreement;

(vi) failure to perform the Basic Operation and Maintenance Service in a manner consistent with industry standards, Prudent Utility Practice, the Basic Operation and Maintenance Performance Standards, or other requirements agreed to by the parties;

(vii) failure to perform the Meter Reading or meter field service in a manner consistent with the requirements of this Agreement; or

(viii) failure to obtain and maintain all policies of insurance, Performance Bonds (to the extent required by and paid for by City) and Governmental Authorizations which Contractor is required to maintain under this Agreement.

(c) Termination shall be effective on the date designated by the terminating party by notice, provided that written notice is provided at least ninety (90) days prior to the date of termination, provided, that, if the City terminates the Agreement for a Contractor event of default, Contractor shall cooperate and support the City during such ninety (90) day period to accomplish an efficient, smooth transition to City or

a successor contractor, and the parties shall implement the Succession Transition Plan to the extent applicable..

(d) Each of the following also shall be deemed an event of default: (i) written admission by a party that it is bankrupt; (ii) filing by a party of a voluntary petition for bankruptcy; (iii) consent by a party to the court appointment of a receiver or trustee for all or a substantial portion of its property or business; (iv) the making of any arrangement by a party with, or for the benefit of, its creditors or assigning to a trustee, receiver, or similar functionary (regardless of how designated) of all or a substantial portion of a party's property or business; (v) becoming insolvent; (vi) final adjudication of a party as bankrupt under the Federal Bankruptcy Act; or (vii) a judgment is obtained or warrant of attachment issued against the Contractor which has a material adverse effect on the ability of Contractor to perform its obligations under this Agreement.

(e) Contractor is obligated to deliver written notice to the City of the occurrence of any of the events described in paragraph (d) above within two (2) Business Days of such occurrence.

(f) Upon the occurrence of an event of default, all or any part of any of the obligations and liabilities of the Contractor to the City, whether direct or contingent, and of every kind and description, shall, without notice or demand, at the option of the City, become due within an acceptable timeframe as determined by the City.

(g) The City may seek to enjoin any breach or threatened breach of any provision of this Agreement by Contractor. The right of the City to exercise any particular remedy available under this Agreement, at law or in equity, shall not preclude the City from exercising any other remedy it might have pursuant to this Agreement, in law or in equity. Each right and remedy specified in this Agreement and each other right or remedy that may exist at law, in equity or otherwise upon breach of any provision in this Agreement, shall be deemed distinct, separate and cumulative; and no right or remedy, whether exercised or not, shall be deemed to be in exclusion of any other, unless this Agreement expressly specifies an exclusive remedy or unless otherwise expressly provided in this Agreement.

Section 5.8 Emergency Condition.

(a) In the event of an Emergency Condition affecting the safety or protection of persons, the Utility Facilities, or property in the vicinity, or to avoid imminent environmental contamination, the Contractor, without special instruction or authorization from the City or City Representative, is obligated to act to avoid, prevent or mitigate such threatened damage, injury or loss. Contractor shall respond to any Emergency Condition seven (7) days a week, twenty-four (24) hours a day as soon as possible, but in any event, within two (2) hours of being notified or otherwise learning of such or related condition. Contractor shall give the City or City Representative oral notice within two (2) hours followed by written notice within one (1) Business Day after the Contractor knows or reasonably should have known in the exercise of all due diligence about the occurrence or existence of the Emergency Condition. Contractor shall, where possible, coordinate its actions with the City in an effort to ensure that all such actions are reasonable in view of the Emergency Condition or the anticipated Emergency Condition.

(b) If the Contractor believes that any significant changes in the compensation provided in this Agreement is required and merited as a result of such Emergency Condition, the Contractor may seek payment for any Additional Services performed. Payment for such Additional Services shall be governed pursuant to the terms of Section 3.2. Contractor shall provide the City documentation supporting the Additional Services performed within twenty (20) Business Days from the occurrence of the Emergency Condition. There shall be no change in the Contractor's compensation and Contractor shall remain liable for all costs associated with an Emergency Condition if the Emergency Condition was caused by the breach, negligence, willful misconduct or failure to comply with Prudent Utility Practice by Contractor, its employees, agents or subcontractors. If the City determines that a modification of the scope of services is required because of the Emergency Condition, an amendment shall be issued to document the consequences

of the changes or variations. If the Contractor fails to provide such written notice to the City Representative within one hundred twenty (120) Business Days, the Contractor shall be deemed to have waived any right it otherwise may have had to seek payment for any Additional Services and/or an adjustment to the compensation or scope of service.

Section 5.9 Emergency Replacement of Contractor. In the event of any Emergency Condition involving the Utility Facilities, if Contractor is either unable or unwilling to correct such condition, the City, directly or through a third party, may replace the Contractor without notice during the Emergency Condition, provided that at the conclusion of any such condition, the Contractor shall be reinstated by the City. Notwithstanding the first sentence of this Section 5.9, the City at its sole discretion may terminate this Agreement if the Contractor's inability or unwillingness to correct such Emergency Condition itself constitutes grounds for termination of this Agreement or the Contractor is otherwise in default as provided in Section 5.7. Contractor shall not be entitled to any compensation after the date upon which the City replaces the Contractor under this Section 5.9.

Section 5.10 Obligations Excused.

(a) Notwithstanding any other provision in this Agreement, neither the City nor the Contractor shall be liable to the other for any failure or delay in performance of any obligation under this Agreement caused by the occurrence of an Uncontrollable Circumstance.

(b) As a condition precedent to the right to be temporarily relieved of performance or obligations affected by an Uncontrollable Circumstance, the party experiencing an Uncontrollable Circumstance shall:

(i) promptly verbally inform the other party of the occurrence of the Uncontrollable Circumstance; as soon as practical, but in no event more than five (5) days thereafter, prepare and deliver to the other party a notice with a written description of (A) the commencement, nature and extent of the Uncontrollable Circumstance; (B) its estimated duration and cost, schedule, safety, service levels and quality impacts, if any, on the affected party's obligations hereunder; and (C) its estimated impact other than cost, schedule, schedule, service levels and quality impact, if any, on the party's obligations under this Agreement; and

(ii) continue to perform its other obligations hereunder to the extent practicable and use diligence to mitigate and overcome the impact of the Uncontrollable Circumstance.

Section 5.11 Dispute Resolution.

(a) Overview. Any claim, conflict, dispute or disagreement between the parties relating to this Agreement will be resolved in accordance with the procedures specified in this Agreement, which will be the sole and exclusive procedures for the resolution of any such disputes prior to litigation. Negotiations and mediation as herein prescribed are conditions precedent to litigation; however, these procedures will not apply in the case of termination for convenience by the City.

(b) Informal Negotiations/Informal Resolution. Whenever the City and Contractor have a dispute relative to this Agreement, the management level personnel will immediately attempt to resolve the dispute, subject to internal approval process.

(c) Informal Executive Level Negotiations. If managers are unable to resolve a dispute within ten (10) Business Days, Contractor and the City will attempt in good faith to resolve the dispute promptly by negotiation between executives of the City and Contractor or their designees having authority to settle the controversy, and who are at a higher level of management than persons with direct responsibility for the administration of the Services at issue.

(d) Mediation.

(i) If the City and Contractor executives are not able to resolve a dispute by negotiation within ten (10) Business Days, either party may initiate a mediation proceeding by a request in writing to the other party. The mediation is a condition precedent to filing any action by either party, subject to the right of a party to seek injunctive relief to preserve the status quo.

(ii) If the City and Contractor do not agree within ten (10) Business Days of the request for mediation on the selection of a neutral mediator willing to serve, then a mediator who has been certified as a mediator by the Florida Supreme Court shall be selected by the Florida Conflict Resolution Consortium (FCRC), Florida State University, Tallahassee, Florida, (850) 644-6320, <http://consensus.fsu.edu/resolution.html>. Both parties will promptly cooperate with the appointed mediator to effectuate mediation. All mediation proceedings will be conducted in North Miami Beach, Florida in accordance with the Florida Statutes.

(iii) Mediation will be conducted over a period of forty-five (45) days following the appointment of a mediator. If the dispute cannot be resolved within such period, or by the end of any mutually agreed continuation thereof, the City, Contractor or the mediator may give written notice declaring the mediation process terminated. If the mediation is so terminated, either party may pursue any rights it has under this Agreement, including instituting legal action.

(e) Obligation to Mediate. The parties acknowledge and agree that the obligation to mediate disputes hereunder is an essential provision and one that is legally binding on each of the parties. Either party may bring an action to enforce this obligation in the State Circuit Court of Miami-Dade County, Florida. Furthermore, the party at fault for failure to mediate shall forfeit its right to any private cause of action.

(f) Performance to Continue. Each party will continue to perform its obligations under this Agreement pending final resolution of any dispute which arises hereunder.

(g) Confidentiality of Dispute Resolution Process. All negotiations and mediations pursuant to this Agreement will be treated as compromise and settlement negotiations, and therefore confidential. Any third parties authorized to participate in mediation shall sign a confidentiality agreement agreeing to maintain the confidentiality of any discussions or documents used in the mediation process. Nothing said or disclosed, and no document produced (including any notice, response, offer, argument, admission, finding, recommendation, ruling, opinion, or conclusion), in the course of or in connection with such negotiations or mediation that is not otherwise independently discoverable and admissible as evidence shall be offered or received as evidence or used for impeachment or for any other purpose in any arbitration, litigation, administrative proceeding, or other dispute resolution process or proceeding. Any executed settlement agreement which may be reached in the event of court ordered mediation, however, may constitute a public record in accordance with Section 44.102(3), Florida Statutes. Neither the City nor Contractor shall disclose to any third party other than its legal counsel (including damage experts retained by legal counsel) or accountants or tax advisors, or, except as may be required by applicable law, any communications or negotiations related to such negotiation or mediation. Neither the City nor Contractor shall call as a witness, depose, interrogate, or interview; or attempt to call as a witness, depose, interrogate, or interview, any attorney who participated in the negotiations or mediation for the other party as to any involvement of such attorney in any aspect of such negotiations or mediation except to prove the terms of any settlement agreement.

(h) Manager Decision. If the dispute is not resolved by negotiation or mediation, the dispute will be decided by the City Manager, who will reduce the decision to writing and serve a copy to Contractor. The decision of the City's Contract Manager will be final and conclusive unless within thirty (30) days from the date of receipt of the decision, Contractor initiates a means of formal dispute resolution, which may include litigation.

(i) Venue. The exclusive venue for an action that arises out of or relates to this Agreement will be the appropriate state court in Miami-Dade County, Florida; in any such action Florida law will apply. The parties waive any right to jury trial.

(j) Payment of Fees and Costs. The prevailing party in any dispute, action or proceeding shall be entitled to an award of attorney's fees, costs and expenses through final appeal and disposition, in addition to any damages, award, remedy or relief. The parties will equally share the cost of the mediator who presides over any mediation process hereunder.

(k) Continued Operation; Delivery of Utility Service. In light of the City's interest in assuring the consistent and uninterrupted provision of utility services for its customers, Contractor acknowledges and agrees that it shall not have the right to suspend performance of its obligations under this Agreement as a result of a dispute, and shall be obligated to continue performance pending the resolution of the dispute under the procedures set forth in this Article.

Section 5.12 Operations Cooperation and Transfer

(a) Post-Agreement Transition Services. At the expiration or earlier termination of this Agreement, Contractor shall, from the date of the notice of termination or expiration make fully available its managers and employees performing services at the Utility Facilities on a month-to-month basis for a period of up to six (6) months to continue to perform all the Services contemplated in this Agreement and a Succession Transition Plan agreed upon by the parties to the extent applicable. Until the parties agree otherwise, the City shall compensate the Contractor for performing the services specified in this Section 5.12(a) in an amount equal to the daily allocated cost of the Basic Operation and Maintenance Service as set forth in the Agreement; provided, however, that such fees shall be reduced on a pro rata basis and other appropriate basis to reflect the number of Contractor employees performing services and the scope of services performed if practicable. If such reduction of the Basic Operations and Maintenance Fee is not practicable, Contractor shall be compensated for such services on a time and materials basis unless the parties agree otherwise. The City may determine that it requires a lesser amount of services, managers, personnel, subcontractors and intellectual property in order to provide a smooth and orderly transition of the operations and maintenance of the Utility Facilities to City administrators, managers and personnel or, as applicable, the City's contracted operator. Contractor shall take immediate action to assure that the City obtains all rights and interests in and to intellectual property owned or licensed by the Contractor which is necessary for the City to be able to continue to operate and maintain the Utility Facilities without delay, impairment or interruption, and shall take all action reasonably requested by Contractor to accomplish the transfer of all data, information and documents pertaining to the Utility Facilities to the City and its designee including but not limited to (i) the operation, maintenance, repair, replacement, design, engineering, procurement, installation, construction, performance, safety, inspection, assessment, control monitoring, location, position and condition thereof, (ii) comprising or contained in the books, records, accounts, reports, plans, maps, charts, graphs, specifications, operating logs, files, storage locations created, received or produced by Contractor or its subcontractor. Contractor shall fully cooperate with the City to effectuate such a transition, including the provision of training and "know-how" in the procedures and techniques employed by the Contractor in performing the Services and meeting its obligations under this Agreement.

(b) Assignment of Contracts. Upon the termination or expiration of this Agreement, the Contractor shall at no cost or expense to City assign to the City the Contractor's interest in all contracts entered into by the Contractor relative to the Utility Facilities if requested by the City in its sole discretion. The City's right to request assignment of certain contracts shall not constitute or be deemed as an obligation by the City to assume all or any of such contracts. Unless the parties otherwise agree, the City shall, however, from the date of assumption of any such contract assume the payment and performance of all contracts assigned to and assumed by it. Contractor shall exercise all reasonable efforts in negotiating contracts relative to the Utility Facilities to obtain the written consent of the other parties to such contracts

to the assignment by the Contractor of its rights therein to the City and secure contract terms and conditions that do not include damages or penalties to any assignee with respect to any assignment.

(c) **Vacating Facilities.** Upon ultimately vacating the Utility Facilities, Contractor shall leave all sites, structures, equipment, and improvements in good condition. Contractor shall properly dispose of residuals and any accumulations of waste materials, rubbish, and other debris resulting from the Contractor's activities. Contractor shall restore to original condition (ordinary wear and tear excepted) any portion of the Utility Facilities that were altered or changed by the Contractor without the City's approval.

Section 5.13 Limitations Period. Except as otherwise specifically expressed herein, all claims or actions of any description whatsoever under this Agreement, including any claim for indemnification in accordance with the terms and conditions set forth herein, shall be brought within the applicable limitations period provided in Section 95.11, Florida Statutes, or its statutory successor in function.

ARTICLE 6. GENERAL PROVISIONS

Section 6.1 Designation of City Representative.

(a) The City shall designate in writing a City Representative to act on its behalf with respect to the administration and performance of this Agreement. The City shall give Contractor written notice of the appointment of additional representatives and a change of the designated City Representative.

(b) The City Representative's activities hereunder shall be the following:

(i) Review the Services and work provided and performed by Contractor in accordance with this Agreement.

(ii) Provide criteria and information requested by the Contractor as to the requirements of the City for the Services.

(iii) Upon request from the Contractor, provide access to information in the possession of the City necessary for performance of the Services, including existing drawings, specifications, shop drawings, previous reports and any other data.

(iv) Provide notice to the Contractor of any deficiencies or defects discovered by the City with respect to the Services performed by or for the Contractor; provided that the failure of the City Representative to ascertain the existence of or discover such deficiencies and defects shall not relieve Contractor from the performance of its obligations hereunder.

(v) Assist the City with any obligations, responsibilities, or rights of the City pursuant to this Agreement.

(c) The City Representative is not authorized to issue any verbal or written orders or instructions to the Contractor that would have the effect, or be interpreted to have the effect, of modifying or changing in any way:

(i) the scope, budget, schedule, quality, schedule and requirements of the Services to be provided and performed by the Contractor under this Agreement;

(ii) the time the Contractor is obligated to commence and complete Services and the resources to be provided by Contractor; or

(iii) the amount of compensation the City is obligated or committed to pay the Contractor under this Agreement.

Section 6.2 Relationship of Parties; Manner of Performance.

(a) City Police and Governmental Power. Nothing in this Agreement or in the parties' acts or omissions in connection herewith shall be deemed in any manner to waive, impair, limit or otherwise affect the authority of the City in the discharge of its police or governmental power.

(b) No Partnership. Nothing contained in this Agreement is intended or shall be construed in any way as creating a partnership, joint venture, employee, or similar relationship between the City and Contractor. Contractor is, and shall be, in the performance of all Services, an independent contractor, and not an employee or agent of the City.

(c) Contractor Supervision and Control. All persons engaged by Contractor in the performance or provision of Services shall at all times, and in all places, be subject to the Contractor's sole direction, supervision, and control. Contractor shall determine and exercise control over all the means, methods, manner and techniques in which it and its employees perform or provide the Services in accordance with the standards and requirements of this Agreement.

(d) Contractor Personnel. Contractor represents that it has, or will secure at its own expense, all necessary personnel required to perform the Services under this Agreement as set forth in the functional Organizational Chart attached as Exhibit 8. Personnel of the Contractor shall not be employees of or have any contractual relationship with the City, nor shall such personnel or employee of the Contractor be entitled to any benefits of the City including pension, health and worker's compensation benefits. The parties acknowledge and agree that the City has no obligation to offer employment to or otherwise hire or engage any employee or personnel of Contractor at the expiration or earlier termination of the Agreement.

(e) Subcontractors. All of the Services required hereunder shall be performed by the Contractor or under its supervision, and all personnel, employees and Subcontractors engaged in performing the Services shall be fully qualified and, if required, licensed, registered, authorized or permitted under state and local law to perform the Services.

(f) Warranty Repairs. Contractor, at its sole expense, shall cause Subcontractors and vendors who are engaged to perform any Repair and Replacement Services to correct or replace any material or equipment or work relating to any system, equipment or material furnished by such Subcontractor or vendor that is defective or faulty in material or workmanship for a period of one (1) year after the completion of such work. Following such one (1) year period, any such correction or replacement will be considered a separate event and a Repair and Replacement Service. For main line or service line repairs or replacements, the warranty period shall be two (2) years and otherwise follow the requirements and provisions of this paragraph.

(g) Badges. All Contractor field personnel and personnel interacting with the public shall be required to wear at all times a uniform and identification badge.

(h) Verification of Employment Eligibility. Contractor is responsible for verifying the eligibility of all personnel for employment and checking its employees for proof of a valid Florida driver's license.

(i) Status of Contractor. The parties agree that Contractor is not the City, or a board or commission of any City division, or a district, authority, officer, division, board, bureau, commission, or other separate unit of government created or established by law (an "Agency of Government"), nor is Contractor an alter ego, agency or instrumentality of any Agency of Government; and nothing contained in this Agreement shall be construed as creating in or conferring upon Contractor the rights, duties or obligations of an Agency of Government. The City agrees to cooperate with and offer reasonable assistance to Contractor in connection with any claim that Contractor has the rights, duties, or obligations of an Agency of Government; provided, however, that Contractor shall comply with the applicable requirements of the Public Records Law, Chapter 119, Florida Statutes.

(j) **No Personal Liability.** No officer, official, member, representative, or employee of the City shall be personally liable to Contractor or any Subcontractor or any successor in interest in the event of any default or breach by the City or for any amount which may become due to Contractor or successor or on any obligations of the City under the terms of this Agreement.

Section 6.3 Compliance with Revenue Procedures. Contractor and the City acknowledge and agree that this Agreement is intended to, and does comply in all material respects with the requirements of Section 141 of the Internal Revenue Code of 1986, as amended, and the regulations promulgated thereunder (the "Code") and particularly Revenue Procedure 2017-13, as such Revenue Procedure may be modified or superseded, from time to time (collectively, the "Revenue Procedure") as currently interpreted. Contractor agrees to prepare and submit to the City any budgets, estimates of costs or other information about the forecasted cost to the City of the performance of the Service upon the reasonable request by the City in order to comply with the requirements of the Revenue Procedure. Contractor agrees that it shall not take any tax position that is inconsistent with being a service provider to the City with respect to the Utility Facilities. If any provision of this Agreement should cause the Agreement not to comply with the requirements of the Code or the Revenue Procedure as interpreted from time to time, this Agreement shall be amended to comply with the Code and the Revenue Procedure. Contractor and the City acknowledge and agree that, notwithstanding anything in this Agreement to the contrary, this Agreement shall be amended by the parties in order to comply with any future legislative, regulatory or administrative changes to such provisions under the Code or the Revenue Procedure during the term of this Agreement.

Section 6.4 Authority to Perform. Contractor shall continuously maintain all permits, licenses, approvals and other Governmental Authorizations required to be held by the Contractor under applicable Law to provide the Services. Proof of all such permits, licenses, approvals and other Governmental Authorizations shall be submitted to the City annually on October 1st and upon request.

Section 6.5 Access and Audits. Contractor shall maintain adequate books, accounts and records to justify all charges, expenses and costs incurred in estimating and performing the Services and all Additional Services for at least three (3) years after the termination of this Agreement. The City, City Representative or their contracted representatives shall have access to such books, records, accounts and documents as required for the purpose of inspection or audit, during normal business hours, and such books, records and documents shall be kept by Contractor at a place of business of the Contractor within the State of Florida unless otherwise agreed upon by the parties. Contractor shall be subject to an annual independent financial audit with respect to Additional Services provided pursuant to this Agreement and a separate, annual performance audit relating to its performance and provision of the Services under this Agreement and any Services performed on a time and materials, cost plus or other such basis. Any such audit shall be undertaken by an auditor or auditors selected and paid for by the City. Contractor shall cooperate with and facilitate the conduct of any such audits, including by making available books, records, accounts and documents and personnel reasonably requested by City.

Section 6.6 General Insurance Requirements.

(a) **Insurance Policies.** Contractor shall purchase at its cost and maintain at all times the insurance policies and coverages and associated provisions as listed in Exhibit 21 for limits of liability not less than the amount stated for each coverage in Exhibit 21.

(b) **Compliance with Laws.** To the extent not otherwise stated herein, and in addition to any other requirements set forth herein, the Contractor shall operate and maintain the Utility Facilities in accordance with the following laws and regulations, as applicable: (i) Chapter 440, Florida Statutes, Workers' Compensation Law, as amended; (ii) Florida Administrative Code Chapters 38F and 38I, as amended, relating to Workers' Compensation; (iii) 29 Code of Federal Regulations 1910 and 29 Code of Federal Regulations 1926, Occupational Safety and Health Act, General Industrial Standards and Construction Industrial Standards, respectively; and (iv) the Florida Toxic Substances Act.

(c) **Failure to Insure.** If Contractor at any time fails to maintain the insurance coverages required in this Section 6.6 and Exhibit 21, the City, at its discretion, shall be authorized to purchase such coverages and charge the Contractor for such coverages purchased or set off against and deduct such cost from the monthly payment due for the Basic Operations and Maintenance Services Fee. The City shall be under no obligation to purchase such insurance or to be responsible for the coverages purchased or the financial stability of the insurance companies used and failure of the City to purchase such insurance shall not lessen or release the Contractor of its obligations as provided in this Section 6.6.

(d) **City Insurance.** The City may at its election in its sole discretion secure and maintain at its expense property damage insurance for the Utility Facilities. Contractor acknowledges that City makes no representation or warranty, express or implied, with respect to the adequacy of the insurance required hereunder.

Section 6.7 Notice of Claims. Within forty-eight (48) hours of Contractor becoming aware of its occurrence, the Contractor shall notify the City in writing of all incidents, events, conditions, damages or injuries which the Contractor reasonably believes may result in a claim of ten thousand dollars (\$10,000.00) or more, arising out of the operation, maintenance or repair of the Utility Facilities and/or Contractor's performance of the Services and its obligations under this Agreement, including claims relating to workplace injuries. Contractor shall notify the City of any claim arising out of Contractor's performance under this Agreement and established and accepted by the Contractor as a liability of the Contractor under its commercial insurance or self-insurance which is paid in an amount equal to or greater than ten thousand dollars (\$10,000.00). Contractor shall notify the City of any death arising out of the Contractor's performance under this Agreement. Contractor shall notify the City of any and all events, accidents, injuries, incidents, suits or claims which name or otherwise may involve or create a liability for the City or arise out of or result from the provision by the Contractor of the Services, including any events involving contamination, environmental conditions pollution at, on, or near the Utility Facilities. All notices required under this Section 6.7 shall be provided promptly and in no event more than forty-eight (48) hours after the Contractor learns of same. Contractor shall provide information, data and documents relating to such occurrences, events, claims and suits as requested by City.

Section 6.8 Indemnification and Limit of Liability. Contractor agrees to protect, defend, indemnify and hold the City and its officers, employees and agents harmless from and against any and all liabilities, judgments, actions, investigations, proceedings, claims, losses, damages, and expenses, including attorney's fees and all reasonable costs of litigation and judgments arising out of any breach of this Agreement, willful misconduct, negligent act, or failure to act or infringement, misappropriation or unauthorized use of a third-party patent, license, right of use or other intellectual property by the Contractor, its Subcontractors, agents or employees, arising out of, relating to or incidental to the performance of this Agreement. With respect to any action filed for purposes of protesting or challenging the execution, delivery or enforceability of this Agreement, the parties agree to diligently and in good faith cooperate in and coordinate the defense of such action to the extent practicable under the circumstances, and Contractor shall indemnify and reimburse attorney's fees and costs incurred by the City in the defense of any such action to the extent arising out of, caused by or resulting from any act or failure to act of Contractor, up to a maximum of \$100,000.

(b) Neither this Agreement, the performance and administration hereof nor the consummation of the transactions contemplated hereunder shall affect or be deemed to affect the rights, privileges, immunities, exemptions, limitations of liability, affirmative defenses and defenses of the City under Florida Statute Section 768.28 and other applicable laws of the State of Florida. The City acknowledges that it remains liable for its own torts and the torts of its employees as provided in section 768.28, Florida Statutes, and to the extent provided by Florida Law.

(c) Each party acknowledges that it will use reasonable efforts to include in the general conditions of any construction contract or Subcontractor contract relating thereto with an entity not a party

to this Agreement, text reasonably satisfactory to the other party, in which the third party agrees to hold harmless and to defend the party and the other party, its agents and employees from all suits and actions, including attorney's fees, and all reasonable costs of litigation and judgments of any name and description arising out of or incidental to the performance of the construction contract or work performed for the Utility Facilities.

(d) Contractor shall indemnify, hold harmless and defend the City, its officers, agents, and employees, from and against any claim, demand or cause of action of whatsoever kind or nature arising out of any negligent act, breach, or violation of law of Contractor, its officers, agents, or employees, in the performance of Services and activities under this Agreement. Additionally, Contractor shall indemnify, hold harmless and defend the City, its officers, agents, and employees from and against any claim, demand, cause of action of whatsoever kind or nature arising out if any misconduct of Contractor, its officers, agents, and employees, not included hereinabove and for which the City, its officers, agents, and employees are alleged to be liable. When pursuing any losses, damages or indemnity claims against the other party, both the City and Contractor are required to act in a commercially reasonable manner to mitigate or limit the amount of damages for which it intends to hold the other party accountable.

(e) Subject to Florida Statutes 768.28 and limitations of liability set forth herein, and without waiver of any rights, exemptions, immunities, defenses or limitations of liability under sovereign immunity, City agrees to indemnify the Contractor and its officers, employees and agents harmless from and against any and all liabilities, judgments, actions, investigations, proceedings, claims, losses, damages, and expenses, including attorney's fees and all reasonable costs of litigation and judgments arising out of any willful misconduct or any negligent act, by the City, its subcontractors, agents or employees relating to NMB Water.

(f) Contractor and City recognize that as of the Execution Date existing conditions within collection systems may vary and that failures may occur in the systems over time as a result of conditions and occurrences not within the control of Contractor. Contractor agrees to exercise due diligence to maintain free-flowing conditions within these systems and to clean the sanitary collection system in accordance with the industry standard schedule and Prudent Utility Practice, but under certain circumstances may not be able to prevent blockages or backups in sections of the system that have not yet been cleaned. Therefore, the agreement of the City under this Section 6.8(f) includes, subject to Florida Statutes 768.28, the defense of Contractor against claims for injury, property damage, or economic loss arising from failures in the sanitary collection systems during the first Contract Year, to the extent not caused by or resulting from Contractor's breach, negligence, willful misconduct, or violation of applicable Law or Governmental Authorizations or the failure to clean any sections of the collection system in accordance with the applicable plan and schedule therefor. Furthermore, subject to Florida Statute 768.28, the City agrees to indemnify Contractor in accordance with this Section 6.8(f) against such claims for injury, property damage, or economic loss arising from failures in the sanitary collection systems during the first Contract Year to the extent not caused by or resulting from Contractor's breach, negligence, willful misconduct, or violation of applicable Law or Governmental Authorizations.

(g) Except as expressly, specifically set forth herein, neither party shall be liable to the other party for any special, incidental, consequential, punitive or similar damages based upon claims arising out of or in connection with the performance or non-performance of its obligations under this Agreement, whether such claims are based upon contract, tort, negligence, warranty or other legal theory.

Section 6.9 Limitations of Liability.

(a) With the exception of those Losses and Expenses recoverable by the City from Contractor as set forth in Section 6.9(b), the Contractor's aggregate liability under this Agreement with respect to damages to the City arising out of the performance or non-performance of the Services shall be limited as follows:

(i) During the period from the Execution Date until the fifth anniversary of the Commencement Date, Contractor's liability to the City for Losses and Expenses related to Contractor's performance or non-performance under this Agreement in any Contract Year shall be limited to one hundred percent (100%) of the O&M Fee in the Contract Year in which the event occurred;

(ii) During the period from the fifth anniversary of the Commencement Date to the tenth anniversary of the Commencement Date, Contractor's liability to the City for Losses and Expenses related to the Contractor's performance or non-performance under this Agreement in any Contract Year shall be limited to seventy-five percent (75%) of the O&M Fee in the Contract Year in which the event occurred; and

(iii) In the event that the initial term of this Agreement is renewed for five years in accordance with the terms hereof, during the period from the tenth anniversary of the Commencement Date to the expiration of the five-year renewal term, Contractor's liability to the City for Losses and Expenses related to the Contractor's performance or non-performance under this Agreement in any Contract Year shall be limited to twenty-five percent (25%) of the O&M Fee in the Contract Year in which the event occurred

Subject to Section 6.9(b), the Contractor's aggregate liability under this Agreement for Losses and Expenses resulting from the Contractor's performance or non-performance of such Program Management Services shall be limited to the value of the applicable Work Order.

(b) Notwithstanding Section 6.9(a), there shall be no limitation on the liability of Contractor for Losses and Expenses incurred by the City arising out of or caused by the following:

(i) Any failure by Contractor to pay or credit amounts due and owing to City with respect to KPIs;

(ii) Any third party claim for which Contractor is obligated to indemnify the City and City indemnities;

(iii) Any claim for infringement, misappropriation or impermissible use by Contractor or by any Subcontractor of intellectual property of a third party;

(iv) Any third party claim for unauthorized disclosure or use of personally identifiable information of any past, current or future customer of NMB Water or employee of Contractor;

(v) Any failure by Contractor to comply with the requirements of Florida Statutes 119.07;

(vi) Any fines, penalties, assessments, impositions, remedial costs or other amounts imposed by a Governmental Authority for violations or non-compliance by Contractor with applicable Laws; and

(vii) Any Losses and Expenses which are covered by insurance policies which Contractor is required to have under this Agreement up to the limits of such insurance policies specified in this Agreement.

(c) If Contractor causes the City to incur Losses and Expenses in any Contract Year which exceed the limitations of liability set forth in Section 6.9(a), the City shall have the right to terminate this Agreement without any further obligation or liability hereunder, including but not limited to any obligation to pay Contractor any amount in respect of a Termination for Convenience which occurs during the first ten (10) Contract Years.

Section 6.10 Modification of Scope of Services.

(a) The City shall at all times during the term of this Agreement have the right to request unilateral changes in the scope of Services, including alterations, reductions or additions. Within five (5) days after receipt by the Contractor of the City's notification of the contemplated change, the Contractor shall in writing: (i) provide a detailed estimate for the increase or decrease in cost due to the contemplated change, (ii) notify the City of any changes in work schedules, (iii) advise the City if the contemplated change shall affect the Contractor's ability to perform or provide the Services in a manner consistent with the requirements and performance standards under this Agreement, and (iv) advise the City if the contemplated change is within the capabilities of the Contractor.

(b) If the City so instructs in writing, the Contractor shall suspend work on that portion of the Services affected by the contemplated change, pending the City's decision whether to proceed with the change.

(c) If the City elects to make a change in this Agreement, the City shall initiate an amendment to this Agreement, and unless the parties execute an interim change order hereunder, the Contractor shall not commence work on any such change until such written amendment is agreed to and signed by the Contractor and the City.

(d) If a Change in Law causes an increase or decrease in the scope of the Basic Operation and Maintenance Service, subject to confirmation by the City of such change, the Basic Operations and Maintenance Services Fee shall be increased or decreased in an amount to be negotiated by the parties and agreed to in writing prior to the Execution Date of such adjustment.

Section 6.11 Conflicts.

(a) No Conflict. Contractor represents that Contractor is in compliance with Section 1.44 of the RFQ with regard to conflicts of interest and that Contractor does not have any interest and shall acquire no interest, either direct or indirect, which would conflict in any manner with the performance or provision of the Services and its other obligations, covenants and agreements hereunder. Contractor comply with the requirements of Section 2.4 of the RFP with respect potential conflicts of interest, including the requirement that the Contractor shall promptly notify the City of all potential conflicts of interest of Contractor for any prospective business association, interest or other circumstance which may influence or appear to influence the Contractor's judgment or the quality of the Services to be provided under this Agreement. Such notification shall be in writing and include an identification of the prospective business association, interest or circumstance, the nature of the work the Contractor may undertake and request a determination from the City as to whether the association, interest or circumstance would be considered to constitute a conflict of interest if entered into by the Contractor, and any other information reasonably requested by the City.

(b) Response to Notice of Conflict. The City shall respond to the Contractor in writing within thirty (30) days of receipt of the notice by the Contractor of an actual or potential conflict of interest and receipt of all other information relating thereto requested by the City. If the City determines the prospective business association, interest or circumstance does not appear to constitute a conflict of interest by the Contractor, the City shall so state in the response and the Contractor may, at its option, enter into said association, interest or circumstance on the terms disclosed to the City and it shall be deemed not in conflict of interest as a result thereof with respect to Services provided by the Contractor.

Section 6.12 Right to Enter, Inspect and Test. At all times the City, City Representative or any of their representatives or agents shall have the right, but not the obligation or duty, to enter upon the Utility Facilities to inspect and observe the performance or provision of the Services and, at the City's sole cost, perform sampling and testing to determine compliance of Contractor with its obligations under this Agreement. During all such visits, the City, City Representative or any of their representatives or agents shall follow Contractor's published work place safety policies and procedures.

Section 6.13 Applicable Law; Jurisdiction and Venue.

(a) **Law; Venue.** This Agreement shall be governed by, and construed in accordance with, the laws of the State of Florida, both substantive and remedial, without regard to principles of conflict of laws. The exclusive venue for any litigation arising out of this Agreement shall be Miami-Dade County, Florida, if in state court, and the U.S. District Court, Southern District of Florida, if in federal court.

(b) **JURY TRIAL WAIVER.** BY ENTERING INTO THIS AGREEMENT, TO THE MAXIMUM EXTENT PERMISSIBLE UNDER LAW, CITY AND CONTRACTOR EXPRESSLY WAIVE ANY RIGHTS EITHER PARTY MAY HAVE TO A TRIAL BY JURY OF ANY CIVIL LITIGATION ARISING OUT OF, RELATING TO, RESULTING FROM OR IN CONNECTION WITH THIS AGREEMENT.

Section 6.14 Notice.

(a) All notices, certificates or other communications hereunder shall be sufficiently given and shall be deemed given when hand delivered, delivered by recognized courier or delivery service or mailed by registered or certified mail, postage prepaid, to the parties at the following addresses:

To the City:

Procurement Management Division
City of North Miami Beach, 3rd Floor
17011 NE 19th Avenue, Suite 315
North Miami Beach, Florida 33162
Telephone No. (305) 948-2946
Facsimile No. (305) 957-3522

With a copy to:

City Manager's Office
City of North Miami Beach
17011 NE 19th Avenue, 4th Floor
North Miami Beach, Florida 33162
Telephone No. (305) 948-2900
Facsimile No. (305) 957-3602

Office of the City Attorney
City of North Miami Beach
17011 NE 19th Avenue, 4th Floor
North Miami Beach, Florida 33162

To Contractor:

CH2M Hill Engineers, Inc.
Attn.: Jerry Notte
3150 SW 38 Avenue Suite 700
Miami, Florida

CH2M Hill Engineers, Inc.
Attn.: Carolyn Cryer
9193 S Jamaica Street, Suite 400
Englewood, CO 80122
Telephone: (720) 286-4034
Email: Carolyn.Crier@ch2m.com

With a copy to:

CH2M Hill Engineers, Inc.
Attn.: Senior Counsel for State and Local Government

9191 S Jamaica Street, Suite 400
Englewood, CO 80122
Telephone: (720) 286-4205
Email: Catherine.lang@ch2m.com

(b) Any written notice given to one person in subsection (a) of this Section 6.14 shall also be provided to all other persons identified in subsection (a).

(c) Each party may, by notice in writing given to the others, designate any future or different addresses to which the subsequent notices, certificates or other communications shall be sent.

Section 6.15 Media Relations. Contractor shall consult with and receive the City's approval prior to (a) responding to inquiries from the media or (b) initiating contact with the media, in either case, regarding the Services or the Utility Facilities. Contractor also shall not issue news releases at any time or of any kind, in writing or orally, pertaining to this Agreement or the Services hereunder without, in each instance, the prior approval of the City. Contractor shall not use the name or logo of the City, the Utility Facilities, City Commission members, or other contractors in any advertising, brochures, marketing, public relations documents or news releases, regardless of the medium or means of communication without prior written consent of the City; provided, however, Contractor may use or furnish the City's name, address and telephone number as a client reference.

Section 6.16 City's Marks. Contractor shall not use the name of the City or any City departments or of their respective symbols, logos, trademarks or other representations without the express written consent of the City and any applicable department. Contractor shall not, during the term of this Agreement, change signage at any Utility Facilities which incorporates the name or marks of the City or departments of the City without the express written consent of the City in its discretion. Notwithstanding the foregoing in this Section 6.16, the parties agree that as of the Execution Date, the Contractor shall have the right to use the City logo which is attached as Exhibit 26 on vehicles and signage used in the performance of the Service, subject to the approved by the Director of NMB Water.

Section 6.17 Assignment.

(a) **City Consent to Assignment by Contractor.** Contractor shall not have the right to assign this Agreement or any of its rights, duties or obligations under this Agreement without the prior written consent of the City upon a demonstration by the proposed assignee of its ability to perform the obligations of the Contractor under this Agreement. An assignee shall be required to assume the obligations of the assigning party by written assignment in a form and substance satisfactory to the City. Any assignment of this Agreement consented to by the City shall be an assignment of the Agreement in its entirety unless specifically consented to by the City; provided, however, this prohibition shall not apply to an Affiliate of the Contractor if such separate assignment shall not, in the judgment of the City, interfere with the performance of the obligations and duties of Contractor hereunder and the provision of the Services.

(b) **Assignment by City.** The City reserves the right to assign its rights and obligations under this Agreement to any validly constituted local government, agency or authority or to any quasi-governmental entity contracted by the City to perform services to manage, operate and maintain the Utility Facilities. The City shall provide the Contractor with prior notice of such assignment.

(c) **Change in Control.** It will be an event of default by Contractor for which the City's remedies will include termination of the Agreement if there is a material change in control in the management and/or policies of Contractor, whether arising out of a single or successive change in ownership, merger, agreement or otherwise unless Contractor provides notice thereof to the City and reasonable assurances that such Change in Control will not have any material adverse effect on Contractor's ability to perform the Services and its obligations hereunder.

(d) **Third Parties.** Except as otherwise expressly provided in this Agreement, the Agreement shall be construed as solely for the benefit of the City and the Contractor, their successors and assigns, and no claim, cause of action, right, remedy, benefit or privilege shall accrue to or be for the benefit of any third party by reason of the execution of this Agreement.

Section 6.18 Amendments and Waivers.

(a) **Waivers.** A failure or delay by either party to take any action with respect to any breach, default, non-performance or violation by the other party of any of the terms, covenants, or conditions of this Agreement shall not in any respect limit, prejudice, diminish, or constitute a waiver of any rights of such party to act with respect to any prior, contemporaneous, or subsequent breach, default, non-performance or violation or with respect to any continuation or repetition of the original breach, default, non-performance or violation. No waiver of any of the provisions of this Agreement shall be deemed or shall constitute a waiver of any other provision of this Agreement, whether or not similar, unless otherwise expressly provided. No waiver of a default or a breach of any provision of this Agreement shall operate nor be construed to operate as a waiver of any subsequent default or breach.

(b) **Amendment.** No amendment, supplement, modification or waiver of this Agreement shall be binding upon any party unless executed in writing by such party.

(c) **Actions Taken Pursuant to Agreement.** The parties acknowledge that this Agreement sets forth procedures and intended results with respect to various circumstances which may arise during the term of this Agreement. Such circumstances include Changes in Law and Uncontrollable Circumstances, the preparation, revision and updating of budgets, operating plans and schedules; revisions and modifications to the Key Performance Indicators; the preparation, revision and updating of manuals, policies and procedures; and the provision of transition services at the expiration or earlier termination of this Agreement. Unless otherwise agreed to by the parties, any such correspondence, report, submittal, revision, update, consent or other document or communication given pursuant hereto on account of such a circumstance shall be considered as between the parties to be an action taken pursuant to this Agreement and not an amendment hereto.

Section 6.19 Severability. If any clause, provision, subsection, Section or Article of this Agreement shall be ruled invalid by any court of competent jurisdiction, then the invalidity of such clause, provision, subsection, Section or Article shall not affect any of the remaining provisions hereof, and this Agreement shall be construed and enforced as if such invalid portion did not exist. The parties shall endeavor in good faith negotiations to replace the invalid illegal or unenforceable provisions with valid provisions the economic effect of which closely approximates that of the invalid, illegal, or unenforceable provisions.

Section 6.20 RFQ Proceeding Costs and Fees. Contractor and its Affiliates shall pay their respective legal and advisor fees and expenses, and other costs, incurred in the RFQ process and in negotiating and entering into this Agreement. Contractor shall pay to the City the legal and advisor fees and costs incurred by City in negotiating and entering into this Agreement not to exceed two hundred thousand (\$200,000.00) dollars. Payment of the reimbursement will be spread over a period of three (3) years in equal annual installments, with the first of such payments required to be made on or before July 1, 2018 and subsequent installments shall be made on July 1 of successive years. If this Agreement terminates prior to the full reimbursement of such legal and advisor fees by Contractor to City, any unpaid balance shall be due and payable as of the date of such termination. City shall have the right to set off against any amount payable by the City to Contractor hereunder any amount of such legal and advisor fees which Contractor fails to pay when due and owing. Contractor may pre-pay the outstanding balance of the reimbursement amount at any time without any additional charge.

Section 6.21 Further Assurances. The City and Contractor shall each, from time to time, execute, acknowledge and deliver such further instruments, and perform such additional acts, as the other

may reasonably request in order to effectuate the intent and purposes of this Agreement; provided that execution of such instrument and performance of acts shall be at no material cost, expense or fee to the party requested to provide such cooperation and shall not impose any obligation, covenant or burden on the parties or diminish or impair exercise of any right, remedy, power or authority of either party.

Section 6.22 Appropriation. City will be relieved of performance of its obligations under this Agreement and any Work Orders issued hereunder unless funds are appropriated therefor by the City Commission and in such case Contractor's sole and exclusive remedy shall be to terminate the Agreement subject to Contractor's obligation under the Agreement to provide transition services.

Section 6.23 Entire Agreement. This Agreement, together with Work Orders executed by the parties hereunder, is the entire agreement between the parties and this Agreement supersedes all prior and contemporaneous agreements, understandings, negotiations, and discussions of the parties, whether oral or written, pertaining to the subject matter hereof. Any oral representations or modifications concerning this Agreement shall be of no force and effect. The Appendices, Exhibits and Schedules hereto and each of the documents referred to therein are incorporated and made a part hereof in their entirety by reference. To the extent not in conflict with the express terms, conditions and provisions of this document, Contractor's proposals in response to the City's RFQ and the RFQ and all addendum thereto are hereby incorporated into this Agreement and by this reference made a part hereof. This Agreement is the product of negotiation and no party shall benefit or be burdened in the interpretation hereof on the basis of its involvement in the drafting or preparation of this Agreement.

Section 6.24 Contractor Public Records Responsibilities.

(a) Contractor shall comply with the requirements of Florida Statutes 119.071 to the extent applicable to Contractor. **IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS AGREEMENT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT (telephone number: (305) 787-6001, e-mail address: CityClerk@citynmb.com, and mailing address: Pamela Latimore, City Clerk, NMB City Hall, 17011 N.E. 19 Avenue, North Miami Beach, Florida 33162-3100).**

(b) Contractor is required to comply with public records laws, and specifically to: (i) keep and maintain public records required by the City to perform the Service and Contractor's obligations under the Agreement, (ii) upon request from the City's custodian of public records, provide the City with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119 of the Florida Statutes or as otherwise provided by law; (iii) ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the Agreement term and following completion of the Agreement with respect to any records that the Contractor does not transfer to the City, (iv) upon the completion of the Agreement, transfer, at no cost, to the City all public records in possession of the Contractor or keep and maintain public records required by the City to perform the Services, and if the Contractor transfers all public records to the City upon completion of the Agreement, the Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements; provided, however, if the Contractor keeps and maintains public records upon completion of the Agreement, the Contractor shall meet all applicable requirements for retaining public records and (v), with respect to public records stored electronically, such records must be provided by Contractor to the City, upon request from the City's public agency's custodian of public records, in a format that is compatible with the information technology systems of the City.

Section 6.25 Audit Rights.

(a) The State of Florida Office of the Auditor General, and the City (or alternative third party vendor reasonably acceptable to Contractor), have authority to perform audits. All such Persons shall have access to electronic and physical records in the possession of the Contractor or its Subcontractors related to or created as a result of this Agreement. The following records are specifically excluded from inspection, copying, and audit rights under this Agreement, unless those documents would be required to be produced for inspection and copying under the requirements of Chapter 119, Florida Statutes, and any other provision of the Florida Statutes, or Article I, Section 24, of the Florida Constitution: (i) financial and other internal company records of the Contractor or its Subcontractors that are not created or received in connection with this Agreement, (ii) documents that are confidential attorney work product or subject to attorney-client privilege, and (iii) information of the Contractor, its affiliates, or its Subcontractors (to include any of their other customers) that is confidential, proprietary or is a trade secret.

(b) The City agrees to share any of its audit findings with Contractor, and Contractor agrees to respond to audit findings within twenty (20) Business Days of receipt of the audit findings. The date for responding to audit findings may be extended if Contractor is acting diligently and needs the additional time.

Section 6.26 Third party Monitoring. The City reserves the right to contract for third party consultant services to deliver independent verification and validation (“IV&V”) that provides an objective assessment of Services, products, processes, and contract requirements throughout the term of this Agreement. The third party consultants shall execute a nondisclosure agreement, and shall have the authority to access any and all documents, information or gain other access afforded the City under this Agreement. The fees and costs of the consultants shall be borne by the City unless otherwise agreed by the parties.

Section 6.27 Monitoring, Review and Inspection by City. No review, comments or approval to be made by or for the City or any observation, review, audit or inspection of any activities by Contractor and its Subcontractors in connection with performance by Contractor of the Services and its obligations hereunder, including as relates to the design, construction, alteration, management, operation, maintenance or repair of Utility Facilities under this Agreement shall create or result in any obligation or liability for the City for any breach, failure, non-performance by Contractor of its obligations, covenants, representations, warranties and agreements under this Agreement or in any way release, relieve, discharge or acquit Contractor from any of its obligations covenants, representations, warranties and agreements under this Agreement.

Section 6.28 Counterparts. This Agreement and any Work Orders issued hereunder may be executed in any number of counterparts, each of which will be deemed an original, but all of which taken together will constitute one single agreement between the parties.

[REMAINDER OF PAGE BLANK – SIGNATURE PAGE(S)]

IN WITNESS WHEREOF, both parties indicate their approval and acceptance of this Agreement by their signatures below.

Attest:

Andrise Bernard
PAMELA LATIMORE, CITY CLERK
Acting

For CITY:

Ana M. Garcia
ANA M. GARCIA, CITY MANAGER
Acting

APPROVED AS TO LEGAL FORM AND SUFFICIENCY
(FOR USE AND RELIANCE BY CITY ONLY)

Jose Smith 5/23/17
JOSE SMITH, CITY ATTORNEY

For CH2M HILL ENGINEERS, INC.

By: [Signature]

Name: OREG MCGUIRE

Title: PRESIDENT, STATE & LOCAL

Date: 5/22/17 Government

Exhibit 1

SCOPE OF SERVICES & CONTRACTOR RESPONSIBILITIES

Section 1.0 Operation and Maintenance for Water Treatment Plant, Collection and Distribution Systems.

The scope of services shall include all operation, maintenance, management, and analysis activities required to operate the water treatment plant, lift stations, SCADA system, booster stations, hydrants, water distribution systems and wastewater collection systems. The scope of services shall include:

1.1 Contractor shall maintain, manage, and repair the Utility Facilities identified in Section 12.0 and shall perform the services set forth in this Agreement with Prudent Utility Practice.

1.1.1 Within the design capacity and capability of the Water Treatment Plant (WTP), manage, operate, and maintain the WTP so that finished water discharged from the WTP meets the requirements specified by the State of Florida and U.S. EPA for Public Water Systems and National Primary Water Treatment Regulations. Contractor shall be responsible for meeting potable water quality limitations established therein unless the raw water supply contains materials or liquids contained in the raw water supply, which detrimentally affect the machinery, infrastructure or processes at the Project.

1.2 Contractor shall provide onsite a sufficient number of certified and qualified personnel, including management, administrative, operational, technical and clerical, who meet relevant legal requirements and certifications regarding operation and maintenance according to the State of Florida and permit requirements and are capable and demonstrate experience necessary to operate and maintain the Utility Facilities.

1.3 Contractor shall provide ongoing training and education for appropriate personnel in all necessary areas of modern process control, operations, laboratory, energy management, customer service, maintenance, repair, safety, supervisory skills and emergency operations.

1.4 Contractor shall develop and implement an organized in-house safety program that will include regularly scheduled safety training sessions for all plant personnel; standard operating procedures for chemical handling, confined space entry, and emergency response; and the care and use of the proper safety equipment to perform these procedures.

1.5 Contractor shall provide a Class A lead operator on site for the WTP for a minimum of eight hours a day for five days a week. An operator meeting the lead operator classification level of the WTP (Class A) shall be available to be contacted as needed to initiate appropriate action in a timely manner twenty four (24) hours per day. Contractor shall provide a Class C or higher water treatment plant operator onsite twenty (24) hours per day.

1.6 Contractor shall assume full responsibility for the continuous operation of the Utility Facilities (subject to the limitations set forth in Section 14.0 and shall operate, manage, maintain, repair and monitor the Utility Facilities in accordance with the requirements established by the Applicable Laws and Governmental Authorizations. Contractor shall be fully responsible for meeting or exceeding the general performance requirements of the Governmental Authorizations.

1.7 Contractor shall provide and pay for personnel to perform the Services set forth in this Agreement, personnel related incidental expenses such as tools and safety supplies.

1.8 Contractor shall be responsible for providing water and sewer line locates based on accuracy of CITY maps as requested by Sunshine State One Call System and CITY Administration. The costs for locate services shall be the responsibility of the Contractor. Any damage caused as a result of an incorrect CITY maps shall be the responsibility of the CITY. Any damage caused by an incorrect locate marking by the Contractor which is outside the margin of error as set forth by industry standards shall be the responsibility of the Contractor.

1.9 All costs for materials and supplies related to Routine Maintenance of the CITY's generators will be paid by the Contractor. All repairs of generators will be considered Repair and Replacement.

1.10 All subcontracted labor, and cost required, as part of the maintenance and repair of the generators, will be considered Repair and Replacement. Access to the portable generators shall be provided to CITY Administration at all times.

1.11 Contractor shall meet with representatives of the CITY as needed and as requested by the CITY or, at minimum at least weekly, to review operations, reports and costs. Contractor shall maintain meeting minutes and make the minutes available to the City. Contractor shall maintain a professional, responsible and responsive working relationship with representatives of the City, regulatory authorities, suppliers of materials, utilities and services, and the public.

1.12 Contractor shall be responsible for all streets sidewalks, driveways and landscape repairs as a result of the routine and emergency repairs of water and sewer lines. Costs for outside services related to routine and emergency repairs of water and sewer lines will be considered Repair and Replacement.

1.13 While performing field services under the Agreement, all personnel shall wear uniform shirt with the City/Contractor logo or professional attire and shall wear a City/Contractor identification tag in accordance with the agreed upon professional image guidelines.

1.14 While performing services under the Agreement, required personnel shall be equipped with communication equipment, which may include City Radios and/or cellular telephones.

1.15 Contractor shall maintain sufficient inventory of critical consumable materials and spare parts required for operation of the Utility Facilities.

1.16 Contractor shall develop a program to periodically calibrate meters used to measure flow to include those meters that require calibration as part of the City's operating permit.

Section 2.0 Operation and Maintenance/Staffing for Customer Service, Utility Billing, and Meter Reading

2.1 Contractor shall maintain, manage, and operate the City's Customer Service and Meter Reading functions to include the Automated Meter Information (AMI) system, and shall commit to maintaining a level of customer support meeting the industry standards of timeliness, accuracy, and customer account management.

2.2 Contractor shall utilize the City designated customer service center where customers may pay bills, make service requests (turn-ons, turn-offs, temporary meters, etc.), file complaints and suggestions, report abnormalities and generally receive basic Customer Services in a manner consistent with the current operation unless an alternate solution for these services is presented to and accepted by the City.

2.3 Contractor shall provide a sufficient number of qualified personnel, who meet relevant legal requirements and certifications and are capable and demonstrate experience necessary to operate and maintain the Customer Service, and Meter Reading functions.

2.4 While performing services under the Agreement, required personnel shall wear appropriate City/Contractor logo uniforms, shirts and/or professional attire and shall wear a City/Contractor identification tag according to the agreed upon professional image guidelines.

2.5 While performing services under the Agreement, required personnel shall be equipped with communication equipment, which may include City Radios and/or cellular telephones.

2.6 Contractor shall provide and pay for personnel, including personnel related incidental expenses such as tools and safety supplies, and expenses for Contractor and City vehicles and rolling stock as more fully set forth below, necessary to operate the City's Customer Service and Meter Reading in accordance with all applicable Laws.

2.7 Contractor shall provide training for personnel in operation, maintenance, safety, customer service skills, and accounting practices, as appropriate for each position.

2.8 Contractor shall develop and implement a proper safety program in accordance with applicable laws and standards.

2.9 Contractor will utilize the City's current legacy utility billing software for the management of customer information and the processing of quarterly utility bills until the new Customer Information System / Utility Billing System is deployed via future Program Management Work Order. Contractor shall also be required to utilize City's AMI meter reading system.

2.9.1 Consistent with the allocation of responsibility between Contractor and the City as set forth in Exhibit 20 to the Agreement, the City will be responsible for providing Contractor with IT support for the maintenance of the legacy utility billing software until the new Customer Information System / Utility Billing System is deployed via future Program Management Work Order.

2.10 In addition to billing customers for utility purposes, the City's legacy utility billing system also includes the billing of residential and commercial garbage collection and disposal. The Contractor shall be required to work with the City's Public Works Director or designee in coordinating the billing of such services together with the monthly billing for utilities. City will be responsible for any additional billing costs or special mailings related to residential and commercial garbage collection and disposal.

2.11 Contractor shall be responsible to process customer bills, in the format currently in place. Customer bills shall be prepared in such cycles as currently used by the City until modified via Change Order. The cost of postage for customer bills shall be at the expense of Contractor. Any billing error or omission, whether human or mechanical, on the part of Contractor shall be corrected at no cost to the City. Correction of any errors in the tariffs, rates, charges and

instructions furnished to Contractor by the City will be made by Contractor in an expedited manner. Costs incurred by Contractor to correct any error caused by Contractor shall be the responsibility of Contractor. Corrections related to acts of the City personnel or events, shall be charged to the City as an Additional Service.

2.12 City shall have the sole authorization to establish the message/content on the reverse side of the customer bill; however, recommendations shall be made by the Contractor. The Contractor shall coordinate with City representatives on a monthly basis to establish the information to be included on the reverse side of the bill.

2.13 Contractor shall maintain a customer service center within the space designated and agreed upon by both parties at the time of signing of the Agreement unless an alternate solution to provide these services is presented to and accepted by the City which may include a Change Order. Contractor will utilize the space currently provided by the City for its own use relating to the purpose of servicing the water utility billing and collection activities, inclusive of telephone, furnishings and computer systems currently in place. Contractor will not be required to pay rent for the use of this space. City will be required to provide shared copiers, computers, printers, landline phones, and service contracts for City-owned equipment when applicable. City shall be required to replace above said equipment when needed based on a request from the Contractor and approval of the City Representative. Contractor will be required to provide copier paper, ink, and supplies for Customer Service billing.

2.14 Contractor shall respond in a timely manner to all customer inquiries including, by way of example and not limitation, bill and payment inquiries and inquiries pertaining to service initiation and termination, meter re-reads, existing meter change out requests and meter lid replacements. Lids, meters, and boxes shall be considered Repair and Replacement. Contractor will be responsible for the installation of new meters for new accounts as requested by the City.

2.15 Contractor shall be responsible for setting up new accounts, computing necessary deposits in accordance with the City ordinance, closing accounts, and relaying this information, when necessary, to the appropriate City personnel.

2.16 Contractor shall enter all information detailed in Section 2.15 to City's computer system in a timely manner, and verify it for quality assurance.

2.17 Contractor shall be responsible for maintaining the customer information in an accurate manner. This will include information such as deposits, new accounts, file information, and changes to accounts and charges.

2.18 Customer accounts shall be closed upon the request of the customer. No customer account shall be deleted.

2.19 If at any time Contractor discovers unauthorized meter installation and/or a meter set without a deposit, Contractor will issue notice to the property that service will be terminated unless a deposit is provided, or as otherwise dictated by the City Ordinance.

2.20 Contractor shall provide staff for walk-in customer service, for setting up temporary meters. In addition to the receipt of payment at the customer service center, Contractor shall process payments transmitted by mail, third party cash collector, or web based access.

2.21 In no event shall the rendition by Contractor of Customer Service on behalf of the City be construed as rendering Contractor being responsible for the sufficiency of rates to meet the City's financial responsibilities and Contractor hereby disclaims such responsibility.

2.22 It is further understood and agreed by the parties that all funds collected by Contractor from the City's customers are the exclusive property of the City and are to be deposited into City's accounts by all means necessary, including electronic transfer upon receipt, and Contractor has no claim, counterclaim, right of set-off or any other right to such funds pursuant to this Agreement or otherwise. At a minimum, all receipts will be accounted for daily and deposited by wire transfer, or delivered to the City's Finance Department or physically transfer to the City's designated bank by City designated means, by 2:30 PM of the next Business Day following the date of the receipt or other designated time as established by the 3rd party contract between the City.

2.23 Contractor shall continue the use of the local telephone number that is available to every customer 24 hours per day unless a change is mutually agreed upon. The phone number will be staffed during normal business hours. All calls will receive prompt response.

2.24 Contractor shall maintain an "on-call" staff to respond onsite to all calls for emergency service within two hours from the time the Contractor receives the call.

2.25 Contractor shall be responsible for the initial enforcement of delinquent customer accounts including the following:

2.25.1 Contractor shall be responsible for answering questions regarding delinquent account information. It shall be the responsibility of Contractor's customer service personnel to respond to these questions and rectify the delinquent situation whenever possible and with reasonable execution.

2.25.2 Contractor shall be responsible for delivering delinquent notices to each individual customer as agreed to by the City and, if necessary, to issue any work orders for discontinuation of service, or as dictated by the City's Code of Ordinances.

2.25.3 If an inactive account remains delinquent for more than sixty (60) days, or as City Ordinance dictates, Contractor will diligently pursue the collection of all delinquent customer accounts, including the use of a collection agency contracted by Contractor with the approval of the City, if amount thereby warrants in accordance with guidelines approved by the City in its complete discretion. Collection agency services utilized by Contractor that are approved by the City shall be at cost to the City. Contractor will prepare as appropriate all paperwork and documentation necessary to initiate any lien and foreclosure actions or other legal proceedings in a court of competent jurisdiction to collect delinquent customer accounts and transmit these materials to the City for execution.

2.25.4 Contractor shall make reasonable efforts to collect all utility revenue in an efficient manner with due consideration to customers.

2.25.5 Whenever customers raise questions, point out billing errors, express concerns, or otherwise dispute any bill, Contractor shall attempt to resolve them in an expeditious manner. If a resolution requires additional research to respond to a customer's dispute, Contractor will document each stage of the dispute process. Parameters will be established upon direction of the City Representative, in relation to any customer which requires any

additional consideration as to disputes or extension of payment due dates. Service personnel that are working with a customer under such circumstances as dictated by the City Representative must report that fact to the field service personnel so that customers will not experience discontinuance of service before dispute or past due resolution occurs.

2.26 Contractor will perform meter calibration targeting large meters, commercial accounts, and meters that are identified based on age and volume of flow in accordance with AWWA Manual of Practice M6 or other standard as agreed to by the City Representative.

2.27 Contractor shall meet with representatives of the City as needed and as requested by the City or, at minimum at least weekly, to review operations, reports and costs. Contractor shall maintain a professional, responsible and responsive working relationship with representatives of the City, regulatory authorities, suppliers of materials, utilities and services, and the public.

Section 3.0 Maintenance and Repair

3.1 Contractor shall perform all maintenance and repair of the Utility Facilities, including Routine Maintenance and Repair and Replacement as outlined in Article 3 of the Agreement.

3.2 Contractor shall develop and implement an Annual Preventive Maintenance Plan, a copy of which shall be delivered to the City for review and comment no later than ninety (90) days after commencement of this Agreement. Such program shall include, but not be limited to, all lubrications, adjustments, inspections, and monitoring as necessary to maintain the Utility Facilities throughout the term of this Agreement.

3.3 Contractor shall develop and/or supply and utilize computerized programs for maintenance, asset management, process control, and quality assessment/quality control. The computerized programs shall be functional within ninety days after the Execution Date. However, the program must be fully populated and operational within one hundred and eighty (180) days from the Execution Date.

Section 4.0 Collection and Disposal of Lime Sludge

4.1 Water Treatment Plant Lime Sludge.

4.1.1 Contractor shall manage the collection and disposal of lime sludge at the Water Treatment Plant.

4.1.2 Contractor shall maintain all manifests or other documentation required for disposal of lime sludge and such documentation shall be signed by Contractor, as agent of the City and a copy provided to the City's Representative.

4.1.3 All costs associated with lime sludge disposal will be the responsibility of the Contractor.

Section 5.0 Testing and Laboratory Analysis

5.1 Contractor shall be responsible for all laboratory testing and sampling presently required by City Permits, the Clean Water Act, the Safe Drinking Water Act, and/or any federal, state or local Laws, rules and regulations, statutes or ordinances, permit or license requirements or judicial and regulatory orders, agreements and decrees. Contractor shall

deliver and certify such results to the City and submit the results to the required regulatory agencies.

5.2 Contractor's failure to comply with the applicable performance or permit requirements will only be excused in those instances where the failure was caused by Uncontrollable Circumstance or as otherwise set forth in Section 14.0, or agreed to by the City. In the event an Uncontrollable Circumstance prohibits Contractor from meeting the applicable performance requirements, Contractor shall immediately take all reasonable steps to bring the Utility Facilities into compliance with the performance requirements, as more fully set forth in Section 14.0.

5.3 All laboratory tests required by permit shall be performed by a laboratory that has been certified by the Florida Department of Health for any specific method or analysis combination that is used to comply with permit. All laboratory tests needed for process control shall be performed by a certified operator or by trained staff with demonstrated proficiency (e.g. laboratory technician) using the applicable procedures described in Permit No. 13-00060-W Miami-Dade County.

5.4 Contractor shall conduct analysis of any repeated or persistent non-compliance issues, and recommend remedial measures to the City for system modifications, if appropriate.

5.5 All laboratory testing services shall be the responsibility of the Contractor and all testing services will be paid for by the Contractor.

Section 6.0 Records and Reports

6.1 Contractor shall prepare and process comprehensive monthly reporting to the City of the Utility Facilities operating parameters, maintenance plans and activities, improvement activities, treatment results and other relevant information in accordance with all applicable Laws.

6.2 Contractor shall maintain all other information required by, and in accordance with permits and manufacturers' warranties which are presented or made available by the City to Contractor at the commencement of this Agreement, as well as monitoring and measurement logs. Contractor shall not be responsible for actions which may have affected manufacturers' warranties occurring before the Execution Date.

6.3 Once each year, at a time to be determined in advance by City, Contractor shall submit Reports that record significant events of the past year and describe the status of the Utility Facilities.

6.4 Contractor shall maintain safety records in connection with its operation of the Utility Facilities and performance of Services under this Agreement. The Contractor must record the relevant details regarding any accidents or injuries occurring at the Utility Facilities. The Contractor shall prepare a monthly report for the City detailing its safety record.

6.5 Contractor shall prepare all federal, state and local permit plant performance Reports for the Water Treatment Plant and submit them to City for signature and transmittal to appropriate authorities, as required by permits and all applicable Laws.

6.6 Contractor shall prepare and maintain accurate reports of incidents of loss, theft or vandalism and shall provide these reports to the City in a timely manner.

6.7 Contractor shall provide documents in draft form to the City prior to submittal to any regulatory agency or manufacturers, as requested. Final copies of all Reports shall be provided to the City.

Section 7.0 Manufacturers' Warranties

7.1 Contractor is responsible for conducting all services necessary to maintain existing warranties and obtain all manufacturers' warranties on equipment purchased on behalf of the City and shall assist the City in enforcing manufacturers' warranties and guarantees. Contractor shall not be responsible for actions which may have affected manufacturers' warranties occurring before the Execution Date

7.2 Contractor shall be responsible for notifying the City of any required modifications in the Utility Facilities or treatment processes in accordance with all warranties and applicable Laws. Contractor shall not be responsible for any violations of applicable Laws and conditions due to failure of the Utility Facilities design and construction.

Section 8.0 Security and City Access

8.1 Contractor shall monitor as applicable the current and future security systems at the Norwood Water Treatment Plant, Wastewater Facility, Public Services Administration building, Customer Service/Cashier areas on first floor of City Hall, and Operations Center. Improvements to security including perimeter fencing, signage and automated alarm monitoring, where applicable, shall be paid for by the City. Contractor shall provide twenty-four (24) hour per day access to all Utility Facilities for City personnel designated by City's representative or other restricted access rights for City and/or non-City personnel as designated and approved by the City Representative. Contractor shall provide master keys for the Utility Facilities to the City designated representatives.

8.2 Contractor shall require that visitors to the Utility Facilities comply with Contractor operating and safety procedures.

Section 9.0 Payment for Wastewater Disposal

9.1 City will pay all wastewater treatment and solids disposal fees charged by Miami Dade County.

Section 10.0 Payment for Purchased Water.

10.1 City will pay all purchased water costs from Miami Dade County.

Section 11.0 Deep well integrity testing.

11.1 Mechanical integrity testing of the deep wells will be delivered as a Work Order through the Program Management Services.

Section 12.0 Description of City Facilities

12.1 The water system is comprised of raw water supply, treatment, storage, pumping, transmission and distribution facilities with fire flow service. Design values provided below are based on the "Water and Wastewater System Capital Improvement Projects for Fiscal Years 2015 to 2032" report however have not been validated by the Contractor.

12.1.1 The current raw water supply and treatment system consists of 20 raw water supply wells.

12.1.2 Fifteen (15) Million Gallon per Day (MGD) lime softening treatment process

12.1.3 Fifteen (15) MGD membrane treatment system consisting of 9.0 MGD of nano filtration (NF) process and a 6.0 MGD low pressure, reverse osmosis (RO) system operating in parallel.

12.1.4 Two (2) MGD of filtered raw water bypass for blending.

12.1.5 The total permitted capacity of the Norwood - Water Treatment Plant is 32 MGD with a 17 MGD firm capacity.

12.1.6 Total storage capacity of 8.2 million gallons (MG) for the system which includes 6.2 MG of onsite ground storage and 2 MG offsite ground storage.

12.2 Distribution System

12.2.1 There are approximately 2.63 miles of raw water supply mains ranging from 10 to 30 inches in diameter

12.2.2 System consists of 538.8 miles of water transmission and distribution mains ranging from 2 to 36 inches in diameter.

12.2.3 System contains 2,725 fire hydrants for fire suppression throughout the system.

12.2.4 The system contains approximately 33,902 meters ranging in size from 5/8 to 10 inches.

12.2.5 Emergency water interconnections with Miami-Dade Water and Sewer Department (MDWASD) and the City of North Miami; additional interconnections with the City of Opa Locka, Village of Bal Harbor, and the City of Hallandale Beach.

12.3 Sanitary Sewer System

12.3.1 Collection system approximately 83.6 miles of gravity mains

12.3.2 The system contains approximately 1,814 manholes.

12.3.3 The system contains Thirty Three (33) lift stations.

12.3.4 The system contains Ten (10) force main transmission systems including approximately 27 miles of force main

12.3.5 Ten (10) metered wastewater interconnections, and Six (6) water meters used to determine wastewater disposal to Miami Dade County.

12.3.5.1 P.4 15901 NE 18th Avenue - one 4 inch meter

12.3.5.2 P.22 NW 179th Street & NW 32nd Avenue - one 12 inch meter

- 12.3.5.3 P.27 Sunlife Stadium - one 12 inch meter
- 12.3.5.4 P.37 18950 NE 6th Avenue – one 10 inch meter
- 12.3.5.4 P.48 NE 17th Avenue & NE 162nd Street - one 4 inch meter
- 12.3.5.4 P.49 NW 155th Terrace & NW 16th Court - one 6 inch meter
- 12.3.5.4 P.6 15111 Biscayne Boulevard - one 10 inch meter
- 12.3.5.4 P.60 NW 202nd Terrace & NW 12th Avenue – To Be Determined
- 12.3.5.4 55 NW 199th Street - one 2 inch water meter
- 12.3.5.4 P.70 NW 196th Street and 9th Avenue - one 6 inch meter
- 12.3.5.4 17355.17455 Biscayne Boulevard - three 2 inch water meters
- 12.3.5.4 P.74 19950 NW 2nd Avenue - one 4 inch meter
- 12.3.5.4 16295 Biscayne Boulevard - two 2 inch water meters

Section 13.0 Emergency and Hurricane Preparedness

13.1 Contractor shall prepare and update an Emergency Preparedness Plan for the Utility Facilities. Contractor shall provide resources for responding to emergency situations and unanticipated system failures on a 24-hour basis and in accordance with the Contractor's Emergency Preparedness Plan, if applicable.

13.1.1 In emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, Contractor is obligated to act in a timely manner and to use Contractor's best efforts to prevent threatened damage, injury or loss. Contractor shall give City prompt written notice if Contractor believes that any significant changes in the Utility Facilities or variations from the Contract Documents have been caused thereby or are required as a result thereof. Contractor shall be responsible for acting in an emergency situation in accordance with applicable laws and regulations.

13.1.2 Contractor shall use best efforts to secure or remove from the Utility Facilities, prior to a storm event, any materials or equipment which could cause bodily injury, damage to the City's installations and/or public or private property or that may result in a loss of equipment or supplies. Site excavations shall be required to be secured and/or backfilled. In the event of the issuance of a storm warning, the City will attempt to notify the Contractor, however, the Contractor is responsible for preparing for a storm event. The Contractor shall take the necessary precautions to protect the walking and motoring public from harm due to Contractor's work activity.

13.1.3 Contractor may, but is not required to, order the Services to be stopped if a condition of imminent danger exists. Nothing shall be construed or construed to shift responsibility or risk of loss for injuries and/or damages, cost of stoppage or delay of work, from the Contractor to the City. The Contractor

shall remain solely and exclusively responsible for compliance with all safety requirements and the safety of all persons and property at the Utility Facilities.

13.1.4 In any emergency threatening the safety of persons or property, Contractor may act upon verbal approval by the City, at Contractor reasonable discretion, to prevent threatened damage, injury or loss, City shall compensate Contractor for any such emergency work notwithstanding the lack of a written change order or authorization. Such compensation includes Contractor's direct costs for the emergency work plus a reasonable mark-up of 15% for overhead and profit.

13.1.5 Contractor shall be responsible for any hazardous environmental conditions created by the Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible. If Contractor encounters a hazardous environmental condition or if Contractor or anyone for whom Contractor is responsible creates a hazardous environmental condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all performance of Services in connection with such condition and in any area affected thereby; and (iii) notify City and immediately thereafter confirm such notice in writing.

13.1.6 During such periods of time as are designated by the United States Weather Service as being a hurricane watch or warning, or in the event of another emergency affecting the safety or protection of persons, the Utility Facilities, or to avoid imminent environmental contamination, Contractor, at no cost to the City and without special instruction or authorization from City, shall take all precautions necessary to respond to all threatened events and to prevent or minimize such threatened damage, injury or loss. If this precautionary work requires labor and equipment beyond the scope of work required as part of the Basic Operations and Maintenance Services Fee, the Contractor will be reimbursed by the City. Such compensation includes Contractor's direct costs for the emergency work plus a reasonable mark-up of 15% for overhead and profit.

13.1.7 Compliance with hurricane watch or warning precautions specific to the Broward County area and not including Miami-Dade County shall not constitute additional work.

Section 14 Capacity and Characteristics

14.1 Raw Water Quality and Finished Water Requirements of Water Treatment Plant.

14.1.1 The facilities shall be operated and maintained in accordance with all applicable federal, state and local regulations pertaining to water treatment, contaminant monitoring, and reporting. All analytical methods used to demonstrate compliance shall be in accordance with methods approved by the City and FDEQ or other Governmental Authorities, as applicable. In the event that a parameter does not have a method approved by City or FDEQ, methods approved by EPA as of the date hereof, as contained in the Disinfectants and

Disinfection Byproducts Rule (as promulgated in the Federal Register on December 16, 1998), shall be used.

14.1.2 Contractor will assume an average finished water demand of 20.40 million gallons per day (mgd) and a peak daily demand of 25.22 mgd, on the Commencement Date of this Agreement. Contractor acknowledges that City has the right to demand up to 32.0 mgd on any day and Contractor will undertake, as and when needed, the necessary arrangements to assure that sufficient personnel are available to satisfy additional demand overtime. Any change of five percent (5%) or more in the average finished water demand as listed above, based on a twelve (12) month running average, will constitute a Change in Scope, and an appropriate adjustment of Basic Operations and Maintenance Services Fee will be negotiated. Any significant required change in the distribution of flow between the lime treatment system, nano-filtration system, and the reverse osmosis treatment system that results in a change of ten percent (10%) or more in total chemicals and power cost will constitute a Change in Scope, and an appropriate adjustment of Basic Operations and Maintenance Services Fee will be negotiated. The baseline distribution from April 2016 through March 2017 is:

Finished Water Treatment Process	12 Month Average Flow (mgd) Baseline
Lime treatment system	12.72
Nano-filtration treatment system	5.22
Reverse Osmosis treatment system	2.46
Total =	20.4

14.1.3 Contractor shall be responsible for meeting the water treatment performance standards established in Exhibits 10 and 12, but shall not be responsible for events outside the control of Contractor, which include but are not limited to:

- 14.1.3.1 Materials or liquids contained in the raw water supply, which detrimentally affect the machinery, infrastructure or processes at the Project;
- 14.1.3.2 Raw water supply is insufficient to meet demand;
- 14.1.3.3 The demand for water exceeds the design capacity of the facilities;
- 14.1.3.4 Vandalism; and/or
- 14.1.3.5 Uncontrollable Circumstances.

EXHIBIT 2

NMB WATER’S NOTICE TO PROCEED ISSUED TO CH2M HILL ENGINEERS, INC.
AUTHORIZING THE COMMENCEMENT OF TRANSITION SERVICES

The City of North Miami Beach, Florida (“City”) and CH2M Hill Engineers, Inc. (“Contractor”) are parties to the Agreement for NMB Water Operations, Maintenance, and Program Management Services (“Agreement”) made and entered into on the [____] day of [____], 2017. This Notice to Proceed is issued by the City to Contractor under the Agreement. All capitalized terms used herein and not otherwise defined shall have the meaning given them in the Agreement.

1. The Agreement contemplates in Section 5.1 that during the period from the Execution Date to the Commencement Date, Contractor will engage in activities to facilitate the transition of operation, maintenance and repair of NMB Water from City to Contractor (“Transition Services”).

2. The purpose of this Notice to Proceed is to authorize Contractor to commence performance of the Transition Services on the day hereof in accordance with the terms, covenants and conditions of the Agreement.

3. By its acceptance of this Notice to Proceed, Contractor acknowledges that it will commence performance of the Transition Services on the day hereof and represents and warrants that (i) all insurance policies required to be procured by Contractor under the Agreement have been procured and are in full force and effect; (ii) copies of all Governmental Authorizations required for Contractor to perform the Transition Services have been furnished to the City, (iii) Contractor is not in breach or default of the Agreement or its representations and warranties in the Agreement; (iv) there has been no change in the key personnel assigned to manage and perform the Services; and (v) no event, occurrence, condition, or circumstance has occurred since the Execution Date which would materially adversely impact Contractor’s ability to perform and fulfill the terms, covenants and conditions of the Agreement.

Executed by the City of North Miami Beach this __ day of May 2017.

CITY OF NORTH MIAMI BEACH

Name:

Title:

Accepted and Agreed
CH2M Hill Engineers, Inc.

Name:

Title:

EXHIBIT 3

Transition Period Activities

3.1 O&M TRANSITION PERIOD ACTIVITIES

3.1.1 This Exhibit outlines the major tasks, activities and deliverables of NMB Water's operations and maintenance initiation and project management activities starting on the Execution Date.

1. Transition Management

a. Activities

Responsible for all O&M deliverables, client interaction and program interface

b. Deliverables

Successful transition of all O&M staff and utility functions.

Oversight of implementation of CH2M O&M Systems and processes for efficient and effective operation (e.g., Compliance and Quality Control Systems, Safety Management Program, Process Control Program, Maintenance Management System, Operations and Maintenance Strategies, Computer Systems, Software and data management systems)

2. Field Startup Leadership

a. Activities

Schedules and coordinates field transition team and employees and develops client deliverables. Hands-on support in implementation of CH2M systems and processes for field operations (operations strategies, standard operating procedures, data management systems, communications protocols)

b. Deliverables

Implementation of CH2M O&M systems and processes for efficient and effective operation (e.g., Process Control Program, Maintenance Management System, Operations and Maintenance Strategies, Computer Systems, Software and data management systems, Staff coordination and scheduling)

3. Subcontracts and Procurement

a. Activities

Transition and establishment of subcontractors for all relevant O&M activities and initial procurement of any supplies and materials

b. Deliverables

Subcontractor agreements and initial procurement of supplies/materials

4. Safety

a. Activities

Development of Health and Safety Program, Safety Training, and development of the Emergency Response Plan

b. Deliverables

Emergency Response Plan, Safety Work Control Plan, implementation of OSHA required safety training

5. Treatment Facility Transition

a. Activities

Implementation of Operator 10 data management system, Process Training and Optimization Plan development

b. Deliverables

Compliance Data Management System and Operator Training

6. Human Resources

a. Activities

Employee interviews and onboarding of existing staff

b. Deliverables

Complete interviews, drug testing, background checks, and staff hired

7. Commercial and Business Systems

a. Activities

Implementation of project financial controls, training of business manager on monthly reporting requirements, establish invoice requirements

b. Deliverables

Setup and training of business manager on monthly reporting requirements

8. Laboratory Transition

a. Activities

Implement sampling procedures (e.g., Sample Tracking Tool), chain of custody log books, conduct training for laboratory associates on proper procedures, permit review

b. Deliverables

Sample Tracking Tool, Chain of Custody Log Books, Training, and Permit Review

9. Collections and Distribution Transition

a. Activities

Equipment inventory and develop maintenance schedules for efficient operation, provide training related to inventory control, develop O&M procedures and processes

b. Deliverables

Equipment inventory and maintenance schedules

10. Maintenance Transition

a. Activities

Establish critical equipment list, collect information and implementation of computerized maintenance management system, develop training needs assessment, implement initial maintenance scheduling approach, and development of work order documentation procedures

b. Deliverables

Computerized maintenance management system implementation, asset management system implementation, work order procedures developed, and critical equipment list

11. Billing and Customer Service

a. Activities

Training, CMMS integration for meters, process review and updates, planning and research for new Customer Information System / Utility Billing System via Program Management scope

b. Deliverables

Operation plans, SOPs, check sheets for customer service and billing services, and draft work order for CIS/UB Deployment

12. Information Technology (IT) Support

a. Activities

Setup phones, computers, copiers, and business communications

b. Deliverables

Transfer of communication systems, protocols for use and maintenance developed

3.2 Wages and Benefits for current AFSCME represented employees Methodology of wages and benefits

Medical – For those employees that are in a medical plan, CH2M will increase their hourly rate by the difference in CH2M’s employee annual contribution amount and the current employee’s annual contribution amount divided by 2080 hours, based on comparable plans.

Example:

NMB OPAIN plan Employee Only – Current employee cost = \$480/year

CH2M comparable plan – Cigna OAP – Employee Only – New Cost = \$3,168/year

Difference = \$3,168 - \$480 = \$2,688/year

Hourly rate increase = \$2,688/2080 = \$1.29/hour

Vision Plans – Utilize CH2M voluntary plans

Dental Plans – Utilize CH2M plan

Life Insurance & AD&D– Utilize CH2M plan

Disability – Utilize CH2M plan

Holidays – Utilize current NMB days (11 fixed and 2 floating)

Vacation/Sick (Paid Time Off - PTO) Leave Length of Service - Will use current employee's start date with NMB as a starting date in the determination of PTO years of service

PTO – Utilize CH2M Paid Time Off (PTO) program

Example:

Currently employee with 12 years with NMB

PTO – 25 days (use for both vacation and sick leave) – maximum accumulation of 50 days – 100% payout at current salary rate upon termination

Retirement Plan – For those current employees that are participating in the City's current pension plans, we propose to utilize CH2M's 401k plan match amount and employee deferral amounts with salary increases to attain the same contribution amount that is currently being placed into the City's plan. Currently for General pension plan enrollees this is 7% from the employee and 8.3% from the City. Currently for Management pension plan enrollees this is 8% from the employee and 23.72% from the City. CH2M's employer benefit to the 401(k) plan currently is a match amount with the following formula. CH2M matches 58.33% the employee's deferral contribution up to a maximum of 6% of eligible compensation (Maximum of 3.5% match when employee defers at least 6%). Employees are eligible to contribute up to 50% of their salary with total annual employee contribution limited to the federal maximum. CH2M will increase compensation to the employee by 4.8% to bring the total combined compensation increase and current 401(k) match of 3.5% to an 8.3% benefit. These combined employer amounts will match the current amount being contributed into the City's pension plan by the City.

Example:

Current employee in General pension plan – Eleven years of service – Contributes 7% into the City's pension plan, the City contributes 8.3%

CH2M Plan – Employee contributes 7% of current salary into 401(k) plan, CH2M contributes 3.5% of eligible salary into plan, Employee salary will be increased by 4.8% to be used to reach the 15.3% retirement contribution.

EXHIBIT 4

CH2M HILL ENGINEERING, INC.
CERTIFICATE OF SATISFACTION OF COMMENCEMENT DATE CONDITIONS

The City of North Miami Beach, Florida (“City”) and CH2M Hill Engineers, Inc. (“Contractor”) are parties to the Agreement for NMB Water Operations, Maintenance, and Program Management Services (“Agreement”) made and entered into on the [____] day of [____], 2017. This Certificate is executed and delivered by Contractor under the Agreement. All capitalized terms used herein and not otherwise defined shall have the meaning given them in the Agreement.

1. The Agreement contemplates that the Contractor will perform certain Transition Services during the period from the Execution Date to the Commencement Date and prepare certain documents and deliverable preliminary to the commencement of full scope performance of the Basic Operation and Maintenance Services, Repair and Replacement Services and Program Management Services.

2. Contractor represents and warrants that (i) it has performed the Transition Services in accordance with the terms and conditions of the Agreement and delivered the documents and deliverables contemplated by the Agreement to be delivered on or prior to the Commencement Date; (ii) all insurance policies required to be procured by Contractor under the Agreement prior to the commencement of full-scope performance of the Services have been procured and are in full force and effect; (iii) copies of all Governmental Authorizations required for Contractor to commence and perform the full scope of the Services have been furnished to the City, (iv) Contractor is not in breach or default of the Agreement or its representations and warranties in the Agreement; (v) there has been no change in the key personnel assigned to manage and perform the Services; and (vi) no event, occurrence, condition, or circumstance has occurred since the Execution Date which would materially adversely impact Contractor’s ability to perform and fulfill the terms, covenants and conditions of the Agreement.

3. Contractor and the City hereby acknowledge and agree that the Commencement Date under the Agreement is July 17, 2017.

Executed by CH2M Hill Engineers, Inc. this __ day of July 2017.

CH2M HILL ENGINEERS, INC.

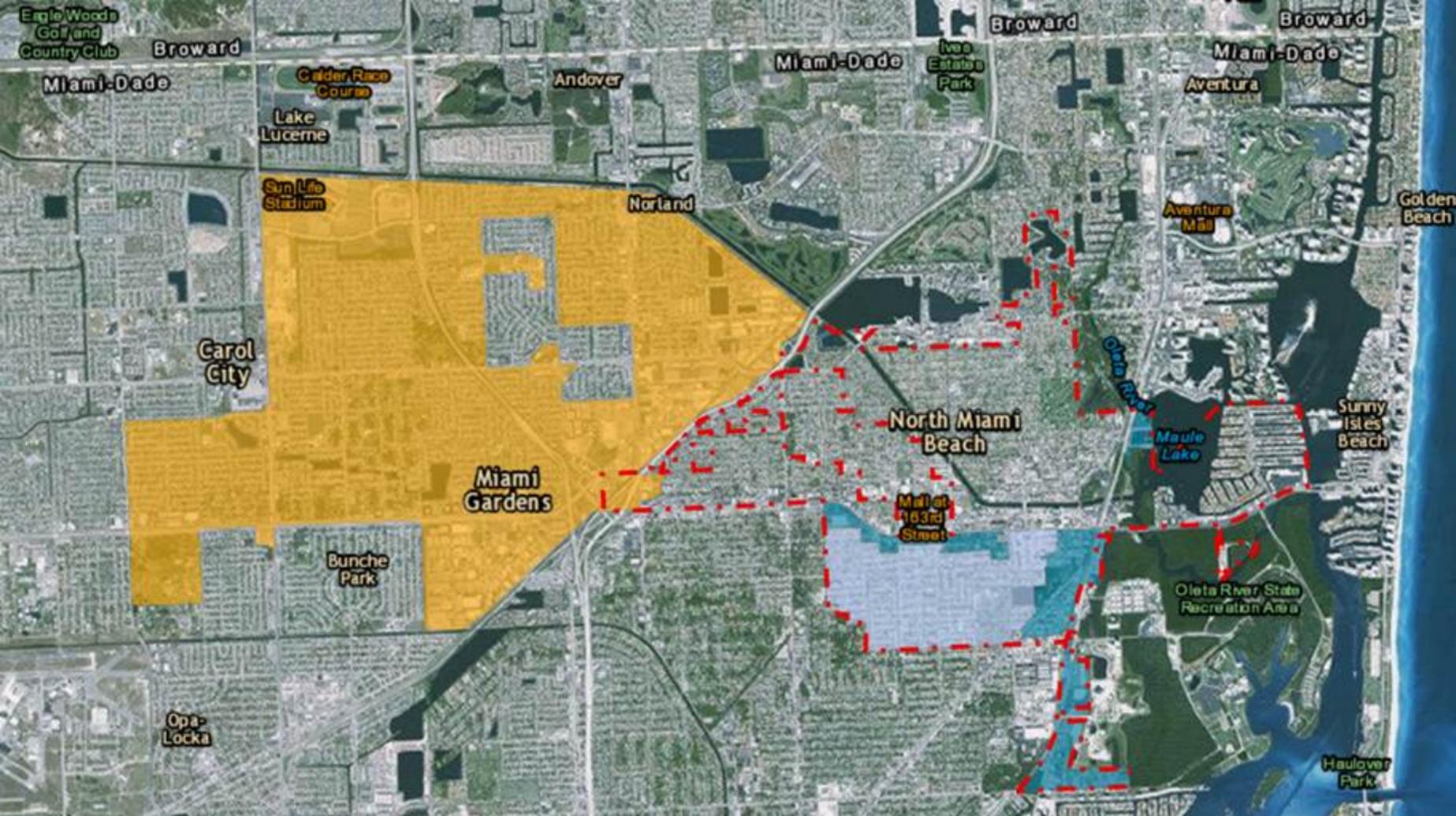
Name: _____
Title: _____

Accepted and Agreed
CH2M Hill Engineers, Inc.

Name: _____
Title: _____

EXHIBIT 5

NMB SERVICE AREAS – WATER AND WASTEWATER



Eagle Woods Golf and Country Club
Broward

Miami-Dade

Golden Race Course

Lake Lucerne

Sun Life Stadium

Andover

Miami-Dade

Ives Estate Park

Broward

Miami-Dade

Aventura

Northland

Aventura Mall

Golden Beach

Carol City

Miami Gardens

North Miami Beach

Oleta River

Maule Lake

Sunny Isles Beach

Bunche Park

Mall at 163rd Street

Oleta River State Recreation Area

Opa-Locka

Haulover Park

EXHIBIT 6

COMPENSATION, PAYMENT AND BASIC OPERATION AND MAINTENANCE SERVICE FEE, FEE ADJUSTMENT FORMULA FOR BASIC OPERATIONS AND MAINTENANCE SERVICES AND REPAIR, REPLACEMENT, AND RENEWAL

6.1 COMPENSATION

6.1.1 City shall pay to Contractor as compensation for Basic Operation and Maintenance Services performed in accordance with requirements of the Agreement a Basic Operations and Maintenance Services Fee of \$19.3 million (\$19,300,000) for the first Contract Year of this Agreement and \$18.8 million (\$18,800,000) in each remaining year of the Agreement, subject to annual adjustment at each anniversary of the Commencement Date, beginning at the first anniversary, determined as specified in Exhibit 6.4.

6.1.2 The Basic Operations and Maintenance Services Fee is a lump-sum, fixed fee that the City will pay, and the Contractor will accept, for the Basic Operation and Maintenance Services performed in accordance with the requirements of the Agreement. The fee is all-inclusive and the City will not compensate or reimburse the Contractor any other amounts related to performance of the Basic Operation and Maintenance Services, including but not limited to amounts for items such as labor, employee benefits, chemicals, solids disposal, lab supplies, Routine Maintenance, safety supplies, gasoline, oil, power costs for the water treatment plant and the lift stations and as measured by the electric meters listed in Exhibit 32, equipment rental for Routine Maintenance, legal and professional services, quality assurance, travel, office supplies, other supplies, uniforms, telephone, postage, utilities, tools, memberships, training and training supplies.

6.1.3 The Basic Operations and Maintenance Services Fee does not include (i) private grinder pump electricity costs, which are the responsibility of the property owner, (ii) the cost of utilities associated with City Hall, which the City will pay, (iii) the cost of purchased water, wastewater treatment and solids disposal fees charged by Miami Dade County, and the (iv) Repair and Replacement Fund from which Contractor will be paid for Repair and Replacement Services performed in accordance with the requirements of the Agreement.

6.1.4 City shall fund the Repair and Replacement Fund in the amount of Three Million Dollars (\$3,000,000) for the first Contract Year of the Agreement, subject to annual adjustment at each anniversary of the Commencement Date, beginning at the first anniversary, determined as specified in Exhibit 6.3.2.

6.1.5 The total amount Contractor will be required to pay for the Repair and Replacement Services will not exceed the annual Repair and Replacement Fund amount in the applicable Contract Year. Within sixty (60) days after each Contract Year, Contractor shall provide City with a detailed invoice of Repair and Replacement costs over the annual Repair and Replacement Fund limit, and City shall pay Contractor the undisputed amount for all Repair and Replacement costs in excess of such limit. Within sixty (60) days after the end of each Contract Year, Contractor shall rebate to City the entire amount that the cost of Repair and Replacement Services for such Contract Year is less than the annual Repair and Replacement Fund limit. The City shall have the right to set off against any amount owed to Contractor by the City the entire amount of any such rebate.

6.2 INVOICING AND PAYMENT SCHEDULE

6.2.1 The Contractor will invoice the City on a monthly basis one-twelfth (1/12) of the Basic Operations and Maintenance Services Fee and one-twelfth (1/12) of the annual Repair and Replacement Fund amount for the current Contract Year. The first invoice will include an additional *pro rata* amount for any fraction of a month during which the Contractor was responsible for Basic Operations and Maintenance Services.

6.2.2 The Contractor will invoice for each month's service at the beginning of the month prior to the month in which the services covered by the invoice will be performed. The Contractor will submit its invoice no earlier than the first day of the month and no later than the tenth day of the month prior to the month of service. Invoices shall describe deductions made in accordance with Section 6.2.3.

6.2.3 Before submitting an invoice, the Contractor shall deduct from it any rebate or Contract Price adjustment amounts described in 6.2.4 then due. If the Contractor fails to deduct such amounts due and owing to the City, the City shall have the right to notify the Contractor of the City's intent to deduct such amounts from any amounts owed by the City to Contractor. Failure by the City to notify the Contractor for any such amounts shall not relieve the Contractor from such obligation.

6.2.4 The City will pay the undisputed amount of Contractor's duly submitted and valid invoices within forty-five (45) days of receipt of the invoice, and otherwise in accordance with the Florida Local Government Prompt Payment Act. The Contractor will reduce the applicable monthly Basic Operations and Maintenance Service Fee invoice for any Contract Price adjustment amount associated with failure to achieve identified Key Performance Indicators as described in Exhibit 9 of the Agreement (Key Performance Indicators or KPIs) or the failure to meet certain requirements as set forth in Section 5.4 of the Agreement. The maximum penalty amount and timing of assessment for the initial Key Performance Indicators is as follows:

BR1: \$300,000 – assessed quarterly (\$25,000/quarter) over the first 3 Contract Years

BR2: \$300,000 – assessed at the end of Year 3 based upon performance at that time

BR3: \$300,000 – assessed at the end of Year 3 based upon performance at that time

BR4: \$300,000 – assessed annually (\$100,000/year) over the first 3 Contract Years

Other KPIs: \$1,400,000 - \$100,000 annually with first assessment at the end of Year 2 based on KPIs mutually agreed upon with the City

Any invoice credits resulting from non-attainment of the Key Performance Indicator targets would be deducted from the next monthly invoice after the data is reasonably available.

6.3 CHANGES IN COMPENSATION

6.3.1 Changes in the Basic Operations and Maintenance Services Fee will be calculated annually, three (3) months prior to anniversary of the Commencement Date hereof. The Basic Operations

and Maintenance Services Fee will be adjusted using the Basic Operations and Maintenance Services Fee Adjustment Formula shown in Exhibit 6.4, but not to exceed three percent (3%) per year or drop below zero (0%) percent per year, except as described in 6.3.3. The adjusted Basic Operations and Maintenance Service Fee will go into effect on July 1st of each year and will be invoiced according to the payment terms, 6.2.2.

6.3.2 The Parties will negotiate the Repair and Replacement Fund limit each year based on the reasonably foreseeable nature and scope of Repair and Replacement Services to be performed in the next Contract year. The parties will commence such negotiation not less than three (3) months prior to anniversary of the Commencement Date hereof. The adjusted Repair and Replacement Fund limit will go into effect on July 1st of each year and will be invoiced according to the payment terms, 6.2.2.

6.3.3 An increase of 4.5 percent (4.5%) or more in any year as calculated by the Basic Operations and Maintenance Services Fee Adjustment Formula shown in 6.4 will constitute a Change in Scope, and an appropriate adjustment of Basic Operations and Maintenance Services Fee will be negotiated. If a calculated increase of 4.5 percent (4.5%) or more did not occur in the any of the first 5 Contract Years, thirty (30) days prior to the beginning of the 5th anniversary of the Commencement Date, the Parties will negotiate in good faith any necessary adjustments to the Basic Operations and Maintenance Services Fee resulting from escalation beyond the adjustment to the Basic Operations and Maintenance Service Fee that occurred in the first 5 Contract Years. Similarly, if a calculated increase of 4.5 percent (4.5%) or more did not occur in any of the years in Contract Years 6 through 10 of the Agreement and the initial term of the Agreement is renewed for five (5) years, thirty (30) days prior to the 10th anniversary of the Commencement Date, the Parties will negotiate in good faith any necessary adjustments to the Basic Operations and Maintenance Services Fee resulting from escalation beyond the adjustment to the Basic Operations and Maintenance Service Fee that occurred in Contract Years 6 through 10.

6.3.3 The Parties will negotiate compensation for Changes in Scope in accordance with Section 3.2.

6.3.4 Contractor will assume an average finished water demand of 20.40 million gallons per day (mgd) and a peak daily demand of 25.22 mgd, on the Commencement Date of this Agreement. Contractor acknowledges that City has the right to demand up to 32.0 mgd on any day and Contractor will undertake, as and when needed, the necessary arrangements to assure that sufficient personnel are available to satisfy additional demand overtime. Any change of five percent (5%) or more in the average demand for water as listed above, based on a twelve (12) month running average, will constitute a Change in Scope, and an appropriate adjustment of Basic Operations and Maintenance Services Fee will be negotiated. Any significant required change in the distribution of flow between the lime treatment system, nano-filtration system, and the reverse osmosis treatment system that results in a change of ten percent (10%) or more in total chemicals and power cost will constitute a Change in Scope, and an appropriate adjustment of Basic Operations and Maintenance Services Fee will be negotiated. The baseline distribution from April 2016 through March 2017 is:

Finished Water Treatment Process	12 Month Average Flow (mgd) Baseline
Lime treatment system	12.72
Nano-filtration treatment system	5.22
Reverse Osmosis treatment system	2.46
Total =	20.40

6.4 BASIC OPERATIONS AND MAINTENANCE SERVICES FEE ADJUSTMENT FORMULA

$$ABF = BF \times AF$$

Where:

BF = Basic Operations and Maintenance Services Fee currently in effect

ABF = Adjusted Basic Operations and Maintenance Services Fee

AF = Adjustment Factor as determined by the formula:

AF = $1.0 + [((ECI) \times 0.60) + ((CPI) \times 0.40)]$, not to exceed 1.03 or drop below 1.00

ECI = The twelve month percent change (from the first (1st) quarter of the prior year to the first (1st) quarter in the current year) in the Employment Cost Index for Total Compensation for Civilian Workers, Not Seasonally Adjusted as published by U. S. Department of Labor.

CPI = The twelve month percent change (from March of the prior year to March of the current year) in the Consumer Price Index for All Urban Consumers, Miami-Fort Lauderdale, FL, all urban consumers, not seasonally adjusted as published by U.S. Department of Labor, Bureau of Labor Statistics in the CPI Detailed Report Series Id: CUURA320SA0.

In the event that the electricity rate changes significantly beyond the default adjustment factor, the parties will negotiate an adjustment amount that aligns with the most recent electrical invoice rate increase. For the second year, the Basic Operations and Maintenance Services Fee shall be decreased by \$500,000 before implementing the above escalation formula.

6.5 ADJUSTMENT FORMULA FOR PROGRAM MANAGEMENT SERVICES

Hourly rates shall be escalated annually utilizing ECI as the adjustment factor per the following:

$$ABR = BR \times AF$$

BR = Billing Rates for Program Management Services specified in X.X.X

ABR = Adjusted Billing Rates for Program Management Services

AF = Adjustment Factor as determined by the formula:

AF = $1.0 + \text{ECI}$, but not to exceed 1.03 or drop below 1.00

ECI = The twelve month percent change (from the first (1st) quarter of the prior year to the first (1st) quarter in the current year) in the Employment Cost Index for Total Compensation for Private Industry workers in Service-providing; management, professional and related occupations; Adjusted as published by U. S. Department of Labor, Bureau of Labor Statistics in the Detailed Report Series ID: CIU201S000100000A.

**EXHIBIT 7
PROGRAM MANAGEMENT LABOR RATES**

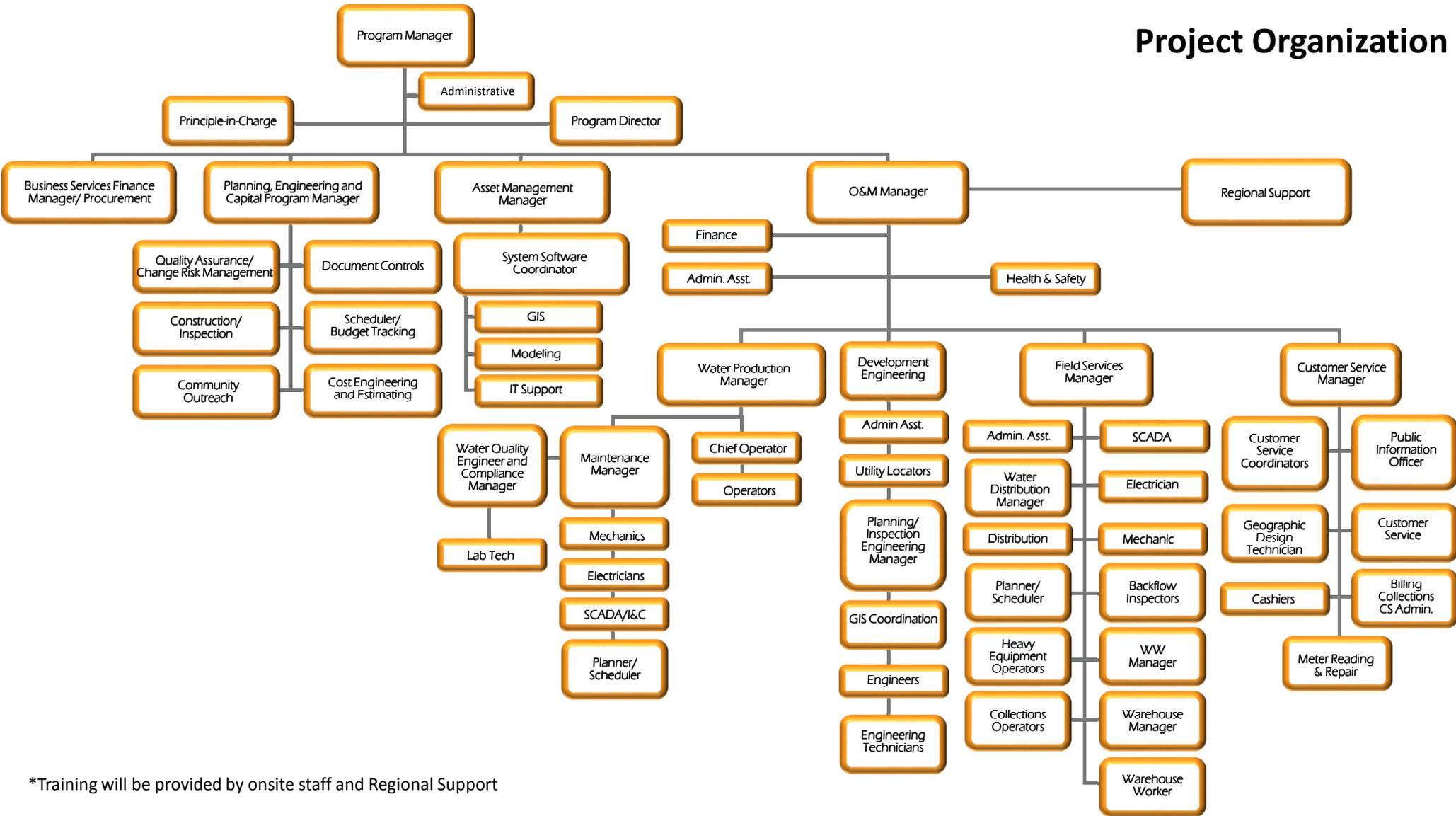
2017 Program Management Rate Schedule

		2017 Bill Rates	
Per Diem Class	Client Billing Titles	Home Office	Site
1	Vice President, Program Director, Program Manager, Engineer 9	\$ 289.86	\$ 289.86
2	CIP Manager, Senior Cost Estimator, Senior Manager, Senior Consultant, Engineer 8	\$ 227.11	\$ 221.70
3	Senior Design Manager / Registered Technical Experts, Business / Financial Manager, Contracts Manager, Engineer 7	\$ 219.27	\$ 216.69
4	Senior Construction Manager, Technology Lead, Senior Project Manager, Senior Cost Control / Scheduler, Engineer 6	\$ 201.17	\$ 194.08
5	Design Discipline Lead, Cost Control/ Scheduler, Document Management Professional, Engineer 5	\$ 167.32	\$ 161.42
6	Construction Manager, Technical Consultant II, Project Manager II, Cost Estimator, GIS Professional, Engineer 4	\$ 135.73	\$ 130.83
7	Construction Inspector, Technical Consultant I, Engineer 3	\$ 115.94	\$ 111.86
8	Engineer 2	\$ 97.59	\$ 94.15
9	Engineer 1	\$ 89.46	\$ 86.31
10	Engineer 0	\$ 68.22	\$ 65.81
11	Technician 5	\$ 121.57	\$ 117.23
12	Senior Technician/CAD Technician/Executive Administrative Assistant, Technician 4	\$ 99.06	\$ 95.57
13	Technician 3	\$ 78.03	\$ 75.09
14	Technician 2	\$ 69.37	\$ 66.93
15	Administrative Support Staff, Technician 1	\$ 57.26	\$ 56.14
19	Clerical, Document Control Clerk, Project Accountant	\$ 45.55	\$ 44.69

EXHIBIT 8

PROJECT ORGANIZATION CHART

Project Organization



*Training will be provided by onsite staff and Regional Support

EXHIBIT 9
CONTRACTOR KEY PERSONNEL

Position	Name	Onsite]
Program Director	Matt Alvarez	No
On-Site Program Manager	Jerry Notte	Yes
Water Production Manager	Harry Marrow	Yes
Planning/Engineering/Capital Program Manager	Steve Riley	No
Maintenance Manager	Mike Idzior	Yes
Systems / Software Coordinator	Bernie Jacobson	No
Asset Management Manager	Jeff Sanford	No

Exhibit 10
List of City Permits issued and Reports required by Regulatory Agencies

10.1 Contractor shall obtain necessary signatures from City and is responsible that all permits under full control of Contractor, as determined by the parties within sixty (60) days after the Execution Date, are processed and filed in a timely fashion and renewed by the permitting regulatory agencies. City, with the assistance and support of Contractor in the preparation of submissions to permit regulatory agencies, shall be responsible that all permits are maintained, processed, filed and renewed by the permitting regulatory agencies for permits covering shared areas of responsibility with other City departments, functions or facilities, with input from Contractor for Contractor areas of responsibility. Contractor shall generate and maintain responsibility that all reports required by regulatory agencies for areas under the full control of the Contractor are processed and filed in a timely fashion and approved by the regulatory agencies. City will be responsible for payment of all permit renewal fees. Engineering services required as part of the permitting process will be part of the Program Management Services. A listing of all permits as of the Execution Date can be found in 10.2.

10.2 Within the design capacity and capability of the Utility Facilities, Contractor shall maintain compliance with, beginning on the Commencement Date, all required permits, licenses and authorizations, which as of the Execution Date are as set forth below. However, if any of the Utility Facilities are not currently in compliance with any of the permits, licenses, and authorizations below as of the Commencement Date, Contractor will work with the City to identify any such non-compliance and to expeditiously return to compliance within no later than one (1) year after the Commencement Date, and during such period Contractor shall not be responsible for any fines, penalties, costs or unmet contract requirements resulting from such pre-existing conditions.

- Water Use Permit, No. 13-00060-W Miami-Dade County
- General Air Permit, ARMS No. 0251323
- Certification of Environmental Testing Laboratories for the City of North Miami Beach Quality Control Laboratory
- Florida Department of Environmental Protection Underground Injection Control Class I Injection Well System Operation Permit to Operate Injection Wells at Water Treatment Plant #0210044-004-UOI/IX
- Industrial Waste Pretreatment Annual Operating Permit IWP-000438.2016/2017
- Miami-Dade County Fire Rescue Department Annual Operating Permit to Operate Norwood Water Plant #99127-27116
- Miami-Dade County Air Pollution Annual Operating Permit #AP-002526-2016/2017
- Miami-Dade County Potable Water Supply Annual Operating Permit for the Norwood-Oeffler Water Treatment Plant #PW0-000016-2016/2017
- State of Florida, Department of Health, Annual Operating License for Public Drinking Water System Program 13-75-1284858. 13-BID-3101538

- Florida Department of Environmental Protection Storage Tank Registration Placard 2016-2017, #479387
- Florida Department of Environmental Protection Storage Tank Registration Placard 2016-2017, #479388
- Florida Department of Environmental Protection Storage Tank Registration Placard 2016-2017, #479389
- Florida Department of Environmental Protection Storage Tank Registration Placard 2016-2017, #479390
- Miami-Dade County, Florida, ISD Facilities Management, Office of Elevator Safety. State Serial #75868; DC#:1200
- Miami-Dade County, Florida, ISD Facilities Management, Office of Elevator Safety. State Serial #71369; DC#:9012
- Miami-Dade County Department of Regulatory and Economic Resources, Environmental Resource Management (RER-DERM) Capacity, Management, Operation, and Maintenance (CMOM) Report; Plan of Compliance; SSES Annual Report
- Federal Communications Commission, Public Safety and Homeland Security Bureau, Radio Station Authorization, FCC Registration Number 0009806654, Expiration 11/18/24, File Number 0006531378
- EPIC Fire Systems, Inspection, Testing and Maintenance of Wet Pipe Fire Sprinkler Systems, Norwood Water Treatment Plant, 7/29/2016 (annual renewal)
- EPIC Fire Systems, Backflow Report, Norwood, Northwest side of building, Midwest Model 007M1QT
- EPIC Fire Systems, Backflow Report, Norwood, Northwest side of building, Ames Model 2000b
- Protective Systems Inspection and Testing Fire Alarm System, Simplex Model 4100U, Norwood Water Treatment Plant
- Protective Systems Inspection and Testing Fire Alarm System, Simplex Model 4008, Operations Center Water Tank Building
- Florida Department of Environmental Protection Petroleum Storage Systems, Storage Tank Facility Annual Compliance Site Inspection Report, Facility ID 8628950
- Miami Dade Fire Rescue Department Annual Operating Permit # 99128-26114, Public Services Operations Center
- Protective Systems Inspection and Testing, Public Services Administration (PSA) Building, 15022-0048, Fire Alarm System, FCI, Model 7200.
- Miami Dade County RER/Environmental Resources Management, Liquid Waste Transporters, monthly reporting form – septic/grease trap/portable toilet waste
- Miami Dade County RER/Environmental Resources Management – Annual Operating Permit, Domestic Wastewater, Permit number DWO-000049-2016/2017 (U2) Utility 2
- Miami Dade County RER/Environmental Resources Management, Liquid Waste Transporters Annual Operating Permit – LW-000423-2017/2018 (ST) ST
- Florida Department of Environmental Protection Petroleum Storage Systems, Storage Tank Facility Annual Compliance Site Inspection Report, Facility ID 8629102
- Miami Dade Fire Rescue Department Annual Operating Permit # 07128-01543, Wastewater Division

EXHIBIT 11-A
CHANGE MANAGEMENT PLAN OUTLINE

PLAN

Change Management

Prepared for

Client Name

Date



Legal Entity Name

Office address

Office address

Office address

Revision History

Issue	Author	Date	Description

Technical Check

Role	Name	Signature	Date

Approval

Role	Name	Signature	Date

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Table(s)

XX Table Title

Figure(s)

XX Figure Title

Text from proposal for your reference and/or inclusion in the plan [DELETE THIS SECTION AFTER INCORPORATING THE PROPOSAL AND PURSUIT INFORMATION]

Copy text from proposal and other pursuit materials and incorporate these into this plan. This is what the client bought and expects from us on this program.

Creating a legacy for ...

Approach

Acronyms and Abbreviations

BCWS	Budgeted cost of work scheduled
CRF	Change request form
EWN	Early warning notices
KPI	Key performance indicator
PDF	Portable document format
PMT	Program Management Team
QA	Quality assurance
QC	Quality control
TBD	To be determined
WBS	Work Breakdown structure

Introduction

1.1 General

This plan provides guidance for processing either directed or proposed changes to the client program baseline.

The program baseline for the client program consists of the program scope, work breakdown structure (WBS) based on the program scope, integrated master schedule to implement the scope, Key Performance Indicators (KPIs), and budget cost estimate.

This initial baseline will be used to identify and measure changes to the program, thus establishing a comprehensive and realistic program baseline is fundamental to baseline change management of the client program.

1.2 Goals and Objectives

The goals and objectives of formal change control are to ensure changes to the program scope, schedule (including milestones) and budgets are adequately documented, appropriately approved, and correctly implemented. A formal process is needed to ensure that:

- A change, or the need for a change, is recognized and documented as early as possible;
- The impact of the change on scope, WBS, cost, and schedule is recognized for affected program areas and contracts;
- Interdependencies between affected program areas and contracts are adequately detailed;
- The change identifies the source of any required funding;
- The change is properly authorized;
- The change is properly disseminated and communicated;
- Each change is uniquely identified;
- An adequate record is made of how and why the change was made and implemented.
- The baseline is modified, as required, through this formal, documented change control process. Baseline changes must be proposed and authorized/approved in accordance with this plan.

1.3 Critical Success Factors

The following items are critical to the success of Change Management:

- Open communications on change matters
- Support of stakeholders for change management
- Proactive recognition and response to change by client and program management team (PMT)
- Adequate tools and procedures to quantify change
- Effective controls to measure impact of change on the budget and schedule
- Ability to measure additional impacts of the change on project lifecycle
- Continuous improvement of change process
- Measurement of change impact on other functions, projects, and affected stakeholders
- Proactive communication of the impact of change on internal resource management

Change Definition and Approval

2.1 Change Definition

A change is generally defined as a modification to the baseline that affects the program scope, including performance or quality requirements, cost, or schedule.

The following further refines the general definition of change:

- A program requirement or direction to modify the program or contract's scope, cost or schedule
- Modifications/revisions of the program or contract are required due to significant program or contract delays, technical issues, events or other impacts which make the original baseline unrealistic
- A force majeure that impacts the program or a contract's scope, cost or schedule

2.2 Changes that Require Program Steering Committee Approval

A change meeting one or more of the following criteria requires approval by the program steering committee:

- Is referred to the program steering committee by the client program director or PMT for resolution of the Steering Committee
- Has cost implications greater than the authority delegated to client program director or PMT
- Adversely affects any program or contract milestone or completion date
- Modifies, corrects, adds or deletes any key performance indicator
- Results from emergency action taken in response to an immediate direct threat to life or health
- Results from remedial actions directed by the PMT – after they have been implemented
- Proposes to draw money from program contingency
- Proposes to seek funding from any other source not currently approved by the approved budget

2.3 Program Managers Changes

A change that meets the following criteria can usually be approved by the PMT:

- Does not affect the WBS
- Does not affect or impact the overall program scope, cost, or schedule
- Cost or schedule impacts are within the PMT's approval authority

2.4 Reporting Changes

Changes will be reported to the client in summary in every monthly progress report.

2.5 Drawdown of Contingency

Use of contingency is approved only through the Change Control Process. Normally program or contract contingency is not used unless specifically allocated or approved by the program steering committee.

Change Management Process and Tasks

3.1 Change Management Processes

The following processes are used as part of Change Management:

- Early Warning Notices (EWN) – Where a compensation event is likely under program contracts, an EWN must be issued. Upon issue, each EWN is entered as a threat in the risk register.
- Change Control – Risk associated with a proposed change is assessed for inclusion in the change control log, and provides qualitative and quantitative information to support change control decision making.
- Schedule Assessment – Quantitative risk assessment tools are used to provide schedule dates and activity durations reflective of the risks and impacts associated with the scope of work being assessed.
- Risk Provision and Contingency - Quantitative risk assessment tools are used to determine/calculate risk-based allowances and contingency costs. This information is provided to the PMT to determine budget requirements at given confidence levels.

3.2 Change Management Tasks – Preparing a Change Request

To prepare a change request form, the originator or PMT Lead is required to undertake the following tasks:

1. Identify the change or the need for a change.

Verify with the change control manager and/or the PMT commercial manager that the change is not a “variance” (Cost Variance – Difference in the actual costs expended against the planned cost expenditure relative to a selected point in the phase or Contract schedule or Schedule Variance – Difference in the actual schedule expended against the planned completion of deliverables relative to a selected point in the phase or project schedule) that should be managed as part of the variance analysis process.

2. Determine the level of approval required for the change proposal.

Discuss with the change control manager and/or the commercial manager the documentation required to support the change proposal.

3. Obtain a change request form number from change control manager.

4. Work with the schedulers, Quantity Surveyors, and technical support to develop the change proposal supporting documentation for the specific areas impacted (scope, WBS, cost, schedule) in the change areas of the program control system.

5. Review the change proposal supporting documentation with the impacted PMT teams verifying health, safety, environmental, training, remediation, and other project impacts have been captured and addressed. For significant changes that cross multiple contracts, contact the PMT commercial manager to help facilitate this review. Depending on the complexity, magnitude, or content of the proposed change, the PMT Lead will brief the client program manager and other members of the PMT management team as appropriate.

6. Prepare the change proposal form.
7. Obtain Assurance Function Lead and cost management reviews and approvals as required.
8. Obtain approval signatures from the PMT lead (all changes).
9. Submit the change proposal and supporting documentation to the change control manager for final review/verification.

3.3 Change Management Tasks – Processing a Change Request

The change request and supporting documentation is then processed as follows:

1. The change control manager will review and verify that the change request form (CRF) is complete. For program level changes copies of the change proposal will be distributed to the Steering Committee members, and project lead(s). A program steering committee meeting will be scheduled if required.
2. For changes to be reviewed and recommended by the program steering committee submit the CRF to the PMT who will approve and forward the CRF to the program management coordinator. Notify the change control manager of the recommendation of the program steering committee meeting.
3. Monthly, the change control manager will issue a list of approved, held over or cancelled CRFs for the month. CRFs received after the published approval date will be processed in the next reporting cycle.
4. Upon final approval, the change control manager will work with the program controls Lead and the Senior Quantity Surveyor to implement the approved change to the baseline plan.
5. The change control manager will update the change control log documenting the proposed baseline change as approved and make timely distribution of change approval.
6. If the change impacts contingency the program control lead and the senior quantity surveyor will confirm that:
 - The contingency account and the baseline activity (budgeted cost of work scheduled [BCWS]) is adjusted by the approved change value, and
 - The contingency log is updated to reflect the approved baseline change.
7. The change control manager will retain the record copy of trends, change proposals and supporting documentation for levels for the project duration.

3.4 Authorization

The following authorization is required for approval at each change threshold:

Program-level Changes	
Client	PMT
Program Steering Committee	Program Manager
Program Director	Acting Program Manager or Engineering Manager
Program Manager Coordinator	Change Control Manager
Client-appointed	PMT appointed

Responsibilities

4.1 General

The baseline change control process described above governs the identification, documentation, preparation and approval of changes to the client program baseline, ensuring that the validity of the program scope, schedule and budget cost are maintained. Change control actions may result in variations to the contract between client and its contractors, and as such, documentation and actions are subject to rigorous checks. Change control documentation must be prepared and processed accordingly.

The change request form is located on the SharePoint web portal as the Change request form. The following sections describe the responsibilities of the various PMT team members in the Change Management Process:

4.2 Change Control Manager

The change control manager will be the PMT commercial manager or a named representative of his team. The change control manager assigns CRF numbers, maintains the change control system, and tracks and coordinates CRFs through the change control process. The change control manager also ensures CRF package compliance with this procedure, issues CRF notice to implement, and provides CRF training to client and PMT staff personnel.

4.3 Program Controls Organization

The program controls organization's functions include:

- Maintain the baseline schedule, budget and support preparation of the scope, schedule, planning estimates, and budget changes for the CRF.
- Review proposed CRFs to ensure that scope and impacts to other program or projects deliverables are adequately identified and integrated.
- Validate the CRF package, including the overall quality of the data.
- Upon approval, implement CRFs into the program baseline.
- Communicate and distribute approved changes to the program manager, responsible project leads, design manager, and construction manager. Minor administrative changes should be forwarded to the responsible project lead(s) and other PMT members as applicable.

4.4 Responsible Program Management Team Lead

The responsible PMT Lead (who may be the XX Lead or the XX Lead or the XX Lead or a Resident Engineer) is the owner of the CRF, and is responsible for the preparation, quality, and compliance of change documents in his/her work area.

He/she ensures that change proposals are prepared, processed properly and that a copy is submitted to the change control manager. PMT will be required to sign off on any Steering Committee level changes.

As the owner of the CRF, the PMT Lead(s) will review and present change packages to the program manager for approval and respond to questions related to the CRF.

The PMT Lead(s) records the cost incurred to the program or contract as a result of the change and provides a report to the program change control manager each month. Reporting is to be made on a standard template.

4.5 Originator

If a change is initiated from within the PMT, the change originator is responsible for obtaining the information pertaining to the change before transmitting the request to the PMT Leads, program engineering manager and program manager for their concurrence. No CRF will be processed until the approvals and attachments are in place. Originators of changes must make full use of schedulers, cost estimators and technical assistance to ensure completeness, accuracy and simplicity of the information presented to the PMT management team.

If the change originates from a client requirement or that of an external party such as a government department, then PMT Lead from the work area most closely related to the change takes ownership of obtaining the information pertaining to the change before transmitting the request to the project leads, program design manager and program manager for their concurrence. If the change request originates from a contractor, then the Resident Engineer takes ownership.

4.6 Schedulers/Planners

Schedulers/planners work with the Quantity Surveyors/cost estimators and prepare a cost-loaded schedule variance analysis of any change. A PDF version of this data must accompany the change request.

When a program milestone or contract completion date is changed, the change is automatically a program-level change and must be submitted to the program manager. It must be reviewed and signed off by the PMT Lead(s) as applicable.

Changes to a cost loaded schedule automatically changes the profile of spending, thus the quantity surveyors need to be notified by the schedulers so that they can prepare their section of the change request form.

4.7 Cost Estimating Team and Contract Administration

Cost estimators/quantity surveyors work with the schedulers to understand the schedule changes and the implications for cost changes. It is the responsibility of the cost estimator to understand cost impacts and ensure that they are accurately included in the change request.

It is the responsibility of the contract administration team to assist the cost estimating team in the review of contract requirements and evaluate requested changes in accordance with the contract.

4.8 Steering Committee

The program steering committee reviews and recommends changes submitted by the PMT.

The steering committee's functions include:

- Approve or reject changes brought before the committee (for which they have authority to act upon) and
- Recommend or reject changes for which they do not have authority to act upon; due to statutory or regulatory constraints.

The board will meet periodically in accordance with the established program meeting schedule.

Key Performance Indicators

The Key Performance Indicators (KPI's) for the Change Management process include the following:

- No work performed on a change without prior approval of that change
- Complete program within baseline budget (as varied by any changes) and allocated contingency
- Leverage opportunities to improve cost and/or schedule performance
- Client feedback

Appendix A

Change Management Tools

Change Management Tools

There are two recognized tools of change management, the change request form and the change log.

An example of a change request form is reproduced below:

	A	B	C	D	E	F	G	H	I	J	K	L	N	O	P
1	ADSSC Request Form								Originator's reference						
2	Originator's name								0 -Select primary or interdependent project from this dropdown list						
3	Contact phone number								Contract list drop down menus are on sheet 1 Budget-Cost Allocation						
4	Date								WBS Element:		0				
5	Must be done by date (if applicable)								PROJECT CONTROLS MASTER REFERENCE NUMBER						
6	<u>Change Type</u>			SELECT FROM DROPDOWN MENU											
7															
8	<u>Change Impact</u>			Scope		Schedule		WBS							
9	(type 'X' where applicable)			Cost /Budget		Controller/Milestone		Funding							
10	Is this change the subject of an EARLY WARNING NOTICE ? (y/n)					Has a COMPENSATION EVENT NOTICE been issued ? (y/n)									
11	Title (short, max 40 characters) and rationale of requested change (use additional pages if required):														
12	OVERTYPE HERE (Row 12) YOUR TITLE														
13	Describe here the change specifically in terms of change to scope, schedule, budget, or funding consistent with the change impact identified above. Use "N/A" if the category does not apply Include a description of alternative options considered including impact of not making the change, Change +/- in Risk profile														

Ready

The change log gathers of the data required in the change control management framework, and supplements it with any additional data needed for use.

It is issued regularly to program steering committee, client program director, and PMT.

Management of the Change Log

The change log shall be maintained as a live document, subject to ongoing revision and update.

Management Reviews

The collation of changes into a single register is intended to enable an overview to remove duplication, inconsistency and error from the entries. Therefore, the register will require management reviews to check the quality of input. Reviews shall be undertaken by the relevant managers of draft reports, including ensuring that necessary amendments are completed on time.

Appendix B Meeting Dates

Meeting Dates

It is important to include critical Committee Meeting dates for any groups with change approval authority that meet less frequently than weekly. The table below is to be completed for any approval meetings that may have impact on the approval schedules.

"Not Later Than" dates for Program changes in ####	Internal PMT meeting dates for ####	Important Client Committee meeting dates for ####	
<p>TBD</p> <p>TBD</p> <p>TBD</p> <p>TBD</p> <p>TBD</p> <p>TBD</p> <p>TBD</p> <p>TBD</p>	<p>Venue:</p> <p>Time: TBD</p> <p>TBD</p> <p>TBD</p> <p>TBD</p> <p>TBD</p> <p>TBD</p> <p>TBD</p> <p>TBD</p>	<p>Time: TBD</p> <p>TBD</p> <p>TBD</p> <p>TBD</p> <p>TBD</p> <p>TBD</p> <p>TBD</p> <p>TBD</p>	<p>Venue</p> <p>TBD</p> <p>TBD</p> <p>TBD</p> <p>TBD</p> <p>TBD</p> <p>TBD</p> <p>TBD</p>

EXHIBIT 11-B
COMMUNICATIONS AND OUTREACH PLAN

DRAFT

Communications and Outreach Plan

Prepared for

NMB Water

May 2017



Revision History

Issue	Author	Date	Description

Technical Check

Role	Name	Signature	Date

Approval

Role	Name	Signature	Date

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Purpose and Scope

A communication management program is necessary to manage the tone, volume, and type of information that will be communicated to internal and external stakeholders during NMB Water program implementation. Communication protocols provide a unified approach to messaging and communication, control of the flow of program and project-related information, minimize misinformation, maximize the sharing of accurate information across appropriate communication channels, and provide structure to the information shared with internal and external stakeholders.

This Communications and Outreach Plan provides clear, consistent, and controlled messaging to facilitate day-to-day operational communication, keep community members safe and informed, minimize disruptions, and allow City staff to be responsive to the communication needs of constituents. The policies articulated in this plan form the basis for the program communication and address internal and external communications including media relations and construction outreach.

The purpose of this Communications Plan is to provide protocol addressing:

- Construction-related information development and distribution to the City and NMB Water residents
- Timely and accurate emergency-related information to the City, NMB Water residents, and the media
- Maintaining consistent communications and communications standards during operations
- Supporting the program and the client with external communications and public relations relevant to the program to comply with the communications and media relations policy

The scope of this plan is management of all communications for the program in compliance with communications standards, reporting requirements, and content management requirements. Collaboration between the City and CH2M is required to provide consistent external and internal program communications.

1.1 Communications Plan Goals and Objectives

NMB Water is committed to conducting proactive public outreach effort that focuses on educating and engaging the public about emerging issues, project issues that may impact residents, and program benefits. The goal of this plan is to provide clear and consistent information to maintain an informed public and City staff while supporting timely and efficient operations and project implementation. Implementing this plan will maintain a continuity of communication, keep local communities informed, and help to build trust and credibility by providing accurate, relevant, and timely information.

The following Communications Plan objectives relate to the development of the NMB Water program communications systems, policies, and procedures:

- Establish regular communication of program milestones, program status, proposed plans, operational accomplishments, community support initiatives, and other areas (to provide a clear understanding of what the program is doing and why).
- Create an emergency/risk response communications plan to maintain business continuity in case of emergencies and address issues proactively

- Develop an effective internal communication program that provides for effective communication between CH2M and NMB Water and City staff and confirms that all staff and contractors are communicating the same messages and are communicating effectively with each other.
- Establish for external communications to provide accurate and consistent information to media and the public.

1.2 Communications Methods and Strategies

The program communications approach sets the framework for daily operation and information management. The approach is not rigid, regulatory, or restrictive, given the dynamic nature of the communication processes; rather, the approach is to clearly define roles and responsibilities for purposes of accountability and good governance. As part of an overall proactive strategy to optimize efficiency throughout the inevitable change that will occur during the evolution of the Project, this governance will be periodically reviewed and updated as necessary, confirming the effectiveness of the communication with users and stakeholders. Meetings will be conducted to confirm that the communication methods present the Project’s message clearly, in a timely manner, and in a way that is easily received and understood. Lessons learned as a result of continuing communication will be captured and used to improve Project-level standards.

Clear communications throughout all program phases will mitigate redundancies and gaps within the program among the functions and will effectively promote program objectives. The program communications strategy is structured around three main categories of communications, specifically day-to-day operational communication, emergency response communication, and construction communication (as shown in Figure 1-1).

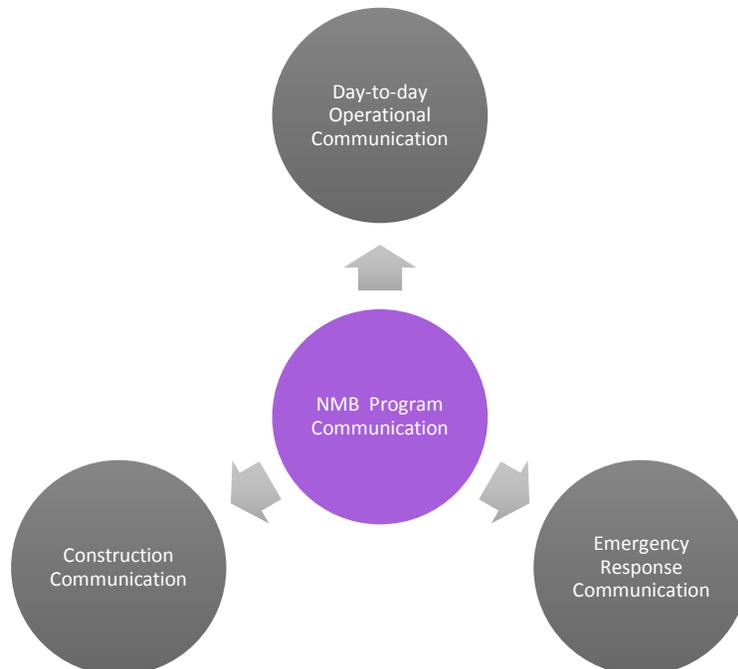


Figure 1-1. Three Key NMB Water Communication Plan Focus Areas

This strategy documents the methods that the NMB Water delivery team will use to support timely and appropriate communications, along with their collection, dissemination, storage, and ultimate disposition. The overall communications planning process is illustrated on Figure 1-2. This process is

based on the public relations industry best practice known as the ROPES process, supported by the Public Relations Society of America.

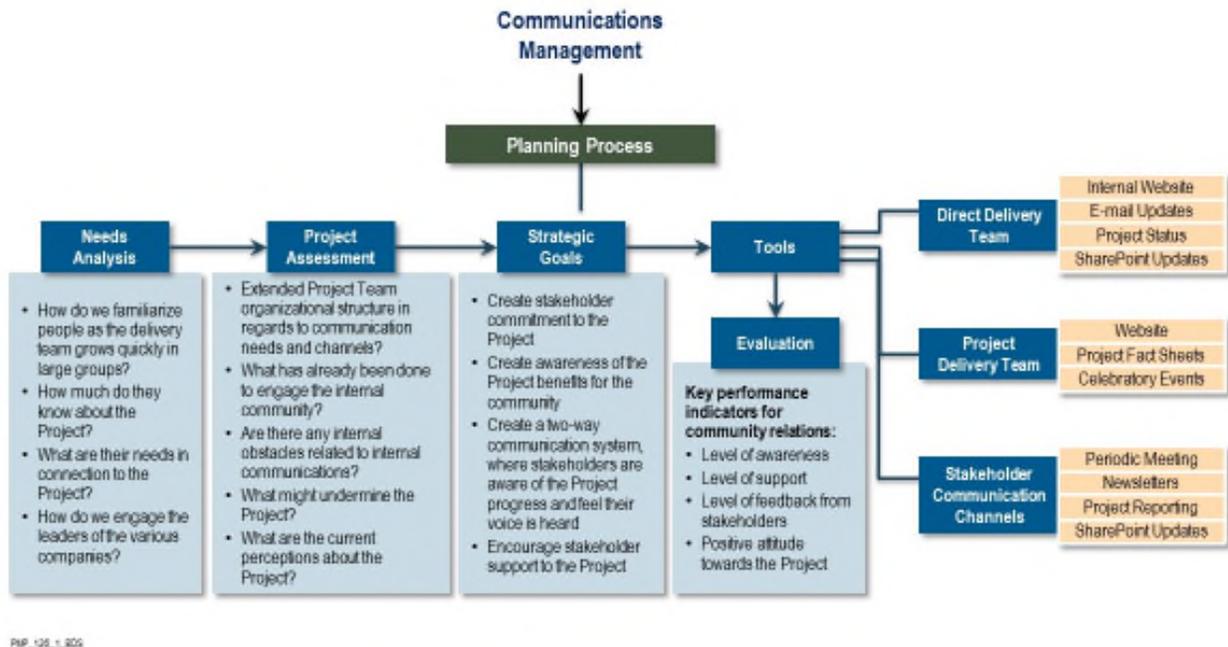


Figure 1-2. Communications Planning Process

1.3 Stakeholder Identification and Analysis

Research is a critical first step in defining communication and engagement needs. The term “stakeholder” refers to individuals and entities, external and internal to the Project, who have an interest in or could be affected by program activities. The communications process crosses all aspects of the NMB Water program and begins with stakeholder identification and analysis.

A stakeholder list, disaggregated by specific characteristics, will be provided in the detailed NMB Water program communication plan. This stakeholder list will be converted into a stakeholder database which will be used during implementation to distribute information to constituents. Stakeholders are identified as primary or secondary stakeholders with primary stakeholders being those significantly impacted and with high level of interest and influence on the program and secondary stakeholders being those who should be informed of activities but who will be less impacted.

Figure 1-3 illustrates an effective and easy-to-understand interest and influence map that will guide communications activities to further facilitate common understanding of and support for NMB Water program goals.

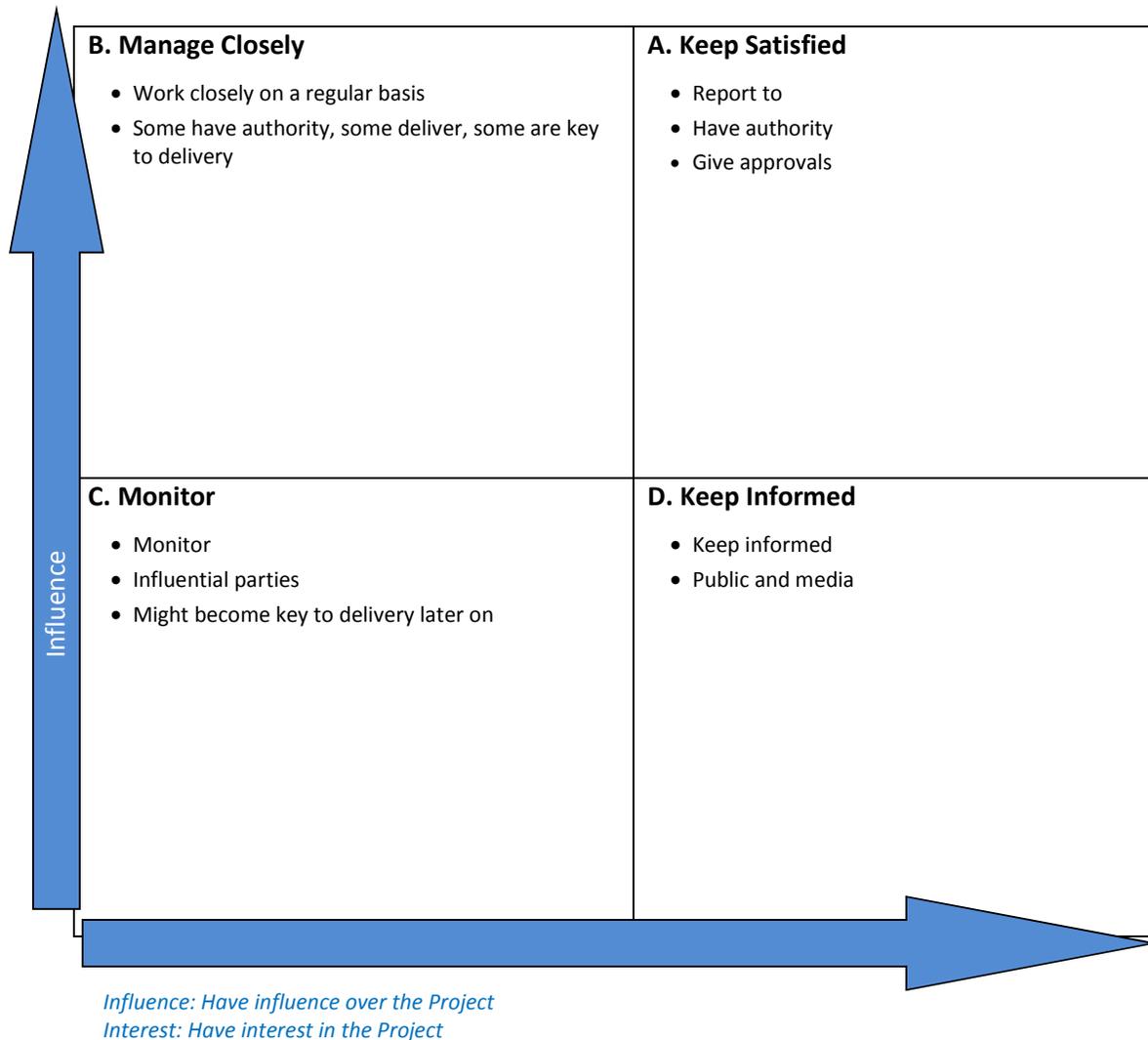


Figure 1-3. Public and Stakeholder Interest and Influence Levels

1.3.1 Analyze and Assess Stakeholder Communication Needs

Given the divergence of stakeholder types and communication methods, research will be conducted to identify the most effective communication methods and platforms for each stakeholder group prior to initiating the outreach proposed in this plan. Evaluation of the effectiveness of communication content and delivery will be undertaken annually during plan updates. Further, content to be included in outreach communication will be analyzed by communication software to detect the tone and readability of messages, improving the effectiveness of materials.

Throughout implementation of the NMB Water program, additional stakeholders will be identified and added to the existing stakeholder map and database. CH2M will include the new stakeholders in the map and determine the tools and mechanisms of communication most appropriate for these new stakeholders.

1.3.2 Identify Key Messaging

Identifying key messages is a critical component of this NMB Water communication plan. These messages will be defined during detailed communication plan development and translate the program vision. Key messages for the program include communication of the following:

- Vision, goals, requirements, and issues
- Program elements and delivery approaches
- Program issues and mitigation through risk and change management
- Cross-cutting themes, such as benefits of the program to NMB Water residents

To plan for communication of these messages, the communications process described herein requires interfacing with functions and stakeholders so that there are consistent communications across the entire program.

1.3.3 Communication Tools

Templates are already established or are in the process of being established to secure a consistent look and feel for program documentation. The templates include standards such as the program name, date, standard headers and footers, and branding for the NMB Water program, as appropriate.

Communications may also be categorized as confidential, time-critical, action required, or some combination of these. These templates are stored in the content management system.

1.3.3.1 Outreach Material Development

Collateral material design will be developed at the project onset. These materials will be used to communicate with internal and external stakeholders during implementation. Key messages and visual elements will be developed and approved by NMB Water. These will be threaded through communications and will integrate program facts, benefits, and impacts. Specifically, these messages will be integrated into media relations activities, fact sheets and other collateral materials, presentations, the program web site and other materials. While research will determine the precise methods, it is anticipated that they will include fact sheets, monthly or quarterly report templates, frequently asked questions (developed and maintained throughout program implementation), and PowerPoint presentations to be maintained. It is anticipated that materials will be produced in English and Spanish and other languages, such as Creole, as identified during the stakeholder analysis.

1.3.3.2 Outreach Tools Selection and Use

A variety of tools, such as Diction software, will be used to assess outgoing content and to evaluate media hits that refer to the program. This software allows for the analysis of the tone of messages that are being distributed, providing an understanding of what information stakeholders are receiving.

Depending on the tools identified during full Communication Plan development that are used to disseminate information (for instance specific social media vehicles), evaluation and social listening methods will be used to evaluate distribution effectiveness and responses to information delivered.

1.3.3.3 Communication Tracking and Storage

The NMB Water program content management process for information about the program's policies and procedures for communication and document naming, tracking, storage, and retention. Written communications received or generated by the program are retained and stored in the content management system, depending upon the format in which they were received.

Communication tracking is a recognized public relations industry and international communication best practice. The NMB Water program outreach team will log external communication in a format similar to that presented in Table 1-1.

Table 1-1. Internal Communications Log Template

Date	Purpose of Information/ Data Provided	Audience	Responsible Party	Communication Type	Comments

1.3.4 Branding

Branding required by the NMB Water program to distinguish itself will be identified at the program onset in coordination with and approval from the City. This branding will be used across all internal and external materials and deliverables presented, including stationery, fact sheets, political communication, business cards, and external reports that require branding.

1.3.5 Documentation

Communications documentation used on the program are all subject to content management policies and include electronic and hard copy documentation, such as the following:

- Fact Sheets, Project Cards, Postcards, and Brochures
- Conversation records
- Correspondence received
- Correspondence sent
- Daily logs and diaries
- E-mail
- Invoicing
- Meeting minutes
- Process flows
- Program action plans
- Program audio cassettes, compact discs, and digital versatile discs
- Program films and videos
- Program photos
- Reports
- Requests for information
- Submittals
- Telephone records
- Transmittals

E-mail is used as a means for informal, ad hoc communication among program team members, contractors, and stakeholders. E-mail is not to be used as official correspondence. E-mail may be used to alert the recipient that a correspondence is forthcoming. Official external correspondence will always be in the form of a letter, memorandum, or document.

Appropriate use of e-mail includes scheduling meetings, forwarding documents or other information, and addressing general questions and answers. Incoming e-mail should not be used as official

correspondence; however, if the e-mail contains pertinent or historical information, then the e-mail should be given a document tracking number and archived in the program content management system.

1.4 Key Performance Indicators (KPIs)

The Communication Plan KPIs will support the NMB Water program success factors. As such, during project initiation these indicators will be identified. Preliminarily, this draft Plan recommends the following three indicators.

1.4.1 Measure Stakeholder Feedback

The NMB Water program exists to serve stakeholder needs and values the opportunity to obtain feedback to assist in service improvement throughout NMB Water program delivery. The Communication Plan includes a procedure for obtaining the measure of acceptance by stakeholders and the community. Success factors include:

- Minimum complaints and efficient issue resolution
- Positive media responses
- Political communication that provides for local elected leader endorsement and support
- Employee satisfaction
- Permit compliance
- Accessibility to information

1.4.2 Anticipate Issues and Communicate Proactively

The ability of the team to anticipate issues and respond proactively is a measure of performance and a measure of expected success. The communications principles and processes included in this Plan provide the framework for the team to achieve success. The Issues Log contained in the Document Management Plan provides a means for tracking and measuring numbers of issues identified and the amount of time needed for resolution.

1.5 Evaluate and Maintain the Communication Plan

The program communication plan will be maintained for effectiveness, to integrate new stakeholders and changes in stakeholder requirements, and as a results of evaluation results. Lessons learned will be documented, and the Communications Plan will incorporate lessons learned and evolve as program and public information needs evolve.

Communication Strategy

This section addresses how operational information and emergency events will be communicated. Details are provided for who determines the type of communication needed, by whom, and when, and who is responsible for providing it. Table 1 summarizes the communication execution process.

Templates and collateral communications material are maintained in the content management system, and the processes for using these templates are detailed in the Project's processes and procedures within the Program Delivery Platform (Platform). These processes and procedures include verbal, written, and electronic communications.

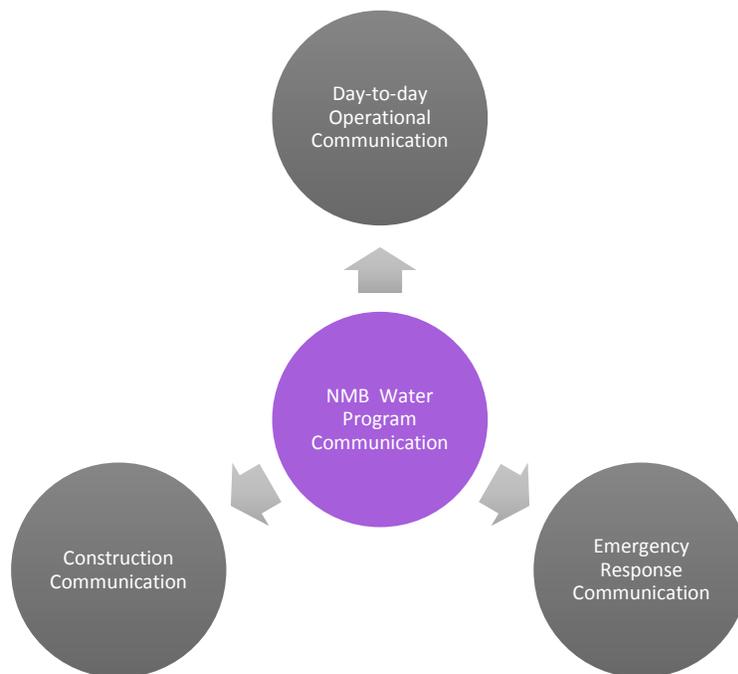


Figure 1-1. Three Key NMB Water Communication Plan Focus Areas

2.1 Day-to-day NMB Water Program Operational Communication

NMB Water has established a goal of maintaining good relationships with the communities in which it has facilities and the customers and public it serves. The program team has a responsibility and commitment to support the continuation of this positive public outreach program.

Communications within the delivery team are critical to keeping messages consistent and informing individuals of their contribution to the delivery of a complex, integrated set of projects. Consistent and accurate messaging requires that delivery team members do not directly interface with the media; rather, the NMB Water delivery team will provide the technical and program information necessary to support the City. Following are communication guidelines related to potential day-to-day communications with key stakeholder groups. Additional information and protocols will be developed during detailed Communication Plan development.

2.1.1 Internal Team Communication

Effective internal communications throughout the program is critical to successful NMB Water program delivery. Depending upon the level of sensitivity, information should flow freely up, down, and across the organization. The program will use various forms of communication depending on the type and purpose of information, such as that noted in Table 2-1.

Table 2.1. Internal Communication Tools

Type	Tool	Description/Use
Internal	Intranet	A computer network shared by the program team to be used as a source of internal communications.
Internal	Electronic updates	Electronic communications working tool (newsletter) for communications, designed to keep program participants apprised of program status, protocols, and procedures, and for team building and social team activities.
Internal	Communication maintenance program	Defined process for intranet maintenance and content (working tools).
Internal	Text messaging	Useful tool for field staff
Internal	Branding guidelines	A guideline that defines Project-wide branding – in particular, program team documentation, business cards, and internal display materials to establish consistency within the Project’s documentation. To be followed by all program participants, these guidelines will be established in coordination with the PMT and the client.
Internal	Engagement exercises and workshops	To update, motivate, and inform targeted internal audiences, as needed; to align staff on key messages

2.1.1.1 Internal Communication Protocols

All staff involved with the NMB Water program will be trained on and directed to follow the internal communications protocol. As part of this protocol:

- All (non-construction related) public comments and inquiries will be directed to the NMB Water public outreach lead. Construction related questions or complaints will be managed by NMB Water public outreach and appropriate technical team member in coordination with City Public Affairs staff.
- All media inquiries will be directed to <TO BE DETERMINED DURING DETAILED COMMUNICATION PLAN DEVELOPMENT>.
- It is paramount that all communication is delivered through the designated project communication portal to ensure consistency in information being disseminated, customer service, and comment/response tracking.
- If a project staff member has questions or concerns about the internal communications protocol, he or she should contact the NMB Water public outreach lead.

2.1.1.2 Internal Communication Format

Communications must be in acceptable written format. Acceptable formats include e-mail, letter, memorandum, or other formats approved by the PMT (see the content management system for the latest version of templates). The sender of a communication is responsible for confirming that the

receiver understood the message as intended. The receiver of a communication is responsible for listening to and verifying the content of the message to make certain the receiver understood the sender.

The program management team may also arrange employee briefings or an ad hoc internal electronic bulletin for time-sensitive announcements, a hard copy of which must be produced and posted on public bulletin boards. Managers may only transmit policy messages after sanction by the NMB Water Program Manager. They may also hold regular briefings for their subordinates, depending upon practicality, normally at least once a month. Key staff may also decide to meet once a month for informal discussions. Regular communication in the relevant areas on matters such as occupational health and safety will be conducted through safety meetings, and formal or informal meetings (refer to the Health and Safety Plan for timing of regular Health and Safety meetings).

2.1.1.3 Scope of Information Disseminated

The scope of information disseminated will be limited to that within the individual's Program domain. Communication related to Project-wide status should follow the standard reporting procedure, which includes the monthly report provided to the NMB Water Program Manager, unless otherwise advised. The NMB Water Program Manager, with the support of the program delivery team members, as needed, will provide the client with information necessary to develop the high-level narrative and status report to the Department of Commerce, Community, and Economic Development. Members of the NMB Water program delivery team, with support in developing information requested.

It is expected that the individual will disseminate information appropriately to other affected personnel. To easily contact other staff members, a team contact list is maintained currently on the NMB Water program platform. As the program evolves, the contact list will be maintained on this collaboration site.

2.1.1.4 Meetings

NMB Water program review, program team, operations, design, and construction progress, and program management meetings are critical collaboration tools necessary to implement large programs. The cadence and type(s) of meetings will be defined during NMB Water program initiation.

2.1.1.5 Design and Construction Progress Meetings

In addition to program meetings, design and construction team meetings will also be held. The cadence and location of progress meetings will be determined prior to the implementation of project construction. Meetings will be targeted to last no more 60 minutes, but may exceed this allowance if necessary.

The processes and format for the meetings will be defined during NMB Water program initiation.

2.1.1.6 Other Program Management Meetings

Other NMB Water program management meetings will be scheduled as needed. These will include kickoff meetings, safety meetings, and progress meetings. Special meetings to address issue resolution, planning for public meetings, and community engagement will be scheduled and conducted as necessary or at the request of the City.

2.1.1.7 Confidentiality

Communications by employees and program team members will comply with the Confidentiality Policy established by the client. Communications will also protect the private and confidential information of personnel, contractors, subcontractors, the client's personnel, and stakeholders.

2.1.2 External Communications

Establishing clear and consistent communication with stakeholders is a key tenet of effective relationship building. This section of the plan identifies communication with three key stakeholders that have been preliminarily identified as essential to the delivery of the NMB Water program. During full Communication Plan development, these stakeholders and outreach will be further detailed, addressing communication management among the multiple personnel and organizations involved in the NMB Water program.

2.1.2.1 NMB City Leaders

Being responsive to information requests from City leaders is a fundamental aspect of day-to-day external communication. Responses to inquiries from City leaders will be expedited to provide required information as expeditiously as possible. Further, if the queries identify issues not addressed by current communications and of interest to residents, materials or templates may be updated to integrate this information.

The NMB Water program will also proactively and regularly disseminate program status updates and provide information on upcoming activities that may impact residents. The program will maintain a fact sheet describing all program activities and the current status of individual projects.

2.1.2.2 Communicating with Residents

All (non-construction related) public comments and inquiries will be directed to the NMB Water public outreach lead. Responding to comments will follow an established question/complain resolution process, will be documented, and may be added to the Frequently Asked Questions document.

Table 2-2. External Day-to-day Communications Tools

Type	Tool	Description
Resident	Community communications	Coordinate and disseminate community communications.
Resident	Public meeting program and schedule	An appropriately timed public meeting schedule, to include resident forums where applicable, as part of the community communications plan.
Resident	Education and awareness program (optional)	An outreach educational program for local schools around projects.
Resident	Program website/social media	Community information-sharing website for community engagement.
Resident	Complaint response	Call center will take calls and resolve or escalate issues using a set of protocols established for each potential type of concern or complaint. Escalated issues will be resolved following a set of protocols established for each type of incident. The protocols and procedures will be maintained in the Delivery Platform. Examples of the protocols and procedures are included in Appendixes A and B.

Information that needs to be disseminated to residents, such as planned outages or public education and outreach events, will occur throughout the life of the program.

2.1.2.3 Media Relations

Effective relationship building and management is essential to providing information to residents in a timely manner. The media will be instrumental in informing the public about upcoming meetings, road closures, and other program activities. A standard protocol for media relations will be developed with NMB Water.

Table 2-3. External Media Day-to-day Communications Tools

Type	Tool	Description
Media	Media communications	Media communications will be established in coordination with the PMT and the client.
Media	Information to support media and outreach activities	Information provided to support the media to include the following: showcase progress and milestones, plan for minimization of potentially negative issues, the benefits the program brings, information to rebut quickly, including inaccurate stories.
Media	Media monitoring	Measurement of effective publicity that maintains the Project's reputation.

The media's specific requests for access and observation shall be accommodated in a professional manner and as conveniently as possible, when and if locations for observation are available where the media can be kept safe and removed from construction activity.

The NMB Water Program Manager and the client are the focal points for media communication; therefore, they should be immediately informed of potential media communication to allow enough time to adequately secure the required approvals. As such, NMB Water program staff shall not communicate with the media at any time. Statements to the media may be made only after approval from the NMB Water Director and the City. This provides a consistent approach and a coordinated response, and protects the interests of the program and staff. Program team members will contact the NMB Water Program Manager whenever they receive formal or informal requests for information.

Meetings with the media must only be set up through the NMB Water Program Manager. Meetings with the media include interviews, press releases, photo opportunities, media visits, and tours. External communication with media will be tracked in the It is good practice to maintain a log of the external communications that have been provided to the media stakeholder tracking log.

Current or planned individual projects that have been internally sanctioned must only be announced in an agreed form that stays within realistic timescales that allow for contingencies. Comments that may prejudice negotiations that are still taking place are to be avoided until negotiations are successfully concluded, and a statement appropriately crafted for the media has been agreed on. The NMB Water Program Manager and the client will make all announcements to the media.

2.2 Emergency Response Communication

NMB Water program leadership is on call 24 hours per day, seven days per week and prepared to address unexpected events. Communication must occur internally to resolve the issue and externally to inform leaders and residents as quickly and efficiently as possible. The Code Red notification system, media, and other program outreach tools serve a critical role in information dissemination. This section provides an overview of anticipated emergency response communication; during detailed Communication Plan development, these processes and links to communication networks and tools will be described in greater detail.

2.2.1 Internal Team Communication

When line breaks, boil water notices, or equipment failures occur, for example, a clear communication process (provided in the NMB program platform and understood by every program team member) will be followed. Close coordination with the NMB Water Director, City Manager, and City Commission will occur throughout the incident.

When the failure or incident occurs, the NMB Water Program Manager and NMB Water Director will be contacted immediately. Depending on the nature of the event, the resident communication process may be initiated. A call list similar to the following will be provided each week so that they will know who should be contacting them about emergency conditions.

Table 2.4. Emergency Response Contact List

CH2M On-Call Period 04/27 - 05/04			
Role	Name	Location	Contact Number
Management			
C&D			
Customer Service			
Meter Tech/Cust. Serv.			
E, I, & C			
Mechanical			
Lift Stations			
Water Plant			
Wastewater Plant			

Procedures and tools for responding to and communicating during emergency situations will be developed during Program initiation and maintained in the Delivery Platform. Examples of procedures are contained in Appendix A.

2.2.2 External Communication

Communication among all parties involved, including City and Program leadership, technical staff, and outreach professionals, will be ongoing until the issue is resolved. The nature and purpose of external communication will depend on the incident type and impact.

2.2.2.1 NMB City Leaders

Immediate notification of City leaders will occur once the incident or failure has transpired. The NMB Water Director in coordination with the NMB Water Program Manager will provide information as to the nature of the event, impact to residents or the system, anticipated resolution time/date, and public notification. This communication will be ongoing until the issue has been resolved.

2.2.2.2 Communicating with Residents

Timely and accurate resident information is essential to protecting the health and safety of residents during emergencies. A variety of tools may be used, including the Code Red notification system, to engage with residents.

Table 2-5. Resident Emergency Response Communications Tools

Type	Tool	Description
Community	Reverse calling	Notify residents of impending or existing danger and response actions required.
Community	Door-to-door	In-person notification of code red or to confirm receipt and correct response to life-threatening situations.
Community	Recorded messages/Online notices	Current and consistent outage and restoration information
Community	Media blasts	Notifications about non-life-threatening urgent situations, like spills and odor releases that could cause general panic or upset.
Community	Education and awareness program	Emergency preparedness and appropriate response actions, for example, procedures for properly boiling water or how to install temporary water filtration systems.
Community	Program website	Community information-sharing website for community engagement.

2.2.2.3 Media Relations

The media serve a critical role in information dissemination during emergencies. Once a determination as to the nature and scale of communication has been made, traditional and social media advisories may be prepared or direct communication may occur. In all instances, the NMB Water Director or NMB Water Program Manager will serve as the primary points of contact.

Table 2-6. Media Emergency Response Communications Tools

Type	Tool	Description
Media	Crisis/emergency response communication	Press advisories and interviews to provide information about the impact, time frame, resident impact, and instructions
Media (Traditional and Social)	Media monitoring	Measurement of effective of media communications; also measure the tone of messages issued by the media

2.3 Construction Communication

The NMB Water leadership team will collaborate with operators and construction contractors to identify and map key external stakeholders as part of the construction communications strategy and plan. Among these stakeholders are the internal team and several external groups (for example, local residents and businesses, vendors, other contractors working in the area, and regulators).

As part of the pre-construction planning, a construction communication plan will be developed for each project. The purpose of this plan is to inform residents and businesses of potential construction related impacts. The steps involved in developing the plan include assessing the outreach needs of each program project, identifying potentially affected stakeholders for each program project, developing project-specific materials for each project and distribute by hard copy and electronic means, supporting public affairs staff in construction complaint or question resolution, meeting with community leaders and staff from public and private sector facilities, and neighborhood associations within or adjacent to the project area, and coordinating with public agencies to ensure streamlined communication

2.3.1 Internal Team Communication

Formal communications to Contractors/Consultants must follow the terms and conditions of the approved contract. Official documents should be in the form of a letter, memorandum, or document, and posted in the program content management system. Formal documents, which include information about projects, variation requests, decisions, and negotiations, must all be posted in the content management system. Documents are stored in this central location, and each Contractor/Consultant can access and retrieve pertinent information needed about their projects by contacting the content manager. Furthermore, each Contractor/Consultant must acknowledge receipt of documents to minimize the potential ambiguity involved with sending and receiving documents.

The sender of a communication is responsible for confirming that the receiver understood the message as intended. The receiver of a communication is responsible for listening and verifying the content of the message to make certain the receiver understood the sender.

2.3.2 External Communication

2.3.2.1 City Leaders

The NMB Water program will also proactively and regularly disseminate program status updates and provide information on upcoming activities that may impact residents. The NMB Water program will communicate upcoming construction beginning at least 6 months prior to construction start. A construction communication plan for each project will be developed and shared with leaders whose constituents will be affected.

Being responsive to information requests from City leaders is a fundamental aspect of day-to-day external communication. Responses to inquiries from City leaders will be expedited to provide required information as expeditiously as possible. Further, if the queries identify issues not addressed by current communications and of interest to residents, materials or templates may be updated to integrate this information.

2.3.2.2 Communicating with Residents

Project-specific communication materials, such as door hangers and project summary sheets, will be developed for each construction project. Methods of distribution will coincide with the communication needs of the project-affected stakeholders. It is anticipated that a combination of the following communications tactics (noted in Table 2-7) will be employed as appropriate for the construction activities and the stakeholder affected by them

Table 2-7. Resident Construction Communication Tools

Stakeholder Type	Tool	Description
Resident	Door Hangers	These will be placed before construction in impacted neighborhood to give residents an alert that construction is coming soon. Related to notices of road closures, an app may be used which allows impacted residents and stakeholders to receive an alert about construction in their neighborhoods and text message providing construction related updates to a construction project.
Resident	Construction Fact Sheet	The communications team will develop project construction fact sheets as needed, which will be updated and distributed as appropriate. The fact sheets will provide a high-level overview of the construction process and will be updated to include key activities/ milestones planned for the upcoming period. The fact sheets will also include information about the benefits of the project and key information about the construction effort (e.g., mitigation and safety measures, project hotline, and website information).
Resident	Stakeholder Newsletter	The communications team will issue a twice-yearly newsletter, which will serve as the primary communications tool during construction. The newsletter will provide stakeholders with easy access to project information, construction updates, upcoming milestones, and a means to contact the project team. The newsletter would be emailed by the communications team to key stakeholders and property owners adjacent to a project site and would be posted on the project website.
Resident	Hotline Message	The communications team will set up a hotline intended to provide an overview of the activities people can expect to see in the near future and key activities completed in the previous month. The project hotline message will be evaluated on a monthly basis (or less frequently, as driven by the project schedule) to identify and implement necessary updates. The hotline will be established when construction starts and continue until a Project reaches substantial completion.

Table 2-7. Resident Construction Communication Tools

Stakeholder Type	Tool	Description
Resident	Project Web Site	Project information will be provided electronically via the City website. The communications team will provide construction information to be added to the Client’s website. The website should contain project information and updates, such as the Construction Fact Sheet, Stakeholder Newsletter, and a summary-level construction schedule. The Project Image Library section of the website should be updated with construction photos, photo simulations, and other images as needed.
Resident	Construction Message Platform	The communications team will create a base set of key messages about site construction activities, which will be included in the Stakeholder Newsletters. The goal is that the Program consistently and effectively communicate the baseline themes of the construction process (e.g., the need for the Project, commitment to being a good neighbor, basic construction timeline).
Resident	Groundbreaking Ceremony	The communications team will set up groundbreaking ceremonies where appropriate, which are expected to be held after Notices to Proceed are issued by the City. This event would publicly mark the beginning of the construction phase of an iconic or major projects.
Resident	Informational Signage	The communications team will develop and set up a visually appealing program sign for display at construction sites. A mockup of the sign could be used as a backdrop at groundbreaking ceremonies and other community events.

Table 2-7. Resident Construction Communication Tools

Stakeholder Type	Tool	Description
Resident	Construction Activity-related Public Communication	The communications team will evaluate any elements of construction that may have the potential to be highly visible or disturbing to nearby properties that will require special communication. For each such element, the communications team will determine which stakeholders (e.g., nearby properties, emergency services, local governments, news media) may have an interest and what kind of advance communication should occur.

2.3.2.3 Media Relations

Engaging the media provides information and seeks to influence resident behavior during construction. NMB Water program outreach staff will regularly provide information to the media about upcoming construction impacts. Details as to the schedule, nature, and duration of construction will be provided. Construction related questions or complaints will be managed by NMB program outreach staff in coordination with NMB Water staff.

Table 2-8. Media Construction Communication Tools

Type	Tool	Description
Media	Media communications	Media communications will be established in coordination with the PMT and the client.
	Information to support media and PR activities	Information provided to support the media and PR agency (PMT and the client), to include the following: showcase progress and milestones, plan for minimization of potentially negative issues, the benefits the program brings, information to rebut quickly, including inaccurate stories.
	Crisis communication	Details about program information networks and levels of command required to maintain communications during an emergency.
	Capture workshops	Potential tool to align the PMT and the client, key communications staff in support of Project's media and PR plan.
	Media monitoring	Measurement of effective publicity that maintains the Project's reputation.

Communication Team Roles and Responsibilities

During detailed Communication Plan development, the roles and responsibilities of NMB Water program staff will align to communication tasks. CH2M will closely collaborate with City Public Affairs staff in implementing outreach and communication activities.

As discussed throughout this plan, the communications approach requires a coordinated effort, with NMB Water Director and NMB Water Program Manager serving as the focal points for external communications, and the NMB Water program outreach staff providing significant support in developing messages and communicating to a variety of audiences. Table 2-5 provides a preliminary list of responsibilities.

Table 3-1. Communications Responsibilities

Communications Area	Person	Role/Responsibilities
Emergency response and media relations	NMB Water Director and NMB Water Program Manager	Approves strategies and messaging, and interfaces with media
	NMB Water program outreach staff	Provides clear messaging and program information including media advisories; conduct media monitoring and evaluation
Program status	NMB Water Program Manager	Overall program internal communications
	NMB Water program outreach staff	Provides support to the program leadership team and City related to communications
Political communication	NMB Water Director and NMB Water Program Manager	Overall program message development
	NMB Water program outreach staff	Develop and maintain political communication collateral material such as program information and provide to NMB Water Director and NMB Program Manager
Continuous improvement	NMB Water Program Manager and City PUC Department	Periodic surveys and other methods to understand effectiveness of overall messaging and media selections, and adjust to optimize communication
	NMB Water program outreach staff	Support in development of surveys, understanding effectiveness of messages/media choices, and adjusting messages to align with both program status/goals and stakeholder needs

Appendix A

Example Call Center Procedures

EXAMPLE CALL CENTER PROCEDURES FOR EMERGENCY AND NON-EMERGENCY EVENTS

NMB Water Call Center Procedure

PH: (###)###-#### [Monitored 24/7 by CH2M staff during normal business hours or call center staff during nonbusiness hours]

Utilities Department – normal business hours are 7:00 AM to 6:00 PM Monday thru Thursday (except City holidays).

Call Center #

Greeting: Thank you for calling **NMB Water**, my name is _____ how can I help you?

General Information:

We will be supporting the NMB Water. This department includes the water and wastewater treatment plants, lift stations, wastewater collection system, water distribution system and customer service.

Calls vary from citizens calling in about their water service or wanting to report a water main break/leak to a sinkhole in the road. Please use the information within this document to help handle citizen's requests, concerns, and complaints. Please use the NMB Water Request Form to document calls.

The Call Center will provide full-time phone support during the following hours:

Beginning	Ending
Monday 6:00 PM	Tuesday 7:00 AM
Tuesday 6:00 PM	Wednesday 7:00 AM
Wednesday 6:00 PM	Thursday 7:00 AM
Thursday 6:00 PM	Monday 7:00 AM
Holidays	Full coverage until next "City" working day

Escalation/Priority Contact:

Priority contact will be based on documented scenarios as well as the urgency of the situation. Please keep this in mind when contacting the CH2M response personnel.

Escalation Process: ONLY use when verbal contact has NOT been made to the on-call tech.

Make contact in the order in which they appear. Make **2** attempts and wait 5 minutes between each call.

Unhappy Customers

If customers call regarding water or billing issues, route calls in the following order:

Contact Order	Name	Phone	Email
1			
2			
3			
4			

Because several different departments are involved in the notification process, the following escalation notifications are based on the Problem Codes. When calling the numbers listed below, associate should call in the order in which they are labeled to ensure the quickest response time.

Water Turn On <u>No water turn-ons will be performed after 8:00 PM. The call will be responded to the following morning.</u>	Monday – Thursday	6:00 PM – 8:00 PM
---	-------------------	-------------------

Problem Codes	Notifications
<ul style="list-style-type: none"> ▪ Water low pressure ▪ Water Turn Off (Non-Emergency) ▪ Billing Issues ▪ Miscellaneous (Non-Emergency) ▪ Water Quality (color, taste, odor – only if a single isolated issue) ▪ Odor Complaints (such as sewage or septage – only if a single isolated issue) 	<p>No callouts required for these problem codes.</p> <p>Email notifications to on-site personnel for investigation the next business day.</p>
Broken/Missing Meter Box Lid No water supply Water low pressure Water leaking from/near meter box Water Turn On <u>No water turn-ons will be performed after 8:00 PM. The call will be responded to the following morning.</u>	<p>Addressed by City during normal business hours Monday-Thursday 6:00-8:00pm</p> <ol style="list-style-type: none"> 1. 2. <p>Monday-Thursday after 8:00pm No water turn-ons will be performed after 8:00pm. The call will be responded to the following morning Thursday 8:00pm-Monday 7:00am 1.Customer Service On-Call (####)###-####</p>

Water Turn Off (Emergency)	2. Person (###)###-####
	Monday-Thursday 6:00-8:00pm Person (###)###-#### Monday-Thursday after 8:00pm Person (###)###-#### Thursday 8:00pm-Monday 7:00am Person (###)###-####
Water Breaks/Leaks Damaged Fire Hydrant Sewer Backups Manhole Cover Missing/Off Sinkholes	Person (###)###-####
Water Quality Issues (If more than a single isolated issue)	Person (###)###-####
Odor Complaints (If more than a single isolated issue)	Person (###)###-####
Lift Station Alarms	Person (###)###-####

Request Form

General Information

Request Date:	
Request Time:	

Customer Information

Name:	
Address:	
Phone #:	
e-mail:	

Service Request Information

Problem Code	
Priority	

Project Notification Information

Notification Date	
Notification Time	
Associates Name	
Notification Method	

Additional Information/Notifications

Water Main Breaks/Leaks

General Information:

Most citizens do not understand the difference between a water-main break and a water leak. The caller will most likely identify any leak as a water-main break, especially if the leak is in the street. Typically, during a water-main break, numerous residents are affected and you may receive several calls in short succession. All water-main breaks/leaks will be responded to as soon as possible regardless of the size or location of the leak or the time of the day.

Continue to process calls/requests for breaks/leaks (**including contacting the On-Call**) until the technician notifies you the water-main break is located and the affected area is identified. The technician will provide the Call Center with details concerning the affected area and no other requests are needed.

Once the Technician advises there is an active water-main break, all callers reporting a water-main break/leak or reporting no water from the affected area are to be informed that there is a water-main break, water crews are making repairs, and their water service will be restored as soon as possible

Collect the following information from the citizen, details are extremely important:

- Ask questions to find the break/leak location such as in their yard, from/near a meter box, in the street, from under the asphalt, in a park, etc.
- If the break/leak is in the street, ask if they have dropping water pressure or no water to their home, as that is symptomatic of a water-main break.
- Obtain Caller's Name, COMPLETE address and phone number (Advise the caller the technician could use the phone number for follow up questions)
- **Problem Code:** WATERBREAK (Water Breaks or Water Leaks)
- **Priority:** 1

Call Out Process

1. Contact the On-Call Technician @ and provide them with all the details of the call
2. Notate the history of the request with name of the technician that was contacted and the details of the call

Escalation Process: ONLY use when verbal contact has not been made to the on-call tech.

Make contact in the order in which they appear. Make two attempts and wait 5 minutes between each call.

1. C&D On-Call Technician:
- 2.
- 3.

ALWAYS email the following Project Department Supervisors to notify them if there is a no water issue.

1. @ch2m.com
2. [@ch2m.com](mailto:ch2m.com)
3. [@ch2m.com](mailto:ch2m.com)

No Water

General Information:

Complaints of no water could mean:

- The water valve immediately outside the house is shutoff
- There is a water main break in the area and the City needed to shutoff water to facilitate repairs
- The citizens's water has been shut off for non-payment

If the customer is saying they have no water, you must first check the shut off list located within OSS Forms.

Be Aware: These are sensitive calls. Advise the citizen you have no access to the city's database and cannot assist them with any account related questions.

- The shut-off list will be generated and emailed to the Call Center daily.
- **NOTE: Inform the customer that no water turn-ons will be performed after 8:00pm. A technician will perform the turn on the next day. The customer will have until 10:00am the next business day to come into the Customer Service office and either setup a new account or satisfy any delinquent charges.**

IMPORTANT: We are UNABLE to provide the citizens with any details regarding their bill. They must contact Customer Service

Collect the following information from the citizen, details are extremely important:

- Obtain Caller's Name, COMPLETE address and phone number (Advise the caller the technician could use the phone number for follow up questions)
- **Problem Code:** NOWATER (No Water)
- **Priority:** 1

Call Out Process

1. Contact the On-Call Technician @ and provide them with all the details of the call. Advise the On-Call technician that the customer is not on the shut-off list.
2. Notate the work order history with name of the technician that was contacted and the details of the call.

Escalation Process: ONLY use when verbal contact has not been made to the on-call tech. Make contact in the order in which they appear. Make two attempts and wait 5 minutes between each call.

1. Collection and Distribution - On-Call:

ALWAYS email the following Project Department Supervisors to notify them of a no water issue.

- 1.
- 2.

If the customer becomes irate, call the following Customer Service Supervisors to notify them of a no water issue/irate customer.

Water Turn On

General Information:

A citizen may call requesting to turn their water on or off due to moving, construction, etc.

Collect the following information from the citizen, details are extremely important:

- Obtain Caller's Name, COMPLETE address and phone number (Advise the caller the technician could use the phone number for follow up questions)
- **NOTE:** If the call is received after 8:00pm, notify the customer that the technician will schedule this for the next day.
- **Problem Code:** TURNON (Turn On Water),
- **Priority:** 3

Call Out Process

The following days/hours and respective callout process should be utilized for all calls to turn on water.

1. Monday-Thursday 6:00-8:00pm

- 1.
- 2.

Monday-Thursday after 8:00pm

No water turn-ons will be performed after 8:00pm. The call will be responded to the following morning, call center will reach out to manager for confirmation.

Friday 6:00pm-Monday 7:00am

- 1.
2. Contact the On-Call Technician listed above and provide them with all the details of the call. Review the "pulled meter list" to insure the customer is not on the list. Advise the On-Call technician that the customer is not on the "pulled meter list".
3. Notate the work order history with name of the technician that was contacted and the details of the call.

Water Turn Off (Non-Emergency)

General Information:

A citizen may call requesting to turn their water on off due to moving, construction, etc.

Collect the following information from the citizen, details are extremely important:

- Obtain Caller's Name, COMPLETE address and phone number (Advise the caller the technician could use the phone number for follow up questions)
- **NOTE:** If the call is received after 8:00pm, notify the customer that the technician will schedule this for the next day.
- **Problem Code:** TURNOFFNONEM (Turn Off Water – Non Emergency)
- **Priority:** 3

Call Out Process

1. Contact the On-Call Technician @ 786-202-4984 and provide them with all the details of the call. Advise the On-Call technician that the customer is not on the shut-off list.
2. Notate the work order history with name of the technician that was contacted and the details of the call.

Escalation Process: ONLY use when verbal contact has not been made to the on-call tech.

The following days/hours and respective callout process should be utilized for all calls for emergency turn-offs.

Monday-Thursday 6:00-8:00pm

1. Person (###)###-####
2. Person (###)###-####

Monday-Thursday after 8:00pm

1. Person (###)###-####

Thursday 8:00pm-Monday 7:00am

1. Customer Service On-Call (###)###-####
2. Person (###)###-####

Water Turn Off (Emergency)

General Information:

A citizen may call requesting to turn their water off due to emergency situations such as flooding, water back up, etc.

Collect the following information from the citizen, details are extremely important:

- Obtain Caller's Name, COMPLETE address and phone number (Advise the caller the technician could use the phone number for follow up questions)
- Specify the reason for the immediate water shut off.
- Advise the citizen that a technician will contact them as soon as possible.
- **Problem Code:** TURNONEM (Turn On Water – Emergency), TURNOFFEM (Turn Off Water – Emergency)
- **Priority:** 1

Call Out Process

1. Contact the On-Call Technician @ **(###)###-####** and provide them with all the details of the call
2. Notate the form with name of the technician that was contacted and the details of the call

Escalation Process: ONLY use when verbal contact has not been made to the on-call tech.

Make contact in the order in which they appear. Make two attempts and wait 5 minutes between each call.

1. **Person (###)###-####**

ALWAYS email the following Project Department Supervisors to notify them of a no water issue.

1. Person@ch2m.com

Broken/Missing Meter Box Lid

General Information:

This applies to all calls regarding the Lid being off or missing, whether the Water Company left it off or somehow it slipped off

Collect the following information, details are extremely important:

- Obtain Caller's Name, COMPLETE address and phone number (If they refuse a contact number, notate that information)
- Determine the location of the NMB water meter

Examples:

- Crossroads/Intersections
- Business or Residential address, etc.
- **Problem Code:** BROKEN/MISSING METER BOX LID (Broken or Missing Meter Box Lid)
- **Priority:** 1

Call Out Process

1. Contact the On-Call Technician @ 786-202-4984 and provide them with all the details of the call
2. Notate the form with name of the technician that was contacted and the details of the call

Escalation Process: ONLY use when verbal contact has not been made to the on-call tech.

Make contact in the order in which they appear. Make two attempts and wait 5 minutes between each call.

1. Person (###)###-####
2. Person (###)###-####
3. Person (###)###-####

Damaged Fire Hydrant

General Information:

Most fire hydrants are breakaway, which means that if they are struck by a vehicle and displaced, the water valve closes automatically.

Many after-hour calls regarding damaged fire hydrants will be from the Police or Fire Department associates. They will give specific information regarding the damage to the hydrant and its location. Enter this information into the description of the request and contact the On-call technician.

If a private citizen is reporting the issue, collect the following information, details are extremely important:

- Obtain Caller's Name, COMPLETE address and phone number (If they refuse a contact number, notate that information)
- Determine the location of the damaged hydrant

Examples:

- **Crossroads/Intersections**
- **Business or Residential address, etc.**
- **Advise citizen** that a technician will call them back as soon as possible
- **Problem Code:** DAMAGEHYDRANT (Damaged Fire Hydrant)
- **Priority:** 1

Call Out Process

1. Contact the On-Call Technician @ 754-260-4492 and provide them with all the details of the call - Clarify who called in the request, Citizen or PD/FD.
2. Notate the work order history with name of the technician that was contacted and the details of the call

Escalation Process: ONLY use when verbal contact has not been made to the on-call tech.

Make contact in the order in which they appear. Make two attempts and wait 5 minutes between each call.

1. Person (###)###-####
2. Person (###)###-####
3. Person (###)###-####

ALWAYS email the following Project Department Supervisors to notify them of a damaged/out of service hydrant.

1. Person @ch2m.com

Odor Complaints

General Information:

Complaints of odors can be related to the many possible sources:

- Wastewater Treatment Plant
- Lift Stations
- Sewer Line leak or break

Collect the following information from the citizen, details are extremely important:

- Obtain Caller's Name, COMPLETE address and phone number (Advise the caller the technician could use the phone number for follow up questions)
- Specify in the description what type of odor they are experiencing if possible (raw eggs, organic, musty, etc.)
- Advise the citizen that a technician will respond to their complaint the next morning.
- **Problem Code:** ODOR (Odor Complaint)
- **Priority:** 3

Call Out Process: Only call out to the On-Call technician if a rush of calls (>3 in an hour) is received regarding the odor complaint issue in the same area.

If a callout is required:

1. Contact the Wastewater Treatment Plant @ (###)###-#### and provide them with all the details of the call.
2. Notate the work order history with name of the technician that was contacted and the details of the call

Escalation Process: ONLY use when verbal contact has not been made to the on-call tech.

Make contact in the order in which they appear. Make two attempts and wait 5 minutes between each call.

1. Person (###)###-####
2. Person (###)###-####
3. Person (###)###-####

Sewer Backups

General Information:

Citizens may and will call in regarding sewer backups

Collect the following information from the citizen, details are extremely important:

- Obtain Caller's Name, COMPLETE address and phone number (Advise the caller the technician could use the phone number for follow up questions)
- Determine the location of the backup?

Examples:

- **Is the sewer back up inside or outside of the home?**
- **Is it a toilet, manhole cover, outside water faucets, etc.?**
- **Advise citizen that a technician will be there within two hours, or someone will call them giving them another timeframe.**
- **Problem Code: SEWER BACKUP (Sewer Backup)**
- **Priority: 1**

Call Out Process

1. Contact the On-Call Technician @ **(###)###-####** and provide them with all the details of the call
2. Notate the work order with name of the technician that was contacted and the details of the call

Escalation Process: ONLY use when verbal contact has not been made to the on-call tech.

Make contact in the order in which they appear. Make two attempts and wait 5 minutes between each call.

1. **Person (###)###-####**
2. **Person (###)###-####**
3. **Person (###)###-####**

Manhole Cover Missing/Off

General Information:

This applies to all calls regarding a manhole cover missing.

Collect the following information, details are extremely important:

- **Obtain Caller's Name, COMPLETE address and phone number (If they refuse a contact number, notate that information)**
- **Determine the location of the Manhole**

Examples:

- **Crossroads/Intersections**
- **Business or Residential address, etc.**
- **Problem Code: MISSING MANHOLE COVER (Missing Manhole Lid)**
- **Priority: 1**

Call Out Process

1. Contact the On-Call Technician @ 754-260-4492 and provide them with all the details of the call - Clarify who called in the request, Citizen or DPS.
2. Notate the work order history with name of the technician that was contacted and the details of the call

Escalation Process: ONLY use when verbal contact has not been made to the on-call tech.

Make contact in the order in which they appear. Make two attempts and wait 5 minutes between each call.

1. Person (###)###-####
2. Person (###)###-####
3. Person (###)###-####

Sinkholes

General Information:

Citizens may and will call in regarding sinkholes, not realizing that they were possibly caused by a water or sewer leak.

Many after-hour calls regarding sinkholes will be from the Police or Fire Department associates. They will give specific information regarding the sinkhole and its location. Enter this information into the description of the request and contact the On-call technician.

Collect the following information from the citizen, details are extremely important:

- Obtain Caller's Name, COMPLETE address and phone number (Advise the caller the technician could use the phone number for follow up questions)
- Determine the location of the Sinkhole?

Examples:

- **Is the in a roadway?**
- **Is it in a yard or parking lot, etc.?**
- **Problem Code: SINKHOLE (Sinkhole)**
- **Priority: P1**

Call Out Process

1. Contact the On-Call Technician @ **(###)###-####** and provide them with all the details of the call
2. Notate the work order with name of the technician that was contacted and the details of the call

Escalation Process: ONLY use when verbal contact has not been made to the on-call tech.

Make contact in the order in which they appear. Make two attempts and wait 5 minutes between each call.

1. **Person (###)###-####**
2. **Person (###)###-####**
3. **Person (###)###-####**

Lift Station Alarm

General Information:

This applies to all calls regarding a visual or audible alarm at a lift station. These calls could originate from the general public as well as the Police/Fire Departments.

Collect the following information, details are extremely important:

- Obtain Caller's Name, COMPLETE address and phone number (If they refuse a contact number, notate that information)
- Determine the location of the Lift Station

Examples:

- Crossroads/Intersections
- Business or Residential address, etc.
- **Problem Code:** LSALARM (Lift Station Alarm)
- **Priority:** 1

Call Out Process

1. Contact the on call technician @ **(###)###-####** and provide them with all the details of the call - Clarify who called in the request, Citizen or PD/FD.
2. Notate the work order history with name of the technician that was contacted and the details of the call

Escalation Process: ONLY use when verbal contact has not been made to the on-call tech.

Make contact in the order in which they appear. Make two attempts and wait 5 minutes between each call.

- 1 Person **(###)###-####**
2. Person **(###)###-####**
- 2 Person **(###)###-####**

Billing Issues

General Information:

Explain to the citizen that they will need to call the Utility office Monday-Thursday from 7:00am to 6:00pm @ (###)###-####.

- Obtain Caller's Name, COMPLETE address and phone number (Advise the caller that an e-mail will be sent to the Customer Service Department regarding their issue.
- **Problem Code:** BILLINGISSUES (Billing Issues)
- **Priority:** 3

Call Out Process

No callout will be required for this issue.

ALWAYS email the following Project Department Supervisors to notify them of a customer with a billing issue.

1. Person @ch2m.com
- 2.

Miscellaneous (Non-Emergency)

General Information:

Explain to the citizen that for all non-emergency account/service inquiries, they will need to contact the Utility office Monday-Thursday from 7:00am to 6:00pm @ (###)###-####

Additional resources can be found on the city website @

- Obtain Caller's Name, COMPLETE address and phone number (Advise the caller that an e-mail will be sent to the Customer Service Department regarding their issue)
- Note a brief description of the caller's issue
- **Problem Code:** MISCELLANEOUS (Miscellaneous Non-Emergency)
- **Priority:** 3

Call Out Process

No callout will be required for this issue.

ALWAYS email the following Project Department Supervisors to notify them of a customer call that is not an emergency.

1. @ch2m.com
2. @ch2m.com
3. @ch2m.com

Appendix B
Water Quality Complaint Response
Procedure

This document establishes procedures for consistently documenting, reporting, and responding to any situation that results in a water quality complaint.

Complete Water Quality Complaint Report

1. Note the date and time of the complaint on the intake form.
2. Note who received the call, the caller's name, address and phone number.
3. Determine the nature of the complaint; odor, color, taste or other.
4. Determine hot water / cold water, where and when occurring.
5. Note any actions requested by caller.
6. Determine if this is the first time the caller has reported this. If not please ask when the previous report was and how that was handled and by who if they have that information.
7. Advise caller that a manager/supervisor/water quality technician will be in contact with them within 24 hours for follow-up and possibly schedule an appointment for a technician to come out and collect samples for analysis.
8. When a technician does sample, and once analysis has been completed (within 24 hours.) the chief operator or a supervisor/manager will contact the complainant and discuss the results and any additional action to be taken.
9. If the water complaint comes directly from City leaders, the NMB Water Program Manager will follow-up with the NMB Water Director as to how this complaint will be handled and what the schedule will be for follow-up. Interim communication may be conveyed through text messages to keep the NMB Water Director up to date.
10. If three or fewer water quality complaints are received within a 24-hour period, the project water treatment and distribution and collections management team will handle routinely and upon closing out the complaint review will report the outcome to the City Customer Service Manager and the NMB Water Program Manager. Upon receipt of three or more complaints within a 24-hour period, notify a member of the project management team in the following order:
 - NMB Water Director
 - NMB Water Program Manager
 - Water Plant Chief Operator
 - Distribution and Collections Manager
 - Maintenance Manager

If you are unable to reach one of the above management team, contact the Regional Director of Operations.

1. The next level management once contacted will then notify the City Deputy Director, or his designee apprising them of the situation and actions being taken. The NMB Water Program Manager or his designee will then follow-up with a written report to the NMB Water Deputy Director indicating the above dates and what action was taken, and if identified the source and cause of the water quality complaints and identifying the means taken or to be taken to correct. That report will include:
 - The dates, times, locations and results of investigation.
 - What actions were taken or suggested solutions that were recommended to the complainant.
 - Date call was received when complainant was initially contacted, and then when contacted with resolution
 - Document final conclusion

Drinking Water Quality Customer Complaint Form

Date _____ Customer Name _____ Phone Number _____

Address _____

Type of complaint

Discolored Water If Yes, what color: Yellow Brown Black

Milky Cloudy Blue

Green Other _____

Odor/Taste If Yes, what odor/taste: Chlorine Musty

Rotten Eggs/Sulfur Metallic Other _____

Other type of complaint _____

How long has the issue been going on? _____

How often does it occur? _____

Where does it occur? _____

Additional Information _____

Complaint Response Form

Date of visit _____

Water Quality Technician Name _____

Results

	Inside Tap	Hydrant
Iron mg/L		
Color		
Total Chlorine mg/L		
Phosphate mg/L		
pH		

Description of findings _____

EXHIBIT 11-C
EMERGENCY RESPONSE PLAN

P L A N

Emergency Response

Prepared for

Client Name

Date



Legal Entity Name

Office address

Office address

Office address

Revision History

Issue	Author	Date	Description

Technical Check

Role	Name	Signature	Date

Approval

Role	Name	Signature	Date

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- B Emergency Response Team
- C Emergency Response Team Contact Details
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- H Assembly Point Location
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- K Office Assessment Checklist
- L MENA Region Incident Notification Flowchart
- M Minimum First Aid Kit Supplies

Table(s)

- XX Table Title

Figure(s)

- XX Figure Title

Text from proposal for your reference and/or inclusion in the plan [DELETE THIS SECTION AFTER INCORPORATING THE PROPOSAL AND PURSUIT INFORMATION]

Copy text from proposal and other pursuit materials and incorporate these into this plan. This is what the client bought and expects from us on this program.

Creating a legacy for ...

Approach

Acronyms and Abbreviations

AAA	Acronyms and Abbreviations

Purpose and Scope

1.1 Purpose

To minimize the potential loss of personnel and property by planning the actions to be taken in the event of fire, earthquake, bomb threat, medical emergency and power failure.

1.2 Scope

Emergency response procedure for CH2M HILL Office located in Al Qassar Tower, West Bay, Doha, Qatar. This procedure relates to all CH2M HILL employees and visitors of the office situated on the 14th floor of the Building.

1.3 Terminology

Emergency: An incident which happens unexpectedly posing an immediate risk to the health and safety of people or to the environment, requiring urgent intervention to prevent the situation from worsening

Evacuation: The movement of people towards assembly points due to threat or occurrence of an emergency incident

Emergency exit: A route, to be used by personnel during an evacuation, providing a way-out to a position of safety

Assembly point: A designated area where evacuees assemble awaiting further instructions.

Responsibilities

2.1 Emergency Management Group (EMG)

The EMERGENCY MANAGEMENT GROUP (EMG) comprises of key Managers and Fire Wardens along with a Safety Officer. This group has overall responsibility and control during emergency incidents and other related activities. The type and scope of the emergency incident will determine the members that will be activated for duty. The HSE Manager is typically the Emergency Director, the leader of the EMG and will also be the Incident Commander.

During an incident the EMG should:

- Order and manage the evacuation
- Allocate necessary resources
- Determine the short and long term effects of the emergency
- Coordinate with appropriate company management.

The membership of the Emergency Management Group will depend on the nature of the emergency. Possible members include:

- ERC – HSE Manager;
- Health and Safety Officer;
- Human Resources Manager;
- Support personnel (Fire Wardens; First-Aiders, etc.)

2.2 Emergency Response Coordinator – HSE Manager

- Preparing and monitoring the emergency processes
- Overseeing the formation of an Emergency Management Group (EMG), the Emergency Response Team (ERT) and ensuring each member understands their duties
- Verifying each of the CH2M HILL occupied floors are meeting the program elements of the office safety program
- Ensuring an effective emergency communication system is in place
- Appointing appropriate personnel to act as emergency response team members
- Ensuring employees know the emergency response procedures
- Ensuring a fire risk assessment is undertaken at least once per year
- Ensuring emergency drills are conducted at least once per year or as required by the Property Management.

During a building evacuation the ERC is responsible for:

- Responding to and taking charge of the emergency until the external emergency services or the building owner takes over command of the situation
- providing pertinent emergency information to external organizations
- Notifying senior managers

- Notifying the CH2M Hill Regional Crisis Manager and the MENA Regional HSEQ Manager, of the location and extent of the emergency
- Serving as the single point-of-contact for all communications while the emergency is taking place
- Appointing a Deputy ERC to cover periods of absence.
- Ensuring that each floor is evacuated in the event of an evacuation

2.3 Deputy Emergency Response Coordinator – Safety Officer

Safety Officer shall assume responsibility for:

- Assisting the HSE Manager in his duties
- Assuring that there are adequate Fire Wardens for each floors;
- Provide evacuation procedures training to Fire Wardens;
- Training and evaluation of the emergency team members.
- Undertaking a monthly assessment of the office using the Office Checklist

2.4 Fire Warden

The Fire Warden is responsible for:

- Carrying out a proactive daily check of the immediate area to ensure fire safety is maintained in the office
- Taking charge of the assigned floor area, in the event of a fire alarm, to ensure the floor area is cleared of personnel
- Ensuring staff and visitors assemble at assembly point and identifying any missing persons
- Assisting the ERC in an emergency

2.5 First-Aider

First-aiders are responsible for:

- Taking control of a medical emergency situation
- Where required, contacting the emergency services, in liaison with the ERC
- Providing basic first aid and life support prior to the arrival of emergency assistance
- Maintaining first aid equipment on each floor

2.6 Emergency Response Team (ERT)

The **EMERGENCY RESPONSE TEAM** shown in **Appendix B** will be trained in the use of firefighting equipment and firefighting techniques, first aid and rescue techniques. They will also receive training in emergency situations pertaining to the building and the proper handling thereof. The ERT will consist of safety personnel and volunteers from the office. The ERT will immediately respond to all emergencies and assist in dealing with the situation without putting their own lives at risk. **EMERGENCY RESPONSE TEAM CONTACT DETAILS** are shown in **Appendix C**.

2.7 Employees

After hearing emergency alarms, the responsibilities of Employees are as follows:

- Stop the work
- Evacuate workplace from nearest safe exist
- Do not wait for elevator (Since elevators are not functioning when emergency alarms sound)
- Use the staircase
- Do not run but walk down ground floor slowly to come out of the building
- Go to assembly point which is located **outside in front of the building**
- Follow all instruction from ERT members
- Await for further instructions

Training and Communication

3.1 Emergency Response Team

The ERC / Deputy ERC will receive adequate emergency, safety and security training from the Property Management on pre-planned emergency, safety and security procedures; and detailed explanations of any published guides and/or reference books that are distributed to all tenants regarding emergency procedures. They will receive training within two (2) weeks of the tenant moving in and at least twice a year.

In addition, the ERC/Deputy ERC, Fire Wardens and other members of the emergency response team will be provided with the necessary training in their roles and responsibilities by the Health and Safety Manager or his designee. This training is supported by the CH2M HILL online training packages, including fire extinguisher training.

First-aid training is to be provided and maintained by using a competent external first-aid training organization.

A copy of this emergency procedure will be given to all emergency response team members.

Appendix A: Register of Emergency Response Plan issued to Emergency Management GROUP will be used to keep record EMG members receiving this information.

3.2 All Other Employees

A summary sheet of the fire procedure will be communicated to all office staff to familiarize them with the emergency systems and procedures in the office. Please refer to **Appendix D: Instructions to all staff in the event of fire.**

Appendix E: Register of staff receiving instruction in the event of fire will be used to keep records of people receiving this information.

In addition, an Emergency Information will be communicated through induction and general awareness posters.

3.3 Emergency Evacuation Drills

As per the tenancy policies and procedures – Chapter III, emergency drills will be conducted by the Property Management at least twice a year separated by at least 4 months but not more than 8 months and will involve all tenants in order to test the effectiveness of this emergency response plan. The ERC will coordinate with the property management regarding the drills schedule. Drill records shall be maintained using **Appendix F: Emergency Drill Record Template.**

Office Assessment

4.1 Fire Risk Assessment

The HSE Manager will ensure **Appendix J: Fire Risk Assessment** is undertaken and documented. The purpose of the Fire risk assessment is to evaluate the fire arrangements and preparedness in the office and ensure compliance with local and international standards.

Once completed, the findings of the fire risk assessment will be communicated to all office staff via training and through other communication means described within this plan.

[Insert main findings of the fire risk assessment once performed]

4.2 Office Risk Assessment

In addition, a quarterly assessment will be done by the Office Safety Coordinator (OSC) or his designee to assess the general health and safety standards in the office as per CH2M HILL requirements.

Appendix K: Office Checklist will be used for this task.

Emergency Procedures

5.1 Fire

Whoever first discovers fire or smoke, regardless of its location within the office building, should immediately:

- Verbally raise the alarm/ Press the fire alarm point / break the red “Break Glass Unit”
- Dial emergency number **999**
- CLEAR anyone in immediate danger
- CONFINE the fire by closing all doors and windows to the area
- Use a fire extinguisher if trained and if safe to do so. NEVER attempt to put out a fire alone.
- Evacuate. Walk calmly to the closest safe stairwell
- Exit the building and assemble in the assembly point (**Appendix H**)

5.1.1 Fire Extinguishers

To be used only when safe to do so or as required for escape. The Property management is to be notified after any extinguisher is used for immediate replacement. Fire extinguishers are located in all pantries and electrical rooms on each floor as well as in all MEP rooms in the basement as per Qatar civil defense regulations.

The office has 2 kinds of fire extinguishers (powder and carbon dioxide)

- **Red** – Powder – suitable for combustibles, flammable liquids and electrical fires.
- **Black** – Carbon dioxide – CO₂ is clean, non-corrosive and leaves no residue on expensive computers and electronic equipment. CAUTION: Do not handle the expelled CO₂ "snow" because it can cause frostbite. The nozzle becomes extremely cold and can burn during use.

5.1.2 When an Alarm Sounds on Your Floor or When You Are Notified of a Fire

- Feel the door with the back of your hand to see if it is hot. If not hot keep low, open cautiously. Stand behind the door, be prepared to close quickly.
- If there is no smoke present, proceed to the nearest emergency stairwell exit.
- If you do encounter smoke, crawl on your hands and knees along the wall to the emergency exit. Evacuate the building and proceed to the fire assembly point.
- Follow instructions from emergency rescue personnel.

If the door is hot:

- DO NOT OPEN IT.
- Use alternate door, if safe.
- If no alternate door, call the ERC, Fire Wardens or Health and Safety Manager. They will liaise with the rescue team. Give exact location and all facts.
- Seal the bottom of the door with cloth material to keep out smoke.

- If water is available, wet cloths and seal the door and any vents.
- Retreat. Close as many doors between you and the fire as possible.
- Signal at the window waving a bright colored material.
- If there is smoke in the room:
 - Stay low; air is cooler and cleaner closer to the floor.
 - Hold a wet cloth over your mouth and nose.
 - Do not break the window. Once broken it cannot be closed. If there is smoke outside the window, the smoke may enter the room you are in. Breaking a window should only be done as a last resort.
 - Remain calm and wait for the emergency services to find you and help you evacuate.

5.1.3 Emergency Exits

All emergency exits are clearly indicated as such. All areas will have sufficient signage and plans indicating the nearest escape routes.

Should an evacuation be required, please exit in an orderly manner via stairwell. The Fire Wardens will facilitate exit from the building. You should exit the building immediately and assemble outside at the assembly point. All staff and visitors should congregate at the assembly area, as emergency personnel will require unrestricted access to the building.

Under no circumstances are the elevators to be used during a fire emergency until the Civil Defense has given permission to do so. The passenger lift should not be used when the fire alarm is operating or during a fire drill.

5.1.4 Accounting for Staff Upon Evacuation

To ensure the fastest, most accurate accountability, all staff and visitors should gather after evacuation at the assembly point. As no signing in and out system is used in the building, Fire Wardens are responsible for taking reasonable steps to ensure the occupied areas are cleared.

The ERC will liaise with the Fire Wardens to confirm whether all staff and visitors from the office have evacuated the building.

The ERC and Fire Wardens will identify the names and last known locations of anyone (including visitors) remaining within the building, and pass them to the building management and civil defense. To aid this process the ERC will use form provided in **Appendix G: Emergency evaluation record**.

Only the Civil Defense will determine that the building is safe for re-entry in conjunction with the building owner.

5.1.5 Recovery

The Property Management will ensure cleaning staff immediately begins any cleaning work required after the fire

The ERC/deputy ERC should assist the building engineer to fill out a Damage Assessment Form in case CH2M HILL premises are affected. He shall ensure that all necessary documentation is completed, signed and appropriately endorsed as indicated on the forms

5.2 Earthquake

Earthquakes do occur occasionally in the Qatar and the region is regarded as a low to moderate risk. Usually the tremors are mild and the risk of injury is low in Doha area.

5.2.1 During an Earthquake

Follow the “Drop, Cover, Hold on” procedure:

- **Drop** – Stay where you are, DO NOT try to evacuate the building. If outside stay on the floor.
- **Cover** – Get under a desk, table or other sturdy object. Alternatively, brace yourself against a wall in the core of the building. (The core of the building is the center of the building – the elevator lobby and corridor area). Protect your head and neck. If outside, stay in the open, move away from overhead objects (power lines/bridges).
- **Hold on** – secure yourself under the desk or against an internal core wall and wait for the tremors to pass.

5.2.2 After an Earthquake

- Check for injured people and assist. Do not attempt to move a seriously injured person unless they are in immediate danger of further injury
- Replace telephone receivers so that the telephone system will work; however, telephones should be used for emergency calls only
- Open doors carefully. Watch for falling objects
- Wear shoes for protection from debris and broken glass, and stay away from windows/glassed areas.
- Listen for instructions
- Cooperate with Civil Defense
- Be prepared for aftershocks

5.3 Bomb Threat

This plan covers two possible scenarios in relation to bomb threat to the office. Firstly, the presence of a suspect package or bag being found in the building and secondly, the receipt of a phone call to a member of staff indicating a bomb threat to the building.

5.3.1 Suspect Packages

Packages which could pose a bomb threat could be received through the mail system or may be unidentified packages or bags left in public or office areas. Where a member of staff finds a suspicious package:

- Do not attempt to move or open the package
- Report the situation to the supervisor and the ERC
- Clear the immediate area of personnel
- Make further enquiries regarding a possible owner
- The ERC will inform the building security staff
- Security staff will contact the police
- You will be advised whether evacuation is required

5.3.2 Bomb Threat Telephone Call

In the event of receipt of a telephone call indicating a bomb threat in the building:

- Be calm, be courteous, LISTEN carefully and do not interrupt the caller
- Write down the caller’s message in its entirety and any additional comments
- Treat all bomb threats as real
- Report the situation to your supervisor and the ERC
- The ERC will report the situation to the building security staff
- The security staff will contact the police
- You will be advised whether evacuation is required

5.4 Medical Emergency

Where a member of staff, or a visitor, suffers a medical condition or injury:

- Ask someone for assistance
- Inform one of the building appointed First-aiders or contact the safety officer for assistance
- The ERC will be informed
- Where external assistance is required, the ERC or First-aider will call the ambulance – 999
- Remain with the injured person
- Do not move the injured person unless he or she is in immediate danger of further injury
- Keep the injured person comfortable and warm
- The ERC will arrange for someone to meet the paramedics and direct them to the injured person

5.5 Power Failure

In the event of a general power failure:

- Turn off all electrical equipment, except lighting
- Emergency lights located in the common areas of the stairwells will automatically activate
- The ERC will contact the building management to determinate the cause and estimated duration of power failure
- Await further instructions

5.6 Theft

Should any member of staff suspect that their premises have been broken into or if items are found to be missing, The ERC should be notified. The ERC will contact immediately the Property Management, local police and the insurance company.

5.7 Criminal / Violent Behavior

If an armed attacker is in the building there are few important things to remember:

- Stay calm, signal for help. Alert anyone when possible or send someone to alert other occupants if safe to do so.
- Notify the police (999) and say “Police” when answered.
- If faced with demands for the attacker, comply. Sudden movements may prove fatal. Move with caution.

- Become invisible. Take cover behind a door, file cabinet or other furniture.
- Try to notice the attacker distinguishing traits: clothing, ethnicity, weight, age, hair color, presence of facial hair, type of weapon used, voice and presence of accent that may be important for further investigations.
- When police arrive, follow their directions.
- Do not discuss the situation with anyone other than the Police or Property management representatives.

Incident Reporting, Investigation and Management

6.1 Scope and Application

This section describes requirements for internal notification, report and investigation of all incidents occurring in CH2M HILL facilities or projects, including serious incidents. Refer to CH2M HILL SOP HSE-111, Incident Notification, Reporting and Investigation for more information.

6.2 Definitions

Incidents are events that cause or could have caused undesired consequences. An incident may be caused by natural forces, employees, subcontractors, or third parties in any location associated with CH2M HILL operations, including offices, warehouses, project sites, private property, or public spaces. Incidents include:

- Injury or illness to a CH2M HILL employee or subcontractor employee
- Property damage
- Spill or release of hazardous or regulated material
- Environmental or permit violation
- A “near-miss”
- Other (e.g., fire, explosion, bomb threat, workplace violence)

Serious incidents must be immediately reported to senior management. Serious incidents include:

- Work related death, or life threatening injury or illness of a CH2M HILL employee, subcontractor, or member of the public
- Kidnap/missing person
- Acts or threats of terrorism
- Event that involves a fire, explosion, or property damage that requires a site evacuation or is estimated to result in greater than \$ 500,000 in damage.
- Spill or release of hazardous materials or substances that involves a significant threat of imminent harm to site workers, neighboring facilities, the community or the environment.

6.3 Verbal Notification

- For all incidents, employees and subcontractors shall immediately notify the Office Safety Coordinator and their direct supervisor.
- The employee, Office Safety Coordinator or supervisor shall immediately notify the Project/Facility Manager and the Responsible Health and Safety Manager (RHSM) of all incidents.
- The Project/Facility Manager shall notify the Crisis Manager (720-286-4911) immediately of all serious incidents – Ed Bradley
- The RHSM shall notify the REM of spills/releases and environmental/permit incidents.

6.4 Hours and Incidents Tracking System

The CH2M HILL Hours and Incidents Tracking System (HITS) is an online tool for reporting, tracking and trending all CH2M HILL and subcontractor incidents.

- Immediately after an incident occurs, it must be verbally communicated to your supervisor. Following the verbal communication, the incident details should be recorded on THE online **Hours & Incident Tracking System** (HITS).
- The Safety Coordinator shall complete the Incident Report Form (IRF) in the HITS database **within 24 hours** for all non-injury/illness project incidents, including subcontractor incidents.
- The employee’s supervisor shall complete the IRF within 24 hours for all injury/illness incidents.
- The HSE Lead or designee shall update and evaluate the IRF for accuracy and completeness, consistent with company and regulatory requirements.

There are two phases to the reporting process:

Phase I: Incident Entry. Facts regarding the incident are collected and saved to the HITS Database.

Phase II: Evaluation of the Incident. Regional HS Managers, Business Group HS Leads and BG Environmental Managers evaluate the incident to determine recording and reporting requirements.

For more information, log on to HELP section of the HITS webpage, or refer to SOP HSE-111

6.5 Flowcharts

Appendix L: MENA Region Incident Notification Flowchart

Appendix M: Corporate CH2M HILL Serious Incident Notification Flowchart

6.6 Injury Management

Injury management provides for the orderly, effective and timely medical treatment and return-to-work transition of an employee who sustains a work-related injury or illness, and programs should be established throughout the company that are aligned with office locations and worker compensation laws. In general, All employees must immediately report workplace injuries/illnesses however minor, to their supervisor and the appropriate treatment and case management of the employee’s injury/illness will be assessed, and the ability to assume work duties in a timely manner determined.

6.7 Building Security Protocol

The Property management will establish an appropriate level of security deemed necessary at the building site based upon the information provided of the incident either from a tenant of the building, foreign embassies in the State of Qatar and/or official authorities, Property management and security.

The Property Management is committed to immediately inform all tenants of any change of level of security at all times. The emergency codes / security levels are defined as follows:

- **Code Green – Low Risk:** Normal security operations
- **Code Blue – Guarded Risk:** Normal security operations
- **Code Yellow – Elevated Risk:** Normal security operations; heightened awareness

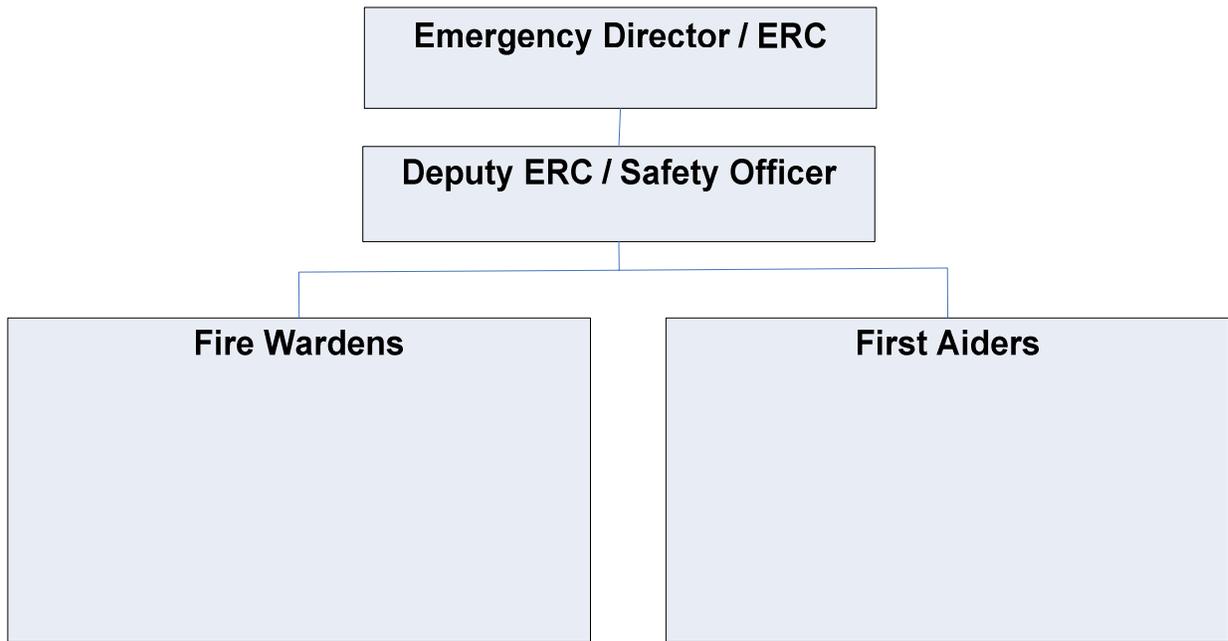
- **Code Orange – High Risk:** Restrictive access may occur; Initial perimeter checks
- **Code Red – Severe Risk:** Encompass high risk actions; Initial container checks as applicable; Preparation for building lockdown if needed.

Appendix A
Register of Emergency Response
Plan Issued to Emergency
Management Group

Appendix B

Emergency Response Team

Emergency Response Team



Appendix C
Emergency Response Team
Contact Details

Appendix D
Instruction to All Staff in
the Event of a Fire

Instruction to All Staff in the Event of a Fire

INSTRUCTIONS TO ALL STAFF IN THE EVENT OF FIRE

This leaflet contains important information on how you should act in the event of fire. Appointed Fire Wardens for your floor are shown on Emergency Information Notices around your office.

If you discover a Fire:

- Activate the nearest break glass point
- If safe to do so, close any doors in the area to slow the spread of fire
- Inform all persons in the immediate area of the danger
- Call emergency services (999)
- If safe to do so and you have been trained (i.e. fire wardens), fight the fire using portable fire-fighting equipment provided
- If you need to access a locked fire door, break the glass on key boxes to access key and open door
- Evacuate the building through emergency exit routes and staircases (do not use lift)
- Make your way to the fire assembly point which is located next to KM Building

On Hearing the Alarm:

- Remain calm and do not Panic
- Leave the building by the nearest emergency exit
- If need to access a locked fire door, break glass on key boxes to access key and open door
- Do Not Run, Push or Rush when leaving the building
- Do not use the elevators when exiting the building
- Do not smoke during an evacuation – the cause of the evacuation may be other than fire
- Report to the assembly point located next to KM Building
- Listen and follow all instructions from fire wardens
- Do not re enter the building until told it is safe to do so by the Incident Controller

In a lift:

- In the event of a fire alarm or alert in the building, the lift will automatically travel to the ground floor. When the lift arrives to the ground floor the doors will open and you should proceed to the emergency exits at the front of the building.
- If a fire is detected on the ground floor or below, the lift will automatically travel to another floor. When the lift arrives at that the doors will open and you should evacuate the building through emergency exit routes and staircases (do not use lift).

Evacuation Routes:

- The evacuation routes will be shown to you by the Safety Officer during the first week of your employment and/or via training. In the event of the alarm sounding, you should use the nearest evacuation route to where you are working at the time. You should be aware of your escape routes.

Assembly Point:

- The Assembly point is on the other side of the KM Building. Fire wardens will direct you to the assembly point. You should follow their instructions and you must not leave the assembly point until instructed to do so by the Fire Wardens or Incident Controller. (See back of card for Assembly Point location)

Please keep these instructions in a visible location on your desk.

General Instructions:

- Do not run or attempt to pass others
- Do not go to collect personal items, or any other property
- Do not enter a lift when the alert or alarm is sounding
- If you are unable to use the stairs, there are procedures in place for you to be accompanied to a place of safety and for your location to be reported to the fire services.
- In the event of an evacuation, ensure that any person who does not normally work on the floor is accompanied to the evacuation route and to the assembly point.

Employees and visitors are to assemble at the fire assembly point in front of the building



Appendix E
Register of Staff Receiving Instruction
in the Event of Fire

Appendix F
Emergency Drill Record Template

Emergency Drill Record Template

Site Name:	
Drill Date:	
Type of Emergency:	
Description of Drill:	

Drill Effectiveness Evaluation

Parameter 1:	Response Time	
Items Monitored	Time Taken (in MM:SS)	Remarks (Identify Problems and Areas of Improvement)
Total Evacuation		
Fire Brigade Response		(if applicable)
Police Response		(if applicable)
Ambulance Response		(if applicable)
Spill Response		(if applicable)
Other _____		

Parameter 2:	Evacuation of Floors		
Floor	Satisfactory	Unsatisfactory	Remarks (Identify Problems and Areas of Improvement)
	Tick (✓) In The Applicable Box		
14 th	<input type="checkbox"/>	<input type="checkbox"/>	

Parameter 3:	Functioning of Emergency Detection System		
Equipment	Satisfactory	Unsatisfactory	Remarks (Identify Problems and Areas of Improvement)
	Tick (✓) in the Applicable Box		
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	

Parameter 4:	Functioning OF Emergency Response Equipment		
Equipment:	Satisfactory	Unsatisfactory	Remarks (Identify Problems and Areas of Improvement)
	Tick (✓) in the Applicable Box		
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	

<p>Remarks on Involvement of Neighbors and Others (Positive Points, Problems and Areas of Improvement)</p>
<p>Summary of Weaknesses Identified</p>
<p>Summary of Recommendations and Suggestions</p>

Appendix G
Emergency Evacuation Record

Emergency Evacuation Record

Site Name:	
-------------------	--

Date/Time:	
-------------------	--

Type of Emergency:	
---------------------------	--

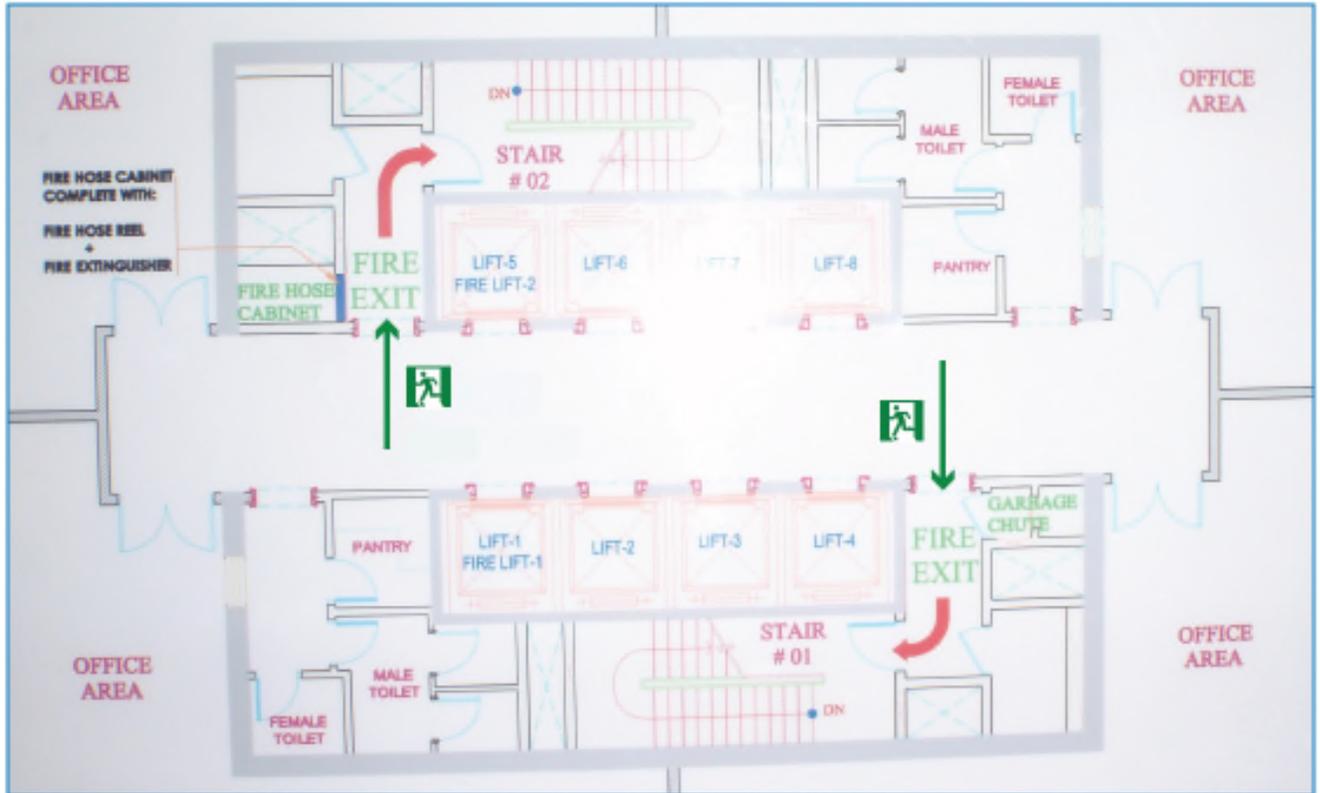
Floor/Wardens	Floor Clear	Unsatisfactory Remarks (Identify Problems and Areas of Improvement)
	Tick (✓)	
<p style="text-align: center;">14th Floor [insert names]</p>	<input type="checkbox"/>	

Appendix H

Assembly Point Location

Assembly Point Location

14th Floor Plan



Employees and visitors are to assemble at the fire assembly point in front of the building



Appendix I
List of Emergency Service Providers

List of Emergency Service Providers

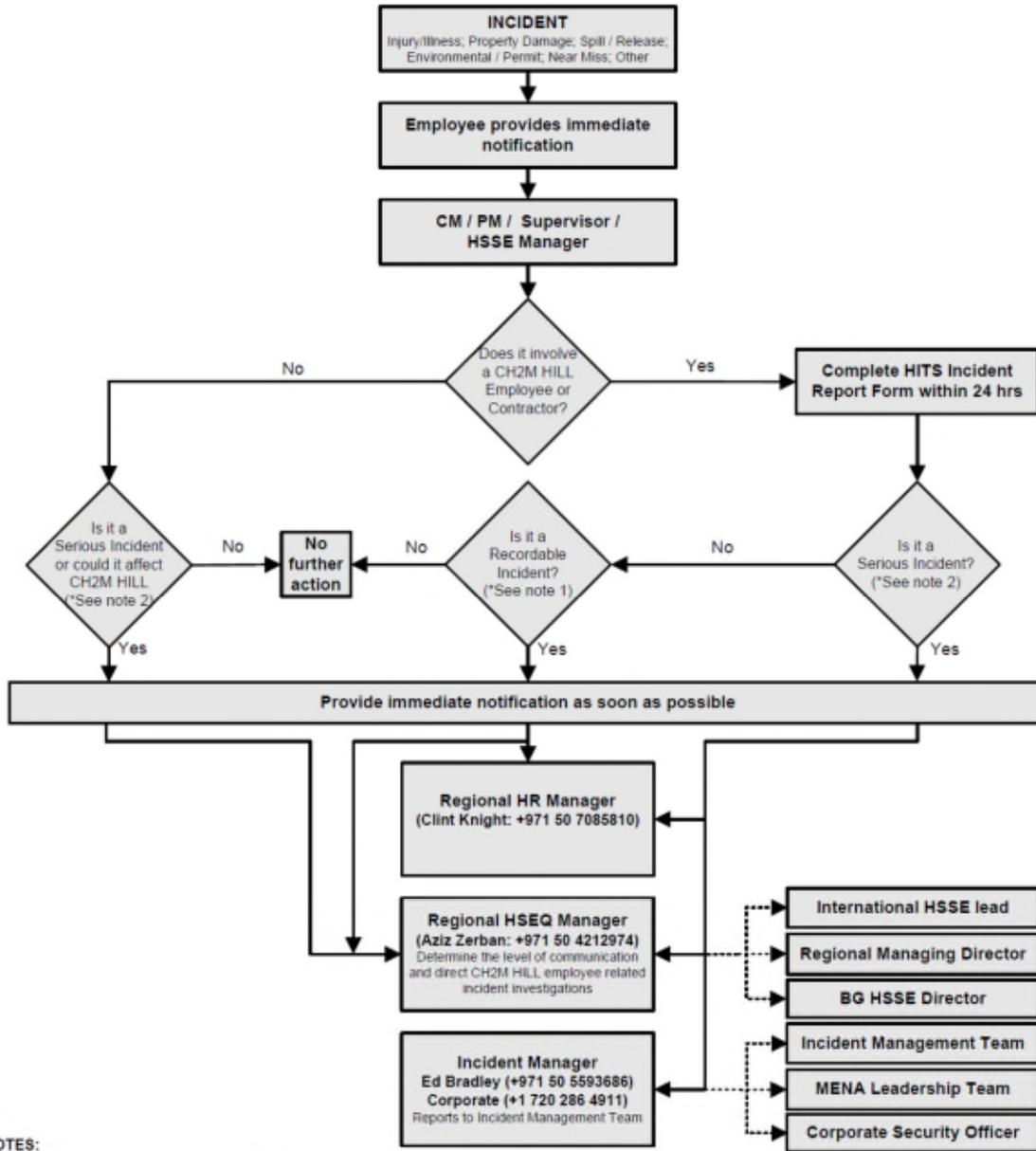
Emergency Service Providers / External Organizations / Agencies		
S. No.	Department	Contact Number(s)
01	Doha Police	999
02	Doha Civil Defense	
03	Ambulance	999
04	Property Management	
05	[Insert main hospital name]	
06	[Insert main hospital name]	
07	[Insert main hospital name]	
08	Emergency Contact "pocket card" issued to all staff	

Appendix J
Fire Risk Assessment Template

Appendix K
Office Assessment Checklist

Appendix L
MENA Region Incident Notification
Flowchart

MENA Region Incident Notification Flowchart

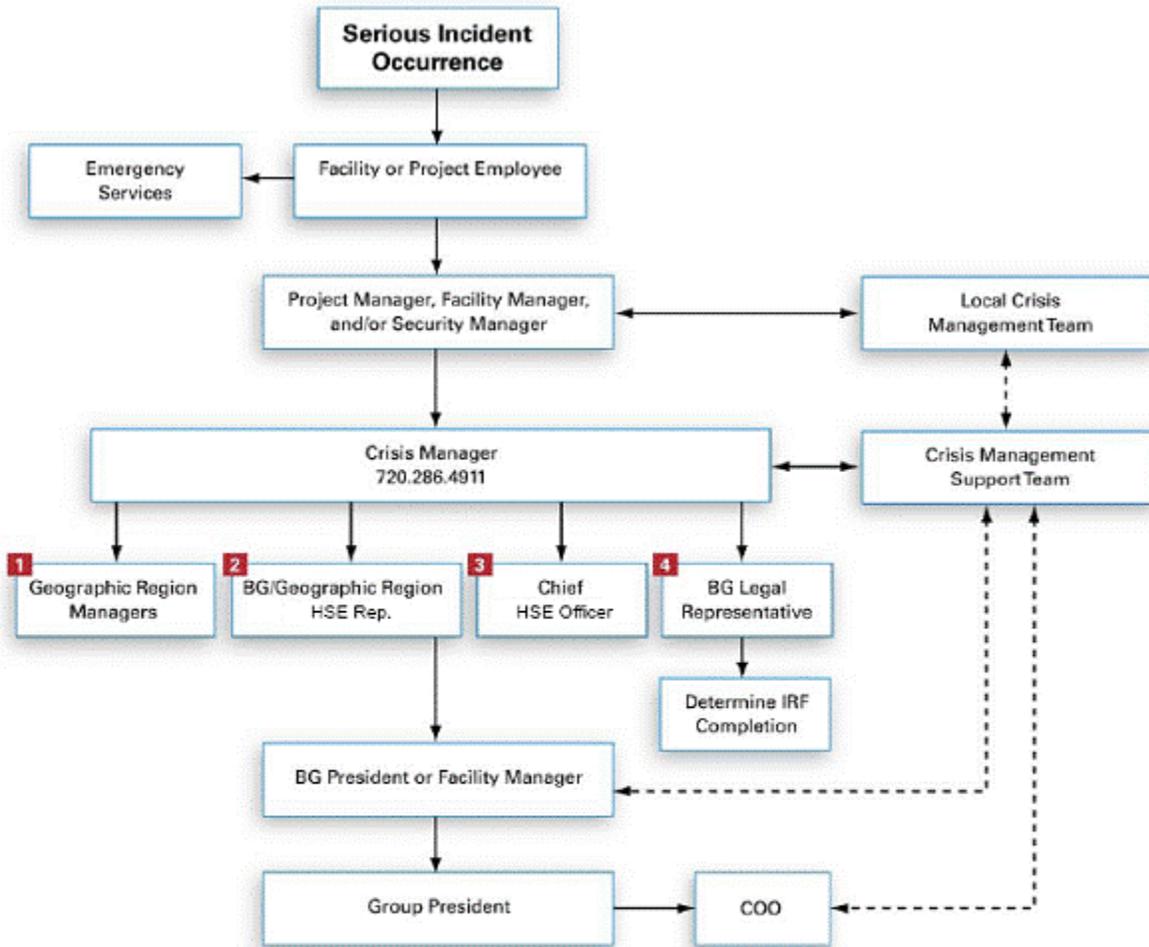


NOTES:

1. Recordable incident as per OSHA classification – see HITS guidelines for more info.
2. Serious Incident:
 - Work related death, or life threatening injury or illness of a CH2M HILL employee, subcontractor, or member of the public;
 - Kidnapped, held hostage, unlawfully detained or missing person.
 - Acts or threats of terrorism
 - Evacuation or relocation due to political or civil unrest, a natural or human-caused disaster
 - An incident that occurs quickly that may discredit or result in a negative impact to CH2MHill
 - Event that involves a fire, explosion, or property damage that requires a site evacuation or is estimated to result in greater than \$500,000 US in damage
 - Spill or release of hazardous materials or substances that involve a significant threat of imminent harm to site workers, neighboring facilities, the community or the environment.
3. Post-emergency incident communications regarding serious incidents at a CH2M HILL office or project (regardless of the party involved) shall be considered sensitive in nature and must be controlled in a confidential manner.
4. This process should not interfere with internal Business Group or project reporting requirements.



CH2M HILL Serious Incident Notification



LEGEND:

→ Direct line of communication

← - - - → Indirect line of communication

DEFINITIONS:

Local Crisis Management Team: Team comprised of key facility, project and/or business group personnel. Team is assembled as necessary and as appropriate to effectively manage and respond to a crisis situation (serious incident) at/on scene.

Crisis Management Support Team: Team comprised of key corporate personnel. Team is assembled as necessary and as appropriate to effectively support, direct, and /or supplement a Local Crisis Management Team.

Crisis Manager: Corporate based Crisis Manager, contactable by pager 24/7.

Appendix M

Minimum First Aid Kit Supplies

Minimum First Aid Kit Supplies

(Office & Warehouse Safety Program SOP HSE – 114)

(For Reference Only)

- Adhesive bandages, various sizes (band-aids)
- Fingertip bandages
- Elastic bandage
- Triangular bandage (40" x 40" x 56")
- Bandage compress, various sizes (2"x2", 3"x3", 4"x4")
- Sterile pad, 3" x 3"
- Adhesive first aid tape
- Antiseptic soap/pads/wipes
- Neosporin or equivalent
- Burn cream
- Burn dressing (gel-soaked pad)
- Instant cold packs
- Eye covering
- Eye wash
- Scissors
- Tweezers
- Blood borne pathogen kits (gloves, masks, CPR protectors (with HEPA filter and backflow preventer), biohazard disposal bags, antiseptic cleaner, splash-proof goggles, towels, wipes, and an absorbent powder to clean-up spills) (Ref: SOP HSE 202)
- Disposable gloves
- Tylenol or equivalent

The quantity of each item needed will vary with the size and configuration of each office. Contact the Regional HSEQ Manager for suggestions.

EXHIBIT 11-D
FIELD SAFETY PLAN

Field Safety Instructions

Prepared for

Client Name

Date



Legal Entity Name

Office address

Office address

Office address

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Acronyms and Abbreviations

AAA	Acronyms and Abbreviations

Field Safety

It is the policy of CH2M to perform work in the safest manner possible. Safety must never be compromised. To fulfill the requirements of this policy, an organized and effective safety program must be carried out at each location where work is performed.

CH2M believes that all injuries are preventable, and we are dedicated to the goal of a safe work environment. To achieve this goal, every employee on the project must assume responsibility for safety.

Every employee is empowered to:

- Conduct their work in a safe manner
- Stop work immediately to correct any unsafe condition that is encountered
- Take corrective actions so that work may proceed in a safe manner

Neither health nor safety will be sacrificed for production. These elements are integrated into quality control, cost reduction, and job performance, and are crucial to our success.

1.1 Health and Safety Commitment

CH2M has embraced a philosophy of health and safety excellence. The primary driving force behind this commitment to health and safety is simple: employees are CH2M's most significant asset and CH2M management values their safety, health, and welfare. CH2M's safety culture empowers employees at all levels to accept ownership for safety and take whatever actions are necessary to eliminate injury. Our company is committed to world-class health and safety performance and understands that world-class health and safety performance is a critical element in overall business success.

CH2M is committed to the prevention of personal injuries, occupational illnesses, and damage to equipment and property in all of its operations and to the protection of the general public whenever it comes in contact with the company's work. Managers, field supervisors, and employees plan safety into each work task in order to prevent occupational injuries and illnesses. The ultimate success of CH2M's safety program depends on the full cooperation and participation of each employee.

CH2M will exceed safety standards as we work to be a model in our industry. CH2M management extends its full commitment to health and safety excellence.

1.2 Health and Safety Goals

Management and employees are to strive to meet the health and safety goals outlined herein. The team will be successful only if everyone makes a concerted effort to accomplish these goals. The goals allow the project to stay focused on optimizing the health and safety of all project personnel and, therefore, making the project a great success.

The program has established the following specific goals and objectives:

- Create an injury-free environment
- Have zero injuries or incidents
- Provide leadership for health and safety by communicating performance expectations, reviewing and tracking performance, and leading by example
- Ensure effective implementation of these Field Safety Instructions (FSIs) through education, delegation, and team work

- Ensure 100 percent participation in training programs, personal protective equipment (PPE) use, and health and safety compliance
- Continuously improve our safety performance
- Maintain free and open lines of communication
- Make a personal commitment to safety as a value
- Focus safety improvements on high-risk groups
- Continue strong employee involvement initiatives
- Achieve health and safety excellence

Field Safety Instructions

2.1 Applicability

These FSIs apply to:

- CH2M staff, including subcontractors and tiered subcontractors of CH2M working on a project site.
- Visitors to the project site in the custody of CH2M

These FSIs do not apply to the third-party contractors, their workers, their subcontractors, their visitors, or any other persons not under the direct control or custody of CH2M. These FSIs define the procedures and requirements for the health and safety of CH2M staff and visitors when they are physically on the project site. The project site includes the project area (as defined by the contract documents) and the project offices, trailers, and facilities thereon.

2.2 Maintenance

These FSIs will be kept onsite during field activities and will be reviewed as necessary. The FSIs will be amended or revised as project activities or conditions change or when supplemental information becomes available. The FSIs adopt, by reference and as appropriate, the standards of practice (SOPs) in the CH2M Corporate Health and Safety Program. In addition, these FSIs may adopt procedures from the project work plan and any other governing regulations. If there is a contradiction between these FSIs and any governing regulation, the more stringent and protective requirement shall apply.

All CH2M staff and subcontractor supervisors must sign the employee sign-off form included in this document as Attachment 1 to acknowledge review and receipt of this document. Copies of the signature page will be maintained onsite by the Safety Coordinator.

2.3 Restricted Areas/Activities and Facility-Specific Requirements

Contact the responsible health and safety manager for assistance with areas or activities that have more stringent requirements than those described in these instructions, for example:

- Confined spaces
- Barricaded areas (unless with prior approval from facility representative)
- Exposed energized electrical equipment (unless accompanied by qualified individual)
- Areas exposed to vehicular traffic
- Areas where health hazards exist (such as asbestos, lead)
- Activities requiring respiratory protection

SECTION 3

General Information

3.1 Project Information and Description

Project Number: 435963

Client Name:

Project Name and Address:

CH2M Project Manager:

CH2M Office:

Date (FSI) Prepared:

Dates of Site Work:

3.2 Site Description

3.3 CH2M Activities

Description of tasks being performed by CH2M staff at this location

Health and Safety Organization

4.1 Health and Safety Manager

Name:

Cellular:

eMail:

The CH2M health and safety manager is responsible for:

- Reviewing and accepting or rejecting contractor pre-qualification questionnaires
- Reviewing and accepting or rejecting contractor training records and site-specific safety procedures prior to start of contractor's field operations
- Supporting the safety coordinator's oversight of contractor (and lower-tier subcontractors) health and safety practices and interfaces with onsite third parties
- Visiting project sites periodically to assess site conditions and review health and safety program implementation
- Assisting with program implementation as needed

4.2 Safety Coordinator

Name:

Cellular:

eMail:

The safety coordinator will be onsite for the duration of construction activity and is responsible for:

- Making safety integral to each operation by promoting worker involvement in the work planning and hazard identification process
- Maintaining active and visible involvement using open communication with employees regarding safety items on the project
- Reviewing and understanding contractual obligations regarding health and safety
- Managing the site and interfacing with third parties in a manner consistent with contractual agreements and the applicable standard of reasonable care
- Verifying these FSIs are current and amended when project activities or conditions change
- Implementing drug-free workplace policy
- Verifying CH2M site personnel and visitors read these FSIs and sign the employee signoff form prior to arriving at the site
- Verifying and documenting that CH2M team members have completed any required specialty training (e.g., fall protection, confined space entry) and medical surveillance training
- Confirming that the workforce is trained and qualified

- Conducting a health and safety orientation for all CH2M team members prior to entering the site
- Verifying compliance with the requirements of these FSI and applicable contractor health and safety plan(s) and any federal, state, and local regulations
- Acting as the project “Hazard Communication Coordinator” and performing the responsibilities outlined in this FSI
- Acting as the project “Emergency Response Coordinator” and performing the responsibilities outlined in this FSI
- Posting required information onsite
- Verifying that safety meetings are conducted and documented in the project file throughout the course of the project
- Verifying that project health and safety forms and permits are being used as outlined in this FSI
- Confirming that contractor health and safety practices conform to their safety plan
- Providing weekly health and safety project reports to the program Health and Safety Manager
- Verifying that onsite project files include copies of executed contracts and certificates of insurance (including CH2M as named additional insured), bond, contractor’s license, training and medical monitoring records, and site-specific safety procedures prior to start of subcontractor’s field operations
- Coordinating with the program health and safety manager regarding CH2M and contractor performance and third-party interfaces
- Verifying appropriate PPE use, availability, and training
- Conducting safety briefings weekly for CH2M team members
- Notifying human resources representative and program health and safety manager about injuries and following up on injured employee’s progress
- Conducting accident investigations including root cause analysis
- Maintaining health and safety records and documentation
- Facilitating Occupational Safety and Health Administration (OSHA) or other government agency inspections including accompanying inspector and providing all necessary documentation and follow-up
- Delivering field health and safety training as needed based on project-specific hazards and activities
- Ensuring that programs are effectively functioning to prevent accidents and control hazards

4.3 Contractor Safety Responsibilities

Contractors must include in their safety programs the following activities for which they will be responsible:

- Complying with local, state, and federal safety standards
- Complying with project and owner safety requirements

- Participating in the project safety program and attending required safety meetings
- Providing a qualified safety representative to conduct and document weekly safety inspections for their work
- Maintaining a first aid kit onsite
- Maintaining and replacing safety protection systems damaged or removed by their subcontractor’s operations
- Notifying the safety coordinator of any accident, injury, and/or incident immediately and submitting reports to CH2M within 24 hours
- Installing contractually required general conditions for safety (for example, handrail, fencing, fall protection systems, floor opening covers, etc.)
- Conducting and documenting weekly safety inspections of project-specific tasks and associated work areas
- Conducting weekly employee safety toolbox meetings
- Conducting site-specific orientations for their employees

4.4 Employee Responsibilities

Personnel are responsible for safe and healthy behavior. This concept is the foundation for involving all employees in identifying hazards and providing solutions. For any operation, individuals have full authority to stop work and initiate immediate corrective action or control. In addition, each worker has a right and responsibility to report unsafe conditions/practices. This right represents a significant facet of worker empowerment and program ownership. Through shared values and a belief that all accidents are preventable, our employees accept personal responsibility for working safely.

Each employee is responsible for the following performance objectives:

- Performing work in a safe manner and produce quality results
- Performing work in accordance with company policies
- Completing work without injury, illness, or property damage
- Reporting all incidents immediately to supervisor, and filing proper forms with a human resources representative
- Reporting hazardous conditions and hazardous activities immediately to supervisor for corrective action
- Completing health and safety orientation prior to entering the project work areas

Each CH2M employee on the program has the obligation and authority to shut down any perceived unsafe work and during employee orientation, each employee will be informed of their authority to do so.

Drug-Free Workplace

CH2M does not tolerate illegal drugs, or any use of drugs, controlled substances, or alcohol that impairs an employee’s work performance or behavior. CH2M has established a policy that its employees and

subcontractors are not to be involved in any manner with the unlawful manufacture, distribution, dispensation, possession, sale, or use of illegal drugs in the workplace. The use or possession of alcohol in the workplace is also prohibited. Any violation of these prohibitions may result in disciplinary action or immediate discharge. Refer to CH2M SOP HSE-105, *Drug-Free Workplace Standard of Practice*, for more information. The following sections describe mandatory program requirements.

5.1 Policy Statement

A drug-free workplace policy statement is to be included in contract documents for the program. The policy statement should detail prohibited conduct and ramifications, and:

- Prohibit drug, alcohol, and/or controlled substances use or abuse
- Prohibit involvement in the manufacture, distribution, dispensation, possession, sale, or use of illegal drugs in the workplace
- Describe disciplinary actions
- Stipulate that subcontractor shall pay for all testing

5.2 Subcontractor Management

CH2M subcontractors must also comply with the provisions of the drug-free workplace policy. Testing will be conducted for the substances listed in Table 1 or CH2M SOP 105 at a Substance Abuse and Mental Health Services Administration-certified facility that is monitored by the Department of Health and Human Services. Pre-assignment and random testing will only entail drug testing, while post incident and for cause or reasonable suspicion testing must include both drug and alcohol testing. Employees who refuse to submit to drug or alcohol testing will be treated as if they tested positive.

If a subcontractor's employee has a confirmed positive test result, the subcontractor is required to notify CH2M of test result within 24 hours and provide notification that the employee has been removed from the site. Employees testing positive will be removed from the CH2M project and not allowed to return for a minimum of 6 months, and then only upon providing a negative drug screen result.

CH2M subcontractors are responsible for maintaining their own records. CH2M requires that subcontractors submit the names of employees who have confirmed negative test results on company letterhead, certifying that the employees have met the drug-free workplace program requirements. The submitted document must list employee name, location of test, date, and type of test. CH2M reserves the right to audit the subcontractor's program and records at any time.

5.3 Drug and Alcohol Testing

Testing will be conducted for all substances listed in Table 1. If the results exceed the posted level, a confirmation sample will be tested with a gas chromatography/mass spectrometry (GC/MS). If the GC/MS levels exceed those listed, the results will be reported to the Medical Review Officer.

Table 1 Drug and Alcohol Panel Screening and Confirmation Levels

Substance	Screening threshold level (EMIT)	Confirmation threshold level (GC/MS)
Amphetamines	1000 ng/ml	500 ng/ml
Cocaine Metabolite	300 ng/ml	150 ng/ml
Opiates	2000 ng/ml	2000 ng/ml

Table 1 Drug and Alcohol Panel Screening and Confirmation Levels

Substance	Screening threshold level (EMIT)	Confirmation threshold level (GC/MS)
Phencyclidine (PCP)	25 ng/ml	25 ng/ml
Marijuana (THC)	50 ng/ml	15 ng/ml
Alcohol, Ethyl	0.02 gm/dl	0.04 gm/dl

Alcohol testing will be performed in accordance with the Federal Motor Carrier Safety Administration Alcohol and Drug Testing Regulations using breath alcohol testing equipment and procedures. Two alcohol tests are required to determine if a person has a prohibited alcohol concentration. A screening test is conducted first, with any result less than 0.02 gm/dl considered a negative result. If the alcohol concentration is greater than 0.02 gm/dl, a second confirmation test must be conducted. Confirmation breath alcohol tests greater than 0.04 gm/dl are considered a “positive” result.

Only a breath alcohol technician may be used for breath alcohol testing, unless applicable state licensing or other requirements mandate blood tests or unless testing facilities are not available for breath sampling. When blood alcohol testing is used, each presumptive positive result must be confirmed by a second analysis using a GC/MS.

5.4 Prescription and Non-Prescription Drugs

Employees using prescription or non-prescription drugs that could impair their functions on the project are required to notify the employer in advance of such drug use. Failure to report prescription and non-prescription drugs as required above, illegally obtaining the substance, or use that is inconsistent with the prescription or label may be subject to disciplinary action.

5.5 Types of Testing

5.5.1 General Requirements

Pre-hire, pre-assignment, and random testing will only entail drug testing, while all other types of testing must include drug and alcohol testing.

Employees who refuse to submit to drug or alcohol testing will be treated as if they tested positive and will be disciplined accordingly.

Prior to drug or alcohol testing, the employee must sign a consent form. Copies of this form must be maintained on file by the subcontractor.

A candidate will be eliminated from employment consideration for tampering with, altering, or attempting to create a false negative result.

5.5.2 Pre-Hire and Pre-Assignment Testing

Employees working on the project are required to submit to a pre-assignment test for drugs. The test must be taken within 30 days prior to the employee’s arrival date at the project.

A positive test for a potential new hire or existing employee will result in eliminating the person for consideration for assignment to the project.

Applicants and existing employees who do not successfully pass the drug test may be reconsidered for assignment to the project after 6 months.

5.5.3 Random Testing

A minimum of 5 percent of CH2M’s workforce will be sampled on a monthly basis and a random selection process must be implemented that ensures employees have an equal chance of being selected.

When random testing is performed, no advance notice of testing will be given, and employees who are selected will be required to submit immediately to the test.

An employee who does not test within the required timeframe (4 hours from notification) will be treated as if they tested positive and must be removed from the project immediately.

5.5.4 Post-Incident Testing

At a minimum, post-incident testing is required following an incident on the project that results in an injury in the course of employment requiring treatment from a doctor, or following an incident that results in property damage over US \$5,000.

Post-incident testing may be required under other circumstances as dictated by the PLT, program health and safety manager, or safety coordinator. Post-incident testing will include both drug and alcohol testing.

5.5.5 Cause or Reasonable Suspicion Testing

When there is cause for reasonable suspicion that an employee has taken drugs or consumed alcohol while at work or returned to duty with drugs or alcohol in their body, the employee will be required to immediately submit to drug and/or alcohol tests.

Management must approve “for cause” or “reasonable suspicion” testing prior to requiring an employee to submit to the test.

The subcontractor must maintain written documentation that supports the need for reasonable suspicion testing.

Employees who are required to submit to reasonable suspicion testing must submit to the test immediately after the determination has been made. Employees are prohibited from transporting themselves to the collection site.

For cause testing will include both drug and alcohol testing.

5.5.6 Rehabilitation Follow-Up Testing

If an employee enters a rehabilitation program, they will be subject to periodic testing for a period of up to 2 years upon their return to work. The company will follow the medical review officer’s recommended frequency for all follow-up testing.

5.5.7 Retesting

A dilute sample will be immediately retested. The employee’s supervisor must escort the employee to the collection site for resampling.

The employee must be required to submit to the escorted test without prior warning.

A refusal to retest under these conditions will be considered a positive result and will be disciplined accordingly.

5.5.8 Notification of Results

Positive test results must be reported to CH2M with 24 hours of notification from laboratory.

Employee's drug screen result must be kept confidential. Only CH2M staff with a work-related need to know will be given the results

5.6 Searches and Inspections

The CH2M has the right to conduct searches of project locations (vehicles, lockers, desks, filing cabinets, or equipment owned or being operated by subcontractor personnel) and employee's personal property (briefcases, purses, backpacks, coats, or vehicles). Employees and their property will be searched by local law enforcement.

CH2M must be notified prior to conducting a search.

Employees must sign a search consent form prior to having a search conducted of the employee's personal property. The safety coordinator is responsible for maintaining this form, which will also document findings of the search. A refusal to submit to, or cooperate with a search, will result in immediate removal from the project site.

5.7 Disciplinary Actions

Employees who test positive for drugs or alcohol will be immediately removed from the project.

The company will determine appropriate action, including the level of discipline which includes actions ranging from providing an opportunity for entry into a rehabilitation or counseling program to suspension or dismissal.

5.8 Drug Program Service Provider

Positive and/or inconclusive drug screen results must be reviewed by a licensed Medical Review Officer.

Planning

Generally, CH2M and CLIENT program staff will be visiting construction sites only to confirm that work is proceeding according to plan. They will not engage in hazardous work or be in precarious situations or on dangerous equipment. However, if circumstances create a need for staff to be in a potentially hazardous situation, a task hazard analysis and plan must be filed with the site safety coordinator before any activities occur. To complete this plan, staff must complete the appropriate checklists for the type(s) of hazards they will be exposed to.

6.1 Safety Checklists

CH2M safe work practices checklists cover accepted health and safety principles and practices for a particular operation. Each checklist covers the basic steps of an overall task and identifies potential hazards and to determine the safest way to do the job.

Following are the four steps for completing a THA:

- Select the hazardous situations that might be encountered
- Download the forms and checklists for each task (link to forms in ePMP)
- Fill in the required information and identify the most likely method for accomplishing each task
- Determine preventative measures to overcome hazards
- Review safe work measures with CH2M staff and visitors who will be completing covered tasks
- File checklists, visitor list, and plan, along with completed FSI sign-off forms with site safety coordinator

THAs must be reviewed by the entire work team prior to initially conducting the task. The THA process will identify previously undetected hazards and increase the job knowledge of those participating. Safety and health awareness is raised, communication between workers and supervisors is improved, and acceptance of safe work procedures is promoted. The completed THA will be the basis for regular contact between supervisors and workers on health and safety. It will serve as a teaching aid for initial job training. The THA will also be used as a standard for health and safety observations and will assist in completing comprehensive accident investigations, if things go awry.

THAs will be documented and submitted to the safety coordinator and will be maintained onsite.

EXHIBIT 11-E
QUALITY CONTROL PLAN

PLAN

Quality Control

Prepared for

Client Name

Date



Legal Entity Name

Office address

Office address

Office address

Revision History

Issue	Author	Date	Description

Technical Check

Role	Name	Signature	Date

Approval

Role	Name	Signature	Date

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Text from proposal for your reference and/or inclusion in the plan [DELETE THIS SECTION AFTER INCORPORATING THE PROPOSAL AND PURSUIT INFORMATION]

Copy text from proposal and other pursuit materials and incorporate these into this plan. This is what the client bought and expects from us on this program.

Creating a legacy for ...

Approach

Acronyms and Abbreviations

PMT	CH2M Program Management Team
ePMP	electronic Program Management Plan
KPI	Key Performance Index
QC	quality control

Introduction

It is the overarching policy of the CH2M Program Management Team (PMT) to deliver services, work products, and constructed infrastructure that fulfill the following:

- Satisfy Client’s expectations, particularly as reflected in the Key Performance Indices (KPIs) established for the program
- Comply with the quality standards and performance and safety requirements established for the program
- Require all PMT staff to perform their duties in accordance with the established procedures
- Comply with regulatory requirements

This Quality Control Plan provides the quality policy and guidance for the PMT’s work on the Client program. The Plan was prepared in accordance with Schedule B of the contract with Client to provide project management services. This Plan also is consistent with the objectives and guiding principles of CH2M’s ISO 9001:2008 Quality Management System Manual and Enterprise Quality Covenant that states:

As CH2M employees, we strive to consistently:

- a. Provide value to our clients by delivering the products they want, safely, on schedule, and on budget—meeting their requirements and expectations
- b. Understand and meet the needs of our customers
- c. Achieve continual improvement of our quality management system

Quality Organization and Staff Responsibilities

2.1 Organization

The organization of the PMT at the program and project levels is shown on Figure 1. The figure illustrates that the quality team members (managers, inspector supervisors, and inspectors) are included within functional project teams and in the function of the program management team. It also shows lines of authority and communication for project delivery.

Figure 2-1 shows that the one person or position is accountable for quality in projects and the overall program flows up through project quality teams to the Program Quality Manager and to the Program Manager. Achieving quality is one of the Project Manager's and Program Manager's measures of success. Through the project quality index and audits, Client will have a clear understanding that quality is being achieved.

Insert Program Organization highlighting roles and people responsible for quality at both the program and project levels.

Figure 2-1. Program Organization Chart

2.2 Roles and Responsibilities

The PMT quality assurance team is comprised of the Program Quality Manager, Project Quality Managers, and their teams of Inspection Supervisors and Inspectors. This team is responsible for assuring the quality of construction at the project level through ongoing inspection and observation of each Contractor's performance of its work and achievement of quality requirements.

The quality assurance team will be actively engaged with the PMT construction management team, working onsite every day with the Construction Managers and Project Engineers. Having quality Inspectors on the job site improves communication and reduces the response time when work is ready for inspection. It also improves coordination with the Contractor's quality control team and observation of the work as it progresses.

2.2.1 Program Quality Manager

The PMT's lead representative for quality is the Program Quality Manager, who has overall program responsibility for assuring that required quality is achieved in completed projects within the program. The Program Quality Manager prepares and manages the quality assurance program, which includes preparing and implementing quality requirements and processes, managing quality assurance staff, training PMT program staff on the quality program and its requirements, and auditing the Contractors' quality control on projects. The Program Quality Manager reports to the Program Manager. In addition,

the Program Quality Manager has the authority and responsibility to raise issues with CH2M’s corporate leadership, including to the chief executive officer if necessary, if the Program Manager does not resolve quality issues satisfactorily.

2.2.2 Program Manager

The Program Manager has overall program responsibility to achieve required quality in the completed projects within the program, organizes and manages the program team and its resources to deliver quality, and guides the team in achieving performance in quality, cost, schedule, and safety.

2.2.3 Engineering Manager

The Engineering Manager has responsibility for contributing to quality by establishing and maintaining the standards for design and construction of the work, and providing advice and guidance to quality assurance team members and construction managers on those standards. The Engineering Manager conducts design submittal reviews to verify quality in designs. Design review teams are expected to include all interested parties, such as the proponent, Project Managers, Project Engineers, engineering disciplines, Project Quality Managers, Construction Managers, and others as appropriate for the project.

2.2.4 Project Managers

Each Project Manager has overall project responsibility to achieve required quality in the completed project. The Project Managers organize and manage their team and the necessary resources to deliver it, and achieve balance between cost, quality, schedule, and safety.

2.2.5 Project Quality Managers

The Project Quality Managers have responsibility for one or more projects to verify that required quality is achieved in completed projects. They also manage the implementation of the quality program and its requirements, including managing quality assurance staff (Inspector Supervisors and Inspectors). The Project Quality Managers audit the Contractors’ quality control, coordinating with the Project Managers, Construction Managers, and engineering staff. The Project Quality Managers report to the Program Quality Manager.

2.2.6 Inspector Supervisors

The Inspector Supervisors have responsibility for implementing the quality assurance program on assigned projects through management of Inspectors and, when work allows, conduct inspections as well. The Inspector Supervisors’ responsibilities include observing the Contractor quality control (QC) of its work, observing the construction work in progress, inspecting completed work for compliance with contract requirements, preparing documents that record findings, and participating in audits of the Contractor’s QC records. The Inspector Supervisors work closely with the Construction Managers and the Contractor’s QC team, and report directly to the Project Quality Manager.

2.2.7 Inspectors

Each Inspector is responsible for implementing the quality assurance program through activities such as observing the Contractor’s QC of its work, observing the construction work in progress daily, inspecting completed work for compliance with contract requirements, preparing and recording documentation of quality, and participating in audits of the Contractor’s QC. The Inspectors work closely with the Construction Managers and the Contractor’s QC team, reporting to the Inspector Supervisor.

Inspection of equipment at vendor facilities will be accomplished through the PMT’s contract management organization, either using qualified PMT staff or engaging third-party inspection services.

2.2.8 Document Controls

The PMT's document controls staff establishes and operates the system to store and retrieve all required project documents, including quality documents.

2.2.9 Contractors

The project-specific construction Contractors are accountable for achieving the required level of quality in the complete, constructed project. They perform this through their project team that includes designers and detailers, material procurement specialists, vendor representatives and technical specialists, construction managers, a quality control team (managers, supervisors, and inspectors), materials sampling and testing services, and others as needed.

Quality Management System

The facilities in the scope of work include housing upgrades, new housing, light commercial buildings, and industrial and residential infrastructure. The PMT's project delivery approach includes activities for each discipline that affects quality. These activities include design reviews and resolution of comments, stated standards in contracts, and the training and indoctrination of staff. The PMT quality management system provides control by assessing these activities through observation, auditing, and inspection. The inspection aspect of this quality approach accounts for the fact that there is no government entity providing assurance of code compliance through building permits and inspections. These quality activities are an integral part of the project management services provided by the PMT, along with engineering and construction management.

3.1 Quality Assurance

The PMT assures quality from project inception to commissioning through continuous planning and systematic application of plans and processes designed to achieve quality in the completed project. Elements of those plans and processes include, but are not limited to, the following:

- Developing and implementing a master quality plan for each project within the program
- Verifying that the scope of work is clearly defined and understood within the delivery team as the project progresses
- Verifying that design and construction standards, codes, and specifications are defined and are included in contracts
- Verifying that quality requirements are defined and in contracts
- Reviewing and approving the Designer's quality plan
- Establishing and operating design review processes
- Reviewing and approving the construction Contractor's quality plan
- Verifying that all stages of materials and equipment procurement is performed acceptably, including the conduct of equipment inspections at vendor facilities
- Establishing and operating a document control system for all program and project records, including records demonstrating compliance with quality plans

3.2 Quality Observation and Inspection

The PMT advances the achievement of quality through observations and inspections. Specific examples include the following:

- Observing that design reviews are conducted, including confirmation that design reviews address code requirements and that comments are adjudicated and responded to
- Observing that Contractor methods of work are satisfactory, that completed work meets specified standards, and is performed by qualified personnel
- Observing that the Contractor's quality control team is performing according to its approved quality plan

- Auditing and verifying that the Contractor’s design and/or construction performance is in compliance with their approved quality plans
- Observing that materials and equipment received and incorporated into the work are in compliance with contract documents (drawings and specifications, etc.), are in working order, are stored properly prior to installation, and are accepted by construction management
- Observing that materials are sampled and tested for compliance with specifications including review of resulting reports
- Inspecting site improvements and structures to confirm they meet codes and contract documents including drawings and specifications
- Verifying that changes to design and construction are reviewed for code compliance.
- Inspect to confirm that mechanical, electrical, plumbing, and all other systems rough-in meets code requirements prior to “closing” floors, walls, or ceilings
- Inspecting and commissioning to confirm that complete mechanical, electrical, plumbing, and other systems are installed and operate as intended

Nonconformance and Corrective Action

Items, services, and processes that do not meet established requirements must be identified, controlled, and corrected according to the importance of the problem and the work affected. Item characteristics, process implementation, and other quality-related information must be reviewed and the data analyzed to identify items, services, and processes needing improvement. Corrective action steps are as follows:

1. Identify, control, and correct items, services, and processes that do not meet established requirements.
2. Determine the cause of the condition and take corrective action to preclude recurrence in the case of a significant condition adverse to quality.
3. Document the corrective action

Processes and Procedures

Processes and procedures related to quality control and quality assurance are based on the PMT's vast experience on similar programs and are expected to improve the quality system function while balancing quality, cost, expedient-timely delivery, and safety in project delivery. The electronic Program Management Plan (ePMP) developed for the Client program includes detailed work instructions for the delivery of quality. Applicable quality standards documents and other resource materials also are referenced in the ePMP.

Using applicable elements of the existing quality system such as engineering standards, inspection and test plans, checklists, etc. is expected to have the benefit of a common understanding with Client management, Designers, construction Contractors, vendors/suppliers, and others associated with project delivery. Continual improvement is expected to occur by incorporating revisions to these documents from lessons learned on this program and on CH2M's others programs around the world.

Document Control

The PMT's document controls group establishes and operates an electronic document storage and control system for program and project records. Quality assurance records will include quality plans and their reviews and approval documents, records of design reviews, records demonstrating Contractor compliance with quality requirements, records of inspection, construction site log books, noncompliance notices and logs, corrective actions plans and confirmation of their implementation, audits and resolution of their findings, and similar required documentation. Records will be identifiable and retrievable through changeable search queries.

Familiarization and Training

Quality assurance staff—including the Program Quality Manager, Project Quality Managers, Inspection Supervisors, and Inspectors—will be trained on the quality program standards, processes, procedures, contract documents, Contractor’s schedule Q, and all other information required to perform their role in delivering the Client program with quality.

Other PMT staff associated with achieving quality goals—including the Program Manager, Project Managers, Engineering Manager and engineering staff, Program Construction Manager and construction management staff, and document controls staff—will receive training on the overall quality program and systems.

EXHIBIT 11-F
RISK MANAGEMENT PLAN

PLAN

Risk Management

Prepared for

Client Name

Date



Legal Entity Name

Office address

Office address

Office address

Revision History

Issue	Author	Date	Description

Technical Check

Role	Name	Signature	Date

Approval

Role	Name	Signature	Date

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Figure(s)

- XX Figure Title

Text from proposal for your reference and/or inclusion in the plan [DELETE THIS SECTION AFTER INCORPORATING THE PROPOSAL AND PURSUIT INFORMATION]

Copy text from proposal and other pursuit materials and incorporate these into this plan. This is what the client bought and expects from us on this program.

Creating a legacy for ...

Approach

Acronyms and Abbreviations

CH2M	CH2M HILL, Inc.
OCIP	Owner-Controlled Insurance Program
PMD	Program Management Department
PMI	Project Management Institute
PMI-PRM	PMI “Practice Standard for Project Risk Management”, 2009
PMP	program management plan
RMP	risk management plan

Introduction

1.1 Purpose

This risk management plan (RMP) forms one chapter of the overall program management plan (PMP) for the program.

Together with the client's integrated management system, the PMP provides the client's Program Management Department (PMD) and CH2M HILL, Inc. (CH2M) with the policies, processes, procedures, and standards necessary to consistently implement and administer the program and to fully meet the needs and expectations of the client.

The PMP is generally in compliance with the principles of the Project Management Institute (PMI) standards and addresses the management and administration of the entire program, including CH2M as the engineer, the client's PMD as the employer, and the program contractors.

The PMP could also be used as a reference document on the client's future capital works programs, using either external consultants or in-house resources to provide contract administration.

The purpose of this RMP is to provide the framework for identifying, assessing, responding to, and reviewing risks relevant to the design and construction of the program.

1.2 Background

The RMP has been developed in accordance with the principles of the PMI standards and appropriate industry-specific documents.

The program risk management process began on appointment of CH2M in MONTH/YEAR, and the process will continue until the expiration of the defects liability period for the last construction contract.

Under the design and build contract delivery framework selected for the program, many of the technical risks associated with design and construction are allocated to the main contractor appointed for each program contract, and it is the contractors' responsibility to assess and mitigate these technical risks. Other risks are allocated to an insurer appointed by the client under an Owner-Controlled Insurance Program (OCIP).

CH2M maintains an oversight role for technical risk management and is responsible for some technical risks as discussed later. The CH2M role involves managing other program risks, through the following actions:

- Minimizing adverse impacts on program safety, scope, cost, schedule, and quality
- Maximizing opportunities to improve the program's objectives in terms of lower cost, shorter durations, enhanced scope, and higher quality (but without additional costs)
- Minimizing management by crisis
- Early reporting of risk occurrences and potential risks to the client

1.3 Risk Management Plan

This RMP provides the following information:

- A summary of risk allocation among the parties
- A description of the methodologies and tools that are used
- How hazards and associated risks are identified
- How risks are assessed
- Criteria for defining the risk thresholds that trigger increasing or decreasing levels of response from the program team
- Methods of removing or mitigating risks
- The roles and responsibilities of the people involved in managing risk
- How risk responses are tracked, documented, analyzed, and communicated to the internal and external stakeholders

Reference Documents

The following key reference documents were used to develop the risk management principles that form this RMP:

- PMI “Practice Standard for Project Risk Management”, 2009 (PMI-PRM)
- PMI “A Guide to the Project Management Body of Knowledge”, 4th Edition, 2009
- XXX

Reference should be made to the following document, which describes the detailed implementation of risk management on the program:

- XXX

Other documents that have not been specifically referred to in the development of this plan, but may provide a future resource for specific risk management tools and techniques include:

- XXX

Risk management is a driver for program development and management. Accordingly, this plan relates to, and should be read in conjunction with, other parts of the PMP, in particular:

- Construction management plan
- Design management plan
- Health and safety plan
- Environmental management plan
- Security plan

Plan Application

3.1 General

This plan applies to the risk management of the program. It primarily describes the risk management strategy and processes to be implemented by the PMD and/or CH2M. The plan also includes an overview of the contractual allocation of risk management responsibilities to the contractors, how the contractors' risk management performance will be monitored, and how significant risks will be reported and assessed at the program level.

This plan addresses the following risk categories related to the program:

- Program delivery risks
- Technical risks in design and construction
- Non-technical construction risks
- Contractual/commercial risks related to construction contracts

The plan does not apply to CH2M or PMD internal business risk planning.

3.2 Insurance

For the program, the client has procured insurance for most major risks directly through an OCIP, rather than requiring the individual contractors to procure this insurance. The intention of the OCIP is to transfer much of the following risk to the OCIP insurer:

- Loss or damage to "constructional plant and equipment"
- Loss or damage to "works during construction"
- Loss or damage to "third party property"

For specialist high-risk work, such as tunneling, insurers (and their re-insurers) commonly include specific risk management conditions or endorsements that are transferred to the insured party as a condition of the insurance cover. It is currently standard practice for insurers to require XXXX.

Other construction-related risks are the responsibility of the contractors to insure and do not require specific risk management action from the PMD and CH2M. These include land, sea, or air transit; workmen's compensation; motor vehicle, third-party, and passenger liability; and professional indemnity.

Risk Management Strategy

4.1 Purpose and Objectives

The general objectives of risk management on the program are as follows:

- Identification of negative risk events and associated risks
- Identification of positive risk events (opportunities)
- Identification of measures to eliminate or mitigate negative risks and exploit opportunities

These objectives will be integral considerations in the planning, design, procurement, and construction phases of work.

4.2 Success Factors

In accordance with the PMI-PRM, the principal criteria for success with respect to the program RMP include:

- Acceptance by stakeholders
- Alignment with the internal and external constraints on the program
- Balance between cost or effort and benefit
- Completeness with respect to the risk management needs of the program

Factors for successful risk management include:

- Identifying and addressing barriers to successful program risk management
- Involving program stakeholders in program risk management
- Complying with the objectives, policies, and practices of CH2M and the PMD
- Complying with the XXX code requirements to ensure that OCIP insurance conditions are met

4.3 Guiding Principles

In general, this plan reflects the risk management principles outlined in the PMI, XXX, and XXX documents (refer to Section 2, Reference Documents). Specific contracts and phases of work require tailoring of the risk management approach and strategy.

The general guiding principles for risk management on the program are as follows:

- Risk management shall be undertaken in an atmosphere of cooperation, partnering, and open communication.
- Risks shall be allocated to the party best able to manage the risk.
- Hazards/risk events shall be identified and evaluated on a project-specific basis, and their consequent risks shall be identified and quantified by risk assessments through all stages of the program.
- Risk management is ongoing throughout the life of the individual projects and program.
- While certain individuals in the CH2M may be assigned formal responsibilities (refer to Section 7, Roles and Responsibilities), risk management is the responsibility of all team members including the client, CH2M, and the contractors.

4.4 Program Phasing

The program consists of two broad phases. Each of these phases and the stages/tasks therein require application of the risk management process.

4.4.1 Phase I - Planning

This phase involves two stages of work.

Stage one includes the following activities:

- Define program scope
- Assess external stakeholder requirements and constraints
- Assess internal stakeholder requirements and constraints
- Establish baseline design standards and criteria
- Develop feasibility-level design
- Review and develop design to preliminary stage
- Develop estimates for budget purposes
- Develop the RMP (this document)

Stage two includes the following activities:

- Define the extent and scope of work for each contract
- Select the program procurement strategy
- Select the contract forms
- Establish the prequalification process and select tenderers
- Develop the program and contract-specific amendments to the standard form of contract
- Develop the employer's requirements
- Develop the tender process and evaluate tenders
- Recommend construction contract award

4.4.2 Phase II – Design and Construction

The primary client and CH2M risk management activities for this phase include:

- Update the RMP (this document)
- Communicate applicable risks identified and assessed in Phase I to the contractors, which involves providing a cut-down Phase I risk register specific to each contract
- Include discussion on philosophy and expectations of risk management at the kick-off meeting
- Monitor the contractor's compliance with the employer's requirements with respect to:
 - Risk management, including developing the contractor's project-specific RMP
 - Design development
 - Health and safety management
 - Environmental management
 - Quality management
 - Construction management
 - Project controls management, including program and cost
- Require risk management updates as part of regular progress reporting
- Undertake regular risk management meetings with the contractor to discuss and update the risk register and monitor effectiveness of risk responses

- Report “up” key risks to be considered at the program level
- Regular review and updates of the program risk register

Insuring the work via an OCIP places a greater degree of responsibility for risk management on the client (and thereby the PMD and CH2M). It is critical for the success of the program that the risks covered under the OCIP are managed by the PMD and CH2M.

4.5 Risk Assessment Framework

4.5.1 Application

The same risk assessment framework will be applied at both program and project levels; however, the focus and level of risk management will be different.

Program-level risk assessment will be high, will only include significant risks from the project level, and will address issues such as contract interfaces and overall program delivery.

Project-level risk assessment is more detailed, capturing risks associated with the design and construction of the contract work. At the project level, the contractor is responsible for risk assessment and management for its work. The resident engineer is responsible for assessing the contractor’s risk assessment efforts.

There are three streams for which the risk assessment process will be regularly undertaken:

1. Program level (by the PMD and CH2M)
2. Project level (by CH2M construction teams)
3. Project level (by the contractor)

4.5.2 Hazard and Risk Identification

The first stage of the risk assessment framework is the identification of hazards and associated risks. Risks cannot be managed unless hazards are first identified. While the goal is to identify all known risks, it is impossible to identify all risks at the outset of a project. Risk exposure changes with time, and therefore the process must be iterative through the life of the program and individual projects.

The critical issues for hazard/risk identification include:

- Early identification
- Iterative identification
- Emergent risk identification
- Comprehensive identification
- Explicit identification of opportunities
- Multiple perspectives, from a broad range of stakeholders
- Linking of risks to project objectives (time, cost, quality, scope, etc.)
- Clear and unambiguous description of risk
- Risk ownership
- Objectivity

Tools and techniques for risk identification are listed in Table 4-1. The table also indicates the phase in which the tools and techniques are applied. For description of the specific tools, reference should be made to PMI-PRM and other references therein.

Table 4-1. Tools and Techniques for Risk Identification

Tool/Technique	Phase I	Phase II – Program Level	Phase II – Contract Level
Assumptions and Constraints Analysis			
Brainstorming			
Cause and Effect Diagrams			
Checklists and Prompt Lists			
Delphi Technique			
Document Review			
Failure Mode and Effects Analysis/ Fault Tree Analysis			
Force Field Analysis			
Industry Knowledge Base			
Influence Diagrams			
Interviews			
Nominal Group Technique			
Post-Project Reviews/Lessons Learned/ Historical Information			
Questionnaire			
Risk Breakdown Structure			
Root-Cause Analysis			
SWOT (Strengths, Weaknesses, Opportunities, and Threats) Analysis			
System Dynamics			
Work Breakdown Structure Review			

4.5.3 Qualitative Risk Assessment

As a minimum, risks will be assessed using a qualitative approach. Qualitative approaches include semi-quantitative, where likelihood and consequence (or impact) categories are assigned simple numerical rankings that are combined to determine a risk score (or risk prioritization index).

The following steps will be used to undertake the qualitative risk assessment:

1. Identify hazards
2. Describe the hazards
3. Describe the risk
4. Rank the probability/likelihood of occurrence
5. Rank the consequences of occurrence (or impact on specific objectives)
6. Produce a combined risk ranking (probability x consequence) using a matrix for qualitative assessment, or a scoring system for semi-quantitative assessment

7. Assign a risk owner/manager
8. Determine the appropriate risk response (avoid, transfer, mitigate, accept)
9. Assign an action owner
10. Develop an action plan where the risk exceeds the risk tolerance threshold
11. Produce a mitigated risk ranking assuming the action is put in place

4.5.4 Quantitative Risk Assessment

Some risks may benefit from a quantitative analysis. Typically, this approach would be used where a specific commercial risk is under consideration. In this application of a quantitative risk assessment, a specific probability of occurrence would be identified and multiplied by an assumed value representing the financial impact. This type of analysis is frequently enhanced by considering a probabilistic approach, whereby distribution curves are assigned for both the probability and cost, and the distributions are combined using a Monte Carlo mechanism to produce a combined risk distribution. This type of analysis is particularly useful for forecasting the net expected outcome of a range of possible claims or variations that may not yet have been quantified to quantify contingency recommendations.

It is anticipated that quantitative risk assessment will not be routinely used due to the staff resources and skill level involved, but will be used if warranted by a particular risk.

4.5.5 Risk Register

The results of the risk assessment process will be recorded and summarized on a risk register at the program level (the contractors produce the project-level risk registers).

The risk register allows the risk scores to be sorted and the risk causes to be categorized to provide a better understanding of the relationships among risks.

The risk registers will be reviewed and updated regularly.

4.6 Risk Response Strategies

For each risk identified and assessed, a response strategy will be identified. The response strategy selected will depend on a number of factors. The four primary risk response strategies, based on PMI-PRM, are:

1. **Avoid** a Threat or Exploit an Opportunity
 - This strategy involves taking the actions required to address a threat or an opportunity to ensure either that the threat cannot occur or can have no effect on the program, or that the opportunity will occur and the project will be able to take advantage of it.
2. **Transfer** a Threat or Share an Opportunity
 - This strategy entails transference to a third party that is better positioned to address a particular threat or an opportunity.
 - Design and construction risk allocation will be determined via contractual mechanisms with each contractor.
 - At the program level, risk allocation is described in Section 6, Risk Allocation Strategy.

3. **Mitigate** a Threat or Enhance an Opportunity

- Mitigation and enhancement are the most widely applicable and widely used response strategies. Here, the approach is to identify actions that will decrease the probability and/or the impact of a threat and increase the probability and/or the impact of an opportunity.

4. **Accept** a Threat or an Opportunity

- This strategy applies when the other strategies are not considered applicable or feasible. Acceptance entails taking no action unless the risk actually occurs, in which case contingency or fallback plans may be developed ahead of time, to be implemented if the risk presents itself.

Risk Management Methodology

5.1 Overview

This section identifies the methodology to be implemented to achieve the strategic risk management goals for the program. The methodology has been developed in accordance with standard project and program risk management principles, such as the PMI-PRM and the XXX code.

The process for implementing risk management on the program is summarized below and described in more detail in the following sections. This process applies to both program and project levels.

1. Hold risk meetings with key stakeholders, including the PMD, CH2M, and contractors
2. Identify hazards
3. Assess risks
4. Assign risk responses
5. Determine risk triggers
6. Assess residual risk exposure after treatment
7. Monitor risks
8. Prepare and update risk registers
9. Report on risks

Items 2 through 9 are repeated regularly and as necessary throughout the program and individual projects.

5.2 Hazard and Risk Identification

Key participants in risk identification activities include the PMD, CH2M, and contractors. While these parties are the key participants for risk identification, all program personnel are encouraged to identify risks. Stakeholders outside the program team may provide additional objective information.

Risk may be discussed in meetings between the PMD and CH2M at the program level to determine risk thresholds and tolerances and identify hazards and risks.

Risk will be discussed in meetings/progress meetings between CH2M and the contractors to identify technical and construction hazards and risks specific to each contract.

Risk identification is an iterative process because new risks may become known as the program progresses through its lifecycle and previously identified risks may drop out. The frequency of iteration and who participates in each cycle will vary from case to case. Program team members are involved in the process so that they can develop and maintain a sense of ownership of, and responsibility for, the risks and associated risk response actions.

CH2M's program risk manager is delegated by the program manager and will be responsible for coordinating the development of the program-level risk register. Within CH2M, each functional manager is responsible for identifying hazards and reporting to the risk manager. On an annual basis, or more frequently if necessary, a review of the risk register, including identifying new hazards and hazards that have passed, will be conducted. Hazards and suggested updates from each manager will be submitted to the risk manager to coordinate the updates and lead a workshop to consider the submissions, update the risk register, and assign risk ratings.

Also, contractors will submit their risk registers and management plans through the resident engineer. During construction, CH2M uses the XXX code as guidance for risk management. The code is also referenced in the employer's requirements, and therefore, contractors are also required to follow the

XXX code. The code defines specific contractor documents to be submitted to CH2M. The document submissions are listed in Appendix A.

When identifying hazards and risks, the program team should consider both internal and external risks. Internal risks are those that the program team can control or influence. External risks are risks beyond the control or influence of the program team.

During the risk identification process, there can be a temptation to dismiss a risk because “we cannot do anything about it anyway.” This argument does not change the risk into a non-risk, simply because there is no viable mitigation strategy. A risk that cannot be mitigated may have an effect on the program and can be calibrated in qualitative and quantitative analysis.

The program team should consider:

- Threats – a risk that will have a negative impact on a program objective if it occurs (what might happen to jeopardize the program’s ability to achieve its objectives)
- Opportunities – a risk that will have a positive impact on a program objective if it occurs (what might happen to improve the program’s ability to achieve its objectives)
- Triggers – symptoms and warning signs that indicate whether a risk is becoming a near-certain event and whether a contingency plan/response plan should be implemented

The program team will also consider:

- Residual risks – risks that remain even after developing responses to the program’s original risks
- Secondary risks – risks that are caused by responses to the program’s original risks
- Risk interaction – the combined effect of two or more risks occurring simultaneously that is greater than the sum of the individual effects of each free-standing risk

5.3 Risk Registers

Risk registers will exist at individual project levels and at the program level. The program risk register will include all identified risks that potentially will affect or involve the PMD, CH2M, the contractors, and other third parties. The program risk register will be a live document and will be reviewed as resources allow but at least annually. It will identify the hazards, consequent risks, the mitigation/contingency plans, proposed actions, responsibilities, critical dates for completion of actions, and when actions have been closed out.

The program risk register is organized based on the consequence category (e.g., schedule, budget, health and safety). It is possible to rank or assign relative weighting to each of the consequence categories. For example, reputation is unlikely to be considered as important as health and safety. Risk ratings and prioritization commonly change during the project lifecycle.

Each risk register will include the following categories:

- Risk description
- Cause of the hazard and associated risk
- Description of the consequences associated with the risk
- Probability ranking
- Severity ranking of impact or consequence
- Risk ranking
- Risk owner
- Risk response (avoid, transfer, mitigate, accept)
- Mitigation actions

- Residual risk ranking
- Value (for quantitative only)

A risk register template is attached as Appendix B.

5.4 Risk Probability and Impact Assessment

Hazards will be identified and their consequent risks will be qualified and quantified through risk assessments throughout all stages of the program including preliminary design, final design, construction, and the stipulated maintenance period.

Risks are assessed to provide a ranking, prioritizing those that are most significant. Risk assessments are conducted to determine the combined impact of risks on the program’s objectives and to allow individual risks or groups of risks to be ranked, allowing resources for subsequent assessment and management to be prioritized.

Risk is scored for potential cost impact, potential cost exposure, and schedule impacts. A probability of occurrence is assigned for each potential impact. A risk severity score is established by multiplying the impact by the probability of occurrence. The severity score is used to rank risks to prioritize action focus.

The parameters to be used in the assessment of risks, in terms of probability of occurrence of a hazard and its severity for impact/consequence on the consequence categories, are intended to be both program specific and appropriate to the program stage under consideration. Appendix C identifies the following guidelines to be used during the assessment process. Guidelines are provided for:

- Degree of risk consequence
- Probability of occurrence
- Risk scoring matrix
- Safety consequence
- Quality consequence

On an annual basis, or more frequently if necessary, the risk manager will meet with CH2M managers designated by the program manager to review and update the hazards and risks from the program risk register. The program risk register incorporates the risks previously identified and the newly identified risks from the functional areas and contractors. The team may also identify new risks during the session and those will be added to the risk register.

5.5 Risk Responses

5.5.1 Risk Response Actions

Evaluating and managing risk involves developing and implementing mitigation strategies and opportunities. The process is dynamic in that information and conditions develop during the program that either confirm or disprove the existence of risks and opportunities that have been included in the plan. It is important to assess performance throughout delivery and adjust the program risk register, RMP, and strategies to new conditions as they evolve.

Once the risk response strategy has been determined, an action will be determined for each risk for which the response strategy is other than “accept.” An action owner will be assigned to each risk requiring an action. The appointed action owner is responsible for implementing the action. Depending on the action, further planning tools may be required to convert the chosen strategy into action. Once the risk action has been determined, the risk will be reviewed to determine the predicted residual level of risk exposure. If the residual risk is deemed unacceptable, further risk actions may be required.

Depending on the action required, the program manager will be responsible for authorizing additional resources.

The contractor has responsibility for management of risks allocated to it under the contract. The contractor is required to regularly update and submit to CH2M its RMP and risk register. Each resident engineer will undertake additional risk assessments and maintain a risk register, which will form the component risk registers that are summarized in the program risk register. The resident engineers will regularly summarize, update, and discuss key risks with the construction manager, who will be responsible for reporting on risk status to the program risk manager and program manager.

The program risk manager will delegate responsibility for managing program-level risks to other program staff as necessary. These program level risks may include contract procurement, aspects of design for which CH2M is responsible, permissions and approvals, and interfaces among contracts. Each resident engineer will retain responsibility for managing risks pertaining to the individual design and construction contract.

The risk manager is responsible for:

- Coordinating the hazard identification and risk register development
- Developing responses to be executed for all identified risks
- Assigning an action owner
- Monitoring the progress of the risk and its control or mitigation measures
- Highlighting and communicating to the program risk manager, construction manager, and program manager hazards that cannot be managed to an acceptable level
- Identifying risks that need to be transferred to external parties (e.g., contract insurance)

The risk manager will identify risk control actions and review them with the program management team. While all identified risks will be mitigated to the extent feasible, any risk with a risk score greater than 4 (refer to Appendix C, Table C-3, Risk Scoring Matrix) will require review and mitigation planning.

All risks that fall into the red category (refer to Appendix C, Table C-3, Risk Scoring Matrix) are unacceptable and require a response to reduce the probability and/or consequences of the risks to an acceptable level.

Response strategies are developed to formulate specific, discrete, and measurable responses to each risk requiring mitigation. More than one mitigating action can be developed for each risk leading to two or more alternative responses being planned.

When developing response strategies, it is not practical or possible to fully mitigate all risks. The cost of mitigation must be balanced against the impacts and implications should the risk event occur.

The response describes the strategies and actions that are used to remove, mitigate, and/or control the risk, or exploit the opportunity, and describes the expected change in the effect assuming the actions are successful.

If the actions require specific budget allowance, the costs must be included in the baseline. The agreed risk strategies and actions are implemented at their planned time. Some, like audits, may be performed at a future time. Others may only be performed if a particular trigger event occurs.

5.6 Risk Monitoring and Control

Risk monitoring keeps track of the identified risks, monitors residual risks, identifies new risks, monitors the execution of risk plans, and evaluates the plans' effectiveness in reducing risk. Risk monitoring and

control continues for the life of the program. The list of program risks changes as the program matures, new risks develop, or anticipated risks disappear.

Risk monitoring provides information that assists with making effective decisions in advance of the occurrence of the risk. The purpose of risk monitoring is to determine if:

- Risk responses have been implemented as planned
- Risk response actions are as effective as expected, or if new responses should be developed
- Program assumptions are still valid
- Risk exposure has changed from its prior state, with analysis of trends
- A risk trigger has occurred
- Approved policies and procedures are followed
- Risks have occurred or arisen that were not previously identified
- There are emerging trends

The risk manager monitors the status of risks and the actions taken to mitigate them. Risk monitoring and control is essential to effective action plan implementation. However, for this process to be effective, a risk review should be included during regular project reviews. This should include assessing the progress of mitigating or resolving the project's top risks. The review involves updating the ownership, descriptions, assessment, and action progress based on the current status.

If an unanticipated risk emerges, or a risk's impact is greater than expected, the planned response may not be adequate. CH2M will advise on additional response planning to control the risk.

Risk control involves:

- Choosing alternative response strategies
- Implementing a contingency plan
- Taking corrective actions
- Re-planning the project, as applicable

Management of key project, program, and strategic risks will be communicated to the appropriate internal and external stakeholders. Program-level risks will be identified and reported to the client when they become known to obtain the client's input.

5.7 Key Deliverables, Actions, and Reporting Requirements

The specific deliverables and actions required to execute the RMP are summarized below:

- For each contract, produce technical and commercial risk assessments, summarized on risk registers.
- Hold a joint risk meeting with the contractor, if required, to transfer and discuss the CH2M risk register – it may not be appropriate to include all of the commercial risks.
- Receive risk register updates and reports on risk management from each contractor regularly. This may be done as part of the contractor's monthly progress report.
- Hold regular meetings with each contractor during construction, and discuss risks. This may be included as part of the monthly progress meeting.
- Monitor and update contract-level CH2M risk assessments, and advise the program risk manager of significant risks to be incorporated into the program risk register.
- Update the program risk register, and communicate this to the PMD.
- When directed by the PMD, undertake quantitative analysis of specific risks to advise of possible outturn cost (budget) impacts.

Risk Allocation Strategy

6.1 General

As a result of the program procurement decisions made in Phase I, the ownership of risks for the design and construction phase (Phase II) of the program can be contractually assigned to the various parties (e.g., the client, CH2M, and contractors). The risk owner is primarily responsible for identification and management of risks within its sphere of ownership.

The risk allocation for the design and construction phase is summarized below. This list is not intended to be fully comprehensive, and it serves only as a guide. The list does not include risks that are owned by the client, such as contract procurement risks, program financing, and approvals by the Executive Council.

6.2 Client-Owned Risks

- Ensuring compliance with the conditions of the OCIP
- All risks as defined in XXX of the Conditions of Contract
- The risk of unforeseeable physical conditions pursuant to XXX of the Conditions of Contract as amended by the Particular Conditions
- Inclement weather
- Fluctuations in the price of concrete, cement, and steel

6.3 CH2M-Owned Risks

- Overall system and design of program
- Health and safety of CH2M employees

6.4 Contractor-Owned Risks

- Delivering temporary and permanent project designs in compliance with the employer's requirements
- Construction in accordance with the employer's requirements
- Obtaining permits and complying with conditions
- Delivering to the agreed program
- Physical risks reasonably foreseeable by an experienced contractor
- Location and protection/diversion of existing services and structures
- Health and safety for construction sites, subcontractors, contractors' offices, and offsite facilities
- Environmental compliance
- Managing community impacts
- Procurement of labor and the cost of labor
- Choice of contractor's equipment and its reliability/performance

Roles and Responsibilities

7.1 CH2M Program Manager

The program manager, as the engineer to the XXX contracts, is accountable for the day-to-day management and administration of the contracts, including effective risk management.

The responsibilities of the program manager include:

- Encourage senior management support for program risk management activities.
- Determine the acceptable levels of risk for the program in consultation with the PMD and other stakeholders.
- Develop and approve the RMP.
- Promote risk management and awareness for the program.
- Facilitate open and honest communication about risk within the program team and with management and other stakeholders.
- Participate in all aspects of program risk management.
- Approve risk responses and associated actions prior to implementation.
- Apply program contingency funds to address identified risks during the program.
- Oversee risk management by CH2M-managed subcontractors and suppliers.
- Regularly report risk status to key stakeholders, with recommendations for strategic decisions and actions to maintain acceptable risk exposure.
- Escalate identified risks to senior management where appropriate; such risks include any which are outside the authority or control of the program manager, any which require input or action from outside the program, and any for which the release of management reserve funds might be appropriate.
- Monitor the efficiency and effectiveness of the program risk management process.
- Audit risk responses for their effectiveness and documenting lessons learned.

7.2 Program Risk Manager

The program risk manager will usually be the program manager, or a delegated senior member of staff. The program risk manager owns the risk management process for the program in coordination with the program manager (where the program manager has delegated this role).

The responsibilities of the program risk manager are to:

- Facilitate the risk management process, including running risk workshops.
- Schedule and chair program-level risk workshops and risk reviews, ensuring meeting minutes are taken and distributed and action lists are initiated and tracked.
- Ensure upper-tier risks passed down to the contracts are quickly and appropriately addressed.
- Manage the process so that risks are anticipated and identified in a timely manner.

- Coordinate the development of response strategies.
- Develop and refine the risk management process throughout the program.
- Ensure that consistent policies and procedures are applied across all program contracts.
- Ensure that project-level risks are escalated and reported in the program risk register.
- Promote a risk management culture and continually liaise with the construction manager to confirm compliance of the construction supervision teams regarding policy and process.

7.3 Construction Manager

The construction manager has oversight of construction risk management. The construction manager will work closely with the design leads to ensure that design risks, especially as they relate to construction, are effectively managed.

The construction manager's risk management responsibilities are to:

- Ensure that the resident engineers understand their responsibilities with respect to risk management and have sufficient staff and resources to perform these duties.
- Coordinate risk meetings with resident engineers, extract the important risks, and provide status reports to the program risk manager.
- Guide the resident engineers, as necessary, with respect to risk prioritization and implementation of mitigation measures.
- Support the program risk manager to implement program-wide risk management measures, and report to the program manager and the client.

7.4 Resident Engineer

Within CH2M, resident engineers are responsible for assessing and managing risks pertaining to the contracts. Although the contractor has full responsibility for managing its contractually allocated risks, the resident engineer confirms that the client's objectives and project objectives are met with regards to risk management.

Responsibilities of the resident engineer are to:

- Report regularly on individual construction contract risks and risk management to the construction manager.
- Confirm the contractor is performing its contractual risk management obligations.
- Work with the contractor to ensure that risks are identified, assessed, and managed.
- Confirm the contractor's contract risk register is kept current, accurate, and complete.
- Confirm the risk management responsibilities within the resident engineer's team are assigned to capable and competent individuals.
- Confirm appropriate resources are provided to conduct risk assessment and mitigate risks.
- Confirm the resident engineer's team members comply with risk management processes and project-specific requirements for the contract.
- Confirm project-specific plans and procedures are consistent with framework requirements.

- Confirm project risks are escalated up the organization structure, as appropriate.
- Promote a culture of risk management on the contract.

7.5 Contractor

For each construction contract, the contractor is responsible for developing and implementing a risk management system in accordance with:

- Contract documents, including the employer’s requirements and referenced documents
- Requirements of the insurers
- Industry accepted practice
- Internal company policy

Specific requirements are not repeated herein, instead reference should be made to the contract documents and other documents mentioned above, as relevant.

As a minimum, through the life of the project, the contractor will continuously:

- Identify hazards
- Assess and review risks
- Identify risk responses, and review effectiveness
- Update risk registers and other risk reporting and communication tools
- Advise the resident engineer of upcoming risks, past risks, and proposed risk responses

Program Completion

The risk management process (implementation of this plan) and the program risk register are maintained until conclusion of the defects maintenance period for all contracts.

At the conclusion of construction activities, CH2M may make recommendations to the PMD for operational risk mitigation measures, if requested. Delivery of operational risk mitigation measures, if requested, would complete the RMP for the program.

Appendix A
Construction-Stage Contractor
Risk Submissions

Construction-Stage Contractor Risk Submissions

During the construction stage of the program, the CH2M uses “XXX” by XXX as guidance for risk management. The following risk submissions are requested from each contractor:

Deliverable	Timing	Scope and Intent
Project risk management plan	Following contract award	Demonstrates the means and methods of regular monitoring and review of the construction stage risk register by risk owners for the construction stage
Construction-stage project risk register	Ongoing	Confirms the owners of risks, actions, and measures to mitigate the impact of the risks during the construction stage including risks identified by the contractor as well as project-related risks brought forward from the client’s risk register
Method statements	Ongoing	Demonstrates and confirms working methods and plant, materials, and level of labor to be used.
Inspection and test plans	Following contract award	Demonstrates the contractor's and the client’s attitude to quality control and quality assurance
Risk assessments	Ongoing	Demonstrates that hazards and associated risks involved in the construction works have been fully identified and assessed for inclusion in the construction-stage risk register.
Plant selection criteria	Ongoing	Identifies key plant and the maintenance regime, e.g., level of spares, frequency of inspection, maintenance staff (to be included in method statements)
Management plan	Following contract award	Identifies and demonstrates the systems the contractor intends to use to manage and control the construction process with regard to contract requirements and with regard to identifying that the contractor is working to current accepted best practices

Appendix B

Risk Register Template

Program banner

Risk Register

Project/Program Name: _____

Project Manager: _____

Program Manager: _____

Risk Ref Number	Risk/Opportunity Definition													Qualitative Risk Rating <small>(See Legend tab)</small>		Overall Probability of Occurrence	Mitigation Action Log	Risk Based Contingency Data												Expected Value		
	Risk/ Opportunity Short Name	Description of Risk/Opportunity	Risk or Opportunity	Risk/Opportunity Impact	Risk Category	Risk Type	WBS Reference	Source	Risk Owner	Date Identified	Risk Status	Last Update	Next Review	Impact	Chance			Qualitative Risk Rating	Best Case				Base Case				Worse Case				Cost Impact (\$ million)	Schedule Impact (Weeks)
																			Probability of Occurrence	Potential Cost Increase/Savings (million)	Potential Sched. Impact (weeks)	Key Assumptions	Probability of Occurrence	Potential Cost Increase/Savings (million)	Potential Sched. Impact (weeks)	Key Assumptions	Probability of Occurrence	Potential Cost Increase/Savings (million)	Potential Sched. Impact (weeks)	Key Assumptions		
1	Short Name #1	Detailed description of risk or opportunity	Risk	Short narrative of what type of impact (either positive or negative) the risk or opportunity would have on cost or schedule or stakeholder support.	Schedule	Program				1-Nov-14	Active	1-Jan-15	1-Apr-15	1	4	4	1.1 thru 1.3	10%	-5	0		75%	0	0		15%	20	6		2.5	1	
2	Short Name #2	Detailed description of risk or opportunity	Risk	Short narrative of what type of impact (either positive or negative) the risk or opportunity would have on cost or schedule or stakeholder support.	Cost	Planning				12-Dec-14	Expired			2	2	3																
3	Short Name #3	Detailed description of risk or opportunity	Opportunity	Short narrative of what type of impact (either positive or negative) the risk or opportunity would have on cost or schedule or stakeholder support.	Process	Design				5-Jan-15	Occurred			5	2	14																
4	Short Name #4	Detailed description of risk or opportunity	Risk	Short narrative of what type of impact (either positive or negative) the risk or opportunity would have on cost or schedule or stakeholder support.	Tactical	Construction				15-Nov-15	Pending			4	2	10																
5	Short Name #5	Detailed description of risk or opportunity	Risk	Short narrative of what type of impact (either positive or negative) the risk or opportunity would have on cost or schedule or stakeholder support.		Planning				16-Nov-15				3	1	3																
6														1	3	3																
7														1	3	3																
8														1	3	3																
9														1	4	4																
10														1	4	4																
11														1	4	4																
																	Totals				2.5	1										

Note (1): The legend for the Impact, Chance, and Initial Risk rating values and colors can be found on the last page of this register.

Appendix C
Risk Categories and Impact
(Consequence) Rankings

Risk Categories and Impact (Consequence) Rankings

During the risk workshop, the risk manager directs qualified and experienced team members to assess project risks in each of the risk categories. Provisional risk impact values are as indicated in Tables C-1 through C-5.

Table C-1. Degree of Risk Impact (Consequences)

Scale or Score	Cost Impact AED	Delay	Reputation	Quality/ Operations	Safety	Severity
1	<\$4 million	days		Insignificant	Insignificant	<5%
2	\$4–20 million	weeks		Minor	Minor	5–20%
3	\$20–80 million	months		Moderate	Major	20–50%
4	\$80–200 million	6–12 months		Major	Fatality	50–75%
5	>\$300 million	>1 year		Catastrophic	Catastrophic	>75%

Table C-2. Probability of Occurrence

Scale or Score	Description	Probability %	Secondary Frequency Guideline
1	Improbable	0-10	1 in 1,000 projects
2	Remote	10-20	1 in 100 projects
3	Occasional	20-50	1 in 10 projects
4	Probable	50-80	Almost every project
5	Frequent	80-100	More than 1 per project

Table C-3. Probability and Impact Matrix

			Severity of Impact (Consequences)				
			Very Low	Low	Medium	High	Very High
			1	2	3	4	5
Probability	Improbable	1	1	2	3	4	5
	Remote	2	2	4	6	8	10
	Occasional	3	3	6	9	12	15
	Probable	4	4	8	12	16	20
	Frequent	5	5	10	15	20	25

Table C-4. Safety Impact Guideline

Scale or Score	Impact Rankings	Guideline
1	Insignificant	Very minor injury; could require first aid
2	Minor	Minor injury likely to be restricted to an individual; lost time injury
3	Major	Risk event may lead to serious injury and hospitalization; total or permanent disablement
4	Fatality	Risk event may lead to death of an individual
5	Catastrophic	Risk event may lead to death of more than one individual

Table C-5. Quality Impact Guideline

Scale or Score	Impact Rankings	Guideline
1	Insignificant	Little or no impact, correction is not required.
2	Minor	Needs to be corrected but no other impacts
3	Moderate	Needs to be repaired, impacts other program components. Minor or no impacts to cost or schedule.
4	Major	Repair required with significant impact. Affects costs or schedule.
5	Catastrophic	Repair and change required. Inability to effect immediate repair or correction. Produces ongoing effects.

Exhibit 12

Key Performance Indicators

The parties are mutually committed to advancing the City’s strategic plan developed in 2014. Under that plan, the City’s mission is to “[p]rovide excellent municipal services in a financially responsible and environmentally conscious manner, while engaging our residents.” Toward this end, the City has devoted significant effort to evaluating operations and continuously exploring ways to increase productivity, to reduce the cost of service delivery, and to enhance customer service. To advance its mission, the City’s intention is to invest in well-planned and well-maintained City infrastructure, technology, facilities and buildings.

The City’s investment in NMB Water can yield major improvements in organizational quality, performance, and productivity. The value of an investment is directly related to the programmatic goals and business processes of NMB Water. The primary purpose of this Agreement is to satisfy the business objectives outlined in the Agreement, including in Articles 2, 3 and 4, and to achieve the benefits described in the May 2016 report by the Eisenhardt Group.

The parties intend for the Agreement to yield objectively measurable benefits, which policy makers, residents, and other stakeholders may assess to determine the value of the Agreement. The parties will document the process for measuring these benefits in the program initiation phase anticipated by Work Order No. 1 under the program management portion of this Agreement.

The Contractor's compensation is directly tied to its performance of the Agreement and to its achievement of the results that justify the City’s investment in NMB Water. The City recognizes that realization of some of the benefits outlined in the Eisenhardt Group study may be beyond the Contractor's control. The Contractor recognizes, however, that beyond the operational savings offered, other anticipated benefits depend directly on whether the Agreement delivers early and meaningful operational improvements. Accordingly, the parties intend to measure and link the Contractor's compensation to the Benefit Realization Key Performance Indicators (BR KPI) listed below for the first three years following the Commencement Date:

BR KPI #	Description	Measurement Technique and Measurement Cycle*	Baseline Metric*	Target Metric*
BR1**	Regulatory compliance	Number of days NMB Water in full compliance with all applicable regulations <i>divided by</i> 365	100%	100%
BR2	Planned maintenance ratio (water)	Total time for planned maintenance <i>divided by</i> time for planned maintenance + time for corrective maintenance	32%	52%
BR3	Planned maintenance ratio (wastewater)	Total time for planned maintenance <i>divided by</i> time for planned maintenance + time for corrective maintenance	75%	81%

BR KPI #	Description	Measurement Technique and Measurement Cycle*	Baseline Metric*	Target Metric*
BR4	Employee Training	Training employees receive expressed as annual number of training hours per employee as full-time equivalents	Unavailable	18 hrs./employee/year

*The Baseline Metric was established by the Eisenhardt Group report. As part of the deliverables for Work Order No. 1, the parties will review and validate the Measurement Technique and Measurement Cycle; Baseline Metric; and Target Metric for each BR KPI.

**Contractor’s compliance with BR1 KPI excludes Uncontrollable Circumstances (e.g., sanitary sewer overflows (SSOs) due to high flow events or events outside Contractor’s reasonable control).

The parties intend in the operation of the Utility Facilities Contractor will meet or exceed industry standards, particularly those established by the American Water Works Association. As part of the deliverables for Work Order No. 1, the parties will establish additional KPIs in the first year of the Agreement to help manage and monitor the benefits delivered by the Agreement for the remainder of the term. No more than ten of the additional KPIs will have financial consequences (or penalties) associated with them, and those consequences will not exceed a total of \$100,000 per year. The ten additional KPIs with financial consequences may change throughout the term of the Agreement. Of the additional KPIs, at least two will measure customer service, and at least one will measure regulatory compliance.

The parties will track and report progress on the BR1 and BR4 KPIs effective on the Commencement Date. BR1 is measured quarterly and BR4 on an annual basis. The parties recognize that BR2 and BR3 KPIs require time to implement and will therefore assess performance against the established Target Metrics at the end of the third Contract Year. If the Contractor does not objectively and demonstrably satisfy the foregoing BR KPIs by the established target dates, then the Contractor's compensation shall be reduced by up to \$1,400,000, applying the following values over the three-year term following the Commencement Date:

- BR1: \$300,000 measured quarterly (\$25,000/quarter) over three years
- BR2: \$300,000 measured at the end of year three
- BR3: \$300,000 measured at the end of year three
- BR4: \$300,000 measured annually (\$100,000/year) over three years
- Other KPIs: \$200,000 over three years with \$100,000/year for the remaining 12-years of the contract

	1	2	3	Years 4 to 15
BR 1 - Regulatory compliance (measured quarterly)	\$100,000	\$100,000	\$100,000	
BR2 - Planned maintenance, water	Implement improvements	Implement improvements	\$300,000	
BR3 - Planned maintenance, wastewater	Implement improvements	Implement improvements	\$300,000	
BR4 - Training	\$100,000	\$100,000	\$100,000	
Other 10 KPIs (Adjusted annually as needs change)	Establish baseline	\$100,000	\$100,000	\$100,000/year
Value	\$200,000	\$300,000	\$900,000	\$1,200,000

Further details of the compensation levels and timing are reflected in Exhibit 6, Compensation, Payment and Base Fee Adjustment Formula for Basic Operations and Maintenance Services.

In establishing performance measures and associated financial consequences, the parties intend to address specific risks related to Contractor performance. When establishing the consequences, the parties will consider projected financial loss and expenditures that may occur as a result of Contractor non-performance. The agreed consequences will not represent a penalty; rather, the consequences will represent a good faith effort by the parties to establish a reasonable estimate of the reduced value of the Services and the damages that will be incurred by the City and its residents and NMB Water customers in the circumstances described.

Isolated, non-material, failures to perform by the Contractor will not constitute breaches of the Contract and will instead be managed as detailed in the program management documentation. However, should such instances of non-performance continue to occur over periods of time, they may amount to a material breach. The parties intend to address such situations first through the Corrective Action Plan process described below. If such problems continue, the City reserves the right to seek to terminate the Agreement for cause and to pursue recovery of actual losses resulting from the Contractor's failure to perform and other relief available to the City under the Agreement.

Should the City identify any deficiency based on the requirements of the Agreement or the program management documentation, which the City, in its sole discretion, deems to be of significant magnitude to impede effective operation of NMB Water, the City may notify the Contractor of the deficiency and of the need to submit a corrective action plan (CAP).

- Upon such notification, the Contractor shall submit a formal written CAP within ten (10) days of the date of the letter from the City requiring submission of a CAP. The CAP shall be sent to the City's Contract Manager for review and approval determination.
- The City shall notify the Contractor in writing of the City's acceptance or rejection of the CAP within ten (10) days of receipt of the CAP. If the CAP is rejected, the City shall provide a written statement identifying in reasonable detail, why the City believes the CAP will not result in

correction of the cited deficiencies. The Contractor shall have ten (10) days from receipt of the written rejection to submit a revised CAP or letter of explanation.

- Upon acceptance of the CAP, the Contractor shall have up to sixty (60) calendar days to implement and successfully complete the agreed upon CAP. Acceptance of the CAP by the City does not guarantee the implementation will result in elimination of future deficiencies.
- The CAP will remain in effect until all deficiencies are corrected. Updates on the status of the plan will be required as determined by the City’s Contract Manager.
- The Contractor’s failure to respond to a request for a corrective action plan, failure to meet the corrective action plan, or failure to eliminate the deficiency cited in the CAP may result in termination of the Agreement, pursuant to the termination provisions set forth in the Agreement. The City reserves the right to exercise other remedies as permitted by law.
- Notices or other correspondence or plans exchanged under the CAP process shall not constitute notices or other activity under Agreement section 5.7, Default. Any notices or responses for purposes of section 5.7, Default, shall be expressly identified as such. The City is not required to follow the CAP process before exercising its rights under section 5.7, Default.

In addition to establishing and satisfying key performance indicators, the parties intend for the Agreement to accomplish the critical, necessary, and desirable outcomes identified in the Eisenhardt Group report. Recognizing that different outcomes will require different delivery timeframes, and that further details will be developed during the program initiation process under Work Order No. 1 and the program management process under Work Order No. 2, the parties intend to achieve the outcomes during the following time periods:

No.	Outcome	Time Period (following transition)
1	Immediately make Water Plant improvements and upgrades: lime slakers and feed system; acid pumps on RO side; chlorine backup; coagulant feed pumps; ammonia feed system; tankage	Over first 2 years of contract through Capital Program
2	Conduct facility safety audit to identify hazards (including WTP site), safety equipment availability and use	Within 60 days
3	Expand Water Quality function to include a process engineer overseeing all water quality functions to include: water plant, process technologies, operating targets for process, process engineering, planner/scheduler, and provide link to customer service	Proposed through organization
4	Establish rudimentary management report system with dashboard metrics	Within 120 days
5	Train managers and supervisors to establish delegated responsibility and to hold staff accountable	Within 12 months
6	Implement comprehensive supervisor training programs at all levels; instill delegated responsibility and accountability	Within 12 months
7	Implement creation of a utility strategic plan, including completion of coordinated master plans for all systems.	Master Plan developed
8	Implement formalized planning and system to address CIP tracking & management	Within 6 months through Capital Program
9	Address lack of systems and implement upgrades for SCADA system for water plant (lime & nanofilters)	Evaluate within first year through Capital Program contingent on NMB approval
10	Address lack of systems and implement upgrades for CMMS (goal of 80% scheduled maintenance)	Within 6 months

No.	Outcome	Time Period (following transition)
11	Address lack of systems and implement upgrades for technology plan	Review technology plan and provide assessment within 12 months
12	Address lack of systems and implement upgrades for personnel records	Within 60 days
13	Address lack of systems and implement upgrades for accounting system & usage	Within 6 months
14	Add staff with technical capabilities, systems experience and usage capabilities	Proposed through organization
15	Address water line flushing, valve exercising, air release valve functionality, and hydrant testing in a comprehensive / systematic program with documented results & records	Within 1st year
16	Develop comprehensive training programs for all levels: revamp job descriptions, tailor training, encourage conference participation & career development, reward training achievements. Consider need for Training Manager position.	Within 1st year (training manager function would be delivered through SMEs)
17	Complete a formal compensation survey, develop program to remain competitive	Approach to competitive wages implemented through transition process
18	Coordinate performance reviews with compensation so as to provide performance based compensation incentives	Within 1st year
19	Conduct formal energy audits, with priorities for water treatment plant and then C&D systems	Within 1st year
20	Improve capabilities of middle management/supervisors to provide meaningful documents and performance reports to upper management	Within 1st year
21	Create and update SOPs for important policy actions / processes throughout the utility	Within 1st year
22	Develop tracking system for safety issues and injuries	Within 60 days
23	Develop formal Asset Management program for all utilities. Incorporate condition assessments, hydraulic model, water line breaks, etc.	Over first 2 years of contract through Capital Program
24	Reduce / eliminate organizational silos: institute communications programs to build liaisons across divisions; initiate multi-function meetings & interactions, proactive information sharing and communications (e.g., engage all affected divisions in establishing CIP priorities, key consultant selections, project designs)	Within 1st year
25	Establish training on use of internal systems (purchasing, accounting, HR, safety, performance reviews, maintenance, equipment records)	Within 1st year
26	Establish management dashboard items for each division (including administration)	Within 1st year
27	Reevaluate / re-engineer historical practices (e.g., discontinue unnecessary activities, e.g., Guardian Blue)	Within 1st year
28	Overhaul customer service system including records keeping and communications protocols with the utility. Consolidate points of contact. Develop record keeping to allow query & tracking. Link work orders with customer complaints in one system accessible by all departments.	Within 1st year
29	Develop / implement corrosion control strategy and programs for equipment and facilities	With first 12 months
30	Implement regular, scheduled PM on fleet / heavy equipment, include this equipment in Asset Management system and plans	Within first 6 months

No.	Outcome	Time Period (following transition)
31	Conduct a staffing assessment (skills needed, duties & outputs, criticality, number of positions)	Within first 6 months
32	Review engineering department for alignment of staff skills, capabilities, experiences with “go forward” needs and priorities. Include CIP activities and Contractor / Permitting activities in the review.	Within first 6 months
33	Implement regular Cost vs. Budget reports, train managers to use, and establish accountability for performance	Within first 6 months
34	Review benefits of a dedicated buyer position and implement consistent with review	N/A - purchasing conducted through CH2M global procurement
35	Develop and implement a systematic approach for setting of requirements for new projects, processes, and technologies	Within 6 months through Capital Program
36	Develop process for internal stakeholder engagement throughout project planning, design & implementation. Make adjustments to project based on the review.	Within 6 months through Capital Program
37	Develop formal program for implementation of new infraMAP system to all levels	Evaluate Maintenance Connection vertical asset CMMS software package and recommend approach within first 18 months
38	Analyze productivity of C&D field crews; make improvements as identified by analysis	Within first 6 months
39	Formalize security programs for all divisions	Within first year utilizing existing systems. Security system upgrade project implemented through Capital program over first 2 years.
40	Formalize emergency plan for all divisions	Within first 3 months
41	Develop systems to improve responsiveness of fleet management department	Within first 6 months
42	Restructure / expand role of water quality lab at WTP to provide meaningful data and direction to operations for process optimization	Within first 6 months
43	Develop succession plan for aging staff	Within first 12 months
44	Provide training to remove obstacles to effective coordination between field staff and procurement	Within 6 months
45	Develop model to optimize WTP operation (i.e., selection of treatment trains)	Within first 12 months

No.	Outcome	Time Period (following transition)
46	Develop cost effectiveness actions and control systems for energy & chemical usage	Within first 12 months
47	Develop and implement full SCADA control capability for water plant; revise staffing accordingly	Evaluate within first 2 years through Capital Program contingent on NMB approval
48	Proactively engage AFSCME in organizational activities / imperatives	Within first 6 months dependent on whether union staff
49	Train field crews in customer interactions; use messaging techniques for all employees	Within first 12 months
50	Revamp NMB Water website / upgrade	Contractor will provide all content
51	Establish a Communications Plan with messaging and media approaches specified	Within first 6 months development communication plan with NMB Water
52	Develop PE capability in the Engineering function	Implement PE capability through Capital Program
53	Expedite hiring process to streamline and reduce delays	Within first 6 months
54	Improve field crew access to electronic docs (GIS, CAD, etc.)	Within first 12 months
55	Evaluate merits / benefits of implementing vehicle tracking technology	Evaluation completed within first 18 months. Implementation dependent on ROI.
56	Consider usage of biometric timekeeping system	Evaluate during first 18 months
57	Collaboratively with Customer Service, evaluate AMI technology once installed; evaluate meter reading efficiencies	Within first 6 months
58	Formalize an "Outreach Plan" for NMB Water: media training, reinstitute plant tours, formalize a school outreach program, redesign customer bills to convey value propositions	Within first 18 months implement community engagement plan

EXHIBIT 13
FORM OF INVOICE



Remit to:
 CH2M HILL Engineers, Inc.
 P.O. Box 201869
 Dallas, TX 75320-1869

Wiring Information:
 Wells Fargo Bank
 ABA Number: (Domestic Wires) 121000248
 Swift Number: (International Wires) WFBIUS6S
 Beneficiary Acct # 4159678291

**Bill To: THE CITY OF NORTH MIAMI BEACH
 ATTN: ACCOUNTS PAYABLE**

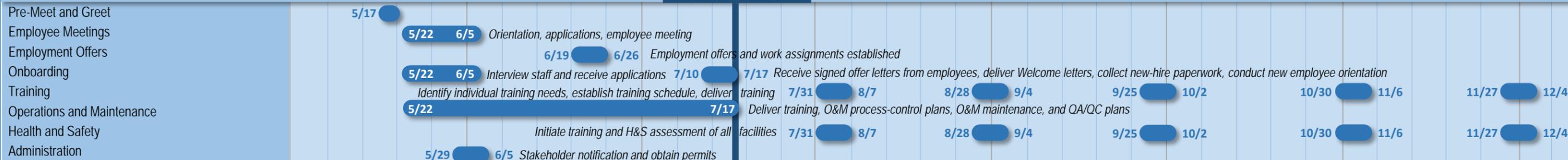
Invoice	
NUMBER DRAFT	
DATE 1-Aug-17	PAGE 1 of 1
PURCHASE ORDER NUMBER	
OUR REFERENCE	
OUR PROJECT #	
CUSTOMER NUMBER	

TERMS		DUE DATE						
NET 45		15-Sep-17						
ITEM NO.	INVOICE DESCRIPTION	QTY	CREDIT	RATE	TAX	UNIT PRICE	EXTENDED	AMOUNT
	Operations, maintenance, and management services provided according to the terms of our Agreement dated May 19, 2017. For the month of September-17							
1	Basic Operations and Maintenance Monthly Services Fee	1		1		\$1,608,333.33	\$1,608,333.33	
2	Repair & Replacement (R&R) Fund Monthly Allowance	1		1		\$250,000.00	\$250,000.00	
3	Repair & Replacement (R&R) Fund Reconciliation (Annual only)	1		1		\$0.00	\$0.00	
SPECIAL INSTRUCTIONS Monthly fee for Basic Operations and Maintenance Services is based on annual Basic Operations and Maintenance Services Fee of \$19,300,000 divided by 12. Monthly fee for Repair and Replacement (R&R) Fund is based on the annual R&R Fund allowance of \$3,000,000 divided by 12. Reconciled Annually.		SUBTOTAL		TAX		SHIPPING HANDLING		TOTAL DUE
			\$1,858,333.33	\$0.00	\$0.00	\$1,858,333.33	CURRENCY: USD	

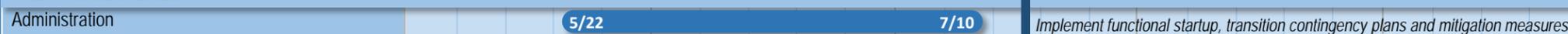
EXHIBIT 14

BASELINE SCHEDULE AND MILESTONES

FAST-TRACK TRANSITION



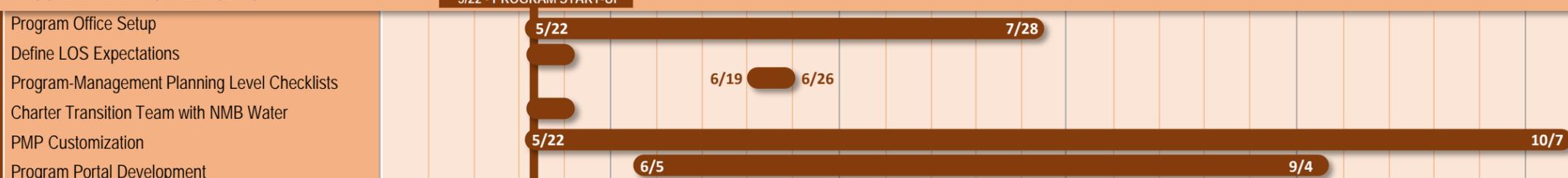
PRE-COMMENCEMENT



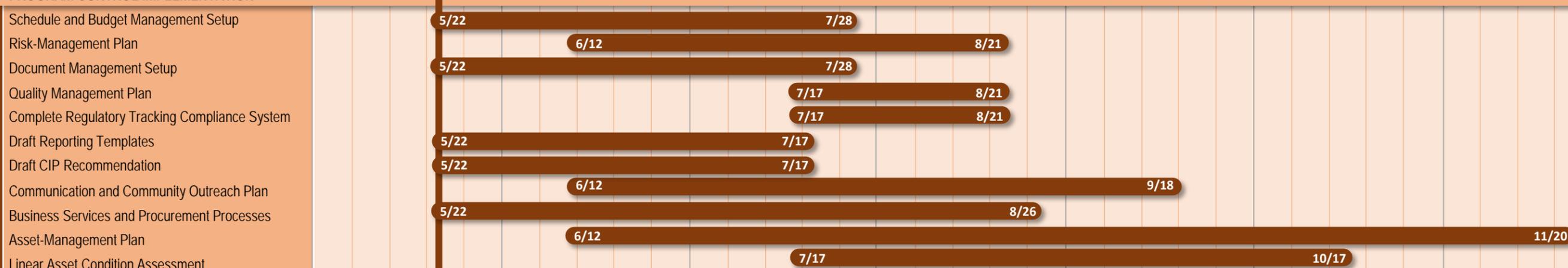
OPERATIONS



PROGRAM INITIATION AND SET-UP



PROGRAM CONTROL IMPLEMENTATION



CIP PROJECT IMPLEMENTATION

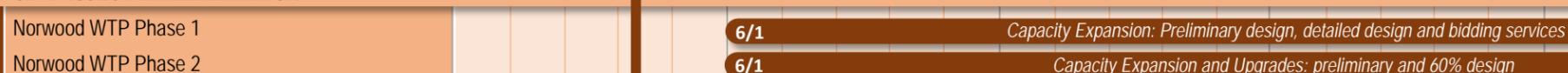


EXHIBIT 15
INITIAL PROGRAM MANAGEMENT
WORK ORDERS 1 THROUGH 5



Work Order 1 – Program Initiation

This work order covers program initiation and program management activities from May 15, 2017 to August 31, 2017.

In accordance with Agreement __XXXXXXX__, CH2M HILL Engineers, Inc. (CH2M) (CONSULTANT) will provide the following Scope of Services for Program Management Initiation.

Background

The City of North Miami Beach (NMB) has contracted with CH2M to provide program management services to implement its capital improvement program.

Since 2015, CH2M has worked with NMB Water to develop a Water and Wastewater Master Plan that includes numerous improvements to enhance operations and the long-term viability of the water supply, treatment, and distribution and wastewater collection facilities.

Program initiation is critical for the program to provide the due diligence and planning necessary to produce a roadmap for the future. This effort sets the foundation for the program and results in a plan to deliver the CIP while anticipating future events and providing the flexibility to accommodate change as it occurs.

NMB Water already has projects in various stages of planning and development so program start-up needs to occur quickly to build on the work completed to-date, establish an effective governance structure, and lay the groundwork for program-wide standards and processes.

This work order authorizes CH2M to perform the program initiation and program management activities described in the subsequent paragraphs. These services will be provided from May 15, 2017 to August 31, 2017.

The tasks included as part of this work order are listed below. The work associated with each task is described in further detail in the following sections of this document.

- Task 1 – Program Initiation Activities
- Task 2 – Program Management Set-up Activities

Task 1 Program Initiation Activities

Task 1.1 Program Office Set-up

It is assumed that the City workspace will be available for use immediately. Otherwise a temporary program start-up office will set up in CH2M's Miami-Dade or Fort Lauderdale office.

The permanent program office in the City's facilities will be setup to provide working space for team members assigned permanently or temporarily to the program. The office will include space for assigned program staff, short-term visiting staff, and other space requirements such as meeting rooms, file storage areas, equipment storage areas, and other support facilities. This task includes set-up of the IT infrastructure, copiers and printers necessary for the office. The City will provide the phone system,

copiers and printers for the program office. CH2M will provide the IT server, copy/print supplies, and general office supplies for the program office. This task does not include any construction build-out that may be required for the office space.

Deliverables: Office IT infrastructure set-up

Task 1.2 Program Governance, Chartering and KPIs

Chartering is the act of guiding a team through the process of defining itself: its purpose, scope, goals, roles, responsibilities, behaviors and other elements that give a team the clarity of purpose essential for high-quality performance. During the chartering process, the team will define and align around the program vision, critical success factors, key performance indicators (KPIs), roles and responsibilities and operating guidelines needed for effective communication and decision-making during program execution. Chartering will include a series of meetings to define the following:

- Define the team: vision, boundaries, organizational linkage
- Clarify the team purpose: mission, measures of success, organizational priorities, critical success factors, KPIs
- Define responsibilities: team and individual responsibilities, shared responsibilities
- Develop team operating guidelines
- Develop interpersonal behavior guidelines: core values, guiding principles, rules of interpersonal conduct, protocol for resolving interpersonal conflict
- Define additional governance elements: approval authorities, reporting requirements, monthly meeting and reporting cycle,

Deliverables: Three half-day chartering workshops and the program charter

Task 1.3 Program Management Plan (PMP) Customization

This task includes customizing a typical Program Management Plan (PMP) to define the means and methods for program delivery of NMB Water program and to set the stage for program implementation.

The PMP will include operating rules, processes, and procedures to be used in implementing the Program. The PMP will be an interactive electronic format that is easy to navigate and will be the sole source of information to guide the program team through the various project delivery phases in a consistent and efficient manner. This interactive format goes beyond a standard hard copy document that is read once and goes on the shelf. This electronic format provides easier accessibility to the content the team needs on a daily basis including tools, templates and resources organized by program function.

The Platform may essentially be considered an electronic version of the PMP, with easy to access links to PMP documents and other program information and applications. The PMP will be maintained in the SharePoint site in electronic format. The out-of-the-box Platform functionality includes basic requirements and flow diagrams for each function which are tailored to the program's specific needs. The team will facilitate the tailoring of each function to the program's specific needs.

The Platform provides the starting point for any program team to begin developing program-specific processes and procedures. It eliminates the need for program leadership teams to "reinvent the wheel" or copy and modify from other programs' infrastructure whose delivery requirements are unique unto themselves. Each function within the Platform includes the processes, flow charts, tools, and references required to deliver that function.

The Platform serves as the common starting point for tailoring each function to a program's specific scope and requirements. It is our understanding that minimal tailoring will be required for NMB. Once configured for a program, the program leadership team will maintain and continuously improve the Platform content throughout the program lifecycle.

The Platform is an easy-to-use drill-down structure based on a Function-Process-Activity-Tool sequence. Clicking on linked content within each page will take the user to the next level or to another, interconnected function. The sequence allows the user to review and understand the process, identify the next activity and interrelated functions in the process, review the activity guide, understand how to implement the activity, and then use the tool or reference provided to complete the activity.

The following sections will be developed during the first 60 days of program initiation:

- Program Governance
- Health and Safety
- Quality Management
- Performance Monitoring and Reporting
- Program Controls Management
- Document Management
- Communications Management / Community Outreach
- Human Resources
- IT Management and Operations

As the program progresses, additional functions to be developed will be prioritized based on the needs of the program but may include:

- Environmental Management
- Security
- Sustainability
- Change Management
- Procurement
- Stakeholder Engagement
- Delivery Strategies
- Risk Management
- Estimating
- GIS
- Asset Management
- Design / Engineering Management
- Permitting and Utilities Coordination
- Construction Management
- Workforce Development and Training
- Administrative Services
- Finance and Accounting
- Program Close-out

Deliverables: Electronic Program Management Plan (Platform) including function page, process maps, and tools as needed for the functions listed above to be developed during initiation

Task 1.4 Program Portal Development

CH2M will develop and implement our standard Program Portal during the program initiation phase to enable effective cost and schedule monitoring for the Capital Improvement Program (CIP). The initial

Program Portal will be based on 'out-of-the box' functionality and will include configuration for North Miami Beach (NMB) branding. The Portal functionality will initially include basic out-of-the box features for cost management, schedule management, KPIs and reporting. The initial data loaded into the Portal during the Initiation phase will be based on the cost-loaded schedule developed from the high-level Master Plan data for the CIP only.

The Program Portal will be developed to include:

1. Integration of off-the-shelf scheduling and cost accounting software.
2. Retrieval of cost, schedule and other performance data from other systems and software packages.
3. Monthly updates of critical cost, schedule, earned value and change management information at program, project and task levels.
4. Integration of reporting tools as appropriate to support overall program reporting requirements.

The initial Portal will be deployed in the first 60 days based on the Master Plan cost and schedule data. As the program evolves the team will likely identify additional customizations for the Program Portal to address specific program needs such as permit tracking, risk register tracking, action item tracking and other needs.

Deliverables: Initial Portal set-up with out-of-the box functionality populated with schedule and cost data from the Master Plan

Task 2 Program Management Set-up Activities

Task 2.1 Program Controls

Task 2.1.1 Schedule Management Set-up

The project controls setup in the initiation phase is the first step in creating the control system under which the program will be managed and progress will be measured.

CH2M will develop program controls procedures to describe how the program team will implement program and project controls. These procedures will be incorporated into the PMP, as indicated in Task 1.3 above, and will address strategies, policies, procedures and tools for program and project cost and schedule management. It will include descriptions of organization roles and responsibilities; Work Breakdown Structure (WBS) definition; budget management; cost estimating, monitoring and control; schedule development, monitoring and control; management reporting; KPIs; and IT requirements.

CH2M will develop a standard work breakdown structure (WBS) which will allow multi-level roll-up/roll-down, segregation and manipulation of cost and schedule data to track, control, analyze and measure work progress, and cost and schedule performance. The WBS will identify and organize major elements of work related to the program and will connect the work scope to scheduled activities, maintaining control and logic for the WBS elements.

The initial cost-loaded schedule for the program will be based on the projects identified in the Master Plan. The projects will be further broken down into individual design and construction projects, including project sequencing, schedule and budget. The information from the Master Plan provides fairly high level project definition, cost and schedule information and this high level information will be used as a starting point to establish an initial cost-loaded schedule for the program. As the project validation is completed, the cost-loaded schedule will be updated and a program baseline schedule will be established.

Deliverables: WBS, initial cost-loaded schedule, master program schedule

Task 2.1.2 Program Budget and Funding Tracking Set-up

The following activities are included in program budget and funding tracking:

- Create the Program Master Budget. Budget will include costs relevant to the overall Program and to each individual project to be delivered.
- Set the cash flow estimate of capital requirements for the projects to be delivered.
- Establish procedures for preparation of budget re-forecasts and updated cash flow.

Deliverables: Program master budget, cash flow projections, and budgeting and funding tracking procedures

Task 2.1.3 – Risk Management Plan

The following activities are included in development of the risk management plan for the CIP program:

- Develop a risk management plan to manage Program risks.
- Develop Program and project level risk management plans for the preparation and maintenance of a risk register for the Program, identifying programmatic and project related risks, (e.g. schedule, cost, escalation, market conditions) associated with the Program, the mitigating strategies, likelihood of failure, and cost of each level of risk.
- Develop the process and tools for identification of Program and project risks and opportunities. Each project will be evaluated for specific risks and opportunities (equipment delivery, limited shutdowns, permit compliance, market and supply chain risk, etc.). A risk register will be developed for each project that includes: identification of risks and opportunities, calculation of impacts, and approach to mitigation.

Deliverables: Risk Management Plan and Procedures

Task 2.2 Document Management Set-up

CH2M will develop and implement document management strategies and systems to support efficient performance of Program and project delivery activities and enable organized, comprehensive and secure storage of Program documentation. The document control system will initially be implemented using Microsoft SharePoint software with access through CH2M's systems. As the program moves into construction, additional document management systems may be implemented.

CH2M will prepare document management procedures to describe how the program team will manage program documents in physical and electronic form. These procedures will be incorporated into the PMP, as indicated in Task 1.3, and will address strategies, policies, procedures and tools for document tracking and storage. The procedures will include descriptions of organization roles and responsibilities; document control systems to be established; document management practices; document numbering and identification protocols; integration of Program documents into other City documentation systems; and document management audit, feedback and improvement activities.

During the initiation phase, CH2M will implement the document control system in SharePoint for use in managing program documentation standard forms and templates, and other program-related records. Maintain files of Program documentation in an integrated, accessible electronic format with hard copy, electronic format to be stored in a retrievable system. Maintain status logs of project and program documents such as contractor Requests for Information, submittals, substitution requests, etc. Develop

and maintain systems for the efficient distribution of project documents to contractors, subcontractors, consultants, subconsultants, agencies, City departments, and other stakeholders as directed.

CH2M will endeavor to operate a paperless document control system. Documents and correspondence will be stored electronically and cataloged using a document management software. Document management will initially be implemented in SharePoint but other systems may be added as the design and construction management needs increase.

Deliverables: Set-up of the initial document management system and procedures; document management implementation

Task 2.3 Program Level Quality Management Plan

The Quality Assurance and Control Plan will include sections for design and construction quality assurance and control. Design quality control will be the responsibility of the design consultants and construction quality control will be the responsibility of the contractor. CH2M's responsibilities will be to assure conformance to quality standards by the design consultants and construction contractors, in the interest of the City.

CH2M will prepare a Quality Management Plan (QMP) to define programmatic and project quality standards and practices, and to guide and maintain the quality of services performed throughout the Program. The QMP will be incorporated into the PMP, as indicated in Task 1.3, and will address strategies and policies for performance of programmatic quality assurance and control activities. It will include descriptions of organizational roles and responsibilities; quality assurance and control practices, processes and procedures; quality standards and guidelines; quality management documentation requirements; and quality management audit, feedback and improvement activities, and will be written to achieve the following goals:

- Incorporation of City requirements and preferences into design documents.
- Preparation of design and construction documents to meet industry and City standards.
- Construction of facilities to meet industry and City standards.
- Confirmation that deliverables and other information that affect the outcome of the project (e.g., calculations, drawings, reports, submittals, etc.) are checked, and reviewed for validity, accuracy, and conformance with overall project objectives.
- Proper documentation of engineering, design and construction issues and decisions.

Deliverables: Quality Management Plan

Task 2.4 Communication and Community Outreach Plan

An essential element of the program is maintaining public understanding of the benefits of the Capital Improvement Program and to advise them of activities or construction projects which may impact their normal activities and communities. The goal is to have NMB residents, NMB Water regional customers, and local businesses be a part of the program purpose, receive regular program information, and be a part of the program's success.

CH2M will prepare a Communication and Community Outreach Plan to develop and maintain internal and external communication during program execution. The Communication Plan will be incorporated into the PMP, as indicated in Task 1.3, and will address strategies, policies and procedures for efficient, effective and organized communication between internal program team members (City and Consultant staff), and with external Program implementation participants (design consultants, contractors,

suppliers, etc.), participatory public agencies, regulatory and permitting agencies, and other external stakeholder groups.

The Plan will address public outreach objectives relating to external program and project status reporting, project field activity notifications, public involvement, and urgent/emergency communications, including public outreach strategies and tools to facilitate communication with community members.

The following components will be considered as the strategic communication plan for public outreach is developed: the City's communication goal and objectives related to this program, key messages related to the program, key audience groups, and strategies to accomplish the communication goal. Each strategy will have associated outreach activities, which could include: development of easy-to-understand informational materials; training workshops for team members who will be spokespersons in the community; media outreach; and community outreach activities such as a speakers bureau, participation in community events, interested parties' updates, meetings with representatives of various groups such as environmental, or business organizations.

The plan will also define criteria to identify key program communication materials that will require translation to Spanish, Creole or other languages. For the purposes of this work order, it is assumed that translation services will not be required during Program Initiation.

The program will generate plans, schedules, estimates, reports, photographs, forecasts, and technical data which will be shared among the stakeholders through a program website. The information will also be available in various levels of detail to the public, City officials or the program participants.

It is assumed that the existing City website will be used to publish information about the Capital Improvement Program and that the City staff will maintain the site. CH2M will provide input on the structure of the CIP portion of the site and will develop and provide the content to be published on the site.

Media Communication Plan. There will be periodic contact with the print, radio, and television media, including community newspapers and homeowner's association newsletters. An effort will be made to establish a positive reception in the community for both the construction activities and public outreach activities undertaken by the program. The City will be advised of each significant contact with the media, and no articles or programs will be produced by the program team without the City's review. Staff will be trained on media response procedures which will also be documented in the PMP.

Stakeholder Management. CH2M will define stakeholders and will develop and implement a stakeholder management and communications strategy which will be documented in the PMP.

Communications. CH2M will develop materials for public meetings and participate with the City in public meetings. CH2M will develop prompt responses to public queries and comments on the program when required. Preparation for 2 public meetings is included during Program Initiation.

Deliverables: Community Outreach Plan and materials for 2 public meetings

Task 2.5 Business Services and Finance Management Set-up

Business services and finance management includes setting up procedures for the following activities:

- Monitor work order budgets and reconcile budgets with the City's billing system.
- Review monthly invoices from design consultants and construction contractors
- Supervise the procurement process
- Review and approve requisitions for services included in the work orders
- Supervise the processing of the accounts payable invoices

- Prepare and follow-up on transmittals for payment of invoices from subcontractors
- Provide contract management and guidance on matters affecting deliverability, compliance and overall financial performance from initial pursuit to project closeout
- Provide contract guidance and negotiation in concert with procurement staff, contracts group, as applicable, and delivery leadership on subcontracts
- Develop procurement strategies based on an understanding of the social, political and economic factors in the area

Deliverables: Business management services procedures and tool set-up associated with the program

Task 2.6 Procurement Set-up

Business services will be a critical feature of the program team to support effective engagement of the supply chain in a way that aligns with the objectives of the Program. This will include set-up of procedures for the following procurement and contract management activities:

- Lead, coordinate and manage procurement-related activities in hiring project support, technical resources, and specialty consultants. Evaluate bids and manage procurement approvals
- Manage compliance with contract administration standards, procedures and tools.
- Establish a standard invoice summary and approval process.
- Review invoices and pay applications.
- Establish a contract management system to provide visibility to management in the following areas: changes, invoicing, claims, valuations and payments, notices, early warnings, approvals, compliances, breaches, terminations, extensions, disputes and reconciliations, insurances, warranties, collaterals, securities and bonds.
- Evaluate contract packaging against the capacity and capabilities of the potential contractors as well as any special contract requirements that might dictate recommendations to modify contracts.
- Develop the procurement and contracting strategy for the delivery of the various projects within the Program.
- Alert the City of actual, perceived or expected departure from contractual requirements and prepare analysis of potential issues, resolution options and related recommendations.
- Assess potential changes or change requests in terms of their impact on the contract, impact on the Program, and potential contract variations required.
- Monitor Program schedules and plans for compliance with the contract, and advise on the impact of non-compliance.
- Proactively supervise project contracts within the Program including, but not limited to: monitoring contract compliance, terms and conditions, supervising and reviewing overall performance of service level agreements, managing receipt and documentation of change requests and coordinate the review process, ensure that contract related changes / variations are communicated to appropriate stakeholders, delivery of contract deliverables, payment procedures and management reporting.
- Develop a claims management process that includes evaluation of responsibility, impact, and costs and a dispute resolution process.
- Create documentation that may be required for claims defense (not required during initiation)
- Review and evaluate regularly the status of existing bidders and construction contracts.
- Perform reviews of the designers, bidders, contractors and suppliers deliverables relative to contract compliance and performance.

Deliverables: Procurement procedures and tool set-up associated with the program

Schedule and Compensation

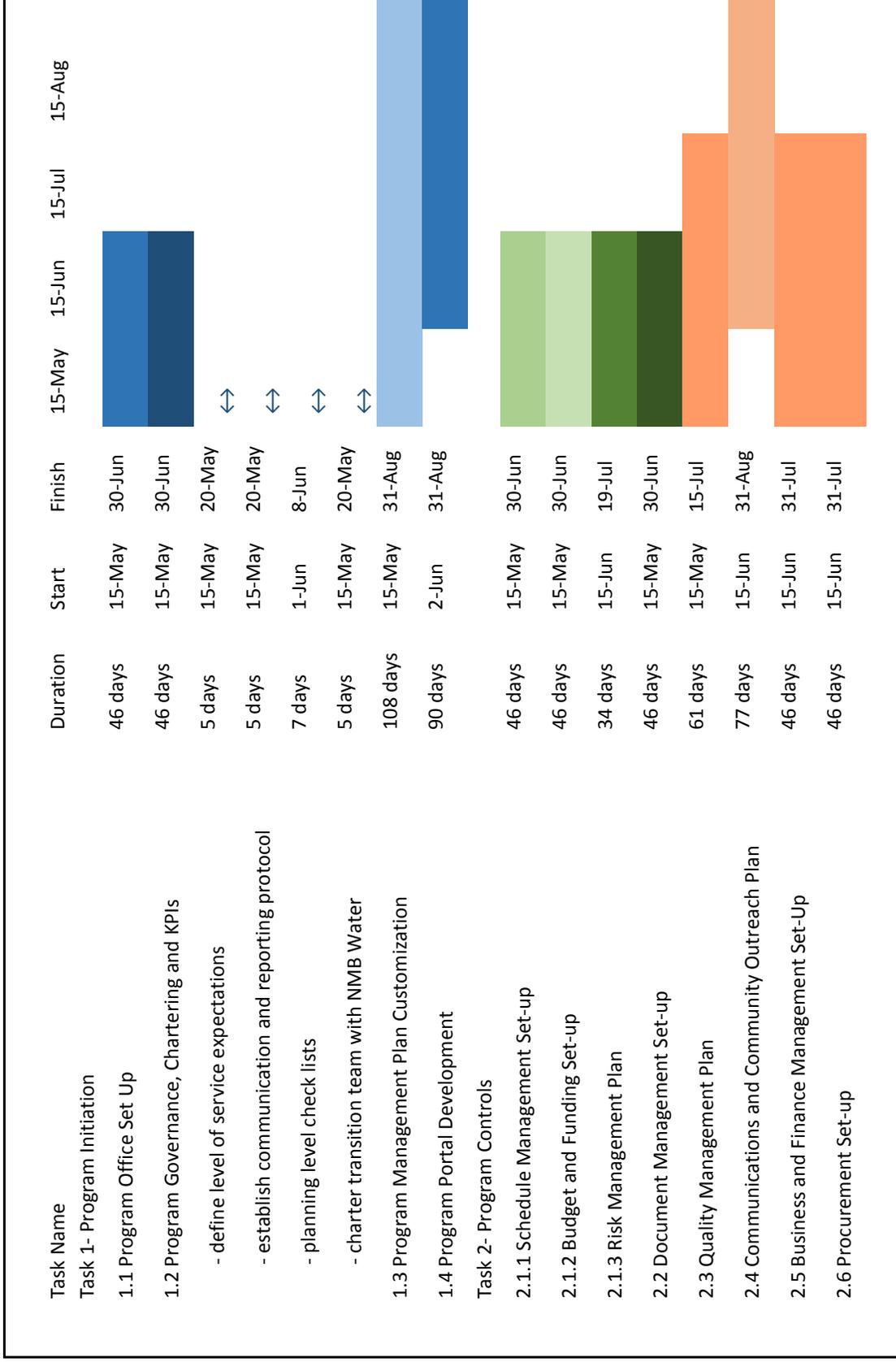
Work will commence upon acceptance of this scope of work and issuance of a Notice to Proceed (NTP) to CH2M by the City. The City will pay, and CH2M will accept, a fixed-fee of \$500,000 for the scope of work under Work Order 1. CH2M will invoice the City following final acceptance of the deliverables associated with each task, which the Parties anticipate will occur by the following dates:

Work will commence upon acceptance of this scope of work and issuance of a Notice to Proceed (NTP) to CH2M by the City. The schedule for the tasks included in this work order is provided in Attachment 1.

Due Date	Task	Amount Due
June 30, 2017	1.1 Program Office Set-up	\$ 41,598
June 30, 2017	1.2 Program Governance, Chartering and KPIs	\$ 35,876
June 30, 2017	1.3 Program Management Plan Customization (50% Complete)	\$ 32,091
June 30, 2017	1.4 Program Portal Development (50% complete)	\$ 40,721
June 30, 2017	2.1.1 Schedule Management - Set-up	\$ 26,501
June 30, 2017	2.1.2 Program Budget and Funding Tracking - Set-up	\$ 26,501
June 30, 2017	2.2 Document Management System Set-up	\$ 31,448
July 31, 2017	2.1.3 Risk Management Plan	\$ 13,238
July 31, 2017	2.3 Program Level Quality Management Plan	\$ 7,943
July 31, 2017	2.4 Communication and Community Outreach Plan Development (50% complete)	\$ 59,245
July 31, 2017	2.5 Business Services and Finance Management - Set-up	\$ 36,049
July 31, 2017	2.6 Procurement - Set-up	\$ 16,908
August 31, 2017	1.3 Program Management Plan Customization (100% Complete)	\$ 32,091
August 31, 2017	1.4 Program Portal Development (100% complete)	\$ 40,545
August 31, 2017	2.4 Communication and Community Outreach Plan Development (100% complete)	\$ 59,245
	Total Due	\$ 500,000

Attachment 1
Schedule

Attachment 1- Program Initiation Services Schedule





Work Order 2 – Year 1 Program Management Services

This work order covers program management activities for delivery of the North Miami Beach (NMB) Water Capital Improvement Program (CIP) from May 15, 2017 to September 30, 2018.

In accordance with Agreement __XXXXXX__, CH2M HILL Engineers, Inc. (CH2M) (CONSULTANT) will provide the following Scope of Services for Program Management activities associated with implementation of the CIP.

Background

The City of North Miami Beach (NMB) has contracted with CH2M to provide program management services to implement their capital improvement program.

Since 2015, CH2M has worked with NMB Water to develop a Water and Wastewater Master Plan that includes numerous improvements to enhance operations and the long-term viability of the water supply, treatment, and distribution and wastewater collection facilities.

This work order authorizes CH2M to perform ongoing program management activities for the CIP as described in the subsequent paragraphs from May 15, 2017 to September 30, 2018. The tasks included as part of this work order are listed below. The work associated with each task is described in further detail in the following sections of this document.

- Task 1.1 Program Management Oversight and Reporting
- Task 1.2 Document Management
- Task 1.3 Program Controls (includes schedule management, budget and funding)
- Task 1.4 CIP Planning and Coordination
- Task 1.5 Quality Assurance and Change Management
- Task 1.6 Cost Estimating
- Task 1.7 Communication and Community Outreach
- Task 1.8 Construction Phase Services
- Task 1.9 Business Services and Finance Management
- Task 1.10 Procurement
- Task 1.10 System Software Coordination
- Task 1.11 GIS and Hydraulic Modeling Services

Task 1.1 Program Management Oversight and Reporting

This task provides for the Program Manager, Program Director, and Administrative Assistant to provide general oversight and operation of the program and to oversee reporting activities.

Program-level reporting will include detail and summary reports for use by program leadership in managing the program; for use by the City Commission to reviewing program status; and for use by City customers and citizens to support outreach efforts. Project-level reporting will provide support in

planning and executing specific project work and to support cost and schedule management practices. Specialized reports for trend analysis, variance identification and analysis, change and claims management, and other specific needs will also be developed as determined necessary to appropriately manage the program.

Each month, program and project-level reports will be generated for use by the program team and City leadership. Quarterly progress reports will be provided for distribution to the City Commission and other stakeholders. These reports will provide information regarding progress versus plan, progress measures and other program and project information.

Deliverables: Program management oversight, monthly and quarterly reports for the work order period along with selected additional specialized reports as required for trend analysis or other specific program needs

Task 1.2 Document Management

This task provides for a part-time document management professional to maintain the document management system and populate it with files and associated meta-data from ongoing capital projects.

CH2M will endeavor to operate a paperless document control system where appropriate. CH2M will maintain the document management system implemented during program initiation to support efficient performance of program and project delivery activities and enable organized, comprehensive and secure storage of program documentation. Documents and correspondence will be stored electronically and cataloged using a document management system. The document control system will initially be implemented using Microsoft SharePoint software with access through CH2M's systems. In addition, a construction document control system will be added during Year 1 as the program construction activity increases.

Document management includes:

- Maintain program and project documentation in electronic format (or hard copy where appropriate) in the program document management system.
- Maintain status logs of project and program documents such as contractor Requests for Information, submittals, substitution requests, etc.
- Maintain systems for the efficient distribution of project documents to contractors, subcontractors, consultants, subconsultants, agencies, City departments, and other stakeholders as directed.

Deliverables: Maintenance of the document management system populated with files and associated meta-data from ongoing capital projects

Task 1.3 Program Controls

Task 1.3.1 Schedule Management

The following activities are included in schedule management:

- Maintain the Program Master Schedule at various levels of detail for management reporting. The Master Schedule will include a roll-up of individual project schedules. The schedule will be based on the 65 projects in the Master Plan along with program management tasks.
- Manage changes to Master Schedule using adequate change management processes (see below).
- Monitor that consultants and contractors include sufficient and meaningful deliverables and milestones, and communicate any proposed schedule updates.

- Monitor that consultant and contractor schedules include details of the main highlights and key decision points, and details of other program obligations.
- Monitor that consultants and contractors baseline their schedules and apply appropriate change management processes to baseline changes.
- Monitor and report on the perceived viability of the consultant and contractor schedules based on realistic assessments of schedule risks and prepare alternatives to correct or minimize schedule variances.
- Identify and report out on perceived issues with consultant and contractor planning and scheduling processes.

Deliverables: Monthly updates to the Master Schedule and individual project schedules (as required)

Task 1.3.2 Program Budget and Funding Tracking

The following activities are included in program budget and funding tracking:

- Provide cost management in each stage of each individual project to be delivered during Year 1
- Maintain the Program Master Budget. Budget will include costs relevant to the overall program and to each individual project to be delivered.
- Set the cash flow estimate of capital requirements for the projects to be delivered.
- Review estimates and forecasts for the program on a regular basis.
- Confirm that design submissions include cost estimates to enable decision making and approvals
- Establish procedures for preparation of budget re-forecasts and updated cash flow.

Deliverables: Program master budget, individual project budgets, cash flow projections, and monthly updates to budget and funding tracking

Task 1.3.3 Risk Management

The following activities are included in risk management:

- Develop project-level risk management plans as new capital projects are implemented in Year 1. Each project will be evaluated for specific risks and opportunities (equipment delivery, limited shutdowns, permit compliance, market and supply chain risk, etc.). A risk register will be developed for each project that includes: identification of risks and opportunities, qualitative impacts, and approach to mitigation.
- On a quarterly basis, update the program-level risk register to address programmatic and project related risks, (e.g. schedule, cost, escalation, market conditions) associated with the program, qualitative impacts, and approach to mitigation.
- On a quarterly basis, update project-level risk registers to include: identification of risks and opportunities, qualitative impacts, and approach to mitigation.

Deliverables: Quarterly updates to program- and project-level risk registers

Task 1.4 CIP Planning and Coordination

Project Definition. The program team will develop the design criteria and requirements for the design projects to be started in Year 1. The criteria will be developed in the form of a Project Definition Memorandum to be provided to the project design team. A Project Definition Memorandum will be prepared for each project or group of projects to be executed by a single design team, whether it be by

one of the program consultants or CH2M. The Project Definition Memorandum will consist of the following basic elements:

- Project description and background
- Project status
- Project issues and impacts
- Sources of information
- Project design team
- Project scope
- Design criteria and project objectives
- Project budget

This information will be used to assist the design team in developing a work order and project work plan. The work order and work plan prepared by each design team will be submitted, reviewed, and approved by the program team before commencing work.

Work Order Review and Negotiation. CH2M will review and negotiate consultant planning and design work orders for the projects identified under the program for implementation by consultants other than CH2M during year 1. Meetings will be held with the design teams to discuss the project scope and purpose. Work orders submitted by design firms will be reviewed for compatibility with the design intent.

Permit Coordination / Tracking. As design and construction projects are implemented it will be the responsibility of the design consultant or contractor to prepare the necessary permit applications for these projects. CH2M will assist in the review and submittal of these permit applications on behalf of the City.

CH2M will establish a permit tracking system to understand when permits will need to be renewed so that these renewal activities can be incorporated into the program.

Program Coordination. This effort addresses coordination during planning, design and procurement, and construction and involves periodic meetings with various agencies to identify regulatory concerns or project construction conflicts and to track and adjust to changes that may be required to address these issues.

Coordination activities may include the following departments or agencies:

- South Florida Water Management Department
- Florida Board of Health in Miami-Dade County
- Miami-Dade County Department of Environmental Regulatory Management
- Florida Department of Environmental Protection
- U.S. Environmental Protection Agency
- Fire Department
- City Manager's Office
- Parks Department
- Schools (Dade-County or other)
- Community Redevelopment Agency
- Urban Forester
- Miami Dade County Department of Transportation
- Florida DOT
- Utility Companies
- Building and Zoning
- Waste Management

This task includes participation in up to 30 one-hour coordination meetings.

Deliverables: Project Definition Memoranda and negotiated work orders for capital projects to be started in year 1, permit tracking system and monthly updates, and two coordination meetings per month

Task 1.5 Quality Assurance and Change Management

Quality Assurance. CH2M will conduct quality control project reviews required during Year 1 of the program. Reviews will be performed for design projects at 30, 60 and 90% levels of completion and review meetings held with the design teams. The technical responsibility of the design professional will remain with the design firm. The program team review will focus on compliance with design standards of the City and the work orders under which the designs were prepared.

For projects designed by consultants other than CH2M, a design project manager will be assigned to each project or group of projects to administer the contract on behalf of the City and function as a liaison between the design team and the program, monitor progress and schedule, manage change and in general monitor that the project is proceeding according to plan. CH2M will provide design firm invoice approval and tracking.

Change Management. Scope and change management are two of the most critical functions of any program. Control mechanisms must be in place to identify and manage activities and issues that might ultimately alter the delivery of the program's objectives.

The following activities are included in scope and change management:

- Assess change requests in terms of the impact on time, cost and quality and recommend mitigation and management strategies.
- Monitor changes and potential changes across the program against the contractual and scope baselines.
- Monitor the processing of changes which require contract change orders.
- Evaluate financial implications of changes to contracts that are determined to be necessary.
- Advise NMB on changes to the project budget, provide timely updates that reflect funds received, funds obligated through contract awards and approved change orders, and projected obligations.

Deliverables: Quality control design project reviews during the work order period, design contract administration, and evaluation and documentation of change management requests

Task 1.6 Cost Estimating

Design Cost Estimating. This task provides for updates to planning level cost estimates that may be required as additional details are defined in development of the Project Definition Memoranda discussed above. This function will not replace the responsibility of the design firms or design teams to generate cost estimates for their completed work.

Construction Cost Estimating. CH2M will provide independent estimates of the cost of extra work or change orders for purposes of negotiating costs of change and claims, if required.

Deliverables: Updated project design development cost estimates and construction change order independent estimates

Task 1.7 Communication and Community Outreach

An essential element of the program is maintaining public understanding of the benefits of the Capital Improvement Program and to advise them of activities or construction projects which may impact their normal activities and communities. The goal is to have NMB residents, NMB Water regional customers, and local businesses be a part of the program purpose, receive regular program information, and be a part of the program's success.

This task provides for implementation of the Communication and Community Outreach Plan developed during program initiation. The program team will provide updated materials on a monthly basis for the City to post to the CIP website. It is assumed that the existing City website will be used to publish information about the Capital Improvement Program and that City staff will maintain the site. CH2M will provide input on the structure of the CIP portion of the site and will develop and provide the content to be published on the site.

This task provides for periodic contact with the print, radio, and television media, including community newspapers and homeowner's association newsletters. An effort will be made to establish a positive reception in the community for both the construction activities and public outreach activities undertaken by the program. The City will be advised of each significant contact with the media, and no articles or programs will be produced by the program team without the City's review.

This task also provides for participation in public meetings, development of materials for public meetings and other stakeholder communications.

Deliverables: Materials or presentations for one public meeting per month, monthly website content updates, and monthly stakeholder update materials if required

Task 1.8 Construction Phase Services

Construction phase services will only be provided upon written authorization from the Director of NMB Water to begin work on this task.

This task includes oversight of construction activities for program projects in construction during the work order period. This task includes:

- Planning for construction packages and methods of contracting to be employed
- Oversight of expenditures by the City for construction work
- Development and oversight of the procedures to be followed by program and contractors in construction project delivery.
- Claims management and administration
- Quality control of constructed work
- Negotiate changes or extra work on behalf of the City
- Report progress on active construction projects
- Inspections and recommendations for substantial and final completion
- Oversight of startup and turnover of projects to city operations.

CH2M will provide oversight of the quality of inspection work provided by City staff or CH2M staff. The oversight will be based on field inspection procedures developed by the program team and included in the instructions to the field personnel.

Inspection staff will be provided by CH2M or the City to provide consistency in approaches across the program. Since construction activities will be ramping up during this time period, it is assumed that the existing City inspectors can provide inspection services with oversight by the construction manager for the first six months. This task provides for a full-time construction manager beginning in July 2017 along with the addition of a full-time inspector in January 2018 to supplement existing City inspectors.

Oversight of Designer’s Services During Construction. CH2M will track the timeliness of the design consultant’s services during construction for submittal reviews, processing of requests for information, processing of change requests, and design of necessary changes during construction.

Construction Contract Schedule Management. CH2M will receive and evaluate the construction schedules provided by the Contractors as required by contract or procedure. CH2M will review the contractor’s schedules and make updates to the master schedule as conditions require as reported by the contractors. The program team will provide monthly estimates of schedule compliance and will participate in evaluating alternatives to avoid delays and litigation associated with such delays.

Deliverables: Construction management oversight for projects in construction during the work order period

Task 1.9 Business Services and Finance Management

Business services and finance management includes the following activities for the CIP:

- Monitor work order budgets and reconcile budgets with the City’s billing system.
- Review monthly invoices from design consultants and construction contractors
- Supervise the procurement process
- Review and approve requisitions for services included in the work orders
- Supervise the processing of the accounts payable invoices
- Prepare and follow-up on transmittals for payment of invoices from designers and contractors
- Provide contract management and guidance on matters affecting deliverability, compliance and overall financial performance from initial pursuit to project closeout
- Provide contract guidance and negotiation in concert with procurement staff, contracts group, as applicable, and delivery leadership
- Develop procurement strategies based on an understanding of the social, political and economic factors in the area

Deliverables: Business management services associated with the CIP

Task 1.10 Procurement

This task includes the following procurement and contract management activities associated with the CIP:

- Lead, coordinate and manage procurement-related activities in hiring project support, technical resources, and specialty consultants. Evaluate bids and manage procurement approvals
- Manage compliance with contract administration standards, procedures and tools.
- Establish a standard invoice summary and approval process.
- Review invoices and pay applications.
- Establish a contract management system to provide visibility to management in the following areas: changes, invoicing, claims, valuations and payments, notices, early warnings, approvals,

compliances, breaches, terminations, extensions, disputes and reconciliations, insurances, warranties, collaterals, securities and bonds.

- Evaluate contract packaging against the capacity and capabilities of the potential contractors as well as any special contract requirements that might dictate recommendations to modify contracts.
- Develop the procurement and contracting strategy for the delivery of the various projects within the program.
- Alert the City of actual, perceived or expected departure from contractual requirements and prepare analysis of potential issues, resolution options and related recommendations.
- Assess potential changes or change requests in terms of their impact on the contract, impact on the program, and potential contract variations required.
- Monitor program schedules and plans for compliance with the contract, and advise on the impact of non-compliance.
- Proactively supervise project contracts within the program including, but not limited to: monitoring contract compliance, terms and conditions, supervising and reviewing overall performance of service level agreements, managing receipt and documentation of change requests and coordinate the review process, ensure that contract related changes / variations are communicated to appropriate stakeholders, delivery of contract deliverables, payment procedures and management reporting.
- Develop a claims management process that includes evaluation of responsibility, impact, and costs and a dispute resolution process.
- Create documentation that may be required for claims defense (not required during initiation)
- Review and evaluate regularly the status of existing bidders and construction contracts.
- Perform reviews of the designers, bidders, contractors and suppliers deliverables relative to contract compliance and performance.

Deliverables: Procurement management services associated with the CIP

Task 1.11 System Software Coordination

CH2M will maintain information management tools and applications for the program team to monitor and assess progress and deliverables with respect to project planning and scheduling, risk management, procurement and contract management, document management, administration, and management reporting functions. Information management systems e.g. servers, software, licenses, etc. will be provided and hosted by CH2M.

The information technology/information system (IT/IS) will be designed and installed in the program office to be compatible with the City and CH2M IT systems. A systems analyst will provide support for the IT/IS systems in the program office one day per week.

This task also includes limited support for updates to the Program Portal. As the program evolves the team will likely identify additional customizations for the Program Portal to address specific program needs such as permit tracking, risk register tracking, action item tracking and other needs. This task provides for additional Portal programming expertise for one week per quarter to provide these customization needs.

Limited support is available to support updates to the Platform (electronic Program Management Plan) if needed. The core program team will be able to complete many of the updates and modifications to the Platform that may be required for ongoing improvements to the system; however, this task provides for 2 days per quarter for the Platform SME to support the team if needed.

Deliverables: IT technician to support program IT infrastructure one day per week, Portal customization services for one week per quarter and Platform customization support for two days per quarter

Task 1.12 GIS and Hydraulic Modeling Services

GIS Services. This task provides for a part-time GIS professional to supplement City GIS resources. The GIS professional can provide services ranging from project maps to overlay GIS inventory of key assets with hydraulic models or other mapping systems.

Hydraulic Modeling. This task provides for an engineer for 20 hours per month to provide hydraulic modeling updates. These updates could include revisions to the existing wastewater collection and water transmission and distribution system hydraulic models including the addition of recently completed projects, the network improvements proposed under the CIP, and additional or updated operational data such as pressures at the MDWASD connection points, new pump curves, and pressures at the water repump station. The developed model will represent an incremental “look ahead” that will enable the program team to coordinate ongoing activities in the system.

Deliverables: Part-time GIS and hydraulic modeling support services to generate specific deliverables as required over Year 1 of the program

Task 1.13 Asset Management Services

Asset management seeks to optimize lifecycle costs for the utility system while at the same time utilizing a risk-based approach that recognizes that all systems optimization cannot be performed in the short-term. According to ISO 55000, the international asset management standard, asset management involves the balancing of costs, opportunities and risks against the desired performance of assets, to achieve the organizational objectives over different timeframes. An organization’s top management, employees and stakeholders should implement planning, control activities (e.g. policies, processes or monitoring actions) and monitoring activities, to exploit opportunities and to reduce risks to an acceptable level.

The primary focus of this task will be to develop an asset management framework over the next 16 months that will enable optimization of the CIP as it related to capital spending for existing assets and to put NMB Water on a long-term path for better managing O&M costs.

In developing and implementing the first phase of this framework, a balanced approach will be utilized to determine the, what the assets are, value of NMB assets, their condition, the need to renew or replace, the timing for renewal or replacement , the cost and how to finance it.

Task 1.13.1 Developing the Asset Management Framework

CH2M will review existing business processes within each department at NMB Water for how they support the tactical and strategic asset management goals of NMB Water. Analysis will focus on the connection between NMB Water’s business plan delivery and the asset management tasks being delivered by staff that support plan delivery. CH2M will identify areas of opportunity for developing people, maximizing equipment uptime, improving information systems, standardizing and documentation of processes. The departments that require close coordination are procurement, engineering, maintenance and operations. A TM will be produced that details how these departments will communicate on asset health, risk management, reliability, procurement, lifecycle, maintenance and operation.

Deliverables

- A documented strategic asset management plan (AMP) covering all major asset types within NMB Water’s infrastructure
 - Documented plan for addressing repairs, rehabilitation and replacement per unit process

- Communication plan across departments
- Documented work flow procedures
- Documented standard operating procedures
- Training and development plan for staff

Task 1.13.2 - Developing the Risk Framework Levels of Service

CH2M will collaborate with NMB Water key stakeholders to develop criticality and risk frameworks for the utility as a whole and for special attributes that may be needed for different systems (collection, distribution, water treatment). To understand the risk imposed by NMB Water assets, Consequence of Failure (CoF) and Likelihood of Failure (LoF) tables will be established that meet NMB Water’s mission and vision. The CoF and LoF tables will be developed, with scoring criteria, for all infrastructure and processes.

Deliverables -

- Workshop #1 - Meet with NMB Water to Customize the Consequence of Failure (COF) and Likelihood of Failure (LOF) scoring criteria specific to NMB Water unit processes. NMB Water comments will be tracked and addressed, and Technical Memorandum #1 will be finalized and submitted to NMB Water for final approval.
- TM #1 - Document the customization of the COF and LOF scoring and present CH2M’s proposed risk/criticality scoring results for each unit process area. Technical Memorandum #1 will present the proposed risk profile for all NMB Water physical asset systems (collection, distribution, and water treatment), including their major unit processes. This information will be stored in our condition assessment tool, ACES, and applied to each asset assessed under a specified “rollup” process area of facility location.
- Workshop #2 – Review and approve the proposed unit process risk scoring and address NMB Water comments from Draft Technical Memorandum #1.
- TM#2 – this TM will finalize the risk approaches to be used in the asset management program and provide a summary of their impact on refining the CIP as it relates to existing assets.

1.13.3 - Asset Condition Assessments

Condition assessments for linear (pipe) assets will be performed as part of the current Master Plan CIP. The Master Plan CIP includes \$1M per year for 4 years of condition assessment of linear (pipe) assets, so this task will be directed toward developing and refining the approach to this work. This task will help to inform approaches for performing related condition assessments for vertical assets. This task will focus on prioritization of the condition assessment approaches. For example, the collection system has already been evaluated to be in better condition than the water system and therefore would be generally lower in priority. Similarly, water system pipes that are made of galvanized, asbestos cement, and cast iron are already programmed for replaced based on their known performance history and therefore these pipe systems would likely receive lower priority.

For vertical systems, a specific budget for baseline condition assessment is not included in the CIP. However, a number of renewal and replacements projects are included in the CIP. For this scope, we have included some targeted condition assessment based on Task 1.13.2 and near-term CIP projects. Performing some targeted condition assessment will both inform the short-term capital needs and also provide a powerful assessment of whether a baseline condition assessment is needed.

CH2M’s condition assessment approach for assets will engage water engineering and O&M personnel—including the field mechanics and system operators with first-hand knowledge of pumping and treatment equipment. Our proven condition assessment approach will include two teams of two CH2M offsite maintenance specialists. This allows for unbiased assessment of assets.

Deliverables –

- Workshop #3 – Review condition assessment results with NMB Water stakeholders
 - Asset criticality
 - Asset condition
 - Estimated remaining life of each asset
 - Prioritized list of asset deficiencies
- Technical Memorandum #3 – Summary of condition assessment methodology, assessment practices and results
- Vertical Assets - Upload results of the condition assessment into Maintenance Connection
 - Risk values
 - Criticality values (CoF values drive work order prioritization)
 - Asset condition values
 - Estimated remaining life
 - Prioritized corrective maintenance work orders for recognized deficiencies
- Linear Assets - Upload results of the condition assessment into Cityworks
 - Risk values
 - Criticality values (CoF values drive work order prioritization)
 - Asset condition values
 - Estimated remaining life
 - Prioritized corrective maintenance work orders for recognized deficiencies

1.13.4 – Asset Management Continuous Improvement

Over the duration of this contract the asset manager will be reviewing the performance of maintenance activities and asset performance against key performance indicators and best practices. These activities will include the following.

- Prioritized rehabilitation and replacement plan for distribution and collection system, both near term (5 years) and long term (20 years)
- Prioritized rehabilitation and replacement plan for vertical assets, both near term (5 years) and long term (20 years)
- Analysis of Key Performance Indicators and metrics
- Analysis of functional performance of critical assets for potential inclusion in CIP planning
- Analysis of maintenance practices and strategies for best practice and efficacy

1.13.5 – SCADA System Assessment

NMB Water’s SCADA system plays a vital role in delivery of water and wastewater services. A well planned and implemented SCADA system enables NMB Water to leverage technology for more efficient operation of the water and sewer systems. A site assessment of the existing instrumentation and controls, as well as SCADA system at the Norwood WTP, was conducted as part of this master plan and the following observations were made.

The Master Plan CIP includes a \$500K SCADA Master Plan. However, the procurement, execution, and partial implementation of the SCADA master plan will likely take at least 2 years to complete, during which time this critical system must remain functional.

This subtask includes developing a summary of the current environment, description of the utility vision for SCADA and automation, identification of gaps (the “as is” and potential “to be” conditions), and identification of near-term projects that should be completed prior to the development of the SCADA Master Plan. The work under this task will also be a key component of the scope of services for the SCADA master plan.

Deliverable: Recommendations and budgets for near-term SCADA projects and recommendations for SCADA Master Plan scope elements.

1.13.6 -Existing Asset Capital Plan Development

CH2M will calibrate our ARM project prioritization tool to NMB Water’s existing capital planning process and CIP prioritization processes. ARM will be used to score and prioritize potential projects in a manner that folds the ACES condition assessment tool for vertical assets into NMB Water’s existing CIP planning tools. These prioritization criteria will include condition, performance, regulatory compliance, safety, public benefit, financial impacts, and efficiency.

As part of this task, CH2M will develop valuations for existing systems, subsystems, and/or major assets to be used in the renewal and replacement capital forecast. The valuation will be based on information from NMB Water’s capital asset registry, NMB water’s insurance declaration(s), CH2M prior data bases, and any relevant market data such as recent bid tabs.

The objective of this task will be to provide NMB water with a better indication of the timing and costs related to capital improvements for existing assets built from refined asset level evaluations. This task is an incremental component of on-going refinements over the next several years to the Master plan CIP as more and more asset-specific data is collected.

Deliverables CH2M will compile prioritization findings into Technical Memorandum #4, including ARM results based on NMB Water prioritization criteria for condition, performance, regulatory compliance, safety, public benefit, financial impacts, and efficiency. Technical Memorandum #4 will provide an executive summary of all findings and recommendations; overview of the work completed; documented prioritization data; and preliminary benefit-cost and weighting scores.

Schedule

The tasks defined in this work order will be provided from May 15, 2017 to September 30, 2018. Work will commence on May 15, 2017 upon acceptance of this scope of work and issuance of a Notice to Proceed (NTP) to CH2M by the City.

Compensation

The fee for the scope of work under Work Order 2 is calculated based on the hourly rates shown in Attachment 1. The estimated level of effort for this scope of work is estimated to be \$6,571,885 as shown in Attachment 2 which provides the labor and expense estimate by subtask.

The CONSULTANT will invoice the City on a monthly basis for the services rendered during the prior month. Labor costs will be billed on an hourly rate basis per the rate schedule in Attachment 1 and expenses will be based on actual costs. The fee summary provided in Attachment 2 is an estimate of the hours and staff anticipated to be used and may vary without exceeding the overall work order amount.

Attachment 1
Rate Schedule

CH2M

2017 Rate Schedule Program Management Services

		2017 Bill Rates	
Per Diem Class	Client Billing Titles	Home Office	Site
1	Vice President, Program Director, Program Manager, Engineer 9	\$ 289.86	\$ 289.86
2	CIP Manager, Senior Cost Estimator, Senior Manager, Senior Consultant, Engineer 8	\$ 227.11	\$ 221.70
3	Senior Design Manager / Registered Technical Experts, Business / Financial Manager, Contracts Manager, Engineer 7	\$ 219.27	\$ 216.69
4	Senior Construction Manager, Technology Lead, Senior Project Manager, Senior Cost Control / Scheduler, Engineer 6	\$ 201.17	\$ 194.08
5	Design Discipline Lead, Cost Control/ Scheduler, Document Management Professional, Engineer 5	\$ 167.32	\$ 161.42
6	Construction Manager, Technical Consultant II, Project Manager II, Cost Estimator, GIS Professional, Engineer 4	\$ 135.73	\$ 130.83
7	Construction Inspector, Technical Consultant I, Engineer 3	\$ 115.94	\$ 111.86
8	Engineer 2	\$ 97.59	\$ 94.15
9	Engineer 1	\$ 89.46	\$ 86.31
10	Engineer 0	\$ 68.22	\$ 65.81
11	Technician 5	\$ 121.57	\$ 117.23
12	Senior Technician/CAD Technician/Executive Administrative Assistant, Technician 4	\$ 99.06	\$ 95.57
13	Technician 3	\$ 78.03	\$ 75.09
14	Technician 2	\$ 69.37	\$ 66.93
15	Administrative Support Staff, Technician 1	\$ 57.26	\$ 56.14
19	Clerical, Document Control Clerk, Project Accountant	\$ 45.55	\$ 44.69

Attachment 2
Fee Summary

North Miami Beach		Work Order 2 - Program Management Services May 2017 to September 2018																						
Task #	Task Name	Person	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Total Hours	Rate \$/hr	Total Labor	Total Expenses	Task Total
		# Weeks / month ---->	2	5	4	4	5	4	4	5	4	4	5	4	4	5	4	4	5				\$ 102,000	\$ 1,418,884
1.1	Program Management Oversight and Reporting																							
	Program Manager		40	120	160	160	200	160	120	160	160	160	200	160	160	200	160	160	200	2,680	\$ 289.86	\$ 776,821		
	Program Director		40	100	80	80	100	80	30	40	40	40	50	40	40	50	40	40	50	940	\$ 289.86	\$ 272,467		
	Executive Administrative Asst.		80	200	160	160	200	160	120	160	160	160	200	160	160	200	160	160	200	2,800	\$ 95.57	\$ 267,596		
1.2	Document Management																							
	Document Management Professional				80	80	100	80	60	80	80	80	100	80	80	100	80	80	100	1,260	\$ 167.32	\$ 210,823		\$ 230,584
	Document Management SME					20	20							20			20			80	\$ 167.32	\$ 13,386		
1.3	Program Controls																							
1.3.1	Schedule Management				80	80		80	60	80	80	80	100	80	80	100	80	80	100	1,260	\$ 194.08	\$ 244,541		\$ 244,541
1.3.2	Program Budget and Funding Tracking																							
	Cost/Scheduler																							
1.3.3	Risk Management																							
	Sr. Design Manager																			224	\$ 194.08	\$ 43,474		\$ 43,474
1.4	CIP Planning Coordination																							
	CIP Manager		60	160	120	160	200	160	120	160	160	160	200	160	160	200	160	160	200	2,700	\$ 216.69	\$ 585,063		\$ 585,063
1.5	Quality Assurance and Change Management																							
	Sr. Design Manager		64	184	144	144	184	144	144	184	144	144	184	144	144	184	144	144	184	2,608	\$ 194.08	\$ 506,161		\$ 506,161
1.6	Cost Estimating																							
	Sr. Cost Estimating Professional			4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	64	\$ 219.27	\$ 14,033		\$ 14,033
	Cost Estimating Professional			16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	256	\$ 135.73	\$ 34,747		\$ 34,747
1.7	Communication and Community Outreach Plan																							
	Community Outreach SME																			1,040	\$ 219.27	\$ 228,041		
	Program Director																			520	\$ 289.86	\$ 150,726		
	Community Outreach Professional																			520	\$ 167.32	\$ 87,006		
1.8	Construction Phase Services																							
	Sr. Construction Manager				160	160	160	160	120	160	160	160	200	160	160	200	160	160	200	2,520	\$ 194.08	\$ 489,082		\$ 489,082
	Inspector - TBD (to supplement City inspectors)																			1,560	\$ 111.86	\$ 174,502		\$ 174,502
1.9	Business Services and Finance Management																							
	Business Services Manager		0	60	40	80	100	80	60	80	80	80	100	80	80	100	80	80	100	1,280	\$ 216.69	\$ 277,363		\$ 277,363
	Contract Manager																			112	\$ 219.27	\$ 24,558		\$ 24,558
	Project Accountant			24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	384	\$ 45.55	\$ 17,491		\$ 17,491
1.10	Procurement																							
	Business Services Manager		0	60	40	80	100	80	60	80	80	80	100	80	80	100	80	80	100	1,280	\$ 216.69	\$ 277,363		\$ 277,363
1.1.1	System Software Coordination																							
	IT Technician				32	32	40	32	32	40	32	32	40	32	32	40	32	32	40	520	\$ 135.73	\$ 70,580		\$ 70,580
	Portal Developer																			160	\$ 219.27	\$ 35,083		\$ 35,083
	Platform (PMP) SME																			64	\$ 219.27	\$ 14,033		\$ 14,033
1.1.2	GIS and Hydraulic Modeling Services																			744				\$ 228,026
	GIS Professional			100	80	80	100	80	60	80	80	80	100	80	80	100	80	80	100	1,360	\$ 135.73	\$ 184,593		\$ 184,593
	Engineer / Hydraulic Modeler			20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	320	\$ 135.73	\$ 43,434		\$ 43,434
1.1.3	Asset Management Services																							
	Asset Management Professional			200	160	160	200	160	30	40	40	40	50	40	40	50	40	40	50	1,340	\$ 201.17	\$ 269,568		\$ 269,568
	Sr. Asset Management Professional			200	160	160	200	160	120	160	160	160	200	160	160	200	160	160	200	2,720	\$ 219.27	\$ 596,414		\$ 596,414
	Conditional Assessment Professional			200	160	160	200	160	200	160	160	160	200	160	160	200	160	160	200	520	\$ 219.27	\$ 114,020		\$ 114,020
			284	1,648	1,800	1,944	2,372	2,020	1,444	1,832	2,020	1,944	2,372	2,020	1,944	2,372	2,020	1,944	2,372	33,096		\$ 6,267,510	\$ 304,375	\$ 6,571,885

Work Order 3 – Norwood Water Treatment Plant – Phase 1 Expansion

This work order covers design, permitting, estimating and Guaranteed Maximum Price (GMP) development for the Phase 1 expansion of the Norwood Water Treatment Plant (NWTP). As this project will provide critical and immediate plant updates and expansion, CH2M proposes to deliver this project as a Progressive Design-Build project.

In accordance with Agreement _____, CH2M HILL Engineers, Inc. (CH2M) (CONSULTANT) will provide the following Scope of Services.

Background

The City of North Miami Beach (City) has contracted with CH2M to provide program management and engineering services to implement its capital improvement program. This work order authorizes CH2M to perform engineering services described herein.

Since 2015, CH2M has worked with NMB Water to develop a Water and Wastewater Master Plan that includes numerous improvements to enhance operations and the long-term viability of the water supply, treatment, and distribution and wastewater collection facilities. The Master Plan identified the need for an immediate expansion of 6 million gallons per day (mgd) to the existing plant to provide additional capacity. The Master Plan estimates this project will cost approximately \$2.0 million. CH2M will provide a written explanation of scope variances resulting with an updated project estimate that exceeds the preliminary estimate by 20% or more.

The membrane process building was designed and constructed to provide room and existing infrastructure to add a fourth 3.0 mgd nanofiltration (NF) membrane treatment skid. The configuration of the NF system accommodates the addition of another NF feed pump and cartridge filter and extends the feed, concentrate, and clean-in-place piping to the future skid location. The feed piping is connected to the common NF feed header and the concentrate line is connected to the common NF concentrate header.

The configuration of the three, reverse osmosis (RO) membrane treatment trains can accommodate the installation of additional pressure vessels. Expanding each of the three skids would achieve a total increase of 1.5 mgd (0.5 mgd each). With the increase in permeate production, the RO membrane bypass flow will be increased. Installation of these pressure vessels will be accomplished in a phased approach to minimize the outage time for each skid.

Work associated with each task is described in further detail in the following sections of this document.

The project shall include engineering design, permitting services, bid phase services, and services during construction for the following components and tasks:

- Add fourth 3 mgd NF membrane skid.
- Addition of one NF feed pump and cartridge filter in open slots existing for each unit.
- Extend the feed, concentrate, and clean-in-place piping to the new skid location.
- Addition of RO membrane elements in available slot on existing membrane skids.

Scope of Services

Task 1 – Design Services

The project design work will be carried out using a phased design delivery approach to assure a logical and progressive completion of the design work. This will facilitate a phased approach for GMP development and construction. Each phase of design will include a specific list of work products and deliverables, which are identified in the individual sections. Design review workshops will be conducted with NMB Water, key individuals from the CH2M project team and others as needed. The design review workshops will be conducted at critical design milestones as identified in the following section.

Task 1.1 – Design Kick-Off Workshop

In preparation for the project kick-off, key members of the design team will visit the NWTP to gather information for design preparation. Attendees will include the project manager, design manager, and process engineer. CH2M will also contact the Florida Department of Health (DOH) Miami-Dade County to discuss permitting requirements. The CH2M attendees will include the project manager, design manager, process engineer, and operations staff member.

CH2M will prepare a brief memorandum summarizing equipment, regulatory requirements, and process control strategy. CH2M will conduct a one-day chartering workshop with key NMB Water and CH2M staff to kick off the project and review project definition.

Task 1.2 - Preliminary Design Report (30%)

CH2M will prepare a preliminary design report (PDR) to demonstrate compliance of the improvements with Florida DOH regulations. The PDR will be delivered in 2 stages, the first stage will provide the basis of design technical memorandum (BOD TM) and the second stage will be the schematic design report (SDR) and drawings. The BOD TM will provide conceptual design of the facilities and the SDR will develop the concepts into a more detailed report and drawings. The PDR task will include preliminary drawings which will provide sufficient information for NMB Water, CH2M, and agency review and design team coordination and review. The report will address capacity of improvements, design criteria, arrangement of new systems, materials of construction, and calculations to demonstrate that upstream, downstream, and ancillary processes can support the capacity expansion.

Upon completion of the PDR, the full scope of the design effort will be defined and CH2M will report to NMB Water.

This phase fully defines the project and the Scope of Work. The facilities will be defined on a preliminary basis. At this time a construction cost estimate will be developed to assist the NMB Water in establishing or fine tune their construction budget.

Task 1.3 - Contract Document Preparation (90% and 100%)

CH2M will prepare final contract drawings and specifications for development of a GMP. Key activities during this phase will include:

- Finalizing specification front-end documents.
- Preparing final construction drawings.
- Preparing final technical specifications.
- Preparing final calculations.
- Completing final quality control review and coordination review.

The estimated drawing count for the design is shown on Attachment 1. This count serves as the basis of the level of effort for the Design Development and Contract Document Preparation.

CH2M will conduct a single one-day workshop to conduct a final review of the 90% work products with NMB Water, key CH2M staff, and City personnel. Attendees will include the project manager, design manager, and process engineer. CH2M will prepare a meeting summary. CH2M meeting attendees will include the project manager, process engineer, design manager, and operations staff person. CH2M will modify the contract documents to reflect agreed upon final review comments from NMB Water, CH2M staff review, the City, and regulatory agencies. The final 100% bid documents will then be submitted to the NMB Water and the City.

Task 2 – Permitting Services

CH2M will provide permitting assistance to NMB Water as shown in the following. CH2M shall not be responsible for regulatory agency delays.

Task 2.1 – Florida Department of Health – Miami-Dade County Construction Permit

CH2M will prepare and submit supporting documentation, permit application, and drawings to DOH for modification of the NWTP. One response to a request for additional information (RAI) from DOH will be prepared. The permit application fee will be paid by NMB Water.

Task 2.2 – Basis of Design Report

For Florida Department of Health (FDOH) Permitting, a Basis of Design Technical Memorandum (BOD TM) will be prepared to address areas specifically required by FDOH to obtain a construction permit.

Task 2.3 – City of Miami Gardens Building Department Permit

CH2M will prepare documentation as required for a pre-application meeting with the City Building Department. During the pre-construction phase, two responses to RAIs, provided by the Building Department, will be prepared during the permit review process to assist with the construction contractor's permit application process. The actual permit will be paid for and obtained by the construction contractor. Since this project does not involve any site impacts, it has been assumed that the City of Miami Gardens Development Review process does not apply.

Task 3 – GMP Development and Schedule Preparation

Based on either the 90% Design or Final Construction documents, CH2M will develop a GMP for the Norwood Water Treatment Plant – Phase 1 Expansion and Upgrades project. This task will include the following activities:

- Solicitation, review and selection of subcontractors and suppliers. CH2M will provide bidding and/or negotiating services to solicit subcontractor(s) to perform the various construction activities and supplier(s) to supply equipment and materials. Once the bids are received, CH2M will complete a detailed bid evaluation to ensure that the bids encompass the full scope of services. CH2M will award the respective subcontracts and purchase orders to the lowest, acceptable bidder.
- Development of the GMP using the lowest acceptable bids as the basis.
- Development of a detailed project schedule from which the substantial and final completion dates will be derived.
- The proposed GMP including the project schedule will be submitted to NMB Water for review and formal authorization prior to proceeding with any further activities. Authorization shall be in the form of a Change Order to this Work Order.

Deliverables

1. GMP showing detailed breakout of subcontracted costs, Owners Furnished Equipment (OFE), general conditions and Engineering SDC's for NWB Water review and approval.

2. Detailed project schedule.

Meetings/Workshops

1. GMP and project schedule review meeting.

Task 4 – Constructability Review

During the design phase, CH2M will engage our Design-Build PM and Senior construction manager to provide constructability input and to ensure that the design can be constructed cost effectively. This will minimize the potential for changes during construction. The Construction Manager will be an integral part of the team and will attend team meetings, provide continuous input to the design, participate in site visits and cost estimating.

Task 5 – Services During Construction

CH2M will be responsible for all services during construction. The cost for these services will be included in the GMP. CH2M will be responsible for startup and commissioning of the plant. Final documents will be delivered to NMB Water including O&M manual, record drawings, and processed shop drawing and submittals for future reference. During final site inspection, equipment commissioning and start up, O&M personnel will be invited to participate. .

Assumptions

The following key assumptions were made in the compilation of this scope of work and the estimation of the level of effort:

1. All permit application fees are to be paid by NMB Water and are not included in this task order
2. Liquidated damages and bonds shall not apply to Work Order # 3 work under this scope.
3. The design will be based on the federal, state, and local codes and standards in effect on the effective date of the authorization to proceed.
4. Cost has been included for providing pre-purchase specifications of individual long lead equipment items. CH2M shall be responsible for the technical scope, terms, and conditions of equipment pre-purchased under this work order.
5. RO modifications will be limited to new pressure vessels and connections to existing skid pipes.
6. Additional modifications to the RO skids are not included in this scope, namely energy recovery device, feed pump modifications, concentrate valve modifications, and bypass systems.
7. Will add one NF skid. Modifications to existing NF skids are not included.
8. Existing pre-treatment, post-treatment, and concentrate disposal systems are assumed to have sufficient capacity to support this Phase 1 expansion.
9. No sampling or laboratory testing is included.
10. CH2M master technical specifications (Division 01 – 49) will be used as the basis for all specifications. The City will provide procurement and contracting requirements in Microsoft Word format for CH2M to edit for project specific requirements. The EJCDC Standard General Conditions and CH2M Supplementary Conditions will be used.
11. The drawings will follow CH2M CAE/CAD standards. Microstation will be used to develop the drawings.
12. The construction period is projected to be approximately 300 calendar days. CH2M will work to accelerate the schedule to the extent that City allows.
13. Files provided by the Owner are considered record drawings and, as such, can be relied upon to be accurate for design purposes.
14. A topographic survey and geotechnical exploration and report are not included in this budget.

15. Owner will provide drawings that showing accurate utilities locations.
16. No civil, structural, architectural, heating, ventilating, and air conditioning, or plumbing work required.
17. The I&C will be incorporated into the existing supervisory control and data acquisition (SCADA) system. No work will be required to upgrade the SCADA system. No modifications to existing instrumentation and control equipment or systems will be needed under this work order.
18. Software programming for the installation and operation of project components will be provided by the process and control instrumentation system supplier.
19. No study of or modifications to the existing primary power supply is required. If required, it will be completed under a separate work order.

Project Schedule

The project schedule is shown in Attachment 2. The schedule is based upon a progressive design build approach. CH2M understands the urgency for expeditious implementation of this project. CH2M will work to accelerate the schedule, including construction timing through the process.

Record drawings will be submitted to NMB Water 6 weeks after final completion. The draft Facilities Operations and Maintenance Manual Section(s) will be submitted 8 weeks prior to the substantial completion date; final manual section(s) will be submitted 4 weeks following receipt of review comments.

Compensation

CH2M proposes to perform the work described in Tasks 1, 2, 3 and 4 herein on a single lump sum basis. Task 5 (SDCs) will be presented as part of the GMP proposal for the construction phase. The estimated total engineering fee including labor and expenses associated with the task order is shown in Table 1. The rate schedule associated with the labor fee is shown in Attachment 3.

Table 1. Fee Estimate

Task Description	Labor Hours	Labor	Expenses/Subcontracts	Fee
Task 1 and 2, – Design, Permitting,	2,864	\$437,672.00	\$10,630.00	\$448,302.00
Task 3 – GMP	604	\$95,599.00	0	\$95,599.00
Task 4 - Constructability	220	\$36,740.00	\$3,000	\$39,740.00
Task 5 - SDCs	Will be included with GMP			
Work Order Totals	3,468	\$570,011.00	\$13,630.00	\$583,642.00

Attachment 2 Schedule

Work Order No. 3 - Norwood WTP Phase 1 Expansion
Project Schedule - Progressive Design-Build Delivery
North Miami Beach Water

	2017							2018								
	<i>June</i>	<i>July</i>	<i>August</i>	<i>September</i>	<i>October</i>	<i>November</i>	<i>December</i>	<i>January</i>	<i>February</i>	<i>March</i>	<i>April</i>	<i>May</i>	<i>June</i>	<i>July</i>	<i>August</i>	<i>September</i>
Chartering Meeting & Site Visit																
Preliminary Design Report																
FDOH Permit Application																
90% Complete Design																
Building Dept. Permit Liaison																
100% Complete Design																
GMP Development																
Construction Complete																
Start Up/Regulatory Closure/Admin Close-out																

Attachment 3
Rate Schedule

2017 Rate Schedule

Work Order 3 - Norwood WTP Phase 1 Expansion

NMB Water

		2017 Bill Rates	
Per Diem Class	Client Billing Titles	Home Office	Site
1	Vice President, Program Director, Program Manager, Engineer 9	\$ 289.86	\$ 289.86
2	CIP Manager, Senior Cost Estimator, Senior Manager, Senior Consultant, Engineer 8	\$ 227.11	\$ 221.70
3	Senior Design Manager / Registered Technical Experts, Business / Financial Manager, Contracts Manager, Engineer 7	\$ 219.27	\$ 216.69
4	Senior Construction Manager, Technology Lead, Senior Project Manager, Senior Cost Control / Scheduler, Engineer 6	\$ 201.17	\$ 194.08
5	Design Discipline Lead, Cost Control/ Scheduler, Document Management Professional, Engineer 5	\$ 167.32	\$ 161.42
6	Construction Manager, Technical Consultant II, Project Manager II, Cost Estimator, GIS Professional, Engineer 4	\$ 135.73	\$ 130.83
7	Construction Inspector, Technical Consultant I, Engineer 3	\$ 115.94	\$ 111.86
8	Engineer 2	\$ 97.59	\$ 94.15
9	Engineer 1	\$ 89.46	\$ 86.31
10	Engineer 0	\$ 68.22	\$ 65.81
11	Technician 5	\$ 121.57	\$ 117.23
12	Senior Technician/CAD Technician/Executive Administrative Assistant, Technician 4	\$ 99.06	\$ 95.57
13	Technician 3	\$ 78.03	\$ 75.09
14	Technician 2	\$ 69.37	\$ 66.93
15	Administrative Support Staff, Technician 1	\$ 57.26	\$ 56.14
19	Clerical, Document Control Clerk, Project Accountant	\$ 45.55	\$ 44.69

Work Order 4 – Norwood Water Treatment Plant – Phase 2 Expansion and Upgrades

This work order covers design, permitting, estimating and Guaranteed Maximum Price (GMP) development for the Phase 2 expansion of the Norwood Water Treatment Plant (NWTP). As this project will provide critical and immediate plant updates and expansion, CH2M proposes to deliver this project as a Progressive Design-Build project.

In accordance with Agreement _____, CH2M HILL Engineers, Inc. (CH2M) (CONSULTANT) will provide the following Scope of Services.

Background

The City of North Miami Beach (City) has contracted with CH2M to provide program management and engineering services to implement its capital improvement program. This work order authorizes CH2M to perform engineering services described herein.

Since 2015, CH2M has worked with NMB Water to develop a Water and Wastewater Master Plan that includes numerous improvements to enhance operations and the long-term viability of the water supply, treatment, and distribution and wastewater collection facilities. The Water and Wastewater Master Plan identified the need to expand NWTP capacity to meet current and projected demands. The current facility does not have adequate reliable (firm) capacity to meet current demands let alone projected demands. Additionally, multiple areas of deficiency were identified in the Master Plan that negatively impact plant reliability, customer delivery, and worker safety. These needs are addressed in the Phase 2 scope. The Master Plan estimates this project will cost approximately \$35.6 million. CH2M will provide a written explanation of scope variances resulting with an updated project estimate that exceeds the preliminary estimate by 20% or more.

During the Phase 2 expansion and upgrades project, a lime softening clarifier will be added to provide a total lime softening firm capacity of 10 million gallons per day (mgd). Additionally, a new membrane building will be constructed with one new nanofiltration (NF) membrane treatment skid and one new reverse osmosis (RO) membrane treatment skid. The new membrane building will be designed to accommodate future expansions beyond 2030.

The scope of design, permitting, bidding, and construction phase services under the Phase 2 improvements are based on the Master Plan and include the following:

- New Lime softening clarifier, 5 mgd.
- New membrane building with one new NF skid and one new RO skid with associated bypass blending, pre- and post-treatment facilities.
- Electrical system upgrades including backup emergency generator capacity and configuration to improve operational reliability of the entire NWTP facility.
- Backwash reclaimed system in location of lined pond.
- Replace filter clearwell top slab, piping, and 66 actuated valves.

- Demolition of existing backwash reclaim tanks.
- Replace existing sulfuric acid tank and caustic tanks with two smaller storage tanks for each chemical along with new canopies.
- One upper Floridan Well F-5 and two Biscayne aquifer wells 22 and 23 with new raw water transmission mains.
- Improvements recommended by the U.S. Environmental Protection Agency Groundwater Rule (disinfectant contact time) analysis.
- Centralized chemical feed building to house the fluoride, corrosion inhibitor, coagulant aid, liquid ammonium sulfate system, and maintenance shop.
- Fourth vertical turbine high service pump in available slot.
- New high service pump station in outdoor, canopy protected configuration.
- Demolition of the volatile organic compound removal system, Phase 1 facility.
- Implement improvements from lime softening reactor/clarifier performance evaluation.
- Consolidate the multiple wastewater pump stations to eliminate several of the older stations.
- Repair and modify the heating, ventilation, and air conditioning systems for the electrical rooms in the membrane plant building and the lime softening plant.
- Replace the membrane cleaning panels and repair or replace supervisory control and data acquisition Panel 2 in the RO Process Building.
- Expand odor control scrubber stripper cleaning system.

Scope of Services

Task 1 – Design Services

The project design work will be carried out using a phased design delivery approach to assure a logical and progressive completion of the design work. This will facilitate a phased approach for GMP development and construction. Each phase of design will include a specific list of work products and deliverables, which are identified in the individual sections. Design review workshops will be conducted with NMB Water, key individuals from the CH2M project team and others as needed. The design review workshops will be conducted at critical design milestones as identified in the following section.

Task 1.1 – Design Kick-Off Workshop

In preparation for the project kick-off, key members of the design team will visit the NWTP to gather information for design preparation. CH2M will also contact the Florida Department of Health (DOH) Miami-Dade County to discuss permitting requirements.

CH2M will conduct a 2-day chartering workshop with key NMB Water and CH2M Program staff to kick off the project and review project scope.

Task 1.2 - Preliminary Design Report (30%)

CH2M will prepare a preliminary design report (PDR) to demonstrate compliance of the improvements with Florida DOH regulations. The PDR will be delivered in 2 stages, the first stage will provide the basis of design technical memorandum (BOD TM) and the second stage will be the schematic design report (SDR) and drawings. The BOD TM will provide conceptual design of the facilities and the SDR will develop the concepts into a more detailed report and drawings. The PDR task will include preliminary

drawings which will provide sufficient information for agency review and design team coordination and review. The report will address capacity of improvements, design criteria, arrangement of new systems, materials of construction, and calculations to demonstrate that upstream, downstream, and ancillary processes can support the capacity expansion.

Areas of the work need further definition to enable development of the scope for design and construction. As part of the PDR, the following activities will be performed to define elements of the project:

Evaluate coordination of emergency generator backup power	Evaluate system for modification to enable single generators to serve both the lime and membrane plant equipment. Develop plan for repurposing temporary generator. Identify potential short-term or immediate improvements to enhance reliability. Incorporate findings into Phase 2 scope.
Evaluate membrane element service life and NF system optimization	NF and RO system membranes have been in service for approximately 8 years; testing should be conducted to establish the integrity of the membranes and develop an estimate of remaining useful life. Findings will determine whether membrane replacement will be included in the Phase 2 scope.
Conduct safety review	Conduct safety audit at NWTP to include recommendations for safety improvements. Incorporate findings into Phase 2 scope.
Evaluate old High Service Pumps (HSPs) WTP	Conduct evaluation of old HSPs and compare renewal and repair of the existing system to complete replacement with a new pumping station. Develop a conceptual level cost estimate of removal and replacement of existing station versus demolition and replacement with a new pump station. Incorporate findings into the Phase 2 scope. Design scope assumes a new pump station in an outdoor, canopy protected installation.
New water supply wells	Investigate locations of three new wells and assess routing of new raw water mains to interface with the existing raw water main piping network. Incorporate findings into Phase 2 scope.

CH2M will prepare a draft PDR for implementation into the Phase 2 final design. The emergency generator investigation will recommend short-term opportunities, if available, to enhance the reliability and flexibility of the existing system until longer-term upgrades can be implemented. A long term strategy will also be presented for future upgrade to the electrical system

CH2M will conduct a workshop with NMB Water and CH2M staff prior to the conclusion of this task. Final minutes from the workshop and the work products as defined above will be assembled in the PDR.

Upon completion of the PDR, the full scope of the design effort will be defined and CH2M will report to NMB Water.

For Florida Department of Health (FDOH) Permitting, the BOD TM will be customized to address areas specifically required by FDOH to obtain a construction permit.

This phase fully defines the project and the Scope of Work. The facilities will be defined on a preliminary basis. At this time a construction cost estimate will be developed to assist NMB Water in establishing the construction budget. CH2M will contract and manage the topographic survey and geotechnical investigation services required to complete the design. Geotechnical investigation includes borings for building foundation design and survey includes \$10,000 allowance for potholing for location of buried utilities.

Task 1.3 - Contract Document Preparation (90% and 100%)

CH2M will prepare final contract drawings and specifications for development of a GMP. Key activities during this phase will include:

- Finalizing specification front-end documents.
- Preparing final construction drawings.
- Preparing final technical specifications.
- Preparing final calculations.
- Completing final quality control review and coordination review.

The estimated drawing count for the design is shown on Attachment 1. This count serves as the basis of the level of effort for the Design Development and Contract Document Preparation.

CH2M will conduct a 2-day workshop to conduct a final review of the work products with NMB Water, CH2M staff, and City personnel. CH2M will prepare a meeting summary. CH2M will modify the contract documents to reflect agreed upon final review comments from NMB Water, the City, and regulatory agencies. The final bid documents will then be submitted to NMB Water and the City.

Task 2 – Permitting Services

CH2M will provide permitting assistance as shown below. CH2M will not be responsible for regulatory agency delays.

Task 2.1 – Florida Department of Health – Miami-Dade County Construction Permit

CH2M will prepare and submit PDR, supporting documentation, permit application, and drawings to DOH for modification of the NWTP. One response to a request for additional information (RAI) from DOH will be prepared. The permit application fee will be paid by NMB Water. The assumed permitting duration is 2 months.

Task 2.2 – City of Miami Gardens Development Review

CH2M will submit an application to the City for Development Review. Two meetings will be attended to address requests for additional information from the City. Revisions from the review process will be incorporated into the design. Unusual or unanticipated requirements from the City will be immediately reported to NMB Water along with impacts to the design and construction basis of design.

Task 2.3 – City of Miami Gardens Building Department Permit

CH2M will prepare documentation as required for a pre-application meeting with the City Building Department. During the pre-construction phase, two responses to RAIs, provided by the Building Department, will be prepared during the permit review process to assist with the construction contractor's permit application process. The actual permit will be paid for and obtained by the construction contractor.

Task 2.4 – South Florida Water Management District (SFWMD) Stormwater Management Permit

CH2M will prepare documentation and apply for a stormwater management permit from SFWMD for site modifications.

Task 3 – GMP Development and Schedule Preparation

Based on either the 90% Design or Final Construction documents, CH2M will develop a GMP for the Norwood Water Treatment Plant – Phase 2 Expansion and Upgrades project. This task will include the following activities:

- Solicitation, review and selection of subcontractors and suppliers. CH2M will provide bidding and/or negotiating services to solicit subcontractor(s) to perform the various construction activities and supplier(s) to supply equipment and materials. Once the bids are received, CH2M will complete a detailed bid evaluation to ensure that the bids encompass the full scope of services. CH2M will award the respective subcontracts and purchase orders to the lowest, acceptable bidder.
- Development of the GMP using the lowest acceptable bids as the basis.
- Development of a detailed project schedule from which the substantial and final completion dates will be derived.
- The proposed GMP including the project schedule will be submitted to NMB Water for review and formal authorization prior to proceeding with any further activities.

Deliverables

1. GMP showing detailed breakout of subcontracted costs, Owners Furnished Equipment (OFE), general conditions and Engineering SDC's for NWB Water review and approval.
2. Detailed project schedule for NMB Water approval.

Meetings/Workshops

1. GMP and project schedule review meeting.

Deliverables:

Task 4 – Constructability Review

During the design phase, CH2M will engage our Design-Build PM and Senior construction manager to provide constructability input and to ensure that the design can be constructed cost effectively. This will minimize the potential for changes during construction. The Construction Manager will be an integral part of the team and will attend team meetings, provide continuous input to the design, participate in site visits and cost estimating.

Task 5 – Services During Construction

CH2M will be responsible for all services during construction. The cost for these services will be included in the GMP. CH2M will be responsible for submittal review, providing responses to request for information (RFI), review of O&M, startup and commissioning of the plant. Final documents will be delivered to NMB water including O&M manual, record drawings, and processed shop drawing and submittals for future reference. During final site inspection, equipment commissioning and start up, O&M personnel will be invited to participate.

Assumptions

The following key assumptions were made in the compilation of this scope of work and the estimation of the level of effort:

1. All permit application fees are to be paid by NMB Water and are not included in this task order.
2. Liquidated damages and bonds shall not apply to Work Order # 4, Phase A work.
3. The design will be based on the federal, state, and local codes and standards in effect on the effective date of the authorization to proceed.
4. Cost has been included for providing pre-purchase specifications of individual long lead equipment items. No sampling or laboratory testing is included.

5. CH2M master technical specifications (Division 01 – 49) will be used as the basis for all specifications. The City will provide procurement and contracting requirements in Microsoft Word format for CH2M to edit for project specific requirements. The EJCDC Standard General Conditions and CH2M Supplementary Conditions will be used.
6. The drawings will follow CH2M CAE/CAD standards. Microstation will be used to develop the drawings.
7. The construction period is projected to be approximately 730 calendar days as specified in the contract documents.
8. Funding of the construction may be phased by City and will be contingent upon a separate financing initiative. This project cannot be fully funded from available utility reserves.
9. Files provided by the Owner are considered record drawings and, as such, can be relied upon to be accurate for design purposes.
10. Owner will provide drawings that showing accurate utilities locations.
11. The I&C will be incorporated into the existing supervisory control and data acquisition (SCADA) system. No work will be required to upgrade the SCADA system under this work order.

Project Schedule

The project schedule is shown in Attachment 2. CH2M understands the urgency for expeditious implementation of this project. CH2M will work to accelerate the schedule, including construction timing, to the extent that the City allows.

Record drawings will be submitted to NMB Water 6 weeks after Final Completion. The draft Facilities Operations and Maintenance Manual Section(s) will be submitted 8 weeks prior to the substantial completion date; final manual section(s) will be submitted 4 weeks following receipt of NMB Water comments.

Compensation

CH2M proposes to perform the work described herein up to and including the development of the GMP under a time-and-materials basis with budgets between the sub-tasks and expenses being interchangeable as needed. The estimated total engineering fee including labor and expenses associated with the task order is shown in Table 1. The associated rate schedule is shown on Attachment 3. CH2M proposes to perform the work described herein on a time and material basis with budgets between the subtasks and expenses being interchangeable as needed.

Table 1. Fee Estimate

Task Description	Labor Hours	Labor	Expenses/Subcontracts	Fee
Task 1 – Preliminary (30%) Design Services	2,186	\$344,436.00	\$50,858.00	\$395,294.00
Task 2 – 100% Design Drawings	19,351	\$2,574,963.00	\$170,000.00	\$2,744,963.00
Task 3 – Estimating & Guaranteed Maximum Price Development	1690	\$250,222.00	0	\$250,222.00
Task 4-Constructability Review	443	\$73,981	\$5,500	\$79,481
Task 5 - SDC	Will be included in GMP			

Table 1. Fee Estimate

Task Description	Labor Hours	Labor	Expenses/Subcontracts	Fee
Work Order Totals	23,670	\$3,243,602.00	\$226,358.00	\$3,469,960.00

Attachment 1
Design Drawing Sheet Count

General		
G-0	Cover	
G-1	Index to Drawings	
G-2	Abbreviations	
G-3	General legend	
G-4	Mechanical Notes	
G-5	Architectural Legend	
G-6	HVAC Legend	
G-7	Plumbing Legend	
G-8	Structural Notes	
G-9	Structural Notes	
G-10	Special Inspection Notes	
G-11	Special Inspection Notes	
G-12	I&C Notes	
G-13	Electrical Legends 1	
G-14	Electrical Legends 2	
G-15	Electrical Legends 3	
G-16	Electrical Legends 4	
G-17	Civil Notes	
G-18	Civil Notes	
G-19	Hydraulic Profile	
G-20	Hydraulic Profile 2	
G-21	Process Flow Diagram	
Total Sheets in this category		22.00

Demolition		
D-1	Backwash Tank demolition Plan	
D-2	Old High Service Pump Station Bldg demolition Plan	
D-3	Old High Service Pump Station Bldg demo Section	
D-4	Sulfuric Acid Tanks demolition Plan	
D-5	Sulfuric Acid Tanks demolition Section	
D-6	Caustic Tank demolition Plan	

Demolition		
D-7	Caustic Tank demolition Section	
D-8	Yard Pump Stations demolition Plan	
D-9	Yard Pump Stations demo Section	
D-10	VOC Removal System demolition Plan	
D-11	VOC Removal System demolition Section	
D-12	Emergency Generator demolition Plan	
D-13	Demolition Details 1	
D-14	Demolition Details 2	
D-15	Demolition Details 3	
D-16	Demolition Details 4	
D-17	Demolition Details 5	
D-18	Demolition Details 6	
Total Sheets in this category		18.00

Civil		
C-1	Existing Site Plan	
C-2	Proposed overall site plan Locations	
C-3	Existing Pond Section	
C-4	Stormwater Pond 1 Plan and Section	
C-5	Stormwater Pond 2 Plan and Section	
C-6	Enlarged Staking Plan 1	
C-7	Enlarged Staking Plan 2	
C-8	Enlarged Staking Plan 3	
C-9	Enlarged Staking Plan 4	
C-10	Enlarged Staking Plan 5	
C-11	Enlargened Grading Plan 1	
C-12	Enlargened Grading Plan 2	
C-13	Enlargened Grading Plan 3	
C-14	Enlargened Grading Plan 4	

Civil		
C-15	Enlargened Grading Plan 5	
C-16	Well Piping Plan	
C-17	Erosion Plan	
C-18	Erosion Details	
C-19	Standard Details	
C-20	Standard Details	
C-21	Standard Details	
Total Sheets in this category		21.00

Architectural		
A-1	Old High Service Pump Station Renovations	
A-2	Membranes Building Roof Plan	
A-3	Membranes Building First Floor Plan	
A-4	Membranes Building First Floor Enlarged Plan 1	
A-5	Membranes Building First Floor Enlarged Plan 2	
A-6	Membranes Building Sections	
A-7	Membranes Building Sections	
A-8	Membranes Building Elevations	
A-9	Chemical Building Roof Plan	
A-10	Chemical Building First Floor Plan	
A-11	Chemical Building Sections	
A-12	Chemical Building Elevations	
A-13	Maintenance Building Roof Plan	
A-14	Maintenance Building First Floor Plan	
A-15	Maintenance Building Sections	
A-16	Maintenance Building Sections	

Architectural		
A-17	Maintenance Building Elevations	
A-18	Generator Building Roof Plan	
A-19	Generator Building First Floor Plan	
A-20	Generator Building Sections	
A-21	Generator Building Elevations	
A-22	Architectural Standard Details 1	
A-23	Architectural Standard Details 2	
A-24	Architectural Standard Details 3	
A-25	Architectural Standard Details 4	
Total Sheets in this category		25.00

Structural		
S-1	Old High Service Pump Station Building Renovations	
S-2	Membranes Building Roof Plan	
S-3	Membranes Building First Floor Plan	
S-4	Membranes Building First Floor Enlarged Plan 1	
S-5	Membranes Building First Floor Enlarged Plan 2	
S-6	Membranes Building Sections	
S-7	Membranes Building Sections	
S-8	Membranes Building Sections	
S-9	Chemical Building Roof Plan	
S-10	Chemical Building First Floor Plan	
S-11	Chemical Building Sections	
S-12	Chemical Building Sections	
S-13	Maintenance Building Roof Plan	
S-14	Maintenance Building First Floor Plan	
S-15	Maintenance Building Sections	

Structural		
S-16	Maintenance Building Sections	
S-17	Generator Building Roof Plan	
S-18	Generator Building First Floor Plan	
S-19	Generator Building Sections	
S-20	Generator Building Sections	
S-21	Lime Softening Clarifier Plan	
S-22	Lime Softening Clarifier Section	
S-23	Miscellaneous Steel Clarifier	
S-24	New Backwash Tanks Plan	
S-25	New Backwash Tanks Section	
S-26	Filter Clear Well Top Slab Plan and Section	
S-27	Sulfuric Acid / Caustic Area Plan	
S-28	Sulfuric Acid / Caustic Area Section	
S-29	Well Heads Plan and Section	
S-30	Yard Pump Station Plan	
S-31	Yard Pump Station Section	
S-32	Odor Control Cleaning Plan and Section	
S-33	Miscellaneous Steel Details	
S-34	Miscellaneous Steel Details	
S-35	Structural Standard Details	
S-36	Structural Standard Details	
S-37	Structural Standard Details	
S-38	Structural Standard Details	
Total Sheets in this category		38.00

Process Mechanical		
M-1	Old High Service Pump Station Overall Plan	
M-2	Old High Service Pump Station Enlarged Plan	
M-3	Old High Service Pump Station Enlarged Plan	

Process Mechanical		
M-4	Old High Service Pump Station Sections	
M-5	Old High Service Pump Station Sections	
M-6	Membranes Building Overall Plan	
M-7	Membranes Building NF Enlarged Plan	
M-8	Membranes Building RO Enlarged Plan	
M-9	Membranes Building Chemical Cleaning System Enlarged Plan	
M-10	Membranes Pre-treatment System Enlarged Plan	
M-11	Membranes Building NF Sections	
M-12	Membranes Building RO Sections	
M-13	Membranes Building Chemical Systems Sections	
M-14	Membranes Building Pre-treatment Sections	
M-15	Membranes Building Isometric	
M-16	Membranes Building Isometric	
M-17	Chemical Building Overall Plan	
M-18	Chemical Building Enlarged Plan 1	
M-19	Chemical Building Enlarged Plan 2	
M-20	Chemical Building Flouride Pump System Sections and Isometrics	
M-21	Chemical Building Corrosion Inhibitor Pump System Sections and Isometrics	
M-22	Chemical Building Coagulant Aid Pump System Sections and Isometric	
M-23	Chemical Building Ammonium Sulfate Pump System Section and Isometric	

Process Mechanical		
M-24	Chemical Building Flocculation Aid System Section and Isometric	
M-25	Chemical Tank Area Overall Plan	
M-26	Chemical Tank Area Enlarged Plan	
M-27	Chemical Tank Area Enlarged Plan	
M-28	Chemical Tank Area Sections	
M-29	Chemical Tank Area Sections	
M-30	Lime Softening Clarifier Plan	
M-31	Lime Softening Clarifier Section	
M-32	Lime Softening Clarifier Sludge Pumps Plan and Section	
M-33	New Backwash Tanks Plan	
M-34	New Backwash Tanks Section	
M-35	Filter Clear Well Piping and Valves Plan	
M-36	Filter Clear Well Piping and Valves Plan	
M-37	Filter Clear Well Piping and Valves Section	
M-38	Filter Clear Well Piping and Valves Section	
M-39	Sulfuric Acid Tank Plan	
M-40	Sulfuric Acid Tank Section	
M-41	Caustic Tank Plan	
M-42	Caustic Tank Section	
M-43	Typical Well Section	
M-44	Floridan F-5 Well Head Plan and Section	
M-45	Biscayne Well 15 Well Head Plan and Section	
M-46	Biscayne Well 18 Well Head Plan and Section	
M-47	Disinfection Contact Piping Plan	
M-48	Disinfection Contact Piping Section	

Process Mechanical		
M-49	New High Service 4th Pump Installation Plan and Section	
M-50	Yard Pump Station Plan	
M-51	Yard Pump Station Section	
M-52	Odor Control Cleaning Plan and Section	
M-53	Mechanical Standard Details	
M-54	Mechanical Standard Details	
M-55	Mechanical Standard Details	
M-56	Mechanical Standard Details	
Total Sheets in this category		56.00

Yard/Site Piping		
Y-1	Overall Yard Piping Plan	
Y-2	Yard Piping 1	
Y-3	Yard Piping 2	
Y-4	Yard Piping 3	
Y-5	Yard Piping 4	
Y-6	Yard Piping 5	
Y-7	Miscellaneous Details	
Y-8	Miscellaneous Details	
Y-9	Miscellaneous Details	
Total Sheets in this category		9.00

HVAC		
HV-1	Existing Membranes Building Plan Office 1st floor	
HV-2	Existing Membranes Building Plan Office 2nd floor	
HV-3	Existing Membranes Building Plan Membranes area	
HV-4	Existing Membranes Building Section Office 1st floor	
HV-5	Existing Membranes Building Section Office 2nd floor	
HV-6	Existing Membranes Building Section Membranes area	

HVAC		
HV-7	Operations Area Plan	
HV-8	Operations Area Section	
HV-9	Old High Service Pump Station HVAC Plan	
HV-10	New High Service Pump Station Electrical Room HVAC Plan	
HV-11	Electrical Maintenance Building HVAC Plan	
HV-12	New Membranes Bldg HVAC Overall Plan	
HV-13	New Membranes Bldg HVAC Enlarged Plan	
HV-14	New Membranes Bldg HVAC Sections	
HV-15	Chemical Building HVAC Plan	
HV-16	Maintenace Bilding Plan	
HV-17	Generator Building HVAC Plan	
HV-18	Schedules	
HV-19	Schedules	
HV-20	Control Sheets	
HV-21	Control Sheets	
HV-22	Control Sheets	
HV-23	Standard Details	
HV-24	Standard Details	
Total Sheets in this category		24.00

Plumbing		
P-1	Old High Service Pump Station Renovations Plan and Section	
P-2	New Membrane Building Plan	
P-3	New Membrane Building Roof Drain and Riser	
P-4	Chemical Buildign Plan and Section	
P-5	Maintenance Building Plan	
P-6	Maintenance Building Roof Drain and Riser	

Plumbing		
P-7	Generator Building Plan and Section	
P-8	Standard Details	
P-9	Standard Details	
FP-1	New Membrane Building Floor Plan	
FP-2	New Membrane Building Riser Diagram	
FP-3	Chemical Building Floor Plan	
FP-4	Chemical Building Riser Diagram	
FP-5	Maintenance Building Floor Plan	
FP-6	Maintenance Building Riser Diagram	
FP-7	Standard Details	
Total Sheets in this category		16.00

Electrical		
E-1	Overall Site Plan	
E-2	Site Plan 1	
E-3	Site Plan 2	
E-4	Site Plan 3	
E-5	Site Plan 4	
E-6	Site Plan 5	
E-7	Old High Service Pump Station Overall Plan	
E-8	Old High Service Pump Station Electrical Room Plan	
E-9	Membranes Building NF Enlarged Plan	
E-10	Membranes Building RO Enlarged Plan	
E-11	Membranes Building Chemical Cleaning System and Pre-Treatment Enlarged Plan	
E-12	Membranes Pre-treatment System Electrical Room Plan	
E-13	Membrane Building Lighting Plan	

Electrical		
E-14	Chemical Building Overall Plan	
E-15	Chemical Tank Area Overall Plan	
E-16	Chemical Building Lighting Plan	
E-17	Lime Softening Clarifier Plan	
E-18	New Backwash Tanks Plan	
E-19	Filter Clear Well Piping and Valves Plan	
E-20	Filter Clear Well Piping and Valves Plan	
E-21	Sulfuric Acid and Caustic Tanks Plan	
E-22	Well Heads Plan and Section	
E-23	Disinfection Contact Piping Plan	
E-24	New High Service 4th Pump Installation Plan and Section	
E-25	Yard Pump Station Plan	
E-26	Odor Control Cleaning Plan	
E-27	Generator Plan	
E-28	Generator Lighting Plan	
E-29	Single Line Diagram 1	
E-30	Single Line Diagram 2	
E-31	Single Line Diagram 3	
E-32	Single Line Diagram 4	
E-33	Motor Control Diagram 1	
E-34	Motor Control Diagram 2	
E-35	Motor Control Diagram 3	
E-36	Motor Control Diagram 4	
E-37	Motor Control Diagram 5	
E-38	MCC Elevation 1	
E-39	MCC Elevation 2	
E-40	Panel Board Schedule 1	
E-41	Panel Board Schedule 2	
E-42	Panel Board Schedule 3	
E-43	Panel Board Schedule 4	
E-44	Riser Diagram 1	

Electrical		
E-45	Riser Diagram 2	
E-46	Riser Diagram 3	
E-47	Ductbank Schedules	
E-48	Standard Details	
E-49	Standard Details	
E-50	Standard Details	
E-51	Standard Details	
Total Sheets in this category		51.00

I&C		
I-1	Lime Softening Clarifier P&ID	
I-2	NF P&ID	
I-3	RO P&ID	
I-4	NF Feed Pumps P&ID	
I-5	RO Feed Pumps P&ID	
I-6	Chemical Cleaning P&ID	
I-7	Pre-Treatment P&ID	
I-8	Generator P&ID	
I-9	Backwash Reclaim Tanks P&ID	
I-10	Filter Clearwell Piping P&ID 1	
I-11	Filter Clearwell Piping P&ID 2	
I-12	Sulfuric Acid Tanks P&ID	
I-13	Caustic Tanks P&ID	
I-14	Well Heads P&ID	
I-15	Chlorine Contact Time Piping P&ID	
I-16	New High Service Pump Station 4th Pump P&ID	
I-17	Old High Service Pump Station P&ID	
I-18	Chemical Systems P&ID 1	
I-19	Chemical Systems P&ID 2	
I-20	Chemical Systems P&ID 3	
I-21	Yard Pump Station P&ID	

I&C		
I-22	Miscellaneous Panels Upgrades	
I-23	Control Block Diagram 1	
I-24	Control Block Diagram 2	
I-25	Control Block Diagram 3	
I-26	Standard Details	
I-27	Standard Details	
I-28	Standard Details	
I-29	Standard Details	
Total Sheets in this category		29.00
Total Drawings		309.00

Attachment 2
Project Schedule

Attachment 3 Rate Schedule

		2017 Bill Rates	
Per Diem Class	Client Billing Titles	Home Office	Site
1	Vice President, Program Director, Program Manager, Engineer 9	\$ 289.86	\$ 289.86
2	CIP Manager, Senior Cost Estimator, Senior Manager, Senior Consultant, Engineer 8	\$ 227.11	\$ 221.70
3	Senior Design Manager / Registered Technical Experts, Business / Financial Manager, Contracts Manager, Engineer 7	\$ 219.27	\$ 216.69
4	Senior Construction Manager, Technology Lead, Senior Project Manager, Senior Cost Control / Scheduler, Engineer 6	\$ 201.17	\$ 194.08
5	Design Discipline Lead, Cost Control/ Scheduler, Document Management Professional, Engineer 5	\$ 167.32	\$ 161.42
6	Construction Manager, Technical Consultant II, Project Manager II, Cost Estimator, GIS Professional, Engineer 4	\$ 135.73	\$ 130.83
7	Construction Inspector, Technical Consultant I, Engineer 3	\$ 115.94	\$ 111.86
8	Engineer 2	\$ 97.59	\$ 94.15
9	Engineer 1	\$ 89.46	\$ 86.31
10	Engineer 0	\$ 68.22	\$ 65.81
11	Technician 5	\$ 121.57	\$ 117.23
12	Senior Technician/CAD Technician/Executive Administrative Assistant, Technician 4	\$ 99.06	\$ 95.57
13	Technician 3	\$ 78.03	\$ 75.09
14	Technician 2	\$ 69.37	\$ 66.93
15	Administrative Support Staff, Technician 1	\$ 57.26	\$ 56.14
19	Clerical, Document Control Clerk, Project Accountant	\$ 45.55	\$ 44.69



Work Order 5 -Security System Improvements

This work order covers design, permitting, estimating and procurement of a Guaranteed Maximum Price (GMP) development for the Security System Improvements. As this project, will provide critical and immediate benefits, CH2M proposes to deliver this project as a Progressive Design-Build project. In this delivery method, CH2M will provide a GMP at any design milestone mutually agreeable to both parties. The GMP will establish the upper price limit for the construction phase of the project to be awarded under a separate work order.

In accordance with Agreement _____, CH2M HILL Engineers, Inc. (CH2M) will provide the following Scope of Services.

Background

NMB Water is in the process of performing upgrades to their water treatment plant and utility facilities. CH2M's Integrated Security and Emergency Preparedness team who will be working on this project is a collection of physical and cyber security design professionals with decades of security experience serving some of the most mission-critical water utilities in the nation, (as well as many other critical infrastructure within the United States). It is estimated that the construction cost for this project will be \$2M to \$3M. This cost estimate was developed by others in a previous phase and has not been verified by CH2M.

Scope of Work

This work order will provide security evaluation, design and construction services for the implementation of the security system upgrades.

Facilities included in the design are the Norwood-Oeffler Water Treatment Plant, the Operations Center, the Public Service (administration) building, the Wastewater compound, the Customer Service/Cashier area on the first floor of City Hall, and an estimated 20 remote well sites.

Included in the security design improvements are fencing improvements and perimeter hardening, security video improvements, new video cameras, new digital video recording system, video server, perimeter intrusion detection, gate/door access control system and card readers, and other improvements for deterrence, detection, and assessment of security threats.

Planning Approach

CH2M will conduct on-site visits to NMB Water facilities and evaluate security vulnerabilities and deficiencies. Information regarding past security events, existing security systems, current security policies and procedures will be requested of NMB Water prior to beginning the on-site visits.

Following the on-site visits, CH2M will prepare a risk-based analysis under this scope of work to serve as a resource and starting point for the security design. CH2M will use the principles of the ASME/AWWA

J100 Risk Analysis and Management for Critical Asset Protection methodology (RAMCAP® J100) as the basis for the assessment of NMB's water system, at a level of detail that is reflective of the complexity of the system and NMB Water's need for accessible, practical risk results. J100 is a comprehensive approach that enables the estimation of relative risks across multiple assets while considering both malevolent and natural hazards, and can be customized/scaled down as needed. The classic risk equation $Risk (R) = C (Consequence) * V (Vulnerability) * T (Threat Likelihood)$ is used by many industry sectors, as it most suitably identifies numeric risk values in units of cost (annual dollars).

Upon the conclusion of the risk analysis, a series of conceptual security/risk reduction recommendations will be presented which will formulate the basis of the security design.

As part of this approach, CH2M intends to subcontract the services of SiteSecure assist with the initial investigation and evaluation of the various facilities. CH2M also intends to subcontract the services of SiteSecure to assist with detailed design thereby taking advantage of their intimate knowledge of the Facilities and the previously work performed. Subcontracting with SiteSecure is subject to successfully meeting CH2M prequalification requirements.

Design Approach

The security system design services will be completed using CH2M's design delivery process that is based upon a phased approach to ensure the logical, progressive and coordinated completion of the design services. A preliminary design workshop will be held with the City to review design concepts and establish the basis of the design. Following the workshop, a Preliminary Design (50% design) will be completed, which consists of a 50% design package and a review meeting with the City. Following the 50% design completion, future phases include a 90% design phase and 100% final design deliverable package.

Task 1 – Kickoff Meeting and Information Request

Task 1.1 – Kickoff Meeting

CH2M will conduct a two-hour kickoff meeting to confirm project scope, schedule, budget, and deliverables, as well as to initiate planning for on-site activities. Kickoff meeting discussions will include:

- Confirm this scope of work and its key assumptions and deliverables.
- Discuss information needed for the project (Task 1.2).
- Develop communications protocols.
- Identify and understand each team member's project roles and responsibilities.
- Discuss and establish secure methods of gathering existing documents.
- Discuss how to protect the work performed for this project from any public record act information requests (PRAs), for example, by classifying deliverables as PCI (Protected Critical Information).
- Discuss overall project schedule and timing, sequence, and schedule for site visits and other project milestones. Develop an overall milestone schedule.
- Discuss project deliverables.

Task 1.2 – Information Request

CH2M will obtain any relevant information from NMB Water to understand and document the baseline parameters of City facilities as they relate to security. Anticipated information to be reviewed includes:

- Facility site plans
- Security incident data

- Past security and vulnerability assessments completed
- Security policies and procedures
- Information on existing security systems

Deliverables:

- Information request form
- Draft and final kickoff meeting minutes.

Assumptions:

- Assumed to be 2 hours in duration; attended in person by local CH2M Project Manager and Contract Manager, and by up to 3 technical CH2M team staff via teleconference. CH2M will review comments provided by NMB Water and will address these comments in the kickoff meeting minutes.
- Local CH2M Project Manager will travel to NMB Water for kickoff meeting.

Task 1.3 – Site Visits - Facility Inspections

CH2M will conduct on-site information-gathering sessions of NMB Water’s existing security practices, policies, and systems and evaluate the effectiveness of these. CH2M will evaluate NMB Water’s existing security systems for possible compatibility with systems currently available in the security industry. The deliverables for this task will contribute to the evaluation of NMB Water’s existing security practices, policies, and systems as compared to the current state of the practice in the water industry, and their usefulness for incorporation into new security methods. System size, capacity requirements, and redundancy issues will be addressed within the report.

CH2M will organize the necessary site visit and develop the facility inspection schedule together with NMB Water. Site visits consist of 4 days allocated across all facility sites, with 3 CH2M staff participating in all site visits.

Deliverables:

- The results of this will be documented in the Security System Study report, to be delivered within Task 5 (Project Management and Reporting).

Assumption:

- NMB physical security site visits with 2 CH2M staff from CH2M’s Portland, Oregon office for 3 business days.

Task 1.4 – Develop Security System Study

CH2M will develop a security system study that will address NMB Water’s needs to protect its personnel and facilities/assets from potential physical damage, natural hazards, chemical and biological threats. It is envisioned that the assessment for the water system will be based on the principles of the J100 methodology noted earlier in this scope of work, but be customized and made more practical/accessible for its intended use as the basis of development of the security system study desired by NMB Water

Deliverables:

- Security System Study Report: an initial draft, a draft final, and a final. The draft and draft final report will be delivered electronically only; CH2M will provide up hard copies of the final report. This scope and level of effort assumes that NMB Water will provide a point person for consolidation of NMB Water team comments such that a single set of reconciled comments is provided to CH2M on the draft and draft final versions of the report.

Assumptions:

- The Security System Study will be the property of NMB Water’s to be used in whatever manner NMB Water determines to be in its best interest. NMB Water plans to update this study periodically.
- No travel

Task 2 – Security Design Criteria and Preliminary Design

The preliminary design task consists of development of a security design criteria and 50% specifications and drawings for the City’s review.

Task 2.1 Security Design Criteria

The task develops a security design criteria to be used during subsequent design phases of this project, and for potential future use by the City on other security upgrade projects. It will identify a baseline criteria for security hardware and technology by type, the locations used and the performance characteristics at NMB Water facilities. The criteria will identify required layers of security organized by facility type. Envisioned facility type groupings include; water treatment plants, water storage tanks, water booster stations, and wellfield facilities. The criteria will identify required security protection and the level of performance or standards for applying the security technology. For example, a requirement may indicate perimeter fencing for all water storage tanks, and the specific security criteria characteristics of the fencing would be indicated such as 10-foot chain link fencing, with 9 gauge diamond wire mesh, etc. National guidance documents, such as the ASCE/AWWA “Guidelines for the Physical Security of Water Utilities¹” will be referenced within the design guideline, as applicable. The draft security design criteria will be submitted for NMB Water review approximately 2 weeks prior to the design criteria review and technology workshop (Task 2.2)

Task 2.2 Design Criteria Review Workshop

A design criteria review workshop (2-hour duration, total) will be held with NMB Water. CH2M will provide the meeting agenda, meeting summary and action items resulting from this meeting. During the security criteria workshop (estimated at 2 hours), NMB Water will have the opportunity to review and provide comments on the previously submitted security design criteria. Following the workshop, CH2M will incorporate NMB Water comments and provide an updated security design criteria document within 3 weeks following the workshop. The security design criteria will be considered finalized after incorporating and adjudicating NMB Water’s comments.

Task 2.3 Preliminary Design

The preliminary security design tasks include hardening and barriers (Civil engineering), electronic security, and Electrical design.

- **Hardening and Barriers**

This subtask designs passive ‘hardening’ elements to the facilities. This may include perimeter fencing enhancements or fencing modifications, metal grills, vehicle barriers or bollards or other non-electrified hardening elements onto plans. Design elements include; specifications, site plans and details.

- **Electronic Security**

The subtask designs the electronic security elements of the project, including, card reader units, video surveillance, door alarms, perimeter intrusion detection, etc. Elements of the design are described below:

Security Network - The design includes the applicable security network engineering required to support the security network distribution within a facility, including evaluation for reuse of the

¹ American Society of Civil Engineers, American Water Works Association, Water Environment Federation, “Guidelines for the Physical Security of Water Utilities”, December, 2006.

existing hardware and/or the addition of new security Ethernet network switches, fiber optic patch panels, fiber distribution units, and video recording servers or hardware. The location of new enclosure(s) or network rack units will be added in the design, as appropriate. CH2M will prepare a preliminary layout of the new network rack(s), and show location of network rack(s) on a plan drawing. An overall security network diagram, per site, will be developed, indicating the security network topology and the connected devices. CH2M will work closely with NMB Water staff to assign IP addresses for new security equipment, coordinate a review with IT review staff. The configuration requirements for access control, video recording and access gate controllers will be identified and specified within the security specifications during this task. One aspect that will require further discussion with NMB Water is the development of the security network communications design between sites. Because of the potential challenges with bandwidth needs, potential latency issues and line of sight limitations, additional information and discussion will be helpful to determine the extent of existing and potential future security network communications between sites.

Security Cabling - The design includes the necessary wiring and cabling to security hardware and components and the conduit and raceway design supporting the installation. Design includes new fiber optic cable as needed. Cable schedules and conduit/raceway diagrams will be developed during the design.

Security Layout - The design of the layout and mounting of security hardware to ensure appropriate performance and usability of the system will be developed. Consideration will be given during layout design to future expansion, maintenance and servicing of security equipment, where appropriate.

- **Electrical Design**

This subtask develops the electrical design to support the security upgrades, prepare lighting and power plans; power riser diagrams, panel boards and lighting fixture schedules, specifications, and drawings. Tasks include:

Consider existing lighting and add new lighting as required at facilities. Evaluate backup power (UPS power, battery, and emergency generator) distribution and design modifications to security components. Design backup power scheme for all security devices, network switches, firewalls, fiber optic communication modules, modems, thin clients, security system server, security system monitors, 24VDC power supplies, etc. For UPS units, evaluate whether standalone units are needed or if existing UPS infrastructure is adequate. Evaluate grounding needs and lightning protection as required. Develop design for camera poles and underground conduits.

Task 2.4 Perform 50% Design Review Meeting

A 50% design phase review meeting will be held with NMB Water. CH2M will provide the meeting agenda, meeting summary and action items resulting from this meeting. The design requirements and criteria will be finalized after receipt of the NMB Water's comments at the 50% review meeting. The design will be considered frozen for the remainder of the design phase and any additional NMB Water changes received beyond this meeting will be considered for mutual review as a change to the scope and fee.

Deliverables:

- Preliminary and final security design criteria document.
- Meeting notes from design criteria workshop meeting.
- Preliminary design documentation (50% design level) package including specifications or data sheets for material, installation, and contract drawings. Six (6) sets of specification documents and 11" X 17" drawings will be provided. The 50% drawing set will include preliminary versions of all drawings; legend, site plans, building plans and details.
- Meeting notes from 50% review meeting

Task 2.5 Constructability Review

During the design phase, CH2M and SiteSecure will engage the appropriate staff to provide constructability input and to ensure that the design can be constructed cost effectively. This will minimize the potential for changes during construction. The Construction Manager will be an integral part of the team and will attend team meetings, provide continuous input to the design, participate in site visits and cost estimating.

Task 3 – 90% Design

CH2M will provide 90% design phase Drawings and Specifications for NMB Water review. This set of documents will include the incorporation of the comments from the 50% Review Meeting.

Task 3.1 Development of 90% Design Documentation

During the 90% design process, CH2M will develop Division 0 and Division 1 contract general and special condition documents. CH2M will merge these documents with the technical specifications being prepared by CH2M to produce a draft construction specification package for review by NMB Water with the 90% design submittal.

NMB Water will provide a modifiable copy, in MS Word or equivalent, of procurement documents for CH2M's use. The procurement document will be modified to address the specific requirement of this procurement activity. The general conditions Division 0 and Division 1 specifications will be modified by NMB Water, as necessary for the detail specific to this project.

The procurement documents will contain the proposal and contractual documents related to the procurement of this project. Specific sections will contain the following information:

- a) Bidding Requirements, including Request for Acquisition, Instruction to Proposers, Proposal Form, Florida Proposal Bond, and Proposers Qualifications.
- b) Contract Forms, including Agreement Form and Florida Performance and Payment Bond.
- c) Conditions of the Contract, including NMB Water supplied General Conditions.

Task 3.2 Perform 90% Design Review Meeting

A 90% design phase review meeting will be held with NMB Water. CH2M will provide the meeting agenda, meeting summary and action items resulting from this meeting.

Deliverable:

- 90% design documentation package including draft Division 0, Division 1, and CH2M technical specifications or data sheets for material, installation, and contract drawings. Six (6) sets of specification documents and 11" X 17" drawings will be provided.

Task 4 Final Design

CH2M will provide Final Construction Drawings and Specifications for this project. This set of documents will incorporate the comments from the 90% Review Meeting as well as any constructability comments. Final design documents will include specifications or data sheets for material, installation, and contract drawings. Specifications will be prepared in conformance with the sixteen-division format of the Construction Specifications Institute (CSI).

Deliverable:

- Final construction package including specifications or data sheets for material, installation, and contract drawings. Six (6) sets of specification documents, six (6) sets of 11" X 17" drawings, and one electronic version of these documents.

Task 5 GMP Development and Schedule Preparation

This work order assumes that the GMP will be based on 90% Design documents, however, the GMP can be developed at an earlier design milestone if shorter schedule is key driver. It should be noted that if the GMP is developed at a later design milestone (when the design is more complete) this results in better cost certainty and less contingency. This task will include the following activities:

- Solicitation, review and selection of subcontractors and suppliers. CH2M will prequalify and obtain a price proposal from SiteSecure to supply and construct the security system at all facilities. CH2M will perform due diligence to ensure that the NMB Water is receiving a price that offers best value. If SiteSecure proposal does not represent the best value for the City, CH2M will solicit competitive bids from other firms.
- Development of the GMP using SiteSecure proposal as the basis.
- Development of a detailed project schedule from which the substantial and final completion dates will be derived.
- The proposed GMP including the project schedule will be submitted to NMB Water for review and formal authorization prior to proceeding with any further activities. Authorization shall be in the form of a Change Order to this Work Order.

Deliverables

1. GMP showing detailed breakout of subcontracted costs, Owners Furnished Equipment (OFE), general conditions and Engineering SDC's for NMB Water review and approval.
2. Detailed project schedule for NMB Water approval.
3. Work Order 5 – Phase B document for NMB Water approval.

Meetings/Workshops

1. GMP and project schedule review meeting.

Task 6 – Engineering Services during Construction

The cost for these services will be included in the GMP. CH2M will be responsible for submittal reviews, providing responses for Request for Information (RFI), O&M reviews, startup and commissioning of the security system. Final documents will be delivered to NMB water including O&M manual, record drawings, and processed shop drawing and submittals for future reference. During final site inspection, equipment commissioning and start up, O&M personnel will be invited to participate.

General Project Assumptions

General

1. SiteSecure if suitably prequalified will be a subcontractor to CH2M providing engineering and construction services.
2. The design will be based on the federal, state, and local codes and standards in effect at the start of the project. Any changes in these codes may necessitate a change in scope.
3. NMB Water shall provide Front end specifications (Division 0 & General Conditions) to be used for this project.

4. The drawings will follow CH2M CAD standards, using AutoCAD. It is assumed that Revit will not be used. CH2M master specifications will be used as the basis for all specifications, including CH2M standard Division 1 Documents.
5. With the exception of the final review, the project team will not stop during formal reviews of submittals.
6. NMB Water will provide drawings and any other available information in the NMB Water possession; however, such drawings and other documents may not be relied upon to be accurate for design purposes. NMB Water will provide a CAD drawing basis for each facility, depicting primary site elements, to which CH2M will add new content.
7. Network security and segmentation design are not in the scope of this project, other than the physical security of the security network.
8. Scope does not include security improvements for future facilities or future process area modifications to existing facilities.

Permitting

1. No permitting services or fees are included in this scope of work. Permitting services, if required, will be included in the procurement /construction services phase of work.
2. The City will be responsible for payment of all permit application fees

Demolition

1. No salvaging or relocation of materials and equipment is required, (with the possible exception of reuse of digital video camera equipment, where appropriate and practical). The City will provide available drawings of these facilities for use as reference drawings in the construction documents. Annotated photographs will be used in the drawings to convey demolition details.
2. CH2M has not included costs for hazardous materials survey, removal, or inspection of existing conditions.

Pre-Construction Phase Schedule

This proposal will cover services and activities to be delivered through December 31, 2018. A detailed project work plan will be developed in conjunction with the NMB Water’s scheduling requirements. CH2M will commence work within 3 weeks of receiving a written notice to proceed with the project. The anticipated schedule shown below is based on the number of weeks after the formal issuance of the notice to proceed by the City. The estimated durations will be finalized based on actual notice to proceed date and adjusted based on detail scheduling requirements with the City:

Project Kick-Off Meeting and Site Visits	5 weeks
50% Design Submittal	20 weeks
50% Design Review Meeting	24 weeks
90% Design Submittal	28 weeks
90% Design Review Meeting	32 weeks
Final Construction Documents Submittal	36 weeks
GMP Development	12 weeks

Compensation

This task order will be executed as time and materials for labor and expenses. There is no expected material procurement under this task order.

The total time and materials, not to exceed price fee for this task order for labor and expenses will be \$415,000 as shown in Compensation Table below.

CH2M will provide the City of North Miami Beach a monthly invoice based upon a schedule of values mutually agreed upon, along with a summary of activities performed under this contract. This proposal is effective for 90 days.

Attachment
Rate Schedule

CH2M
2017 Program Management Rate Schedule

		2017 Bill Rates	
Per Diem Class	Client Billing Titles	Home Office	Site
1	Vice President, Program Director, Program Manager, Engineer 9	\$ 289.86	\$ 289.86
2	CIP Manager, Senior Cost Estimator, Senior Manager, Senior Consultant, Engineer 8	\$ 227.11	\$ 221.70
3	Senior Design Manager / Registered Technical Experts, Business / Financial Manager, Contracts Manager, Engineer 7	\$ 219.27	\$ 216.69
4	Senior Construction Manager, Technology Lead, Senior Project Manager, Senior Cost Control / Scheduler, Engineer 6	\$ 201.17	\$ 194.08
5	Design Discipline Lead, Cost Control/ Scheduler, Document Management Professional, Engineer 5	\$ 167.32	\$ 161.42
6	Construction Manager, Technical Consultant II, Project Manager II, Cost Estimator, GIS Professional, Engineer 4	\$ 135.73	\$ 130.83
7	Construction Inspector, Technical Consultant I, Engineer 3	\$ 115.94	\$ 111.86
8	Engineer 2	\$ 97.59	\$ 94.15
9	Engineer 1	\$ 89.46	\$ 86.31
10	Engineer 0	\$ 68.22	\$ 65.81
11	Technician 5	\$ 121.57	\$ 117.23
12	Senior Technician/CAD Technician/Executive Administrative Assistant, Technician 4	\$ 99.06	\$ 95.57
13	Technician 3	\$ 78.03	\$ 75.09
14	Technician 2	\$ 69.37	\$ 66.93

15	Administrative Support Staff, Technician 1	\$ 57.26	\$ 56.14
19	Clerical, Document Control Clerk, Project Accountant	\$ 45.55	\$ 44.69

**EXHIBIT 16A
NMB VEHICLES SOLD TO CONTRACTOR**

16A.1.0 The vehicles listed below will be sold to the Contractor subject to inspection and mutually agreed negotiated price.

	UID	Proposed FMV	TYPE	YEAR	MAKE	MODEL	SERIAL_NO
1	9080	\$10,200	TRUCK, PICKUP, 1 TON AND ABOVE	2007	CHVRL	SILVERADO 3500	1GBJC39K87E569052
2	9438	\$10,795	TRUCK, PICKUP, BELOW 1 TON	2011	CHVRL	SILVERADO 2500	1GC0CVG3BF130030
3	9218	\$19,295	TRUCK, PICKUP, BELOW 1 TON	2015	GMCXX	TC25743	1GT11XEGX FF597373
4	9219	\$19,295	TRUCK, PICKUP, BELOW 1 TON	2015	GMCXX	TC25743	1GT11XEG9FF595422
5	9225	\$19,975	TRUCK, PICKUP, BELOW 1 TON	2015	GMCXX	TC25943	1GT11XEG8FF595184
6	9704	\$13,430	VAN, CARGO AND PASSENGER	2014	CHVRL	EXPRESS 2500	1GCWCFCGOE1108007
7	9703	\$8,415	VAN, CARGO AND PASSENGER	2011	CHVRL	EXPRESS 2500	1GCWGFCA1B1100943
8	9181	\$16,150	TRUCK, PICKUP, BELOW 1 TON	2013	CHVRL	SILVERADO 2500 HD	1GC0CVCG3DF210401
9	9993	\$9,180	TRUCK, UTILITY BODY	2014	GMCXX	YUKON 1500	1GKS1JE01ER222820
10	9183	\$16,150	TRUCK, PICKUP, BELOW 1 TON	2013	CHVRL	SILVERADO 2500 HD	1GC0CVCGXDF209587
11	9654	\$16,575	TRUCK, PICKUP, BELOW 1 TON	2015	GMCXX	TC25903	1GT01XEG0FZ530727
12	9992	\$15,895	TRUCK, PICKUP, BELOW 1 TON	2013	CHVRL	SILVERADO 2500 HD	1GC0CVCG4DF209838
13	9806	\$15,215	TRUCK, PICKUP, 1 TON AND ABOVE	2014	CHVRL	SILVERADO 3500 HD	1GB3CZC88EF125069
14	9604	\$18,700	TRUCK, PICKUP, BELOW 1 TON	2015	GMCXX	TC15903-Crew Cab	1GTN1TEH7 FZ295136
15	9606	\$11,900	TRUCK, UTILITY BODY	2016	CHVRL	EQUINOX	2GNALBEK8G1107207
16	9607	\$11,985	TRUCK, UTILITY BODY	2016	CHVRL	EQUINOX	2GNALBEK9G1108088
17	474	\$11,135	TRUCK, PICKUP, BELOW 1 TON	2015	CHVRL	COLORADO XTEND. CAB	1GCHSAEA7F1154504
18	471	\$12,410	TRUCK, PICKUP, BELOW 1 TON	2014	CHVRL	SILVERADO 1500 2WD REG CAB WT	1GCNCPEH1EZ273925
19	9182	\$8,925	TRUCK, PICKUP, BELOW 1 TON	2011	CHVRL	SILVERADO 1500	1GCNCPEX6CZ104083
20	9807	\$16,405	TRUCK, PICKUP, BELOW 1 TON	2015	GMCXX	TC25903	1GT01XEG8 FZ530183
21	9808	\$16,405	TRUCK, PICKUP, BELOW 1 TON	2015	GMCXX	TC25903	1GT01XEG9FZ529835

EXHIBIT 16B

NMB VEHICLES PROVIDED FOR CONTRACTOR'S USE FOR UP TO 120 DAYS FROM COMMENCEMENT DATE

16B.1.0 The table below is a list of Vehicles the City will provide to the Contractor, for Contractor's use, for up to 120 days beginning at Commencement Date. Any vehicle used from this list will remain City property and will be returned within 120 days from Commencement Date or sooner.

	UID	TYPE	YEAR	MAKE	MODEL	SERIAL_NO
1	469	TRUCK, PICKUP, BELOW 1 TON	2007	CHVRL	SILVERADO 1500	1GCEC14V66Z212365
2	470	TRUCK, PICKUP, BELOW 1 TON	2007	CHVRL	SILVERADO 1500 2WD REG CAB WT	1GCEC14X07Z599563
3	467	TRUCK, PICKUP, BELOW 1 TON	2006	CHVRL	SILVERADO 1500	1GCEC14X06Z272031
4	466	TRUCK, UTILITY BODY	2005	CHVRL	TRAIL BLAZER	1GNDS13S252262460
5	468	TRUCK, UTILITY BODY	2006	CHVRL	TRAIL BLAZER LS	1GNDS13S462276457
6	286	TRUCK, PICKUP, BELOW 1 TON	2005	CHVRL	SILVERADO 1500	1GCEC14X25Z194270
7	8518	TRUCK, PICKUP, BELOW 1 TON	2003	CHVRL	SILVERADO 1500 2WD REG CAB	1GCEC14V43Z331561
8	9079	TRUCK, PICKUP, BELOW 1 TON	2007	CHVRL	SILVERADO 2500	1GCHC24K07E562821
9	9224	TRUCK, PICKUP, BELOW 1 TON	2006	CHVRL	SILVERADO 2500	1GCHC24U86E172243
10	9437	TRUCK, PICKUP, BELOW 1 TON	2007	CHVRL	SILVERADO 2500	1GCHC24K97E562770
11	9436	TRUCK, PICKUP, BELOW 1 TON	2006	CHVRL	SILVERADO 2500 HD	1GCHC24U76E183671
12	9454	TRUCK, PICKUP, 1 TON AND ABOVE	2006	CHVRL	SILVERADO 3500	1GCJC33U96F179074
13	9978	TRUCK, PICKUP, 1 TON AND ABOVE	2005	CHVRL	SILVERADO 3500 CREW CAB	1GCJC33U35F927607
14	9702	TRUCK, PICKUP, BELOW 1 TON	2005	CHVRL	SILVERADO 2500 2WD REG CAB	1GCHC24UX5E265019
15	8583	VAN, CARGO AND PASSENGER	2002	CHVRL	CARGO VAN	1GCHG35R821174032
16	9812	TRUCK, PICKUP, BELOW 1 TON	2006	CHVRL	SILVERADO 2500	1GCHC24U66E172063
17	9981	TRUCK, PICKUP, BELOW 1 TON	2006	CHVRL	SILVERADO 2500	1GCHC29UX6E178750
18	9179	TRUCK, PICKUP, BELOW 1 TON	2003	CHVRL	SILVERADO 1500	1GCEC14V23Z244225
19	9979	TRUCK, PICKUP, BELOW 1 TON	2007	CHVRL	SILVERADO 2500 2W/D	1GCHC24K27E549200
20	9984	TRUCK, PICKUP, BELOW 1 TON	2007	CHVRL	SILVERADO 2500 2W/D	1GCHC24K77E549130
21	9985	TRUCK, PICKUP, BELOW 1 TON	2007	CHVRL	SILVERADO 2500 2W/D	1GCHC24K67E549345
22	9811	TRUCK, PICKUP, BELOW 1 TON	2006	CHVRL	SILVERADO 2500	1GCHC24U76E172282
23	9982	TRUCK, PICKUP, 1 TON AND ABOVE	2006	CHVRL	SILVERADO 3500	1GCJC33U16F176363
24	9790	TRUCK, PICKUP, 1 TON AND ABOVE	2002	CHVRL	CHEVY 3500 HD DUMP	3GBKC34GX2M105772

Exhibit 17
NMB HEAVY EQUIPMENT AND ROLLING STOCK
AVAILABLE TO CONTRACTOR

17.1.0 Use of City Rolling Stock/Heavy Equipment

17.1.1 City will provide the Contractor with the use of the following City-owned Rolling Stock/Heavy Equipment as of the Commencement Date:

	UID	MAKE	DESCRIPTION	YEAR	VIN
1	9602	FORDX	SUPER DUTY B20	2014	1FDUF5GT3EEA80123
2	9805	CHVRL	C 4500	2007	1GBC4C1G67F423367
3	9129	CHVRL	C 4500	2007	1GBC4C1G27F423639
4	9798	CHVRL	C-7500 DURAMAX DUMP	2005	1GBJC13X5F528938
5	8290	INT	7400 SBA 2100 SERIES	2006	1HTWGAZT46J380619
6	9991	FORDX	F5G7	2013	1FDUF5GT2CEC98888
7	9987	FORDX	4 VI-SERIES	2011	1FDUF5GT2BEB25726
8	9989	INT	7500 SBA 6X4	2013	1HTWNAZT7DJ295096
9	9986	INT	7500 SBA 6X4 2115P16	2011	1HTWNAZT6BJ322723
10	993	JHNDR	JOHN DEERE MINI EXCAVATOR 27D		N/A
11	9988	CATERPILLAR	CAT, FORKLIFT	2012	N/A
12	9655	CATERPILLAR	CAT, FORKLIFT	2016	N/A
13	9605	CATERPILLAR	CAT FORK LIFT TRUCK	2015	N/A
14	9780	CATERPILLAR	CAT BACKHOE 416F	2014	N/A
15	9793	JHNDR	BACK HOE, JOHN DEER, 410 E	1999	N/A
16	8187	JHNDR	JOHN DEERE 325 SKID STEER	2006	N/A
17	9757	CATERPILLAR	CAT WHEEL LOADER 938K	2014	N/A
18	029	CMMNS	GENERATOR CUMMINS POWER	2009	N/A
19	11	KOHLR	KOHLER POWER SYSTEM GENERATOR 150	2005	N/A
20	14	CATERPILLAR	OLYMPIAN GENERATOR	2006	N/A
21	16	HONDA	HONDA GENERATOR EU INVERTER	2006	N/A
22	17	HONDA	HONDA GENERATOR EU INVERTER	2006	N/A
23	39405	GRDIN	GUARDIAN OHVO GENERATOR, 15000 WATTS	2006	N/A
24	39406	GRDIN	GUARDIAN OHVO GENERATOR 15000 WATTS	2006	N/A
25	030	CATERPILLAR	OP/CENTER HSP STANDBY CAT GENERATOR	2006	N/A
26	10	CMMSN	NORWOOD PORTABLE CUMMINS STAND BY GENERATOR	2008	N/A
27	13	CATERPILLAR	CATERPILLAR /OLYMPIAN D100P4 100KW GENERATOR SET	2006	N/A
28	183-13	CATERPILLAR	PARKWAY ELEM Caterpillar GENERATOR	2008	N/A
29	21	DTDSC	2500KW Generator FDDA	2008	N/A
30	22	DTDSC	2000KW Generator FDDA	2008	N/A
31	24	CATERPILLAR	500 KW Generator, NWTP Wellfield 19, 20, 21.	2008	N/A

32	4	CATERPILLAR	Water Plant Portable Generator (For Wells 11 & 12)	2005	N/A
33	9603	JLG	JLG TOWABLE ART MAN LIFT	2015	N/A
34	39202	HONDA	HONDA WATER PUMP	2006	N/A
35	39209	WACKER	WACKER PUMP	2012	N/A
36	38025	HONDA	HONDA TRASH PUMP WDP30X 3"	2016	N/A
37	38027	SUBAR	3" WACKER TRASH PUMP PT3	2016	N/A
38	38028	SUBAR	3" WACKER TRASH PUMP PT3	2016	N/A
39	38030	SUBAR	3" WACKER TRASH PUMP PT3	2016	N/A
40	38327	BRGST	RICE HYDROSTATIC TEST PUMP	2006	N/A
41	38382	HONDA	WATER PUMP 3"	2006	N/A
42	39006	GORMAN-RUPP	CENTRIFUGAL PUMP 3" (SPEC 'S 408064)	2006	N/A
43	39071	WACKER	TRANSFER PUMP 3" WACKER	2006	N/A
44	39073	HONDA	DIAPHRAGM PUMP SELF PRIMING	2013	N/A
45	39074	HONDA	DIAPHRAGM PUMP SELF PRIMING	2013	N/A
46	39075	HONDA	CENTRIFUGAL TRASH PUMP 3" HONDA	2015	N/A
47	39076	HONDA	CENTRIFUGAL TRASH PUMP 3" HONDA	2015	N/A
48	39100	HONDA	2" HONDA PUMP WATER PUMP	2012	N/A
49	39110	HONDA	DIAPHRAGM PUMP SELF PRIMING	2006	N/A
50	39112	HONDA	DIAPHRAGM PUMP SELF PRIMING	2006	N/A
51	39119	HONDA	3" WATER PUMP MULTIQUIP PUMP	2007	N/A
52	39207	HONDA	HONDA WATER PUMP 3"	2007	N/A
53	39089	WACKER	WACKER PUMP	2006	N/A
54	39099	WACKER	WACKER PUMP	2006	N/A
55	38024	HONDA	HONDA TRASH PUMP WT20X 3"	2013	N/A
56	38407	GODWIN	GODWIN DRI-PRIME CD 150M DIESEL PUMP	2010	N/A
57	15	ACMEQ	ACME DYNAMICS BY-PASS PUMP	2006	N/A
58	9952	ACMEQ	ACME DYNAMICS Trailer Mounted, Pump	1997	N/A
59	8103	TRAILER	Trailer Mounted Pump	2000	N/A
60	9948	PNRNC	6" PIONEER DRY PUMP W/TRAILER	2012	N/A
61	9957	ACMEQ	ACME DYNAMICS Trailer Mounted, Pump	1998	N/A
62	9960	PACIFIC	PACIFIC-TEK VALVE EXERCIZER W/TRAILER	2015	N/A
63	9961	ACMEQ	ACME DYNAMICS Trailer Mounted, Pump	1998	N/A
64	9949	ACMEQ	ACME DYNAMICS Trailer Mounted, Pump	1997	N/A
65	9231	INGERSL	INGERSOLL-RAND Trailer Mounted, Compressor	1996	N/A
66	9994	EZ FUELER	500 GL. EZ MOBILE FUELER AXLE TRAILER	2014	N/A
67	9163	EZ FUELER	500 GAL ALUMINUM FUEL TANK	2006	N/A
68	39211	HONDA	VALVE EXERCIZER PORTABLE	2015	N/A

69	9951	PACIFIC	PACIFIC-TEK VALVE EXERCIZER W/TRAILER	2015	N/A
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17.1.2 Contractor shall be responsible for providing fuel, Routine Maintenance, and insurance for the Rolling Stock/Heavy Equipment listed in Section 17.1.1 owned by the City for the term of this Agreement. All repairs shall be charged to the Repair and Replacement Fund.

17.1.3 City and Contractor shall agree on when the Rolling Stock/Heavy Equipment listed in Section 17.1.1 has become obsolete or reached the end of its useful life. The City retains the responsibility to replace Rolling Stock/Heavy Equipment at their cost. Any replacement of Rolling Stock/Heavy Equipment listed in 17.1.1 provided by the Contractor at the request of the City shall constitute a Change in Scope.

17.1.4 All City-owned Rolling Stock/Heavy Equipment listed in Section 17.1.1 will be under the direct control of the Contractor.

Exhibit 18
NMB NON FIXED ASSET INVENTORY
USE TRANSFERRED TO CONTRACTOR

18.1 Use of City Owned Non-Fixed Assets

18.1.1 City will provide the Contractor with the use of the following City owned Non-Fixed Assets. The City shall retain ownership of the Non-Fixed Assets.

CITY ASSET #	MAKE	DESCRIPTION	YEAR
9101	ARROW	ARROW BOARD	1993
91200	JHNDR	JOHN DEERE GATOR HPX 4X4	2008
39210	STANL	HYDRAULIC BREAKER	2015
9102	WACKER NEUSON	WACKER NEUSON-LIGHT TOWER	2016
9103	WACKER NEUSON	WACKER NEUSON-LIGHT TOWER	2016
39434	CONCMIXER	CONCRETE MIXER 19 CU FT.	2015
39510	BRGST	21" S.P. MOWER	2015
39204	STIHL	CUT OFF STREET SAW STIHL	2005
39220	STIHL	STREET SAW STIHL	2011
39124	STIHL	STREET SAW STIHL-TS 420	2014
39126	STIHL	STREET SAW STIHL-TS 420	2014
39127	STIHL	STREET SAW STIHL-TS 420	2014
39128	STIHL	STREET SAW STIHL-TS 420	2014
39129	STIHL	STREET SAW STIHL-TS 420	2015
39130	STIHL	STREET SAW STIHL-TS 420	2015
39077	STANL	TWIN HYDRAULIC POWER UNIT/STANLEY	2015
39078	STANL	HYDRAULIC TRASH PUMP/STANLEY	2015
39433	DOOSAN	DOOSAN COMPACTOR BX-80	2015
39055	HONDA	COMPACTOR WACKER BPU 4045A	1998
39123	HONDA	COMPACTOR WACKER WP 1540AW	1998
39125	HONDA	HONDA PRESSURE CLEANER	2012
37014	HONDA	MI-T-M PRESSURE WASHER 4,000 PSI	2003

18.1.2 Contractor shall be responsible for providing fuel, Routine Maintenance, and Repair and Replacement Services for the Non-Fixed Assets listed in Section 18.1.1 owned by the City for the term of this Agreement. The responsibility for the cost of maintenance, repairs and replacements shall be governed by the provisions of the Repair and Replacement Services or Routine Maintenance, and; with any Repair and Replacement Services expenses will be charged to the Repair and Replacement Fund.

18.1.3 All City-owned Non-Fixed Assets listed in Section 18.1.1 will be under the direct control of the Contractor.

EXHIBIT 19
NMB FIXTURES, FURNITURE AND EQUIPMENT TRANSFERRED TO CONTRACTOR

[To be reconciled and completed after the Commencement Date]

Exhibit 20

Information and Technology

20.1.0 The City will be responsible for IT support services for the length of the Agreement as indicated below:

20.1.1 City will provide and maintain all Phone systems, handheld desk phones, phone controllers, phone and fax lines, phone network, and related systems at all contract locations for the duration of the Agreement. The City will maintain all communication systems currently in place, upgrading to a single, centralized, Voice Over Internet Protocol (VOIP) system paid for and maintained by the City.

20.1.2 City will provide and Contractor will maintain the City wide radio telemetry and communication system, hand-held radios, and related systems. Cost for maintaining the City wide radio telemetry and communication system will be paid out of the Repair and Replacement Fund.

20.1.3 City will provide IT services, computers, network communications, and support for the customer service/billing group and maintain legacy billing/collection software licenses and system for the period from the Commencement Date and through deployment of the new Customer Information System / Utility Billing System after which City transfers responsibility to the Contractor as a mutually agreed cost through a Change in Scope.

20.1.4 City will maintain and replace all network resources as required at all contract sites for 90 days after start date, including: network infrastructure, user authentication, internet access, and network communications.

20.1.5 City will maintain and replace all “Shared” computer resources, and systems as required including: network infrastructure, network communications, user authentication, servers, computers, file storage devices, printers, and copiers.

20.1.6 City will grant access to City owned networks and systems as requested by Contractor subject to full compliance with the City’s IT policies. Contractor must seek approval from City IT, prior to making any changes to the City’s network, servers, switches and other City owned infrastructure.

20.1.7 City will provide and maintain software and licenses for shared services (e.g., GIS-ESRI, CityWorks including ROK Technologies (backup support for Cityworks).

20.1.8 City will maintain licensing and back-end support for the NMB Water website (NMBWater.com); however, Contractor will provide NMB Water content, media, and professional layout to the City’s assigned contact. Additionally, Contractor will provide refreshes to photographic, video, graphic, and narrative material related to NMB Water to the City’s assigned contact for purposes of social media, web site, public access channel, and City newsletter distribution which attain a level of constant communication with residents/customers consistent with the City’s policies .

20.1.9 City will provide necessary access to the copper and fiber cabling systems at each facility. Contractor will provide planning and request approval, as needed, by City IT for all use of copper and fiber cabling. Access to cabling in shared facilities will be managed by City IT.

20.1.10 City to provide all software, OS, and hardware licenses for all computer, network, owned printers, and owned copier equipment turned over to the Contract Operator. Access to the City's Microsoft Open License Agreement will not be available due to prohibitions from Microsoft.

20.2.0 Contractor-provided IT support services

20.2.1 Contractor will supply all cell phones required to deliver the agreed Scope of Services.

20.2.2 Contractor will be responsible for all non-shared computers, copiers, and printers initially provided by the City. Contractor will provide support, maintenance and replacement of these assets.

20.2.3 Contractor will provide a list of staff who will need access to City owned network and systems.

20.2.4 Contractor will need local administration accounts created on all contract computers and will require internet access via these computers and the City's network for 90 days after the Commencement Date.

20.2.5 Contractor will be responsible for the following Software Licenses:

20.2.5.1 AutoCAD Software

20.2.5.2 SCADA Software and hardware server licenses.

20.2.5.3 INFOWater Modeling Software

20.2.5.4 INFOSWMM Modeling Software

20.2.5.5 Maintenance Connection Software

20.2.5.6 Operator 10 (OP10) Software

20.2.6 Contractor will install new computer networks for the Contractor's sole use. These networks will include installation of firewalls, routers, switches, wireless access points, and communications service in each facility location.

20.2.7 Contractor will be responsible for the cost of new (non-shared) computer equipment including workstations, laptops, and servers.

EXHIBIT 21
INSURANCE TO BE PROVIDED

INSURANCE REQUIREMENTS FOR CONTRACTOR

- 1.1 Contractor shall provide the following insurance policies throughout the term of the Agreement meeting the requirements of the Agreement, and shall provide to City an ACORD-form Certificate of Insurance (COI) demonstrating compliance with this provision:
 - 1.1.1 Worker's Compensation providing statutory coverage and Employer's Liability Insurance providing limits of One Million Dollars (\$1,000,000) each accident, One Million Dollars (\$1,000,000) disease-each employee, and One Million Dollars (\$1,000,000) disease-policy limit; or, if additional coverages and/or limits are required by Florida Statutes 440, compliance with Florida law.
 - 1.1.2 Business Automobile Insurance providing Two Million Dollars (\$2,000,000) combined single limits covering claims for injuries to members of the public and/or damages to property of others arising from the use of Contractor owned or leased motor vehicles, including onsite and offsite operations. Limits may be satisfied using primary and excess/umbrella policies.
 - 1.1.3 Commercial General Liability Insurance providing limits of Five Million Dollars (\$5,000,000) per occurrence and aggregate, covering claims for injuries to members of the public or damages to property of others arising out of any covered act or omission of Contractor or any of its employees or subcontractors for whom Contractor is legally liable. Limits may be satisfied through the use of primary and excess/umbrella policies
 - 1.1.4 Contractor's Pollution Liability (CPL) Insurance providing limits of Five Million Dollars (\$5,000,000) per claim and Ten Million Dollars (\$10,000,00) in the aggregate. CPL coverage will provide for liability due to pollution conditions caused by or exacerbated by Contractor, and will include coverage related to the remediation of pollutants and for third-party claims alleging bodily injury and/or damage to third-party property due to pollutants. Claims made coverage will include a retroactive date that predates all Work executed per this Agreement.
 - 1.1.5 Umbrella/Excess Liability in addition to the Employer's Liability, Commercial General Liability, and Business Automobile Insurance limits stipulated above of at least \$20,000,000 per occurrence and in the aggregate.
- 1.2 Contractor shall add City and City's officers, employees, and representatives as additional insured in Contractor's commercial general liability, automobile liability, excess/umbrella, and contractor's pollution liability policies.
- 1.3 Contractor's commercial general liability, automobile liability, employer's liability, excess/umbrella, and contractor's pollution liability policies will be primary and non-contributory to any other coverage available to City.
- 1.4 Contractor's policy will provide at least thirty (30) days written notice to City prior to any cancellation, non-renewal or material change in coverage contemplated in Section 6.6 (except ten (10) days' notice for non-payment of premium).

- 1.5 City shall maintain the following insurance policies throughout the term of the Agreement to the extent consistent with the City's risk management rules and policies, and if such coverages are obtained shall provide Contractor with a Certificate of Insurance (COI) on an annual basis within fifteen (15) days of the anniversary renewal date of this Agreement to demonstrate compliance with this provision:
- 1.5.1 "All Risk" Property Insurance covering all property on a replacement cost basis, and including City-supplied vehicles and equipment for the full fair market value of such property.
 - 1.5.2 Liability Insurance covering all motor vehicles and equipment provided by City and operated by Contractor under this Agreement.
- 1.6 City and Contractor shall provide a waiver of subrogation against the other insurance policies required under Section 6.6, and each party shall waive any claim against the other arising in contract or in tort that are covered by their respective insurance policies identified under Section 6.6.
- 1.7 Certificates of Insurance ("COI").
- 1.7.1 Contractor shall provide to the City a COI evidencing the required insurance policies, limits, term of insurance, insured parties, and other information sufficient to demonstrate conformance with Section 6.6 of the Agreement and this Exhibit 21 and its sections and subsections. Certificates of insurance will reference the project name as identified on the first page of this Agreement.
 - 1.7.2 In the event the COI provided indicates that any required insurance will expire during the period of this Agreement, the party shall furnish, on or before the expiration date, a renewed COI as proof that equal and like coverage of the this Exhibit has been procured and in effect.
 - 1.7.3 In the event a COI evidencing the renewed coverage is not available prior to the policy renewal date, that party shall provide to the other party, within fifteen (15) days of the policy's(ies') renewal date(s) a renewal COI. The party shall furnish the renewal COI to the other party immediately after the renewal COI becomes available.
- 1.8 General Requirements
- 1.8.1 All insurance policies required above shall be issued by companies authorized to do business under the laws of the State of Florida with the following qualifications:
 - 1.8.2 The company must be rated no less than "B" as to management, and no less than "Class V" as to financial strength, according to the latest edition of Best's Insurance Guide published by A.M. Best Company, Oldwick, New Jersey, or its equivalent, subject to the approval of the City's Risk Management Division.
 - 1.8.3 NOTE: CITY OF NORTH MIAMI BEACH CONTRACT NUMBER AND TITLE MUST APPEAR ON EACH CERTIFICATE OF INSURANCE.

1.8.4 Compliance with the foregoing requirements shall not relieve the Contractor of this liability and obligation under this Exhibit 21 or under any other section in the Agreement.

EXHIBIT 22

NMB BUILDINGS – SPACE OCCUPIED BY CONTRACTOR

[TO BE COMPLETED DURING TRANSITION PERIOD]

EXHIBIT 23

NMB VENDOR AND SERVICE CONTRACTS

[As of the Execution Date – None]

EXHIBIT 24

SHARED SERVICES

[To be completed by the Commencement Date]

EXHIBIT 25

[RESERVED]

EXHIBIT 26

NMB LOGO



NMBwater

North Miami Beach, FL

Award Winning

The logo features a bright yellow sunburst with many sharp rays emanating from the center. In the middle of the sunburst, the letters 'NMB' are displayed in a bold, serif font. The 'N' is orange, the 'M' is white with a blue outline, and the 'B' is blue.

NMB

RISE

Respect • Integrity • Service • Excellence

EXHIBIT 27

CH2M LOGO

ch2m.

SM

EXHIBIT 28

Damages Calculations for Termination

28.1 TERMINATION FOR CONVENIENCE AMOUNT

28.1.1 If the City exercises its right to terminate this Agreement for convenience pursuant to Section 5.3(a) within the initial ten (10) year term of this Agreement, the City shall pay the Contractor, as a termination payment, the sum of \$ 900,000, which amount shall decline by \$100,000 each Contract Year, plus any substantiated direct Costs and Expenses.

Termination for Convenience Amortization Table	
Year 1	\$900,000
Year 2	\$800,000
Year 3	\$700,000
Year 4	\$600,000
Year 5	\$500,000
Year 6	\$400,000
Year 7	\$300,000
Year 8	\$200,000
Year 9	\$100,000

28.1.2 Upon any termination pursuant to Section 5.1, the Contractor shall also be paid all amounts due and owing for Services performed as part of the Contract Price but not yet paid as of the date of termination.

**EXHIBIT 29
ELECTRICAL METERS INCLUDED IN THE FEE**

Address	Rate Structure	Account #
1125 NW 163rd Dr	Pump	Account: 13504-81626
1202 NW 195th St	HLFT-1	Account: 7289287620
1270 NW 186th St	OL-1	Account: 59722-88376
1298 NW 186th St	GSD-1	Account: 0019151125
1395 NW 179th St	Pump	Account: 08137-20380
14601 Biscayne Blvd	Lift Station	Account: 52877-81719
1499 NE 162nd St	GSD-1	Account: 68532-85663
1600 NW 183rd St	Pump Station	Account: 70845-31339
16118 NE 21st Ave	Pump	Account: 92773-88709
16150 NE 21st Ave	Pump	Account: 75441-93563
16154 NW 15th Ave	Pump	Account: 34986-35527
16200 Miami Dr	Lift Station	Account: 30037-33585
16201 NE 11th Ave	Pump Station 30	Account: 20258-13441
16260 NE 13th Ave	Lift Station	Account: 69478-89629
16880 NW 32nd Ave	Lift Station	Account: 58581-86454
17050 NE 19th Ave	OL PSA Bldg	Account: 06996-81664
17050 NE 19th Ave	Public Services Administration Bldg	Account: 55680-84668
17071 NW 14th Ave	Pump	Account: 67232-37308
17107 NW 9th Ave	Pump	Account: 63426-84658
17107 NW 9th Ave	Pump	Account: 37484-11042
17355 Biscayne Blvd	Lift Station	Account: 22011-50089
17505 NW 33rd Ct	Pump 1	Account: 42398-82501
17720 NW 29th Ct		Account: 52360-82490
17820 NW 29th Ct	Water Plant Office	Account: 0380790527
17820 NW 29th Ct	OL	Account: 10348-87099
17900 NW 9th Ave	Pump	Account: 41403-29030
17904 NW 24th Ave	Pump	Account: 39675-83299
17922 NW Miami Ct	Pump	Account: 13106-80697
1820 NE 161st St	GS-1	Account: 7859084688
18400 NE 4th Ct	Pump	Account: 12308-82605
1870 NE 171st St	Sec Lt	Account: 25400-80633
1871 NW 186th St	Pump	Account: 34448-86612
18751 NE 1st Ave	Pump	Account: 20409-89671
18950 NE 6th Ave		Account: 32517-83639
18971 NW 14th Ave	Pump	Account: 79243-19432
19101 NE 3rd Ct	Pump	Account: 34015-36192
19101 NW 24th Ave	Pump	Account: 24874-33159
19150 NW 8th Ave	GSLDT-1	Account: 70241-97019
19150 NW 8th Ave	GSLD -1	Account: 04532-45094
19150 NW 8th Ave	GSLD-1	Account: 88497-41551
19150 NW 8th Ave	GLSD-1	Account: 67434-89459
19150 NW 8th Ave	GSD-1	Account: 5308-82141
19150 NW 8th Ave	OL-1	Account: 09954-75225
19150 NW 8th Ave	GSLD-1	Account: 33766-28453
19350 NW 19th Ct	Pump	Account: 95489-07238

Address	Rate Structure	Account #
19401 NW 14 th Ave	GSD-1	Account: 5679-87457
20001 NW 14th Ave	Pump	Account: 62225-87674
2080 NE 160th St	GSD-1	Account: 3927443451
2101 NE 159th St	GSD-1	Account: 59220-89213
2200 NW 183rd St	Pump Station	Account: 06602-49236
2250 NE 163rd St	Lift Station	Account: 38314-50097
2261 NW 175th St	Pump	Account: 94406-70546
2900 NE 207th St	GS-1	Account: 7437789428
2910 NW 175th St	Pump	Account: 73841-04472
300 Golden Beach Dr	GS-1	Account: 22584-18520
500 NW 177th St	Pump	Account: 13870-81688
914 NW 201st St	Pump	Account: 22736-84692
NW 171st St & 3rd Ave	Pump	Account: 23796-82657
NW 195th St & 11th Ave	GSD-1	Account: 2267584684

EXHIBIT 30

EISENHARDT REPORT RECOMMENDATIONS

The Parties intend for the Agreement to accomplish the critical, necessary, and desirable outcomes identified in the Eisenhardt Group report. Recognizing that different outcomes will require different delivery timeframes, and that further details will be developed during the program initiation process under Work Order No. 1 and the program management process under Work Order No. 2, the Parties intend to achieve the outcomes during the following time periods:

No.	Outcome	Time Period (following transition)
1	Immediately make Water Plant improvements and upgrades: lime slakers and feed system; acid pumps on RO side; chlorine backup; coagulant feed pumps; ammonia feed system; tankage	Over first 2 years of contract through Capital Program
2	Conduct facility safety audit to identify hazards (including WTP site), safety equipment availability and use	Within 60 days
3	Expand Water Quality function to include a process engineer overseeing all water quality functions to include: water plant, process technologies, operating targets for process, process engineering, planner/scheduler, and provide link to customer service	Proposed through organization
4	Establish rudimentary management report system with dashboard metrics	Within 120 days
5	Train managers and supervisors to establish delegated responsibility and to hold staff accountable	Within 12 months
6	Implement comprehensive supervisor training programs at all levels; instill delegated responsibility and accountability	Within 12 months
7	Implement creation of a utility strategic plan, including completion of coordinated master plans for all systems.	Master Plan developed
8	Implement formalized planning and system to address CIP tracking & management	Within 6 months through Capital Program
9	Address lack of systems and implement upgrades for SCADA system for water plant (lime & nanofilters)	Evaluate within first year through Capital Program contingent on NMB approval
10	Address lack of systems and implement upgrades for CMMS (goal of 80% scheduled maintenance)	Within 6 months
11	Address lack of systems and implement upgrades for technology plan	Review technology plan and provide assessment within 12 months
12	Address lack of systems and implement upgrades for personnel records	Within 60 days
13	Address lack of systems and implement upgrades for accounting system & usage	Within 6 months
14	Add staff with technical capabilities, systems experience and usage capabilities	Proposed through organization
15	Address water line flushing, valve exercising, air release valve functionality, and hydrant testing in a comprehensive / systematic program with documented results & records	Within 1st year
16	Develop comprehensive training programs for all levels: revamp job descriptions, tailor training, encourage conference participation & career development, reward training achievements. Consider need for Training Manager position.	Within 1st year (training manager function would be delivered through SMEs)
17	Complete a formal compensation survey, develop program to remain competitive	Approach to competitive wages implemented through transition process

No.	Outcome	Time Period (following transition)
18	Coordinate performance reviews with compensation so as to provide performance based compensation incentives	Within 1st year
19	Conduct formal energy audits, with priorities for water treatment plant and then C&D systems	Within 1st year
20	Improve capabilities of middle management/supervisors to provide meaningful documents and performance reports to upper management	Within 1st year
21	Create and update SOPs for important policy actions / processes throughout the utility	Within 1st year
22	Develop tracking system for safety issues and injuries	Within 60 days
23	Develop formal Asset Management program for all utilities. Incorporate condition assessments, hydraulic model, water line breaks, etc.	Over first 2 years of contract through Capital Program
24	Reduce / eliminate organizational silos: institute communications programs to build liaisons across divisions; initiate multi-function meetings & interactions, proactive information sharing and communications (e.g., engage all affected divisions in establishing CIP priorities, key consultant selections, project designs)	Within 1st year
25	Establish training on use of internal systems (purchasing, accounting, HR, safety, performance reviews, maintenance, equipment records)	Within 1st year
26	Establish management dashboard items for each division (including administration)	Within 1st year
27	Reevaluate / re-engineer historical practices (e.g., discontinue unnecessary activities, e.g., Guardian Blue)	Within 1st year
28	Overhaul customer service system including records keeping and communications protocols with the utility. Consolidate points of contact. Develop record keeping to allow query & tracking. Link work orders with customer complaints in one system accessible by all departments.	Within 1st year
29	Develop / implement corrosion control strategy and programs for equipment and facilities	With first 12 months
30	Implement regular, scheduled PM on fleet / heavy equipment, include this equipment in Asset Management system and plans	Within first 6 months
31	Conduct a staffing assessment (skills needed, duties & outputs, criticality, number of positions)	Within first 6 months
32	Review engineering department for alignment of staff skills, capabilities, experiences with “go forward” needs and priorities. Include CIP activities and Contractor / Permitting activities in the review.	Within first 6 months
33	Implement regular Cost vs. Budget reports, train managers to use, and establish accountability for performance	Within first 6 months
34	Review benefits of a dedicated buyer position and implement consistent with review	N/A - purchasing conducted through CH2M global procurement
35	Develop and implement a systematic approach for setting of requirements for new projects, processes, and technologies	Within 6 months through Capital Program

No.	Outcome	Time Period (following transition)
36	Develop process for internal stakeholder engagement throughout project planning, design & implementation. Make adjustments to project based on the review.	Within 6 months through Capital Program
37	Develop formal program for implementation of new infraMAP system to all levels	Evaluate implementation of the Maintenance Connection vertical asset CMMS software package and recommend approach within first 18 months
38	Analyze productivity of C&D field crews; make improvements as identified by analysis	Within first 6 months
39	Formalize security programs for all divisions	Within first year utilizing existing systems. Security system upgrade project implemented through Capital program over first 2 years.
40	Formalize emergency plan for all divisions	Within first 3 months
41	Develop systems to improve responsiveness of fleet management department	Within first 6 months
42	Restructure / expand role of water quality lab at WTP to provide meaningful data and direction to operations for process optimization	Within first 6 months
43	Develop succession plan for aging staff	Within first 12 months
44	Provide training to remove obstacles to effective coordination between field staff and procurement	Within 6 months
45	Develop model to optimize WTP operation (i.e., selection of treatment trains)	Within first 12 months
46	Develop cost effectiveness actions and control systems for energy & chemical usage	Within first 12 months
47	Develop and implement full SCADA control capability for water plant; revise staffing accordingly	Evaluate within first 2 years through Capital Program contingent on NMB approval
48	Proactively engage AFSCME in organizational activities / imperatives	Within first 6 months dependent on whether union staff
49	Train field crews in customer interactions; use messaging techniques for all employees	Within first 12 months

No.	Outcome	Time Period (following transition)
50	Revamp NMB Water website / upgrade	Provide all Content
51	Establish a Communications Plan with messaging and media approaches specified	Within first 6 months development communication plan with NMB Water
52	Develop PE capability in the Engineering function	Implement PE capability through Capital Program
53	Expedite hiring process to streamline and reduce delays	Within first 6 months
54	Improve field crew access to electronic docs (GIS, CAD, etc.)	Within first 12 months
55	Evaluate merits / benefits of implementing vehicle tracking technology	Evaluation completed within first 18 months. Implementation dependent on ROI.
56	Consider usage of biometric timekeeping system	Evaluate during first 18 months
57	Collaboratively with Customer Service, evaluate AMI technology once installed; evaluate meter reading efficiencies	Within first 6 months
58	Formalize an "Outreach Plan" for NMB Water: media training, reinstitute plant tours, formalize a school outreach program, redesign customer bills to convey value propositions	Within first 18 months implement community engagement plan