Appendix A

Ocean Outfall Legislation, Florida Statutes Chapter 2008-232 Section 403.086

Wastewater Disposal/ Ocean Outfall

403.086 Sewage disposal facilities; advanced and secondary waste treatment.—

(1)(a) Neither the Department of Health nor any other state agency, county, special district, or municipality shall approve construction of any facilities for sanitary sewage disposal which do not provide for secondary waste treatment and, in addition thereto, advanced waste treatment as deemed necessary and ordered by the department.

(b) No facilities for sanitary sewage disposal constructed after June 14, 1978, shall dispose of any wastes by deep well injection without providing for secondary waste treatment and, in addition thereto, advanced waste treatment deemed necessary by the department to protect adequately the beneficial use of the receiving waters.

(c) Notwithstanding any other provisions of this chapter or chapter 373, facilities for sanitary sewage disposal may not dispose of any wastes into Old Tampa Bay, Tampa Bay, Hillsborough Bay, Boca Ciega Bay, St. Joseph Sound, Clearwater Bay, Sarasota Bay, Little Sarasota Bay, Roberts Bay, Lemon Bay, or Charlotte Harbor Bay, or into any river, stream, channel, canal, bay, bayou, sound, or other water tributary thereto, without providing advanced waste treatment, as defined in subsection (4), approved by the department. This paragraph shall not apply to facilities which were permitted by February 1, 1987, and which discharge secondary treated effluent, followed by water hyacinth treatment, to tributaries of tributaries of the named waters; or to facilities permitted to discharge to the nontidally influenced portions of the Peace River.

(2) Any facilities for sanitary sewage disposal shall provide for secondary waste treatment and, in addition thereto, advanced waste treatment as deemed necessary and ordered by the Department of Environmental Protection. Failure to conform shall be punishable by a civil penalty of $500 for each 24-hour day or fraction thereof that such failure is allowed to continue thereafter.

(3) This section shall not be construed to prohibit or regulate septic tanks or other means of individual waste disposal which are otherwise subject to state regulation.

(4) For purposes of this section, the term “advanced waste treatment” means that treatment which will provide a reclaimed water product that:

(a) Contains not more, on a permitted annual average basis, than the following concentrations:

1. Biochemical Oxygen Demand (CBOD5). 5mg/l
2. Suspended Solids. 5mg/l
3. Total Nitrogen, expressed as N. 3mg/l
4. Total Phosphorus, expressed as P. 1mg/l

(b) Has received high level disinfection, as defined by rule of the department.

In those waters where the concentrations of phosphorus have been shown not to be a limiting nutrient or a contaminant, the department may waive or alter the compliance levels for phosphorus until there is a demonstration that phosphorus is a limiting nutrient or a contaminant.

(5)(a) Notwithstanding any other provisions of this chapter or chapter 373, when a reclaimed water product has been established to be in compliance with the standards set forth in subsection (4), that water shall be presumed to be allowable, and its discharge shall be permitted in the waters described in paragraph (1)(c) at a reasonably accessible point where such discharge results in minimal negative impact. This presumption may be overcome only by a demonstration that one or more of the following would occur:

1. That the discharge of reclaimed water that meets the standards set forth in subsection (4) will be, by itself, a cause of considerable degradation to an Outstanding Florida Water or to other waters and is not clearly in the public interest.

2. That the reclaimed water discharge will have a substantial negative impact on an approved shellfish harvesting area or a water used as a public domestic water supply.

3. That the increased volume of fresh water contributed by the reclaimed water product will seriously alter the natural fresh-salt water balance of the receiving water after reasonable opportunity for mixing.

(b) If one or more of the conditions described in subparagraphs (a)1.-3. have been demonstrated, remedies may include, but are not limited to, the following:

1. Require more stringent effluent limitations;

2. Order the point or method of discharge changed;

3. Limit the duration or volume of the discharge; or

4. Prohibit the discharge only if no other alternative is in the public interest.

(6) Any facility covered in paragraph (1)(c) shall be permitted to discharge if it meets the standards set forth in subsections (4) and (5). All of the facilities covered in paragraph (1)(c) shall be required to meet the standards set forth in subsections (4) and (5).

(7)(a) The department shall allow backup discharges pursuant to permit only. The backup discharge shall be limited to 30 percent of the permitted reuse capacity on an annual basis. For purposes of this subsection, a “backup discharge” is a surface water discharge that occurs as part of a functioning reuse system which has been permitted under department rules and which provides reclaimed water for irrigation of public access areas, residential properties, or edible food crops, or for industrial cooling or other acceptable reuse purposes. Backup discharges may occur during periods of reduced demand for reclaimed water in the reuse system.

(b) Notwithstanding any other provisions of this chapter or chapter 373, backup discharges of reclaimed water meeting the standards as set forth in subsection (4) shall be presumed to be

allowable and shall be permitted in all waters in the state at a reasonably accessible point where such discharge results in minimal negative impact. Wet weather discharges as provided in s. 2(3)(c), chapter 90-262, Laws of Florida, shall include backup discharges as provided in this section. The presumption of the allowability of a backup discharge may be overcome only by a demonstration that one or more of the following conditions is present:

1. The discharge will be to an Outstanding Florida Water, except as provided in chapter 90-262, Laws of Florida;

2. The discharge will be to Class I or Class II waters;

3. The increased volume of fresh water contributed by a backup discharge will seriously alter the natural freshwater to saltwater balance of receiving waters after reasonable opportunity for mixing;

4. The discharge will be to a water body having a pollutant load reduction goal established by a water management district or the department, and the discharge will cause or contribute to a violation of the established goal;

5. The discharge fails to meet the requirements of the antidegradation policy contained in department rules; or

6. The discharge will be to waters that the department determines require more stringent nutrient limits than those set forth in subsection (4).

(c) Any backup discharge shall be subject to the provisions of the antidegradation policy contained in department rules.

(d) If one or more of the conditions described in paragraph (b) have been demonstrated, a backup discharge may still be allowed in conjunction with one or more of the remedies provided in paragraph (5)(b) or other suitable measures.

(e) The department shall allow lower levels of treatment of reclaimed water if the applicant affirmatively demonstrates that water quality standards will be met during periods of backup discharge and if all other requirements of this subsection are met.

(8) The department may require backflow prevention devices on potable water lines within reclaimed water service areas to protect public health and safety. The department shall establish rules that determine when backflow prevention devices on potable water lines are necessary and when such devices are not necessary.

(9) The Legislature finds that the discharge of domestic wastewater through ocean outfalls wastes valuable water supplies that should be reclaimed for beneficial purposes to meet public and natural systems demands. The Legislature also finds that discharge of domestic wastewater through ocean outfalls compromises the coastal environment, quality of life, and local economies that depend on those resources. The Legislature declares that more stringent treatment and management requirements for such domestic wastewater and the subsequent, timely elimination

of ocean outfalls as a primary means of domestic wastewater discharge are in the public interest.

(a) The construction of new ocean outfalls for domestic wastewater discharge and the expansion of existing ocean outfalls for this purpose, along with associated pumping and piping systems, are prohibited. Each domestic wastewater ocean outfall shall be limited to the discharge capacity specified in the department permit authorizing the outfall in effect on July 1, 2008, which discharge capacity shall not be increased. Maintenance of existing, department-authorized domestic wastewater ocean outfalls and associated pumping and piping systems is allowed, subject to the requirements of this section. The department is directed to work with the United States Environmental Protection Agency to ensure that the requirements of this subsection are implemented consistently for all domestic wastewater facilities in Florida which discharge through ocean outfalls.

(b) The discharge of domestic wastewater through ocean outfalls shall meet advanced wastewater treatment and management requirements no later than December 31, 2018. For purposes of this subsection, the term “advanced wastewater treatment and management requirements” means the advanced waste treatment requirements set forth in subsection (4), a reduction in outfall baseline loadings of total nitrogen and total phosphorus which is equivalent to that which would be achieved by the advanced waste treatment requirements in subsection (4), or a reduction in cumulative outfall loadings of total nitrogen and total phosphorus occurring between December 31, 2008, and December 31, 2025, which is equivalent to that which would be achieved if the advanced waste treatment requirements in subsection (4) were fully implemented beginning December 31, 2018, and continued through December 31, 2025. The department shall establish the average baseline loadings of total nitrogen and total phosphorus for each outfall using monitoring data available for calendar years 2003 through 2007 and shall establish required loading reductions based on this baseline. The baseline loadings and required loading reductions of total nitrogen and total phosphorus shall be expressed as an average annual daily loading value. The advanced wastewater treatment and management requirements of this paragraph shall be deemed to be met for any domestic wastewater facility discharging through an ocean outfall on July 1, 2008, which has installed no later than December 31, 2018, a fully operational reuse system comprising 100 percent of the facility’s annual average daily flow for reuse activities authorized by the department.

(c) Each domestic wastewater facility that discharges through an ocean outfall on July 1, 2008, shall install a functioning reuse system no later than December 31, 2025. For purposes of this subsection, a “functioning reuse system” means an environmentally, economically, and technically feasible system that provides a minimum of 60 percent of the facility’s actual flow on an annual basis for irrigation of public access areas, residential properties, or agricultural crops; aquifer recharge; groundwater recharge; industrial cooling; or other acceptable reuse purposes authorized

by the department. For purposes of this subsection, the term “facility’s actual flow on an annual basis” means the annual average flow of domestic wastewater discharging through the facility’s ocean outfall, as determined by the department, using monitoring data available for calendar years 2003 through 2007. Flows diverted from facilities to other facilities that provide 100 percent reuse of the diverted flows prior to December 31, 2025, shall be considered to contribute to meeting the 60 percent reuse requirement. For utilities operating more than one outfall, the reuse requirement can be met if the combined actual reuse flows from facilities served by the outfalls is at least 60 percent of the sum of the total actual flows from the facilities, including flows diverted to other facilities for 100 percent reuse prior to December 31, 2025. In the event treatment in addition to the advanced wastewater treatment and management requirements described in paragraph (b) is needed in order to support a functioning reuse system, such treatment shall be fully operational no later than December 31, 2025.

(d) The discharge of domestic wastewater through ocean outfalls is prohibited after December 31, 2025, except as a backup discharge that is part of a functioning reuse system authorized by the department as provided for in paragraph (c). A backup discharge may occur only during periods of reduced demand for reclaimed water in the reuse system, such as periods of wet weather, and shall comply with the advanced wastewater treatment and management requirements of paragraph (b).

(e) The holder of a department permit authorizing the discharge of domestic wastewater through an ocean outfall as of July 1, 2008, shall submit to the secretary of the department the following:

1. A detailed plan to meet the requirements of this subsection, including an identification of all land acquisition and facilities necessary to provide for reuse of the domestic wastewater; an analysis of the costs to meet the requirements; and a financing plan for meeting the requirements, including identifying any actions necessary to implement the financing plan, such as bond issuance or other borrowing, assessments, rate increases, fees, other charges, or other financing mechanisms. The plan shall include a detailed schedule for the completion of all necessary actions and shall be accompanied by supporting data and other documentation. The plan shall be submitted no later than July 1, 2013.

2. No later than July 1, 2016, an update of the plan required in subparagraph 1. documenting any refinements or changes in the costs, actions, or financing necessary to eliminate the ocean outfall discharge in accordance with this subsection or a written statement that the plan is current and accurate.

(f) By December 31, 2009, and by December 31 every 5 years thereafter, the holder of a department permit authorizing the discharge of domestic wastewater through an ocean outfall shall submit to the secretary of the department a report summarizing the actions accomplished to

date and the actions remaining and proposed to meet the requirements of this subsection, including progress toward meeting the specific deadlines set forth in paragraphs (b) through (e). The report shall include the detailed schedule for and status of the evaluation of reuse and disposal options, preparation of preliminary design reports, preparation and submittal of permit applications, construction initiation, construction progress milestones, construction completion, initiation of operation, and continuing operation and maintenance.

(g) No later than July 1, 2010, and by July 1 every 5 years thereafter, the department shall submit a report to the Governor, the President of the Senate, and the Speaker of the House of Representatives on the implementation of this subsection. The report shall summarize progress to date, including the increased amount of reclaimed water provided and potable water offsets achieved, and identify any obstacles to continued progress, including all instances of substantial noncompliance.

(h) By February 1, 2012, the department shall submit a report to the Governor and Legislature detailing the results and recommendations from phases 1 through 3 of its ongoing study on reclaimed water use.

(i) The renewal of each permit that authorizes the discharge of domestic wastewater through an ocean outfall as of July 1, 2008, shall be accompanied by an order in accordance with s. 403.088(2)(e) and (f) which establishes an enforceable compliance schedule consistent with the requirements of this subsection.

(j) An entity that diverts wastewater flow from a receiving facility that discharges domestic wastewater through an ocean outfall must meet the 60 percent reuse requirement of paragraph (c). Reuse by the diverting entity of the diverted flows shall be credited to the diverting entity. The diverted flow shall also be correspondingly deducted from the receiving facility's actual flow on an annual basis from which the required reuse is calculated pursuant to paragraph (c), and the receiving facility's reuse requirement shall be recalculated accordingly.

(10) The Legislature finds that the discharge of inadequately treated and managed domestic wastewater from dozens of small wastewater facilities and thousands of septic tanks and other onsite systems in the Florida Keys compromises the quality of the coastal environment, including nearshore and offshore waters, and threatens the quality of life and local economies that depend on those resources. The Legislature also finds that the only practical and cost-effective way to fundamentally improve wastewater management in the Florida Keys is for the local governments in Monroe County, including those special districts established for the purpose of collection, transmission, treatment, or disposal of sewage, to timely complete the wastewater or sewage treatment and disposal facilities initiated under the work program of Administration Commission rule 28-20, Florida Administrative Code, and the Monroe County Sanitary Master Wastewater Plan, dated June 2000. The Legislature therefore declares that the construction and operation of

comprehensive central wastewater systems in accordance with this subsection is in the public interest. To give effect to those findings, the requirements of this subsection apply to all domestic wastewater facilities in Monroe County, including privately owned facilities, unless otherwise provided under this subsection.

(a) The discharge of domestic wastewater into surface waters is prohibited.

(b) Monroe County, each municipality, and those special districts established for the purpose of collection, transmission, treatment, or disposal of sewage in Monroe County shall complete the wastewater collection, treatment, and disposal facilities within its jurisdiction designated as hot spots in the Monroe County Sanitary Master Wastewater Plan, dated June 2000, specifically listed in Exhibits 6-1 through 6-3 of Chapter 6 of the plan and mapped in Exhibit F-1 of Appendix F of the plan. The required facilities and connections, and any additional facilities or other adjustments required by rules adopted by the Administration Commission under s. 380.0552, must be completed by December 31, 2015, pursuant to specific schedules established by the commission. Domestic wastewater facilities located outside local government and special district service areas must meet the treatment and disposal requirements of this subsection by December 31, 2015.

(c) After December 31, 2015, all new or expanded domestic wastewater discharges must comply with the treatment and disposal requirements of this subsection and department rules.

(d) Wastewater treatment facilities having design capacities:

1. Greater than or equal to 100,000 gallons per day must provide basic disinfection as defined by department rule and the level of treatment which, on a permitted annual average basis, produces an effluent that contains no more than the following concentrations:

a. Biochemical Oxygen Demand (CBOD5) of 5 mg/l.

b. Suspended Solids of 5 mg/l.

c. Total Nitrogen, expressed as N, of 3 mg/l.

d. Total Phosphorus, expressed as P, of 1 mg/l.

2. Less than 100,000 gallons per day must provide basic disinfection as defined by department rule and the level of treatment which, on a permitted annual average basis, produces an effluent that contains no more than the following concentrations:

a. Biochemical Oxygen Demand (CBOD5) of 10 mg/l.

b. Suspended Solids of 10 mg/l.

c. Total Nitrogen, expressed as N, of 10 mg/l.

d. Total Phosphorus, expressed as P, of 1 mg/l.

(e) Class V injection wells, as defined by department or Department of Health rule, must meet the following requirements and otherwise comply with department or Department of Health rules, as applicable:

1. If the design capacity of the facility is less than 1 million gallons per day, the injection well

must be at least 90 feet deep and cased to a minimum depth of 60 feet or to such greater cased depth and total well depth as may be required by department rule.

2. Except as provided in subparagraph 3. for backup wells, if the design capacity of the facility is equal to or greater than 1 million gallons per day, each primary injection well must be cased to a minimum depth of 2,000 feet or to such greater depth as may be required by department rule.

3. If an injection well is used as a backup to a primary injection well, the following conditions apply:

a. The backup well may be used only when the primary injection well is out of service because of equipment failure, power failure, or the need for mechanical integrity testing or repair;

b. The backup well may not be used for more than a total of 500 hours during any 5-year period unless specifically authorized in writing by the department;

c. The backup well must be at least 90 feet deep and cased to a minimum depth of 60 feet, or to such greater cased depth and total well depth as may be required by department rule; and

d. Fluid injected into the backup well must meet the requirements of paragraph (d).

(f) The requirements of paragraphs (d) and (e) do not apply to:

1. Class I injection wells as defined by department rule, including any authorized mechanical integrity tests;

2. Authorized mechanical integrity tests associated with Class V wells as defined by department rule; or

3. The following types of reuse systems authorized by department rule:

a. Slow-rate land application systems;

b. Industrial uses of reclaimed water; and

c. Use of reclaimed water for toilet flushing, fire protection, vehicle washing, construction dust control, and decorative water features.

However, disposal systems serving as backups to reuse systems must comply with the other provisions of this subsection.

(g) For wastewater treatment facilities in operation as of July 1, 2010, which are located within areas to be served by Monroe County, municipalities in Monroe County, or those special districts established for the purpose of collection, transmission, treatment, or disposal of sewage but which are owned by other entities, the requirements of paragraphs (d) and (e) do not apply until January 1, 2016. Wastewater operating permits issued pursuant to this chapter and in effect for these facilities as of June 30, 2010, are extended until December 31, 2015, or until the facility is connected to a local government central wastewater system, whichever occurs first. Wastewater treatment facilities in operation after December 31, 2015, must comply with the treatment and disposal requirements of this subsection and department rules.

(h) If it is demonstrated that a discharge, even if the discharge is otherwise in compliance with this subsection, will cause or contribute to a violation of state water quality standards, the department shall:

1. Require more stringent effluent limitations;
2. Order the point or method of discharge changed;
3. Limit the duration or volume of the discharge; or
4. Prohibit the discharge.

(i) All sewage treatment facilities must monitor effluent for total nitrogen and total phosphorus concentration as required by department rule.

(j) The department shall require the levels of operator certification and staffing necessary to ensure proper operation and maintenance of sewage facilities.

(k) The department may adopt rules necessary to carry out this subsection.

(l) The authority of a local government, including a special district, to mandate connection of a wastewater facility, as defined by department rule, is governed by s. 4, chapter 99-395, Laws of Florida.

History.—ss. 1, 2, 3, ch. 71-259; s. 2, ch. 71-137; s. 1, ch. 72-58; s. 271, ch. 77-147; s. 1, ch. 78-206; s. 75, ch. 79-65; s. 1, ch. 80-371; s. 1, ch. 81-246; s. 262, ch. 81-259; s. 2, ch. 86-173; s. 1, ch. 87-303; s. 71, ch. 93-213; s. 2, ch. 94-153; s. 361, ch. 94-356; s. 158, ch. 99-8; s. 25, ch. 2000-153; s. 12, ch. 2000-211; s. 6, ch. 2008-232; s. 38, ch. 2010-205.

Appendix B

Amendment to Ocean Outfall Legislation

Florida Statutes Chapter 2013-31

CHAPTER 2013-31

Committee Substitute for Senate Bill No. 444

An act relating to domestic wastewater discharged through ocean outfalls; amending s. 403.086, F.S.; revising the measurement standard for the wastewater flow; revising the requirements for installation of a functioning reuse system by a utility that had a permit for a domestic wastewater facility on a specified date to discharge through ocean outfall; revising the definition of the term "functioning reuse system"; changing the term "facility's actual flow on an annual basis" to "baseline flow"; revising plan requirements for the elimination of ocean outfalls; providing that certain utilities that shared a common ocean outfall on a specified date are individually responsible for meeting the reuse requirement; requiring that the Department of Environmental Protection approve certain apportionment of reuse if a facility contracts with another facility to install a functioning reuse system; requiring a facility that contracts with another facility to provide a copy of the contract to the department; revising provisions authorizing the backup discharge of domestic wastewater through ocean outfalls; requiring a holder of a department permit authorizing the discharge of domestic wastewater through an ocean outfall to submit certain information; deleting an obsolete provision; requiring the Department of Environmental Protection, the South Florida Water Management District, and affected utilities to consider certain information for the purpose of adjusting reuse requirements; requiring the department to submit a report to the Legislature; providing an effective date.

Be It Enacted by the Legislature of the State of Florida:

Section 1. Subsection (9) of section 403.086, Florida Statutes, is amended to read:

403.086 Sewage disposal facilities; advanced and secondary waste treatment.—

(9) The Legislature finds that the discharge of domestic wastewater through ocean outfalls wastes valuable water supplies that should be reclaimed for beneficial purposes to meet public and natural systems demands. The Legislature also finds that discharge of domestic wastewater through ocean outfalls compromises the coastal environment, quality of life, and local economies that depend on those resources. The Legislature declares that more stringent treatment and management requirements for such domestic wastewater and the subsequent, timely elimination of ocean outfalls as a primary means of domestic wastewater discharge are in the public interest.

(a) The construction of new ocean outfalls for domestic wastewater discharge and the expansion of existing ocean outfalls for this purpose, along with associated pumping and piping systems, are prohibited. Each domestic

wastewater ocean outfall shall be limited to the discharge capacity specified in the department permit authorizing the outfall in effect on July 1, 2008, which discharge capacity shall not be increased. Maintenance of existing, department-authorized domestic wastewater ocean outfalls and associated pumping and piping systems is allowed, subject to the requirements of this section. The department is directed to work with the United States Environmental Protection Agency to ensure that the requirements of this subsection are implemented consistently for all domestic wastewater facilities in the state ~~Florida~~ which discharge through ocean outfalls.

(b) The discharge of domestic wastewater through ocean outfalls must ~~shall~~ meet advanced wastewater treatment and management requirements by ~~no later than~~ December 31, 2018. For purposes of this subsection, the term "advanced wastewater treatment and management requirements" means the advanced waste treatment requirements set forth in subsection (4), a reduction in outfall baseline loadings of total nitrogen and total phosphorus which is equivalent to that which would be achieved by the advanced waste treatment requirements in subsection (4), or a reduction in cumulative outfall loadings of total nitrogen and total phosphorus occurring between December 31, 2008, and December 31, 2025, which is equivalent to that which would be achieved if the advanced waste treatment requirements in subsection (4) were fully implemented beginning December 31, 2018, and continued through December 31, 2025. The department shall establish the average baseline loadings of total nitrogen and total phosphorus for each outfall using monitoring data available for calendar years 2003 through 2007 and ~~shall~~ establish required loading reductions based on this baseline. The baseline loadings and required loading reductions of total nitrogen and total phosphorus shall be expressed as an average annual daily loading value. The advanced wastewater treatment and management requirements of this paragraph are ~~shall be~~ deemed ~~to be~~ met for any domestic wastewater facility discharging through an ocean outfall on July 1, 2008, which has installed by ~~no later than~~ December 31, 2018, a fully operational reuse system comprising 100 percent of the facility's baseline flow on an annual basis ~~average daily flow~~ for reuse activities authorized by the department.

(c)1. Each utility that had a permit for a domestic wastewater facility that discharged ~~discharges~~ through an ocean outfall on July 1, 2008, must ~~shall~~ install, or cause to be installed, a functioning reuse system within the utility's service area or, by contract with another utility, within Miami-Dade, Broward, or Palm Beach Counties by ~~no later than~~ December 31, 2025. For purposes of this subsection, a "functioning reuse system" means an environmentally, economically, and technically feasible system that provides a minimum of 60 percent of a ~~the~~ facility's baseline ~~actual~~ flow on an annual basis for irrigation of public access areas, residential properties, or agricultural crops; aquifer recharge; groundwater recharge; industrial cooling; or other acceptable reuse purposes authorized by the department. For purposes of this subsection, the term "baseline flow" ~~"facility's actual flow on an annual basis"~~ means the annual average flow of domestic wastewater discharging through the facility's ocean outfall, as determined by the

department, using monitoring data available for calendar years 2003 through 2007.

2. Flows diverted from facilities to other facilities that provide 100 percent reuse of the diverted flows before ~~prior to~~ December 31, 2025, are ~~shall be~~ considered to contribute to meeting the ~~60 percent~~ reuse requirement. For utilities operating more than one outfall, the reuse requirement may ~~can~~ be apportioned between the ~~met if the combined actual reuse flows from~~ facilities served by the outfalls ~~is at least 60 percent of the sum of the total actual flows from the facilities~~, including flows diverted to other facilities for 100 percent reuse before ~~prior to~~ December 31, 2025. Utilities that shared a common ocean outfall for the discharge of domestic wastewater on July 1, 2008, regardless of which utility operates the ocean outfall, are individually responsible for meeting the reuse requirement and may enter into binding agreements to share or transfer such responsibility among the utilities. If ~~In the event~~ treatment in addition to the advanced wastewater treatment and management requirements described in paragraph (b) is needed ~~in order~~ to support a functioning reuse system, the ~~such~~ treatment must ~~shall~~ be fully operational by ~~no later than~~ December 31, 2025.

3. If a facility that discharges through an ocean outfall contracts with another utility to install a functioning reuse system, the department must approve any apportionment of the reuse generated from the new or expanded reuse system that is intended to satisfy all or a portion of the reuse requirements pursuant to subparagraph 1. If a contract is between two utilities that have reuse requirements pursuant to subparagraph 1., the reuse apportioned to each utility's requirement may not exceed the total reuse generated by the new or expanded reuse system. A utility shall provide the department a copy of any contract with another utility that reflects an agreement between the utilities which is subject to the requirements of this subparagraph.

(d) The discharge of domestic wastewater through ocean outfalls is prohibited after December 31, 2025, except as a backup discharge that is part of a functioning reuse system or other wastewater management system authorized by the department ~~as provided for in paragraph (c)~~. Except as otherwise provided in this subsection, a backup discharge may occur only during periods of reduced demand for reclaimed water in the reuse system, such as periods of wet weather, or as the result of peak flows from other wastewater management systems, and must ~~shall~~ comply with the advanced wastewater treatment and management requirements of paragraph (b). Peak flow backup discharges from other wastewater management systems may not cumulatively exceed 5 percent of a facility's baseline flow, measured as a 5-year rolling average, and are subject to applicable secondary waste treatment and water-quality-based effluent limitations specified in department rules. If peak flow backup discharges are in compliance with the effluent limitations, the discharges are deemed to meet the advanced wastewater treatment and management requirements of this subsection.

(e) The holder of a department permit authorizing the discharge of domestic wastewater through an ocean outfall as of July 1, 2008, shall submit the following to the secretary of the department ~~the following~~:

1. A detailed plan to meet the requirements of this subsection, including the identification of the technical, environmental, and economic feasibility of various reuse options; the ~~an~~ identification of each ~~all~~ land acquisition and facility ~~facilities~~ necessary to provide for reuse of the domestic wastewater; an analysis of the costs to meet the requirements, including the level of treatment necessary to satisfy state water quality requirements and local water quality considerations and a cost comparison of reuse using flows from ocean outfalls and flows from other domestic wastewater sources; and a financing plan for meeting the requirements, including identifying any actions necessary to implement the financing plan, such as bond issuance or other borrowing, assessments, rate increases, fees, other charges, or other financing mechanisms. The plan must evaluate reuse demand in the context of future regional water supply demands, the availability of traditional water supplies, the need for development of alternative water supplies, the degree to which various reuse options offset potable water supplies, and other factors considered in the Lower East Coast Regional Water Supply Plan of the South Florida Water Management District. The plan must ~~shall~~ include a detailed schedule for the completion of all necessary actions and ~~shall~~ be accompanied by supporting data and other documentation. The plan must ~~shall~~ be submitted by ~~no later than~~ July 1, 2013.

2. By ~~No later than~~ July 1, 2016, an update of the plan required in subparagraph 1. documenting any refinements or changes in the costs, actions, or financing necessary to eliminate the ocean outfall discharge in accordance with this subsection or a written statement that the plan is current and accurate.

(f) By December 31, 2009, and by December 31 every 5 years thereafter, the holder of a department permit authorizing the discharge of domestic wastewater through an ocean outfall shall submit to the secretary of the department a report summarizing the actions accomplished to date and the actions remaining and proposed to meet the requirements of this subsection, including progress toward meeting the specific deadlines set forth in paragraphs (b) through (e). The report shall include the detailed schedule for and status of the evaluation of reuse and disposal options, preparation of preliminary design reports, preparation and submittal of permit applications, construction initiation, construction progress milestones, construction completion, initiation of operation, and continuing operation and maintenance.

(g) By ~~No later than~~ July 1, 2010, and by July 1 every 5 years thereafter, the department shall submit a report to the Governor, the President of the Senate, and the Speaker of the House of Representatives on the implementation of this subsection. In the report, the department shall summarize progress to date, including the increased amount of reclaimed water provided

and potable water offsets achieved, and identify any obstacles to continued progress, including all instances of substantial noncompliance.

~~(h) By February 1, 2012, the department shall submit a report to the Governor and Legislature detailing the results and recommendations from phases 1 through 3 of its ongoing study on reclaimed water use.~~

(h)~~(i)~~ The renewal of each permit that authorizes the discharge of domestic wastewater through an ocean outfall as of July 1, 2008, must ~~shall~~ be accompanied by an order in accordance with s. 403.088(2)(e) and (f) which establishes an enforceable compliance schedule consistent with the requirements of this subsection.

(i)~~(j)~~ An entity that diverts wastewater flow from a receiving facility that discharges domestic wastewater through an ocean outfall must meet the ~~60 percent~~ reuse requirement of paragraph (c). Reuse by the diverting entity of the diverted flows shall be credited to the diverting entity. The diverted flow shall also be correspondingly deducted from the receiving facility's baseline ~~actual~~ flow ~~on an annual basis~~ from which the required reuse is calculated pursuant to paragraph (c), and the receiving facility's reuse requirement shall be recalculated accordingly.

The department, the South Florida Water Management District, and the affected utilities must consider the information in the detailed plan in paragraph (e) for the purpose of adjusting, as necessary, the reuse requirements of this subsection. The department shall submit a report to the Legislature by February 15, 2015, containing recommendations for any changes necessary to the requirements of this subsection.

Section 2. This act shall take effect July 1, 2013.

Approved by the Governor April 24, 2013.

Filed in Office Secretary of State April 24, 2013.

Appendix C

Joint Participation Agreement between Miami Dade County and Florida Power & Light Company Providing for Development of a Reclaimed Water Project

JOINT PARTICIPATION AGREEMENT BETWEEN MIAMI-DADE COUNTY AND FLORIDA POWER & LIGHT COMPANY

PROVIDING FOR DEVELOPMENT OF A RECLAIMED WATER PROJECT

This Joint Participation Agreement (the "**Agreement**") is entered into as of Aug. 25 2010 (the "**Effective Date**") between Miami-Dade County, a political subdivision of the State of Florida (hereinafter the "**County**"), and Florida Power & Light Company, a Florida Corporation (hereinafter "**FP&L**"). The County and FP&L are jointly referred to as the ("**Parties**") and individually as a ("**Party**").

RECITALS

WHEREAS, FP&L plans to develop, construct, and operate two (2) nuclear power units ("**Units 6 and 7**") at its existing Turkey Point generating complex located in Miami-Dade County (the "**TP Complex**") with anticipated in-service dates of July 31, 2018 and July 31, 2020, respectively (the "**In-Service Dates**"); and

WHEREAS, the County currently provides wastewater treatment within Miami-Dade County through three treatment facilities owned and operated by the County: (i) the North District Wastewater Treatment Plant ("**NDWWTP**"), (ii) the Central District Wastewater Treatment Plant ("**CDWWTP**"), (iii) the South District Wastewater Treatment Plant ("**SDWWTP**"), and (iv) the proposed West District Water Reclamation Plant ("**WDWRP**") (NDWWTP, CDWWTP, SDWWTP and WDWRP, jointly the "**Wastewater Facilities**"); and

WHEREAS, the Parties acknowledge that FP&L will be able to utilize significant quantities of water for cooling and other purposes in connection with its operation of the existing Unit 5 and the proposed Units 6 and 7 and that the County desires to find beneficial uses within the boundaries of Miami-Dade County for the treated wastewater (the "**Reclaimed Water**") that is produced by the Wastewater Facilities; and

WHEREAS, the Parties have engaged in preliminary discussions related to the joint development of a project (the "**Reclaimed Water Project**") that would be designed and engineered in a manner to provide significant quantities of water satisfying some or all of the cooling water requirements of FP&L for the TP Complex, as well as providing additional ancillary benefits to the Parties.

NOW, THEREFORE, for and in consideration of these premises, the mutual undertakings and agreements herein contained and assumed, and good and valuable consideration, the receipt and sufficiency of which the Parties hereby acknowledge, and subject to the terms and conditions hereinafter set forth, the County and FP&L hereby covenant and agree as follows:

ARTICLE I
DEFINITIONS

The following terms, when used herein, shall have the meanings set forth below.

"**Agreement**" has the meaning specified in the preamble to this hereto, and includes all exhibits, schedules, appendices attached hereto.

"**Applicable Laws**" means any and all federal, state, regional or local statutes, laws, municipal charter provisions, regulations, ordinances, rules, mandates, judgments, orders, decrees, governmental approvals, codes, licenses or permit requirements or other governmental requirements or restrictions, or any interpretation or administration of any of the foregoing by any Governmental Authority that apply to the facilities, services or obligations of either Party under this Agreement, whether now or hereafter in effect.

"**Business Day**" means any day on which Federal Reserve Member Banks in Miami, Florida are open for business.

"**Coordination Committee**" has the meaning specified in *Section 4.1*.

"**County**" has the meaning specified in the preamble to this Agreement.

"**County Facilities**" has the meaning set forth in *Section 3.3*.

"**Delivery Point(s)**" means a location at the property boundary of the Turkey Point Complex.

"**Delivery Water Quality** " means water delivered to FP&L that: (i) has been treated by High Level Disinfection, as defined herein; (ii) meets the water quality treatment requirements of Rule 62-610.668(2)(d), F.A.C., as of the effective date of this Agreement, for use in a cooling tower without a 300 foot setback, and (iii) satisfies the requirements of Chapter 62-528, F.A.C., as amended from time to time, for injection of non-hazardous wastewater in a Class I UIC well.

"**DEP**" means the Florida Department of Environmental Protection.

"**Dispute**" has the meaning specified in *Section 8.3*.

"**FP&L**" has the meaning specified in the preamble to this Agreement.

"**FP&L Facilities**" has the meaning set forth in *Section 3.2*.

"**Governmental Authority**" means any national, state, regional or local government (whether domestic or foreign), any political subdivision thereof or any other governmental, quasi-governmental, judicial, executive, legislative, administrative, public or statutory instrumentality, authority, body, agency, department, bureau or entity or any arbitrator with authority to bind a party at law.

"**High Level Disinfection (HLD)**" means reclaimed water that has received high level disinfection as defined in Rule 62-600.440(5), F.A.C., as amended from time to time.

"**In-Service Dates**" has the meaning specified in the preamble to this Agreement.

"**Institution**" has the meaning specified in *Section 8.7.*

"**Material and Labor Cap**" means the maximum amount of Material and Labor Costs to be paid by the County and shall be set at $78 million dollars as of January 1, 2010; with a cap escalating each year thereafter by four (4) percent per year, on a monthly pro-rata basis, until FP&L has been reimbursed for all actual Material and Labor Costs and the Pipeline has been conveyed by FP&L to the County.

"**Material and Labor Costs**" means any and all costs associated with procurement and financing of the materials, equipment and labor costs associated with the construction of the Pipeline, but shall not include the cost of any FP&L employees involved in the design, and construction management services for the Pipeline.

"**MGD**" means million gallons per day.

"**Parties**" has the meaning specified in the preamble to this Agreement.

"**Pipeline**" means the pipeline(s) that, in accordance with the requirements of this Agreement: (i) will be designed, engineered, procured, constructed, and commissioned by FP&L and conveyed to the County to operate and maintain, (ii) will run to the Delivery Point, and (iii) will be used to transport up to 90 MGD of the Reclaimed Water to FP&L.

"**Reclaimed Water**" means wastewater that is processed and treated by the Reclaimed Water Project and satisfies the Delivery Water Quality requirements.

"**Reclaimed Water Project**" or the "**RWP**" means the permitting, ownership, financing, siting, construction, commissioning, operation and maintenance of any facilities necessary for the County to produce and deliver, and for FP&L to accept and receive, Reclaimed Water exclusively for use by FP&L at the TP Complex for cooling and other purposes (i.e., process and/or irrigation).

"**Reclaimed Water Service Agreement**" has the meaning specified in *Section 3.1.3.*

"**Term**" has the meaning specified in *Section 2.3*.

"**Turkey Point Complex**" or "**TP Complex**" means FP&L's power generation site located in southeastern Miami-Dade County.

"**Unit**" means any of the included power generation units (Units 5, 6 and 7) that FP&L operates or has proposed to construct, at the TP Complex.

"**Unit 5**" means the combined cycle unit completed in 2007.

"**Units 6 and 7**" has the meaning specified in the preamble to this Agreement.

"**Wastewater Facilities**" has the meaning specified in the preamble to this Agreement.

ARTICLE II
PURPOSE; TERM

2.1 **Purpose.** This Agreement sets forth the mutually agreed to terms and conditions pursuant to which the Parties intend to develop jointly the Reclaimed Water Project. The Parties understand that additional discussions and negotiations with respect to the development of the Reclaimed Water Project will be required and that, except as otherwise provided for herein, neither Party will be bound to proceed with the development of the Reclaimed Water Project unless and until a mutually acceptable, service agreement for the sale and purchase of Reclaimed Water is negotiated, approved and executed (the "**Reclaimed Water Service Agreement**"). However, to facilitate further such discussions and negotiations, the Parties desire to set forth the basic proposed terms of the Reclaimed Water Project and their understandings with respect thereto.

The Parties acknowledge and agree that separate agreements will be required for the County to provide to FP&L potable water or wastewater service, or both, for Units 6 and 7.

2.2 **Expected Sequence of Events.** The expected sequence of events under this Agreement and the Reclaimed Water Service Agreement are as follows:

(1) FP&L and the County begin preliminary design, engineering, and permitting process.

(2) County provides Pipeline specifications to FP&L (Fall 2010).

(3) FP&L completes preliminary design of the FP&L Facilities and Pipeline (Fall 2010).

(4) FP&L receives Site Certification Order (Spring 2011).

(5) The Reclaimed Water Service Agreement is presented to FP&L Management and Miami-Dade County Board of County Commissioners for approval (Summer 2013).

(6) Upon Board of County Commission and FP&L Management approval, FP&L and County execute the Reclaimed Water Service Agreement.

(7) FP&L and County commence detailed design, engineering and continue permitting process.

(8) FP&L and County complete cost and schedule estimates for their respective facilities, in accordance with the Reclaimed Water Service Agreement (Spring 2014).

(9) FP&L obtains United States Army Corps of Engineers Permit and Nuclear Regulatory Commission ("NRC") Combined License (Fall 2015).

(10) FP&L and County commence construction of their respective Facilities in accordance with the terms of the Reclaimed Water Service Agreement.

(11) FP&L completes construction of the FP&L Facilities and County

completes construction of the County Facilities (Fall 2018).

(12) FP&L test period with intermittent delivery of Reclaimed Water.

(13) Delivery of Reclaimed Water commences on the Service Initiation Date, as defined in the Reclaimed Water Service Agreement (2019).

2.3 **Term.** The term of this Agreement (the "**Term**") shall commence on the Effective Date and shall terminate on the Commitment Date as defined in the Reclaimed Water Service Agreement; provided, either FP&L or the County shall have the right to terminate this Agreement for its convenience in whole or in part at any time, upon thirty (30) days' written notice to the other Party. Upon termination of this Agreement, the Parties shall have no further obligations, duties or liabilities hereunder.

ARTICLE III
RESPONSIBILITIES; EXPENSES

3.1 **General Obligations of the Parties.** During the Term, each of the Parties shall (a) exercise reasonable efforts in performing its obligations under this Agreement and make available the personnel and resources reasonably necessary to complete such Party's responsibilities with respect to the development of the Reclaimed Water Project, (b) cooperate fully with the other Party to that end, and (c) continue in good faith the development of the Reclaimed Water Project subject to the terms of this Agreement. Consistent with the foregoing, the Parties shall also:

3.1.1 pursue the necessary administrative and budgetary approvals within their respective organizations to support the development of the Reclaimed Water Project.

3.1.2 support those activities reasonably necessary to secure other components of value associated with the Reclaimed Water Project including, without limitation, any applicable credits, offsets and environmental mitigation.

3.1.3 develop jointly the terms and conditions and form of the Reclaimed Water Service Agreement pursuant to which the County would sell and deliver, and FP&L would purchase and receive, at the Delivery Point and as of the Service Initiation Dates (as defined in the Reclaimed Water Services Agreement), Reclaimed Water during the term of such Reclaimed Water Service Agreement for use at Units 5, 6 and 7, as defined herein. For illustrative purposes, a form of such Reclaimed Water Service Agreement is attached at *Exhibit I*. The Reclaimed Water Service Agreement shall also include provisions for the following obligations:

(i) FP&L will manage the engineering, procurement and construction of the Pipeline;
(ii) FP&L will establish and maintain the Pipeline project schedule;
(iii) FP&L will consult with the County during the engineering design phase to ensure that the engineering design, material and construction methods of the Pipeline are consistent with all applicable regulations and meets the requirements for bond service obligations as identified by the County's Bonding Engineer;
(iv) FP&L will apply for and manage compliance with all permits and approvals necessary for the construction of the Pipeline;

(v) FP&L will be responsible for implementing the mitigation plan and associated costs, if any, in connection with the Pipeline;

(vi) FP&L will bear the cost of (and will not be reimbursed for) designing and engineering the Pipeline;

(vii) At the time of conveyance, the County will reimburse FP&L for all actual Material and Labor Costs in an amount not to exceed the Material and Labor Cap, FP&L will convey the Pipeline to the County and the County will become the owner of the Pipeline; and

(viii) FPL will comply with all applicable federal, state, and local laws in the procurement and construction of the Pipeline.

3.1.4 Further Conditions. The Parties understand that additional discussions and negotiations with respect to developing the Reclaimed Water Service Agreement will be required, and that neither Party will be bound to proceed with the Reclaimed Water Service Agreement unless and until all necessary approvals are obtained (including without limitation senior management and board of director approvals).

3.1.5 use good faith efforts to comply with the estimated sequence of events set forth in Section 2.2.

3.2 **Specific Obligations of FP&L.** FP&L will undertake all activities related to designing, engineering, permitting, constructing, operating and maintaining, by FP&L, those improvements and facilities (the "**FP&L Facilities**") necessary: (a) to transport the Reclaimed Water from the Delivery Point(s) to the TP Complex, (b) for additional treatment of the Reclaimed Water at the TP Complex, if necessary, (c) to use best good-faith efforts to maximize the utilization of the Reclaimed Water in the existing Turkey Point Unit 5 and proposed Units 6 and 7, and (d) to utilize or dispose of the Reclaimed Water delivered to the TP Complex pursuant to the Reclaimed Water Services Agreement. Consistent with the foregoing, FP&L shall:

3.2.1 to the extent it is available, accept and utilize up to 90 million gallons per day of the Reclaimed Water for the existing Unit 5 and the proposed Units 6 and 7 at the TP Complex.

3.2.2 develop an independent cooling water supply sufficient to provide the full requirements of existing Unit 5 and the proposed Units 6 and 7, such independent cooling water supply would allow for the County Facilities to be designed and built on a schedule that would not place a significant burden on the County, and provide adequate cooling water supply in the event of system operational or maintenance issues on either Party's facilities.

3.2.3 develop and maintain a schedule that will identify key milestones related to the development of the FP&L Facilities and the Pipeline taking into account when Unit 5 and the proposed Units 6 and 7 will be in-service and otherwise equipped to receive specified volumes of Reclaimed Water from the County, such schedule to be used by the Coordination Committee to manage the timing of each Party's efforts and in the development of a delivery schedule anticipated to become part of the Reclaimed Water Services Agreement.

3.2.4 include the Pipeline in FP&L's Florida State Site Certification Application as an "Associated Facility" as defined in Section 403.503(7) Fla. Stat.

3.2.5 be responsible for the incremental cost of any pipeline(s) and or/or other infrastructure required by FP&L to satisfy its redundancy concerns, if any.

3.2.6 provide the County with reasonable access as necessary to FP&L's property for purposes of surveys, geotechnical investigations, and other pre-construction activities, provided, however, that the County shall have executed an access agreement with FP&L prior to any such access.

3.2.7 be responsible for the cost of any infrastructure required by FP&L to satisfy Condition 17 of the County's Zoning Resolution Z-56-07.

3.2.8 in accordance with the terms agreed upon by the Parties in an executed Reclaimed Water Service Agreement, (1) design, engineer, and manage the construction of the Pipeline, and (2) apply for and manage compliance with the environmental permitting of the Pipeline and implementation of the mitigation plan and associated cost, if any, in connection with the Pipeline .

3.3 **Specific Obligations of the County.** The County will undertake all activities, related to designing, engineering, permitting, constructing, operation and maintenance of those improvements and facilities (the "**County Facilities**") necessary: (a) to produce and pump the Reclaimed Water from its point(s) of origination to the designated FP&L Delivery Point(s), (b) for treatment of the Reclaimed Water at its point(s) of origination to the Delivery Water Quality requirements of FP&L, and (c) to dispose of non-delivered quantities of Reclaimed Water. Provided, however, FP&L shall be responsible for the environmental permitting of the Pipeline. Consistent with the foregoing, the County shall:

3.3.1 use good faith efforts, and consult and coordinate with FP&L, to ensure that the design of the Pipeline (i) satisfies all approvals and permits and (ii) does not create unreasonable costs or execution requirements necessary to satisfy Condition 17 of the County's Zoning Resolution Z-56-07.

3.3.2 produce up to 90 million gallons per day of reclaimed wastewater treated to the Delivery Water Quality for use as cooling water and other purposes for the existing Unit 5 and the proposed Units 6 and 7, as defined herein.

3.3.3 develop and maintain a schedule that will identify key milestones related to the development of the County Facilities, such schedule will be used by the Coordinating Committee to manage the timing of each Party's efforts and in the development of a delivery schedule anticipated to become a part of the Reclaimed Water Services Agreement.

3.3.4 support FP&L by providing prompt reviews and approvals of those materials necessary in order to include the Pipeline in the Florida State Site Certification Application as an "Associated Facility".

3.3.5 develop a redundant method of disposal of the Reclaimed Water to allow adequate disposal in the event of system operational or maintenance issues on either Party's facilities.

3.3.5 design and construct, at FP&L's expense, any pipeline(s) and/or other infrastructure required by FP&L to satisfy its redundancy concerns, if any.

3.3.6 in accordance with the terms agreed upon by the Parties in an executed Reclaimed Water Service Agreement, reimburse FP&L upon conveyance of the Pipeline.

3.4 **Expenses**. Each Party shall bear its own costs and expenses (including fees of counsel and outside advisors) in connection with the preparation, negotiation and execution of this Agreement; in connection with performing its obligations under this Agreement; and in connection with the negotiation, authorization, execution and delivery of the Reclaimed Water Service Agreement. At the request of the County, project costs will be reviewed by FP&L to determine if they are eligible for recovery by FP&L through the Nuclear Cost Recovery Rule and such eligible project costs will be submitted by FP&L.

ARTICLE IV
COORDINATION COMMITTEE

4.1 **Coordination Committee.** Development of the Reclaimed Water Project shall be managed by a committee (the "**Coordination Committee**") comprised of four (4) members. Each Party shall appoint two (2) members to the Coordination Committee. Each Party may, at any time, change its member of the Coordination Committee or appoint an alternate during its member's absence. Appointments shall be effected by written notice to the other Party. The Coordination Committee shall, among other things, meet regularly (which meetings may include telephonic meetings, and the minutes of which shall be recorded in writing) to discuss the schedule and progress of the Reclaimed Water Project, to schedule and coordinate future activities.

4.2 **Coordination Committee Function**. The Parties shall cause the Coordination Committee to perform diligently its duties and functions under this Agreement, including its obligations under Section 3.2.3 and 3.3.3. Additionally each Party shall advise the other Party as soon as reasonably practicable of any problems or issues which such Party is aware that could materially impact its ability to support the Reclaimed Water Project. Notwithstanding Section 8.3, in the event that the Coordination Committee is unable or unwilling to perform its duties and functions under this Agreement, or otherwise reaches an impasse, the Coordination Committee shall refer the matter to the director of WASD and Vice President (VP) of Development at FP&L, and such director of WASD and VP of Development at FP&L shall meet within ten (10) Business Days to resolve the matter.

ARTICLE V
INFORMATION; CONFIDENTALITY

5.1 **Access to Information.** The Parties shall each provide to the other Party full and complete access to data, documents, and any other information pertinent to the Reclaimed Water Project in order to permit each Party to perform its obligations under this Agreement.

FP&L acknowledges that the County, as a public entity, is subject to Florida's public records law. Said law establishes a right of access to any public record made or received in connection with the official business of any public body, except those records specifically exempted or made confidential by Florida law. The County agrees to notify FP&L of any request for disclosure and shall afford FP&L the opportunity to promptly assert in writing, within 10 business days, that the information is exempt from disclosure. Failure of FP&L to provide written objection to such disclosure shall be considered agreement to the disclosure. In the event FP&L objects to the disclosure, FP&L shall as soon as practicable seek an injunction restricting disclosure of the information. If FP&L objects to disclosure, FP&L agrees to assume all the costs of any litigation seeking disclosure and/or nondisclosure, including liability for attorney's fees and judgment. This provision shall survive termination.

ARTICLE VI
INDEMNIFICATION; LIMITS

6.1 FP&L and the County shall each be responsible for its own facilities, for protection of its own systems, and for ensuring adequate safeguards for FP&L and the County customers, and the personnel and equipment of the County and FP&L. To the extent permitted by law, and subject to the limitations set forth in Section 768.28, Florida Statutes, the County shall indemnify, defend and hold FP&L harmless, and FP&L shall indemnify, defend and hold the County harmless, from any and all claims, demands, costs or expenses, for loss, damage or injury to persons or property caused by, arising out of, or resulting from: (a) any act or omission by the respective Party or that Party's contractors, agents, servants and employees in connection with the development, construction or operation of that Party's facilities or systems, or the operation thereof in connection with the other Party's facilities or systems, (b) any defect in, failure of, or fault related to, a Party's facilities or systems, or (c) the negligence of the respective Party or negligence of that Party's contractors, agents, servants or employees. The respective Party shall pay all claims, costs, damages and losses in connection with (a), (b) or (c) above, and shall investigate and defend all claims, suits or actions of any kind or nature in the name of the other Party, where applicable, including appellate proceedings and shall pay all costs, judgment and attorney's fees that may issue thereon. The foregoing indemnification shall not constitute a waiver of sovereign immunity beyond the limits set forth in Section 768.28, Florida Statutes, nor shall the same be construed to constitute agreement by either Party to indemnify the other Party for such other Party's negligent, willful, or intentional acts or omissions. The provisions of this *Section 6.1* shall survive termination, cancellation, suspension, completion or expiration of this Agreement

6.2 To the fullest extent permitted by law, neither the County nor FP&L, nor their respective officers, directors, agents, employees, members, parents, subsidiaries or affiliates, successors or assigns, or their respective officers, directors, agents, employees, members, parents, subsidiaries or affiliates, successors or assigns, shall be liable to the other party or their respective officers, directors, agents, employees, members, parents, subsidiaries or affiliates, successors or assigns, for claims, suits, actions or causes of action for incidental, indirect,

special, punitive, multiple or consequential damages connected with or resulting from performance or non-performance of this Agreement, or any actions undertaken in connection with or related to this Agreement, including without limitation, any such damages which are based upon causes of action for breach of contract, tort (including negligence and misrepresentation), breach of warranty, strict liability, statute, operation of law, under any indemnity provision or any other theory of recovery. If no remedy or measure of damages is expressly provided herein, the obligor's liability shall be limited to direct damages only, and such direct damages shall be the sole and exclusive measure of damages and all other remedies or damages at law or in equity are waived; provided, however, that this sentence shall not apply to limit the liability of a party whose actions giving rise to such liability constitute gross negligence or willful misconduct. The provisions of this *Section 6.2* shall apply regardless of fault and shall survive termination, cancellation, suspension, completion or expiration of this Agreement. Nothing contained in this Agreement shall be deemed to be a waiver of a party's right to seek injunctive relief.

ARTICLE VII
COMPLIANCE WITH CERTAIN REQUIREMENTS

7.1 **Compliance with Certain Legal Requirements.** Each Party shall comply and cause its contractors and consultants to comply with applicable federal, state and local codes, ordinances, rules and regulations in performing their respective duties, responsibilities and obligations pursuant to this Agreement. The Parties shall not unlawfully discriminate in the performance of their respective duties under this Agreement. Such laws include but are not limited to the following: Miami-Dade County Resolution No. R-385-95, which creates a policy prohibiting contracts with firms violating the Americans with Disabilities Act of 1990 ("**ADA**") and other laws prohibiting discrimination on the basis of disability; Miami-Dade County Ordinance No. 72-82 (Conflict of Interest); Resolution No. R-1049-93 (Affirmative Action Plan Furtherance and Compliance); Resolution No. R.-185-00 (Domestic Leave Ordinance); and Ordinance No. 02-68 (Security).

7.2 **Records.** FP&L shall maintain for at least three (3) years after completion of the Reclaimed Water Project a copy of its records pertaining to the Reclaimed Water Project within Miami-Dade County and, upon reasonable prior notice, such records shall be made available to representatives of the County.

7.3 **Inspections.** The Office of the Miami-Dade County Inspector General ("**IG**") has the authority and power to review past, present and proposed County programs, accounts, records, contracts and transactions pursuant to Section 2-1076 of the Miami-Dade County Code.

ARTICLE VIII
MISCELLANEOUS

8.1 **Representations and Warranties.** Each Party represents and warrants that: (a) it is an entity duly organized, validly existing and in good standing under the laws of the jurisdiction in which it is organized and is qualified to do business in all jurisdictions where it is required to be qualified; (b) it has the necessary power and authority to enter into and perform its obligations under this Agreement; (c) it has duly authorized the person(s) signing this Agreement to execute this Agreement on its behalf; (d) upon execution, this Agreement will be a legal, valid and binding obligation of such Party, enforceable against such Party in accordance with its terms; and (e) the execution and delivery of this Agreement and its performance by such Party

will not violate, result in a breach of or conflict with any law, rule, regulation, order or decree applicable to such Party, its organizational documents or the terms of any other agreement binding on such Party.

8.2 **Notice.** All notices required under this Agreement shall be in writing unless expressly specified otherwise herein, and shall be delivered in person, by certified mail or by a nationally recognized overnight courier, return receipt requested, or by facsimile transmission or electronic mail, if an electronic mail address is provided, with confirmation by voice or automatic answer-back service promptly following such facsimile transmission or electronic mail, as specified below:

As to the County:
Carlos Alvarez, Miami-Dade County Mayor
Stephen P. Clark Center
111 N.W. 1st Street, 29th Floor
Miami, Florida 33128
Facsimile: (305) 375-3618

With a copy to:

George Burgess, Miami-Dade County Manager
Stephen P. Clark Center
111 N.W. 1st Street, 29th Floor
Miami, Florida 33128
Facsimile: (305) 375-1262

John W. Renfrow, P.E., Director
Miami-Dade Water and Sewer Department
3071 SW 38th Avenue
Miami, Florida 33146]
Facsimile: (786) 552-8647

Robert. A. Cuevas, Jr., Miami-Dade County Attorney
Stephen P. Clark Center
111 N.W. 1st Street, 28th Floor
Miami, Florida 33128
Facsimile: (305) 375-5634

As to FP&L:

Florida Power & Light Company
700 Universe Boulevard
Juno Beach, Florida 33408
Facsimile: (561) 304-5233
Attention: Vice President of Development

With a copy to:

Florida Power & Light Company
Law Department (Law/JB)

700 Universe Boulevard
Juno Beach, Florida 33408
Facsimile: (561) 691-7305
Attention: Managing Attorney-Commercial Transactions

Notices shall be effective upon receipt; provided, that in the event a Party fails to notify the other of the correct person and address for notices pursuant to *Section 8.2*, any notice to that Party shall be deemed effective on the third day following the date such notice is sent to the person and address last provided by such Party. Either Party may, at any time, by notice designate any different person(s) or different address(es) or phone number(s) for receipt of notices and correspondence.

8.3 **Disputes.** In the event of any dispute, controversy or claim between the Parties arising out of or relating to this Agreement (collectively, a "**Dispute**"), the Coordination Committee shall attempt in the first instance to resolve such Dispute through friendly consultations between the Parties. If such consultations do not result in a resolution of the Dispute within fifteen (15) days after notice of the Dispute has been delivered to either Party, then such Dispute shall be referred to the director of WASD and VP of Development at FP&L of the Parties for resolution. If the Dispute has not been resolved within twenty (20) Business Days after such referral to the director of WASD and VP of Development at FP&L of the Parties, then either Party may pursue all available remedies. The Parties agree to attempt to resolve all Disputes promptly, equitably and in a good faith manner.

8.4 **Governing Law; Submission to Jurisdiction.**

8.4.1 This Agreement and the rights and the obligations of the Parties hereunder shall be construed under, and in accordance with, the laws of the State of Florida.

8.4.2 Any litigation between the Parties shall be conducted in the courts of the State of Florida in the Circuit Court for Miami-Dade County, Florida, or the United States District Court for the Southern District of Florida, and the parties hereby submit to the exclusive jurisdiction of such courts. The Parties irrevocably waive any objection that any of them may now or hereafter have to the bringing of any such action or proceeding in such respective jurisdictions, including any objection to the laying of venue based on the grounds of *forum non conveniens* and any objection based on the grounds of lack of *in personam* jurisdiction.

8.4.3 In any litigation arising from or related to the Agreement, the Parties hereto each hereby knowingly, voluntarily and intentionally waive the right each may have to a trial by jury with respect to any litigation based hereon, or arising out of, under or in connection with the Agreement, or any course of conduct, course of dealing, statements (whether oral or written) or actions of either Party to the Agreement. This provision is a material inducement for the County and FP&L to enter into this Agreement.

8.5 **Relationship of Parties.** The Parties understand and agree that no Party is an agent, employee, contractor, vendor, representative or partner of any other Party, that (except as expressly set forth in writing) no Party shall owe a fiduciary duty to any other Party; that no Party shall hold itself out as such to third parties; and that no Party is capable of binding any other Party to any obligation or liability without the prior written consent of the other Party. Neither the execution and delivery of this Agreement, nor consummation of the transactions contemplated hereby, shall create or constitute a partnership, joint venture or any other form of business organization or arrangement among the Parties.

8.6 **County as Sovereign.** It is expressly understood that notwithstanding any provision of this Agreement and the County's status thereunder:

8.6.1 The County retains all of its sovereign prerogatives and rights as a county under Florida laws and shall in no way be estopped from withholding or refusing to issue any approvals of applications for building, zoning, planning or development under present or future laws and regulations of whatever nature applicable to the planning, design, construction and development of the FP&L Facilities or the operation thereof, or be liable for the same; and

8.6.2 The County shall not by virtue of this Agreement be obligated to grant FP&L any approvals of applications for building, zoning, planning or development under present or future laws and ordinances of whatever nature applicable to the planning, design, construction, development and/or operation of the FP&L Facilities.

8.6.3 Notwithstanding and prevailing over any contrary provision in this Agreement or in the Reclaimed Water Service Agreement, any County covenant or obligation that may be contained in the Reclaimed Water Service Agreement, including but not limited to the following:

(a) to cooperate with, or provide good faith, diligent, reasonable or other similar efforts to assist FP&L regardless of the purpose required for such cooperation;

(b) to execute documents or give approvals, regardless of the purpose required for such execution or approvals;

(c) to apply for or assist FP&L in applying for any County, City or third party permit or needed approval; or

(d) to contest, defend against, or assist FP&L in contesting or defending against any challenge of any nature;

shall not bind the Board, the Planning and Zoning Department, DERM or any other County, federal or state department or authority, committee or agency to grant or leave in effect any zoning changes, variances, permits, waivers, contract amendments, or any other approvals that may be granted, withheld or revoked in the discretion of the County or other applicable governmental agencies in the exercise of its police power; and the County shall be released and held harmless, by FP&L from any liability, responsibility, claims, consequential or other damages, or losses to FP&L or to any third parties resulting from denial, withholding or revocation (in whole or in part) of any zoning or other changes, variances, permits, waivers, amendments, or approvals of any kind or nature whatsoever. Without limiting the foregoing, the Parties recognize that the approval of development approvals and permits will require the County to exercise its quasi-judicial or police powers. Notwithstanding any other provision of this Agreement, the County shall have no obligation to approve, in whole or in part, any application for a development entitlement. The County's obligation to use reasonable good faith efforts in the processing and obtaining of such development approvals and permits shall not extend to any exercise of quasi-judicial or police powers, and shall be limited solely to ministerial actions, including the timely acceptance and processing of any applications. Moreover, in no event shall a failure of the County to adopt any of the development approvals and permits be construed a

breach or default of this Agreement.

8.7 **Remedies.**

8.7.1 In the event of any breach or threatened breach of this Agreement by any Party hereto, the other Party shall be entitled to equitable relief through an injunction in addition to any other rights and remedies available to it.

8.7.2 Except with respect to rights and remedies expressly declared to be exclusive in this Agreement, the rights and remedies of the Parties are cumulative and the exercise by any Party of one or more of such rights or remedies shall not preclude the exercise by it, at the same or different times, of any other rights or remedies for the same default or any other default.

8.7.3 Any failure of a Party to exercise any right or remedy as provided in this Agreement shall not be deemed a waiver by that Party of any claim for damages it may have by reason of the default. Any waiver shall be limited to the particular right so waived and shall not be deemed a waiver of the same right at a later time or of any other right under this Agreement. Waiver by either Party of any breach of any provision of this Agreement shall not be considered as or constitute a continuing waiver or a waiver of any other breach of the same or any other provision of this Agreement.

8.8 **Assignment or Sale, Etc.** Neither Party may assign any of its rights or obligations under this Agreement without the prior written consent of the other Party; provided, that without the prior consent of FP&L, the County may assign its rights and interests under this Agreement to a financial institution (the "**Institution**") as collateral security, or create a security interest in favor of the Institution over its rights and interests in this Agreement. Any attempt by a Party to make any assignment, sale, lease, transfer or other disposition described in this *Section 8.8* in violation of this *Section 8.8* shall be void ab initio and shall not be effective.

8.9 **Amendments**. This Agreement shall not be amended or modified, and no waiver of any provision hereof shall be effective, unless set forth in a written instrument authorized and executed by the Parties. This Agreement, as it may be amended from time to time, shall be binding upon, and inure to the benefit of, the Parties' respective successors-in-interest and permitted assigns.

8.10 **Survival**. The obligations, rights, and remedies of the Parties hereunder, which by their nature survive the termination of this Agreement, shall survive such termination and inure to the benefit of the Parties.

8.11 **Construction of Agreement**. The Parties expressly agree that no provision of this Agreement should be construed against or interpreted to the disadvantage of any Party by any court or other governmental or judicial authority by reason of such Party having been deemed to have structured or dictated such provision.

8.12 **Complete Agreement**. This Agreement is intended as the complete and exclusive statement of the agreement between the Parties. Parol or extrinsic evidence shall not be used to vary or contradict the express terms of this Agreement and recourse may not be had to alleged prior drafts, negotiations, prior dealings, usage of trade, course of dealing or course of performance to explain or supplement the express terms of this Agreement. Except as specifically set forth in this Agreement, there shall be no warranties, representations or other agreements among the Parties in connection with the subject matter hereof.

8.13 **Counterparts.** This Agreement may be executed and delivered in counterparts, and may be delivered by facsimile transmission.

8.14 **Severability.** In the event that any provision of this Agreement shall be held invalid or unenforceable by a court of competent jurisdiction, the remainder of this Agreement or the application of the provisions hereof to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby.

8.15 **Integration.** The terms and provisions contained in this Agreement constitute the entire agreement between the Parties with respect to the subject matter hereof. This Agreement supersedes and terminates all previous undertakings, representations and agreements, both oral and written, between the Parties with respect to the Reclaimed Water Project.

8.16 **General Interpretive Provisions**. Whenever the context may require, terms used in this Agreement shall include the singular and plural forms, and any pronoun shall include the corresponding masculine and feminine forms. The term "including", whenever used in any provision of this Agreement, means including but without limiting the generality of any description preceding or succeeding such term. Each reference to a Person shall include a reference to such Person's successors and assigns. All references to "Sections" or "Exhibits" shall be references to the Sections and Exhibits to this Agreement, except to the extent that any such reference specifically refers to another document. The Exhibits to this Agreement are incorporated into and form a part of this Agreement. Each of the Parties has agreed to the use of the particular language of the provisions of this Agreement and any questions of doubtful interpretation shall not be resolved by any rule or interpretation against the draftsman.

8.17 **Absence of Third-Party Beneficiaries**. Nothing in this Agreement, express or implied, is intended to (a) confer upon any person other than the Parties and their permitted successors and assigns any rights or remedies under or by reason of this Agreement as a third-party beneficiary or otherwise except as specifically provided in this Agreement; or (b) authorize anyone not a party to this Agreement to maintain an action pursuant to or based upon this Agreement.

8.18 **Headings.** Captions and headings in this Agreement are included for ease of reference only and do not constitute a part of this Agreement and shall not affect the meaning or interpretation of any provisions herein.

8.19 **Time of Essence.** Time is of the essence with respect to the performance of each of the covenants and obligations contained in this Agreement.

[signatures on following page]

IN WITNESS WHEREOF, the COUNTY and FP&L, by their duly authorized officials, have executed this Agreement, with the Exhibit attached as of the day and year above.

ATTEST:

MIAMI-DADE COUNTY

Witness

Ingrid Bellume
Print Name

ATTEST:

By: _____
Clerk (Seal)

MIAMI-DADE COUNTY

By: _____
County Mayor

ATTEST:

FLORIDA POWER & LIGHT COMPANY

By: _____
Witness

By: _____
Name: Eric E. Silagy
Title: Senior Vice President, Regulatory and State Governmental Affairs

LEGAL
PEA

Manuel J. Rodriguez
Print Name

Approved as to form
and legal sufficiency:

Sarah Egawee Davis
Assistant County Attorney

Exhibit I – Form of Reclaimed Water Service Agreement

EXHIBIT I

FORM of AGREEMENT
BETWEEN
MIAMI-DADE COUNTY
AND
FLORIDA POWER & LIGHT COMPANY
PROVIDING FOR THE RENDITION OF RECLAIMED WATER SERVICE

THIS AGREEMENT, made and entered into at Miami-Dade County, Florida, this ____day of_____, 20__ by and between **Miami-Dade County**, a political subdivision of the State of Florida, (the "**COUNTY")**, and Florida Power & Light Company, a Florida Corporation (**"FP&L"**, and together with the COUNTY, the **"Parties"**). Capitalized terms used but not otherwise defined herein shall have the meaning ascribed to such terms in the Joint Participation Agreement (**"JPA"**) (as defined herein).

W I T N E S S E T H:

WHEREAS, the Miami-Dade Water and Sewer Department (the "**Department**") operates and maintains the COUNTY's water reclamation system; and

WHEREAS, the State of Florida, Department of Environmental Protection requires the COUNTY to process and treat wastewater in order to produce water for reuse ("**Reclaimed Water**") pursuant to Section 403.064, F.S.; and

WHEREAS, FP&L owns a nuclear power generation site located in southeastern Miami-Dade County, Florida (the "**Turkey Point Complex**" or "**TP Complex**"); and

WHEREAS, FP&L has identified the need and requested Reclaimed Water service at the TP Complex for the operation of its existing Unit 5 and for the construction and operation of two (2) proposed nuclear power units ("**Units 6 and 7**", jointly with Unit 5 the "**Units**") with anticipated in-service dates of July 31, 2018 and July 31, 2020, respectively; and

WHEREAS, the COUNTY agrees to construct water reclamation facilities at its North, Central, South and proposed West District Wastewater Treatment Plants (jointly the "**WWTPs**") capable of satisfying FP&L's Reclaimed Water requirements at the TP Complex; and

WHEREAS, FP&L agrees to manage the engineering, procurement and construction of the transmission pipeline connecting the COUNTY's South District Wastewater Treatment Plant to the TP Complex (the "**Pipeline**"); and

WHEREAS, FP&L agrees to convey the Pipeline to the COUNTY (in accordance with the terms set forth herein) and following such conveyance, the County shall own the Pipeline; and

WHEREAS, the COUNTY and FP&L have entered into a Joint Participation Agreement Providing for the Development of a project (the "**Reclaimed Water Project**") dated _____, 2010 (the "**JPA**"), which sets forth various duties and obligations of the COUNTY and FP&L with respect to the development of the Reclaimed Water Project and utilization of Reclaimed Water at the TP Complex.

NOW, THEREFORE, in consideration of the mutual covenants and obligations set forth, the COUNTY and FP&L hereby covenant and agree as follows:

1. **Conditions Precedent.** Notwithstanding FP&L's execution and delivery of this Agreement, FP&L's obligations hereunder shall only become effective upon the Commitment Date (as provided for in this Section) and upon the following conditions being satisfied prior to the Commitment Date (or waived by FP&L, in its sole discretion):

A. FP&L has received those federal, state and local governmental permits and regulatory approvals (the "**FP&L Required Approvals**") set forth in Exhibit I required for the continued operation of Unit 5 and the ownership, financing, siting, construction and operation of Units 6 and 7, including a final certificate issued by either the Siting Board (as such term is defined in the Power Plant Siting Act) or the Florida Department of Environmental Protection in Final Form (as provided for herein) and containing terms and conditions satisfactory to FP&L in its sole discretion; and

B. The COUNTY shall have received those federal, state and local governmental permits and regulatory approvals (the "**COUNTY Required Approvals**") set forth in Exhibit I required for the ownership, financing, siting, construction and operation of the COUNTY FACILITIES (as defined in the JPA) and related infrastructure in Final Form and containing terms and conditions satisfactory to the County and FP&L, in each party's respective discretion; and

C. FP&L has received all required management and Board of Director consents and authorizations to proceed with the Turkey Point 6 & 7 project.

For purposes of Sections 1(A) and 1(B), the term "**Final Form**" means that (i) the determination, decision or order (each referred to as an "**Order**") from the relevant governmental authority that issues, grants or confirms the FP&L Required Approvals or the COUNTY Required Approvals in question has been issued and adopted by such governmental authority, (ii) such Order has not been and cannot be stayed, enjoined, appealed, set aside or suspended, (iii) such Order is no longer subject to any prescribed waiting or appeal period, and (iv) any and all pre-conditions to the effectiveness of the FP&L Required Approvals or the COUNTY Required Approvals in question as are prescribed in such Order or as are otherwise required by applicable law have been satisfied.

Within fifteen (15) days following the receipt of all FP&L Required Approvals and COUNTY Required Approvals, the appropriate Party shall send written notice to the other Party confirming such receipt and whether such approvals are in Final Form. The "**Commitment Date**" shall be the date upon which FP&L provides final notice (the "**Final Notice**") to the COUNTY that the FP&L Required Approvals and the COUNTY Required Approvals are satisfactory to FP&L and that it has obtained all required management and Board of Director consents and authorizations.

2. **Design, Construction and Conveyance of the Pipeline.**

A. **Procurement of Services:** FP&L shall be responsible for the procurement of engineering and construction services to design and construct the reclaimed water Pipeline.

B. **Design and Construction of Facilities:** FP&L will manage the engineering, procurement and construction of the Pipeline. FP&L will establish and maintain the Pipeline project schedule. FP&L will consult with the County during the engineering design phase to ensure that the engineering design, material and construction methods of the Pipeline are consistent with all applicable regulations and meets the requirements for bond service obligations as identified by the County's Bonding Engineer. [Additional terms to be agreed upon by FP&L and the COUNTY].

C. **Approvals and Permits:** FP&L will apply for and manage compliance with all permits and approvals necessary for the construction of the Pipeline. [Additional terms to be agreed upon by FP&L and the COUNTY]. .

D. **Inspection:** [Terms to be agreed upon by FP&L and the COUNTY].

E. **Tests:** During construction and at the time when various tests are required, the COUNTY's engineer or its authorized representative, together with FP&L's engineer and contractor, shall jointly be present to witness tests for determination of conformance with approved plans and specifications. FP&L shall notify the COUNTY a minimum of forty-eight (48) hours in advance of the tests.

F. **Construction Meetings:** The Oversight Committee (as defined in Section 8(B)) shall be responsible for scheduling all construction meetings.

G. **Facilities Easements:** [Terms to be agreed upon by FP&L and the COUNTY].

H. **Reimbursement:** At the time of conveyance, the County will reimburse FP&L for all actual Material and Labor Costs in an amount not to

exceed the Material and Labor Cap, FP&L will convey the Pipeline to the County and the County will become the owner of the Pipeline. "**Material and Labor Cap**" means the maximum amount of Material and Labor Costs to be paid by the County and shall be set at $78 million dollars as of January 1, 2010; with a cap escalating each year thereafter by four (4) percent per year, on a monthly pro-rata basis, until FP&L has been reimbursed for all actual Material and Labor Costs and the Pipeline has been conveyed by FP&L to the County. "**Material and Labor Costs**" means any and all costs associated with procurement and financing of the materials, equipment and labor costs associated with the construction of the Pipeline, but shall not include the cost of any FP&L employees involved in the design, and construction management services for the Pipeline.

Upon conveyance of the facilities by FP&L to the COUNTY, FP&L shall submit an invoice to the COUNTY, including all necessary supportive documentation from FP&L's contractor, suppliers, and in-house expenses. The COUNTY shall reimburse FP&L for the amount specified on the invoice at the time of conveyance of the Pipeline.

I. **Drawings and Conveyance Documents:** Following completion of the Pipeline, FP&L shall convey to the COUNTY, by properly executed Bill of Sale, all of its right, title and interest in the Pipeline constructed by FP&L and appropriate easements for the operation and maintenance of such facilities. Following the COUNTY's acceptance of the Bill of Sale, the Pipeline shall be under the sole, complete and exclusive control and operation of the Oversight Committee (as defined in Section 8(B)). The Bill of Sale for the Pipeline shall be accompanied by copies of paid bills and lien waivers, releases, or satisfactions from all persons who performed work and from all persons who incorporate materials into the projects, together with a breakdown of the actual cost of said facilities. Concurrently, FP&L shall furnish the COUNTY with one (1) set of Mylar as-built drawings of all facilities showing specific locations and depths among other things, as located by a licensed surveyor, along with five (5) prints of the as-built drawings which have been sealed by a surveyor and certified by the engineer of record along with the electronic file acceptable to the Department. Approval by the COUNTY of all required documents, drawings and surveys specified herein shall constitute final approval by the COUNTY of said Pipeline.

J. **Warranty and Maintenance Bond:** [Terms to be agreed upon by FP&L and the COUNTY].

K. **Additional Conditions/Agreements:** The Parties shall continue to review all aspects of the design, engineering, and construction of the Pipeline, including, but not limited to, the subject matters and specific terms set forth in this Section 2 and shall address identified needs through the Oversight Committee via a mutually agreed upon method (e.g. amendment or separate contract).

3. **Term.** The term of this Agreement ("**Term**") shall commence upon the Service Initiation Date (as defined in Section 4 below) and shall, unless this Agreement is either: (a) earlier terminated or (b) extended, in either case in accordance with the provisions of this Agreement, continue until the fortieth (40th) anniversary of the Service Initiation Date (defined herein). After the forty (40) year Term, FP&L shall, in its sole discretion, have the right to extend the Term of this Agreement for as many as two (2) successive extension periods, each of which extension periods to run for an additional twenty (20) years. In order to effectuate such extensions, FP&L shall provide a written extension notice to COUNTY within two (2) years of the expiration of the initial Term, or, if applicable, the first extension Term is in effect.

4. **Reclaimed Water Service.** The "**Service Initiation Date**" shall be such date following the Commencement Date upon which the COUNTY shall deliver and FP&L shall receive at the Delivery Point (as such is described in Exhibit III) the quantities of Reclaimed Water set forth in Exhibit II.

5. **Water Quality.** The Reclaimed Water delivered to FP&L shall satisfy: (i) the requirements of High Level Disinfection as defined in Rule 62-600.440(5), F.A.C., as amended from time to time; (ii) the water quality treatment requirements of Rule 62-610.668(2)(d), F.A.C., for use in a cooling tower without a 300 foot setback, as such requirements exist as of the effective date of the JPA; and (iii) the requirements of Chapter 62-528, F.A.C., as amended from time to time, for injection of non-hazardous wastewater in a Class I UIC well ((i), (ii) and (iii) above, the "**Quality Standard**"). FP&L agrees to accept all quantities (consistent with Exhibit II) of Reclaimed Water delivered by the COUNTY that satisfies the Quality Standard; provided, FP&L shall be responsible for any additional treatment that may be required for the utilization of the Reclaimed Water by FP&L at the TP Complex.

6. **Delivery.** The Reclaimed Water furnished will be delivered by the COUNTY and will be accepted and received by FP&L at the Delivery Point.

7. **Additional Facilities.**

A. The COUNTY shall, at its sole expense, develop an alternative method of disposal of the Reclaimed Water and FP&L shall, at its sole expense, develop an alternative source of cooling water for its use at the TP Complex in the event of system failures, forced outages, facility maintenance or Force Majeure events.

B. FP&L shall design and construct any infrastructure that is required by FP&L to provide increased reliability or redundancy to the delivery of Reclaimed Water the "**Additional Facilities**"); FP&L shall be responsible for the actual costs and expenses related to such Additional Facilities.

8. **Specific Obligations of the Parties.**

A. The COUNTY shall own, operate and maintain those Reclaimed Water facilities up to and including the Delivery Point and FP&L shall own, operate and maintain those Reclaimed Water facilities from the Delivery Point to the TP Complex.

B. Oversight for the operation and maintenance of the Pipeline shall be provided by a committee (the "**Oversight Committee**") comprised of four (4) members. Each Party shall have the right to appoint two members to the Oversight Committee. Each Party may, at any time, change either or both of its members of the Oversight Committee or appoint an alternate during the absence of either or both members. Appointments shall be effected by written notice to the other Party. The Oversight Committee shall be the final authority on, and shall render all decisions material to, the operation and maintenance of the Pipeline; provided, however, that the authority of the Oversight Committee as to the operation and maintenance of the Pipeline located on COUNTY Property shall not exceed the authority of the COUNTY. The duties of the Oversight Committee shall include: (i) review of Pipeline operations and maintenance plans and budget, and (ii) review of Pipeline long term renewal and replacement plans and budget. All such decisions made by the Oversight Committee shall be decided pursuant to the voting majority and consistent with: (i) FP&L and COUNTY Required Approvals, (ii) all applicable laws, rules and regulations, including, with respect to the maintenance, repair and replacement of the Pipeline, Section 606 of COUNTY Ordinance No. 93-134, (iii) good engineering practices, and (iv) the health and safety of the public or COUNTY or FP&L employees, contractors, or agents. Pursant to Section 607 of COUNTY Ordinance No. 93-134, the COUNTY'S bond consultant shall be permitted to inspect the Pipeline and prepare and deliver to the Oversight Committee an annual report containing recommendations on renewal and replacement of the Pipeline. Notwithstanding the foregoing, if the COUNTY in good faith believes that a specific course of action is required to protect the health and safety of the public or COUNTY, or FP&L employees, contractors, or agents, the COUNTY shall have the ability to invoke the dispute resolution procedures set forth in Section 21. The Oversight Committee shall meet regularly (which meetings may include telephonic meetings, and the minutes of which shall be recorded in writing) to discuss, among other items: (i) the operation of the Pipeline, and (ii) schedule and coordination of future activities. If the Oversight Committee is unable to reach agreement on any matter within its duties and authority, the Parties shall follow the dispute resolution process as set forth in Section 21.

9. **Meter.**

A. The COUNTY shall, at its own expense, own, install, operate and maintain any required Reclaimed Water meters and associated measuring and recording equipment (the "**Meter**") necessary to permit an accurate determination of the quantities of reclaimed water delivered daily to FP&L under this Agreement and make available to FP&L, at no cost to FP&L, all of the data from such Meter.

The Meter shall indicate flow with an error not to exceed plus or minus two percent of full scale reading ("**True Accuracy**"); and

B. The COUNTY shall exercise reasonable care in the maintenance and operation of the Meter so as to assure to the maximum extent reasonably practicable an accurate determination of the quantities of reclaimed water delivered under this Agreement; and

C. The accuracy of the COUNTY's Meter shall be tested and verified by the COUNTY, at its sole expense, once every six months. The COUNTY shall provide the results of the checking to FP&L no later than 30 days after the Meter is checked. If FP&L desires to be present for such Meter checks, it shall be FP&L's responsibility to contact the COUNTY and make arrangements to be present; and

D. If the Meter is found to be in error exceeding two percent (2%) of True Accuracy, the Meter shall be recalibrated to the satisfaction of both parties. If such error of more than two percent is discovered, bills for the periods following the prior Meter accuracy check shall be adjusted to reflect the quantity of over-read or under-read exceeding two percent. In calculating such billing adjustment it will be assumed that the Meter inaccuracy existed for the entire time interval between Meter accuracy tests; and

E. FP&L shall have the right, at its own expense, to own, install and maintain a "check" meter on the outlet side of the COUNTY's Meter.

10. **Required Approval.** Except for such activities as set forth in Section 2 of the JPA, prior to the COUNTY's commencement of the detailed design of the reclamation water facilities to serve the TP Complex, FP&L must have obtained the FP&L Required Approvals.

11. **Compensation**. Commencing on the Service Initiation Date and for the term of this Agreement, FP&L shall pay to the COUNTY, as compensation for the treatment and transmission of all Reclaimed Water delivered to the TP Complex, a monthly charge based on the sum of the following:

A. R&R Charge: A charge per month equal to one-twelfth of the annual renewal and replacement funding requirement for the Pipeline, which shall equal the average of the projected renewal and replacement funding requirement for the Pipeline for the current year and subsequent two years as recommended by the Oversight Committee (the "**R&R Fee**"). Such proceeds shall be used exclusively by the COUNTY to provide for a renewal and replacement fund (the "**FP&L R&R Fund**") for the benefit of the Pipeline. The FP&L R&R Fund shall be interest bearing, managed by the Oversight Committee, accounted for separately by the COUNTY and be dedicated solely to the Reclaimed Water Project. The Oversight Committee shall comply with all

applicable COUNTY procurement and expenditure policies and procedures when making expenditures from the FP&L R&R Fund. In the event the funds available in the FP&L R&R Fund are not sufficient for necessary repairs as agreed upon by the Oversight Committee, FP&L will be responsible to fund any shortfall necessary to affect the necessary repairs.

(1) In the event there are third party customers utilizing the Pipeline, then FP&L shall be reimbursed annually by the COUNTY for a portion of the R&R Fee related to such third party use of the Pipeline. Such reimbursement shall be calculated on a pro rata, metered flow basis.

(2) Any proceeds remaining in the FP&L R&R Fund at the end of the initial Term shall be applied to the renewal and replacement of the Pipeline during any extension period (as such is provided for in Section 3), or, if there is no such extension, such proceeds shall be distributed promptly to FP&L. Prior to the execution of any extension hereto, the COUNTY shall determine whether the funds remaining in the FP&L R&R Fund are sufficient to cover any renewals, replacements, repairs, and/or capital improvements necessary for the Pipeline to provide Reclaimed Water to FP&L in accordance with the terms and conditions of said extension (the "**Necessary Improvements**"). Where the COUNTY determines that the funds remaining in the FP&L R&R Fund are not sufficient to complete the Necessary Improvements, the COUNTY shall provide to the Oversight Committee the COUNTY's recommendation for additional funds required to complete the Necessary Improvements. If the Oversight Committee is in agreement with the COUNTY's recommendation, or if the Oversight Committee provides an alternative recommendation of Necessary Improvements that is acceptable to the COUNTY, the COUNTY shall cause said Necessary Improvements to be completed. In such case, COUNTY shall utilize the funds remaining in the FP&L R&R Fund, and FP&L shall be responsible for payment of any costs not covered by the FP&L R&R Fund. If the Oversight Committee is not in agreement with the COUNTY's recommendation, and any alternative recommendation provided by the Oversight Committee is not acceptable to the COUNTY, the Parties shall follow the dispute resolution process as set forth in Section 22. Following the dispute resolution process as set forth in Section 22, the COUNTY shall cause the recommendations from such process to be completed. In such case, the COUNTY shall utilize the funds remaining in the FP&L R&R Fund, and FP&L shall be responsible for payment of any costs not covered by the R&R Fund. The R&R Fee shall be paid over the Term of the Agreement and any extensions thereto.

B. O&M and Other Service Charges. A monthly service charge equal to the sum of the following:

(1) An amount equal to (a) (i) all budgeted annual operating and maintenance expenses, including taxes assessed, if any, and the costs of electricity for pump station operation, but excluding capital maintenance of the pump stations, for the Pipeline, divided by (ii) the budgeted annual flows through the Pipeline, multiplied by (b) FP&L's monthly metered volume of reclaimed water usage; and

(2) An amount equal to (a) the budgeted annual sewer allocation for customer accounting and customer service, divided by (b) the projected number of retail sewer customers for the budget period; and

(3) An amount equal to (a) the budgeted annual sewer allocation for general and administrative costs, divided by (b) the projected number of retail sewer customers for the budget period.

C. Additional Facilities. For any Additional Facilities, as defined in Section 7(B) of this Agreement, required by FP&L that are funded through revenue bonds or other COUNTY obligations, in addition to the above charges, a fixed monthly charge equal to one-twelfth the sum of the following:

(1) An amount equal to the portion of annual interest obligations of outstanding notes and bonds issued to fund such Additional Facilities; and

(2) An amount equal to the portion of budgeted annual charge for the amortization of the COUNTY's outstanding notes and bonds issued to fund such Additional Facilities; and

(3) An amount equal to the charge for the portion of debt service coverage requirement for bonds issued to fund such Additional Facilities.

Exhibit V contains an example compensation calculation created by the COUNTY based on estimated numbers from 2008.

12. **Right to Revise Rates.** The COUNTY reserves the right to revise or modify the rate as may be approved by the Board of County Commissioners in accordance with applicable law and, except as set forth in Section 3, FP&L agrees to be bound thereby, provided, however, that such revision is consistent with the actual operation and maintenance costs detailed in Section 11.

13. **Duty to Consult.** The Parties agree to consult one another in all aspects of the Pipeline design, engineering, construction, operation and maintenance. Without limiting the foregoing, the COUNTY shall consult FP&L in its design of the Pipeline and the COUNTY shall consider any and all reasonable changes to the Pipeline design requested by FP&L. Furthermore:

A. The COUNTY shall notify FP&L of any and all maintenance, renewal or replacement activities performed on the Pipeline or operational changes that result in flow variations in excess of those set forth in Exhibit II.

B. The Parties shall coordinate the maintenance and periodic shut-down of their respective facilities as set forth in Exhibit II.

14. **Venue, Relief, Remedies.** Any and all suits brought by either Party shall be instituted and maintained in any court of competent jurisdiction in Miami-Dade County, Florida. In the event of any breach or threatened breach of this Agreement by any Party hereto, the other Party shall be entitled to equitable relief through an injunction in addition to any other rights and remedies available to it.

Except with respect to rights and remedies expressly declared to be exclusive in this Agreement, the rights and remedies of the Parties are cumulative and the exercise by any Party of one or more of such rights or remedies shall not preclude the exercise by it, at the same or different times, of any other rights or remedies for the same default or any other default.

Any failure of a Party to exercise any right or remedy as provided in this Agreement shall not be deemed a waiver by that Party of any claim for damages it may have by reason of the default. Any waiver shall be limited to the particular right so waived and shall not be deemed a waiver of the same right at a later time or of any other right under this Agreement. Waiver by either Party of any breach of any provision of this Agreement shall not be considered as or constitute a continuing waiver or a waiver of any other breach of the same or any other provision of this Agreement.

15. **Submission to Jurisdiction.** In any litigation arising from or related to this Agreement, the Parties hereto each hereby knowingly, voluntarily and intentionally waive the right each may have to a trial by jury with respect to any litigation based hereon, or arising out of, under or in connection with this Agreement, or any course of conduct, course of dealing, statements (whether oral or written) or actions of either Party to this Agreement. This provision is a material inducement for the COUNTY and FP&L to enter into this Agreement.

16. **Indemnification.** FP&L and the COUNTY shall each be responsible for its own facilities, for protection of its own systems, and for ensuring adequate safeguards for FP&L and the COUNTY customers, and the personnel and equipment of the COUNTY and FP&L. To the extent permitted by law, and subject to the limitations set forth in Section 768.28, F.S., the COUNTY shall indemnify, defend and hold FP&L harmless, and FP&L shall indemnify, defend and hold the COUNTY harmless, from any and all claims, demands, costs or expenses, for loss, damage or injury to persons or property caused by, arising out of, or resulting from: (a) any act or omission by the respective Party or that Party's contractors, agents, servants and employees in connection with the development, construction or operation of that Party's facilities or systems, or the operation thereof in connection with the other Party's facilities or

systems, (b) any defect in, failure of, or fault related to, a Party's facilities or systems, or (c) the negligence of the respective Party or negligence of that Party's contractors, agents, servants or employees. The respective Party shall pay all claims, costs, damages and losses in connection with (a), (b) or (c) above, and shall investigate and defend all claims, suits or actions of any kind or nature in the name of the other Party, where applicable, including appellate proceedings and shall pay all costs, judgment and attorney's fees that may issue thereon. The foregoing indemnification shall not constitute a waiver of sovereign immunity beyond the limits set forth in Section 768.28, F.S., nor shall the same be construed to constitute agreement by either Party to indemnify the other Party for such other Party's negligent, willful, or intentional acts or omissions.

17. **Limitation of Liability.** To the fullest extent permitted by law, neither the COUNTY nor FP&L, nor their respective officers, directors, agents, employees, members, parents, subsidiaries or affiliates, successors or assigns, or their respective officers, directors, agents, employees, members, parents, subsidiaries or affiliates, successors or assigns, shall be liable to the other Party or their respective officers, directors, agents, employees, members, parents, subsidiaries or affiliates, successors or assigns, for claims, suits, actions or causes of action for incidental, indirect, special, punitive, multiple or consequential damages connected with or resulting from performance or non-performance of this agreement, or any actions undertaken in connection with or related to this agreement, including without limitation, any such damages which are based upon causes of action for breach of contract, tort (including negligence and misrepresentation), breach of warranty, strict liability, statute, operation of law, under any indemnity provision or any other theory of recovery. If no remedy or measure of damages is expressly provided herein, the obligor's liability shall be limited to direct damages only, and such direct damages shall be the sole and exclusive measure of damages and all other remedies or damages at law or in equity are waived; provided, however, that this sentence shall not apply to limit the liability of a party whose actions giving rise to such liability constitute gross negligence or willful misconduct. The provisions of this Section 17 shall apply regardless of fault and shall survive termination, cancellation, suspension, completion or expiration of this contract. Nothing contained in this agreement shall be deemed to be a waiver of a Party's right to seek injunctive relief.

18. **Default.**

A. Each of the following shall constitute an "**Event of Default**" by the COUNTY:

(1) The COUNTY abandons the development, permitting, acquisition of easements and lands, financing or the operation and maintenance of the Reclaimed Water Project (as such term is defined in the JPA); or

(2) The COUNTY fails to achieve any of its milestones as set forth by the Oversight Committee; provided, it shall not be considered a

default of the COUNTY if the failure to achieve such milestone is caused by a failure on the part of FP&L in the performance of its milestones; or

(3) If, during any month following the Service Initiation Date, the COUNTY fails, for ten(10) consecutive calendar days, to make available to FP&L the quantities of Reclaimed Water set forth in Exhibit II and such failure is not excused by reason of Force Majeure; or

(4) The COUNTY is in default of any material provision of this Agreement (including water quality provisions) not specifically mentioned in this Section 18.A. and the COUNTY has failed to cure such default within ten (10) calendar days after notice of such default from FP&L to the COUNTY. If it is not feasible to correct such default within ten (10) calendar days after FP&L has delivered notice of such default to the COUNTY, but it remains feasible to correct within thirty (30) calendar days, and (ii) if within ten (10) calendar days after said notice from FP&L, the COUNTY provides FP&L notice of its intention to cure such default and evidence that it remains feasible to correct such default within thirty (30) calendar days after such notice from FP&L, it shall not constitute an Event of Default hereunder until the earliest feasible date within such thirty (30) calendar days period when a cure could be effected so long as (i) corrective action by the COUNTY is instituted within ten (10) calendar days following the notice from FP&L, (ii) such corrective action is diligently pursued, (iii) the COUNTY provides FP&L bi-weekly written reports as to the nature and progress of such corrective action, and (iv) such cure is effected within thirty (30) calendar days of the notice from FP&L.

B. Each of the following shall constitute an "**Event of Default**" by FP&L:

(1) FP&L refuses, in writing, to receive the Reclaimed Water or make payments due to the COUNTY and such refusal is not (a) subject to good faith dispute, or (b) excused by reason of Force Majeure;

(2) FP&L fails to make a payment due to the COUNTY that is not subject to a good-faith dispute within forty-five (45) calendar days after notice from the COUNTY that such payment is due under this Agreement;

(3) FP&L fails to achieve any of its milestones as set forth by the Oversight Committee; provided, it shall not be considered a default of FP&L if the failure to achieve such milestone is caused by a failure on the part of the COUNTY in the performance of its milestones; or

(4) FP&L is in default of any material provision of this Agreement not specifically mentioned in this Section 18.B. and FP&L has failed to cure such default within ten calendar (10) days after notice of

such default from the COUNTY to FP&L. If it is not feasible to correct such default within ten (10) calendar days after the COUNTY has delivered notice of such default to FP&L, but it remains feasible to correct within thirty (30) calendar days, and (ii) if within ten (10) calendar days after said notice from the COUNTY, FP&L provides the COUNTY notice of its intention to cure such default and evidence that it remains feasible to correct such default within thirty (30) calendar days after such notice from the COUNTY, it shall not constitute an Event of Default hereunder until the earliest feasible date within such thirty (30) calendar day period when a cure could be effected so long as (i) corrective action by FP&L is instituted within ten (10) calendar days following the notice from the COUNTY, (ii) such corrective action is diligently pursued, (iii) FP&L provides the COUNTY bi-weekly written reports as to the nature and progress of such corrective action, and (iv) such cure is effected within thirty (30) calendar days of the notice from the COUNTY.

C. Upon the occurrence of any Event of Default:

(1) If FP&L is the non-defaulting Party, FP&L may, at its option:

(a) terminate this Agreement by written notice to the COUNTY, provided, however, that such option is only available if the COUNTY has defaulted under Section 18.A.1;

(b) apply to any court of competent jurisdiction for the appointment of a receiver to take charge of, manage, preserve, protect, complete the development and construction of, and operate the Reclaimed Water Project (as such term is defined in the JPA), to make all necessary and needed repairs to the Reclaimed Water Project, and to pay all taxes and assessments against the Reclaimed Water Project and insurance premiums for insurance thereof, it being hereby agreed that, upon occurrence of an Event of Default, (i) FP&L shall be entitled to such appointment; (ii) upon application by FP&L, the court may forthwith appoint such receiver with the usual powers and duties thereof; (iii) the COUNTY consents, and the COUNTY shall not object to such appointment; and (iv) appointment of a receiver under this Section 18.C(a) shall not in and of itself terminate this Agreement;

(c) FP&L may, by providing prior written notice to the COUNTY(the "**Step-In Notice**"), effect repair to, and restore operations of, the Reclaimed Water Project consistent with the terms of this Agreement and at FP&L's expense (the "**Step-In**"). Upon receipt of a Step-In Notice the COUNTY shall: (i) cooperate in good faith with FP&L to effect the Step -In, and (ii) grant FP&L any reasonable additional access rights to the Reclaimed Water Project not on FP&L property for the purpose of ingress and egress

to and from to facilitate FP&L's repair and operation of the Reclaimed Water Project. In the event of a Step -In, FP&L's reasonable and documented costs and expenses incurred pursuant to the Step -In by FP&L shall be deducted from the COUNTY'S compensation pursuant to Section 11 until such costs and expenses have been reimbursed in full to FP&L. Such Step-In will be without prejudice to the other remedies FP&L may have under this Agreement, and

(d) exercise any other right or remedy available to FP&L under generally applicable law, under this Agreement or in equity.

(2) If the COUNTY is the non-defaulting Party, the COUNTY may, at its option:

(a) terminate this Agreement without penalty or further obligation to the County by written notice to FP&L, provided, however, that such option is only available if FP&L has defaulted under Section 18.B.1, and

(b) exercise any other right or remedy available to the COUNTY under generally applicable law, under this Agreement or in equity.

(c) Each Party shall be entitled to seek a decree compelling specific performance with respect to, and shall be entitled, without the necessity of filing any bond, to seek the restraint by injunction of any actual or threatened breach of any material obligation of the other Party under this Agreement.

(d) No termination under this Section 18 (or otherwise under this Agreement) shall affect the liability of either Party for obligations arising prior to such termination or for damages, if any, resulting from breach of this Agreement.

19. **Force Majeure.** Except as otherwise provided in this Agreement, each Party shall be excused, pursuant to the procedures set forth in this Section 19, from performance of its obligations under this Agreement to the extent its nonperformance is caused by Force Majeure. "**Force Majeure**" shall mean an act of God which includes but is not limited to sudden, unexpected or extraordinary forces of nature such as floods, washouts, storms, fires, earthquakes, landslides, hurricanes, epidemics, explosions or other forces of nature, strikes, lockouts, other industrial disturbances, wars, blockades, acts of terrorism, insurrections, riots, federal, state, governmental restrictions, regulations and restraints, military action, civil disturbances, or conditions in federal, or state permits.

A. In the event of any delay or nonperformance resulting from Force Majeure, the Party suffering an occurrence of Force Majeure shall notify the other of the nature, cause, date of commencement thereof and the anticipated extent of such delay, and shall indicate whether any date(s) for performance may be affected thereby. Such notice shall be given to the other Party as soon as practicable but in no event later than three (3) business days after the claiming Party's awareness of the Force Majeure and shall provide such substantiating documentation as may reasonably be required to verify such event or circumstances and its effects within ten (10) days of such notice. The Party claiming Force Majeure shall notify the other Party of the status of its efforts in such form and with such frequency as the other Party reasonably may request under the circumstances (but not less than weekly). When the Party claiming Force Majeure is able to resume performance of its obligations under this Agreement, such claiming Party shall give the other Party prompt notice to such effect.

B. Any Party suffering an occurrence of Force Majeure shall use commercially reasonable efforts to remedy the cause(s) preventing its performance of this Agreement as promptly as possible.

20. **Assignment, or Sale, Etc.** Neither the COUNTY nor FP&L may assign any of its rights or obligations under this Agreement without the prior written consent of the other Party; provided, that without the prior consent of FP&L, the COUNTY may assign its rights and interests under this Agreement to a financial institution as collateral security, or create a security interest in favor of the financial institution over its rights and interests in this Agreement. Any attempt by a Party to make any assignment, sale, lease, transfer or other disposition described in this Section 20 in violation of this Section 20 shall be void ab initio and shall not be effective.

21. **Notice.** All notices required under this Agreement shall be in writing unless expressly specified otherwise herein, and shall be delivered in person, by registered or certified mail or by a nationally recognized overnight courier, return receipt requested, or by facsimile transmission or electronic mail, if an electronic mail address is provided, with confirmation by voice or automatic answer-back service promptly following such facsimile transmission or electronic mail, as specified below:

As to the COUNTY:

Miami-Dade County
c/o The Director
Miami-Dade Water and Sewer Department
3071 SW 38th Avenue
Miami, Florida 33146
Facsimile: (786) 552-8647

As to the FP&L:

Florida Power & Light Company
c/o Vice-President of Development
700 Universe Blvd. (EX1/JB)
Juno Beach, Florida 33408-0420
Facsimile: (561) 304-5233

With a copy to:
Florida Power & Light Company
Law Department (Law/JB)
c/o Managing Attorney—Commercial Transactions
700 Universe Boulevard
Juno Beach, Florida 33408
Facsimile: (561) 691-7305

Notices shall be effective upon receipt; provided, that in the event a Party fails to notify the other of the correct person and address for notices pursuant to this Section 21, any notice to that Party shall be deemed effective on the third day following the date such notice is sent to the person and address last provided by such Party. Either Party may, at any time, by notice designate any different person(s) or different address(es) or phone number(s) for receipt of notices and correspondence.

22. **Disputes.** In the event of any dispute, controversy or claim between the Parties arising out of or relating to this Agreement (collectively, a "**Dispute**"), the Oversight Committee shall attempt in the first instance to resolve such Dispute through friendly consultations between the Parties. If such consultations do not result in a resolution of the Dispute within fifteen (15) days after notice of the Dispute has been delivered to either Party, then such Dispute shall be referred to the director of the Department and VP of Development of FP&L for resolution. If the Dispute has not been resolved within twenty (20) business days after such referral to the director of the Department and VP of Development of FP&L, then either Party may pursue all available remedies. The Parties agree to attempt to resolve all Disputes promptly, equitably and in a good faith manner.

23. **Governing Law.** This agreement shall be governed by and construed according to the laws of the State of Florida, and venue shall be in Miami-Dade County, Florida.

24. **Complete Agreement.** This Agreement contains the entire Agreement of the parties with respect to the subject matter and replaces and supersedes all prior agreements or understandings, oral or written, with respect to such subject matter, and such agreements or understandings are now void and no longer in effect.

25. **Severability.** If any Section of this Agreement is found to be null and void, the other Sections shall remain in full force and effect.

26. **Counterparts.** This Agreement may be executed and delivered in counterparts, and may be delivered by facsimile transmission.

27. **Heading.** Captions and headings in this Agreement are included for ease of reference and do not constitute a part of this Agreement and shall not affect the meaning or interpretation of any provision herein.

[SIGNATURE PAGE TO FOLLOW.]

IN WITNESS WHEREOF, COUNTY and FP&L, by their duly authorized officials, have executed this Agreement, with the Exhibits attached.

ATTEST:

FLORIDA POWER & LIGHT COMPANY

By:_____

Signed in the presence of:

_____
Witness

Date:_____

_____
Print Name

MIAMI-DADE COUNTY, FLORIDA

By: _____
County Mayor
Miami-Dade County

Date:_____

MIAMI-DADE COUNTY

By: _____
Clerk of the Board

Approved as to form
and legal sufficiency:

_____
Assistant County Attorney

The following provides example content of this Exhibit I of the RWSA. The specific content of this exhibit will be developed by the COUNTY and FP&L as the project due diligence is completed.

[FP&L Required Approvals

(1) Final Order Approving Site Certification of Units 6 & 7 from the State of Florida Siting Board
(2) US Army Corp of Engineers Permits
(3) Nuclear Regulatory Commission Combined Operating License
(4) Florida Department of Environmental Protection Underground Injection Control Permit
(5) Federal Fish and Wildlife Approvals]

COUNTY Required Approvals

(1) [To be provided by Miami-Dade County]

Exhibit II – Delivery Requirements

The following provides example content of this Exhibit II of the RWSA. The specific content of this exhibit will be developed by the COUNTY and FP&L as the project due diligence is completed.

[Quantity

Target Range Maximum Daily Quantity (MGD):	90 MGD
Average Daily Quantity (MGD):	75 MGD
Target Range Minimum Daily Quantity (MGD):	40 MGD
Rate of Change Limit (gpm/hour)	TBD
Measurement Methodology at Delivery Point:	[MDC to provide]

Coordination Requirements

This section will outline the requirements on the Parties to coordinate maintenance and operational activities. The section will address such items as:

- Periodic planning meetings between COUNTY and FP&L operational staff to jointly identify and resolve future schedule issues and ongoing operational concerns.
- Notification criteria and lead times for required notification of FP&L by COUNTY regarding ability to produce and deliver Reclaimed Water related to Pipeline operation and maintenance.
- Notification criteria and lead times for required notification of COUNTY by FP&L regarding the ability to receive Reclaimed Water related to operation and maintenance of the Units or related facilities.]

Exhibit III – Delivery Point

Delivery Point Description

This exhibit will provide a diagrammatic representation of the interconnection of the Pipeline and the FP&L TP Complex, including a demarcation of ownership.

Exhibit IV – Sample Form of Easement

The following is subject to further comment by FP&L & the COUNTY.

[Prepared by & Return to:

Florida Power & Light Company
700 Universe Boulevard LAW/JB
Juno Beach, FL 33408

RE Parcel #: _____

RECLAIMED WATER PIPELINE EASEMENT

THIS RECLAIMED WATER PIPELINE EASEMENT made this _____day of_____20__, between **FLORIDA POWER & LIGHT COMPANY,** a Florida Corporation whose business address is 700 Universe Boulevard, Juno Beach, FL 33408 (the "**Grantor**"), and **MIAMI DADE COUNTY,** with an address of _____ (the "**Grantee**").

WITNESSETH: that Grantor, for and in consideration of the sum of Ten and 00/100 dollars ($10.00) and other good and valuable consideration to Grantor in hand paid by Grantee, the receipt of which is hereby acknowledged, hereby grants, bargains, sells, and conveys to Grantee, its successors and assigns forever, a non-exclusive, unobstructed easement with the right, privilege, and authority to said Grantee, its successors and assigns, to construct, operate, lay, maintain, improve, and/or repair, below the surface of the ground, one _____inch reclaimed water pipeline (the "**Pipeline**") under and through a strip of land _____feet in width situate in Miami Dade County, Florida and more particularly described in the attached **Exhibit "A"** (the **"Easement Area**") which is located within land owned by Grantor in fee and geographically depicted on the attached **Exhibit "A-1":**

SEE EXHIBIT "A" and EXHIBIT "A-1" ATTACHED HERETO

TOGETHER with the right of ingress and egress to the Easement Area, and for the purpose of surveying and clearing the Easement Area of brush, trees and obstruction, and for excavating, constructing, operating, inspecting, repairing, replacing, protecting, altering, moving or removing the Pipeline and appurtenances of the Grantee located thereon, in whole or in part, at the will of the Grantee.

It is further agreed by Grantor and Grantee as follows:

1. That the exact location of the Easement Area conveyed hereunder is set forth on **Exhibit "A".**

2. That prior to commencing construction, Grantee will hold a meeting with Grantor regarding construction guidelines, procedures and requirements, at which time Grantee will provide Grantor with detailed final construction drawings. No construction can commence without Grantee's receipt of Grantor's written consent to the final construction drawings, which consent shall not be unreasonably withheld, and all construction shall be in compliance with such approved drawings.

3. That in the exercise of Grantees rights hereunder, Grantee shall: (a) bury all line pipe to provide a minimum cover of thirty-six (36) inches, except in rock where a minimum cover of twenty-four (24) inches will be provided; (b) restore the ground surface as nearly as practicable to the original contour which existed immediately prior to the commencement of any work; (c) repair in a good and workmanlike manner all fences and drainage and irrigation systems which are cut or disturbed by Grantee; (d) and, at its option, restore or pay the Grantor for any damages caused by Grantee to Grantor's grasses, trees, shrubbery, fences or buildings; provided, however, that the Grantee shall have the right, without liability for damages, from time to time to cut or clear trees, brush or other obstructions on the Easement Area that might interfere with the operation or maintenance of Grantee's facilities, though Grantee has no obligation to do so. Notwithstanding the foregoing, Grantee shall take no action which shall in any way interfere with, endanger or impede Grantor's use of its existing or future facilities.

4. That Grantor shall have the right to use and enjoy the surface of the Easement Area for purposes which will not interfere with the use of the Easement Area by the Grantee for any of the purposes hereinabove granted, it being understood that no building shall be placed within or upon the Easement Area, and that there shall be no alteration of the ground surface or grade of the Easement Area, without the express written consent of the Grantee, which consent shall not be unreasonably withheld.

5. This instrument may be executed in counterparts, each of which is an original, but all of which together constitute one and the same instrument.

6. The rights of the Grantee under this Easement may not be assigned, in whole or in part, without the prior, written consent of the Grantor.

7. This instrument contains the entire agreement of the parties, there are no other agreements or understandings between the Grantor and Grantee regarding the subject matter of this Easement. The persons executing this Easement on behalf of Grantor and Grantee have authority to do so.

GRANTOR represents and warrants that it is the fee owner of record of the property described herein and that it has full power and authority to grant to Grantee the rights granted hereunder.

IN WITNESS WHEREOF, Grantor and Grantee have caused these presents to be executed in their respective names the day and year first above written.

Signed and Sealed in Our Presence as Witnesses:

(sign)_____
(print)_____

(sign)_____
(print)_____

GRANTOR:

FLORIDA POWER & LIGHT COMPANY,
a Florida corporation

(sign)_____
(print).
(title)

Signed and Sealed in Our Presence as Witnesses:

(sign)_____
(print)_____

(sign)_____
(print)_____

GRANTEE:

MIAMI DADE COUNTY

(sign)_____
(print).
(title)

ACKNOWLEDGMENT

STATE OF FLORIDA)
)ss:
COUNTY OF PALM BEACH)

On this _____ day of _____, 20___ before me, the undersigned notary public, personally appeared _____, _____of FLORIDA POWER & LIGHT COMPANY, personally known to me to be the person who subscribed to the foregoing instrument or who has produced _____, as identification, and acknowledged that he/she/ executed the same on behalf of said corporation and was duly authorized to do so.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

_____
NOTARY PUBLIC, STATE OF FLORIDA

Name (Print):_____
Commission No.: _____
My Commission Expires:_____

ACKNOWLEDGMENT

STATE OF FLORIDA)
)ss:
COUNTY OF MIAMI DADE)

On this _____ day of _____, 20___ before me, the undersigned notary public, personally appeared _____, _____of MIAMI DADE COUNTY, personally known to me to be the person who subscribed to the foregoing instrument or who has produced _____, as identification, and acknowledged that he/she executed the same on behalf of said entity and was duly authorized to do so.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

_____
NOTARY PUBLIC, STATE OF FLORIDA
Name (Print):_____
Commission No.: _____
My Commission Expires:_____

EXHIBIT A
To Reclaimed Water Pipeline Easement by and between, Florida Power & Light Company and Miami Dade County

[Legal Description of the Easement Area]

Exhibit V – Compensation Calculation

Example Compensation Calculation

The following provides example content of this Exhibit V of the RWSA. The specific content of this exhibit will be developed by the COUNTY and FP&L as the project due diligence is completed.

	Annual Budgeted Amount	Division	Estimated Cost Per Month
Fixed Fee Component:			
Project Renewal and Replacement Costs	$3,812,674.80	12 months	$317,722.90
Per 1,000 Gallon Rate Component: (1)			
Project O & M Expenses	$1,900,000.00	90,000,000	$158,333.33
Customer Accounting/Customer Service	Y	# of cust / yr.	$8.42
General & Administrative	Z	# of cust / yr.	$8.76
	Monthly Charge as Calculated per Budget		$476,073.41

Note (1): Project Operations and Maintenance costs based on current year estimated costs

Additional Facilities Fee:			
Amortization of Debt Service for Additional Facilities	A	12 months	
Interest Portion of Debt Service for Additional Facilities	B	12 months	
Coverage Portion of Debt Service for Additional Facilities	C	12 months	
	Monthly Charge as Calculated per Budget		$0.00

Appendix D

Exhibit D-3, Capital Project Cost in 2012 dollars with a 3.2% inflation starting in Fiscal Year from Consent Decree

Exhibit D-3 Capital Project Costs in 2012 dollars with 3.2% inflation starting in Fiscal Year 2014-2015

	Project No.	Fiscal Year	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 25-26	FY 26-27	Total
South District WWTP	1.1	Headworks	-	-	-	-	41,839	6,538	154,902	371,647	153,416	-	-	-	-	-	-	-	728,343
	1.2	Oxygen Production	-	-	-	391,105	105,193	349,832	3,378,841	3,324,558	-	-	-	-	-	-	-	-	7,549,529
	1.3	Oxygenation Trains	-	-	-	-	-	910,149	210,883	1,322,071	2,255,770	2,327,955	2,383,075	2,479,328	2,558,666	2,640,544	1,032,878	-	18,121,319
	1.4	Chlorine Building	-	-	-	-	-	-	-	148,232	21,135	960,840	1,390,501	-	-	-	-	-	2,520,707
	1.5	Effluent Pump Station	-	-	-	-	125,103	1,308,685	323,343	1,960,610	9,031,048	9,294,577	4,966,818	-	-	-	-	-	27,010,183
	1.6	Gravity Sludge Thickeners	-	-	-	-	-	-	272,875	71,985	268,563	2,299,141	2,333,710	-	-	-	-	-	5,246,274
	1.7	Digesters and Control Buildings	-	-	2,454,906	590,571	1,444,494	8,121,074	8,380,949	8,649,139	8,950,366	9,211,541	729,251	-	-	-	-	-	48,532,291
	1.8	Dewatering Facility	-	-	259,953	685,556	138,425	2,651,363	5,840,442	6,027,336	1,005,459	-	-	-	-	-	-	-	16,608,534
	1.9	FOG Removal Facility	-	-	53,280	8,604	219,033	542,799	104,360	-	-	-	-	-	-	-	-	-	928,077
	1.10	Odor Control	-	-	-	-	-	-	-	443,513	94,217	1,051,540	4,125,980	2,414,817	-	-	-	-	8,130,067
	1.11	General Electrical	-	-	-	-	-	680,600	125,643	2,054,136	6,206,975	3,097,789	-	-	-	-	-	-	12,165,144
	1.12	Chlorine Contact Chamber Structural	-	-	-	-	82,826	316,825	56,682	1,364,987	2,946,125	2,168,155	-	-	-	-	-	-	6,935,601
																			154,476,068
Central District WWTP	2.1	Electrical Improvements	-	-	-	-	-	1,583,061	325,834	10,191,482	16,291,983	-	-	-	-	-	-	-	28,392,361
	2.2	Building improvements	-	-	258,096	116,239	4,545	5,294,696	-	-	-	-	-	-	-	-	-	-	5,673,576
	2.3	Headworks Plant 1	-	-	1,102,202	273,958	2,475,309	15,803,377	983,013	-	-	-	-	-	-	-	-	-	20,637,859
	2.4	Headworks Plant 2	-	-	520,763	727,956	140,863	9,116,827	10,384,926	-	-	-	-	-	-	-	-	-	20,891,336
	2.5	Oxygenation Trains Plant 1	-	-	352,796	98,579	-	3,156,909	3,274,552	-	-	-	-	-	-	-	-	-	6,882,836
	2.6	Oxygenation Trains Plant 2	-	-	-	-	794,684	222,050	491,555	3,061,827	3,683,324	3,801,190	3,902,915	-	-	-	-	-	15,957,546
	2.7	Secondary Clarifiers Plant 1	-	-	-	-	-	-	-	-	-	236,638	80,905	1,064	1,541,485	1,608,439	1,450,715	-	4,919,245
	2.8	Secondary Clarifiers Plant 2	-	-	-	-	224,618	213,187	19,997	1,090,489	1,377,561	1,417,758	1,463,127	1,435,483	-	-	-	-	7,242,220
	2.9	RS Pump Stations Plant 1	-	-	-	-	-	-	-	-	-	454,178	155,282	2,042	2,958,554	3,087,058	2,784,340	-	9,441,453
	2.10	RS Pump Stations Plant 2	-	-	-	-	443,831	421,248	39,514	2,154,741	2,721,978	2,801,407	2,891,052	2,836,431	-	-	-	-	14,310,201
	2.11	Effluent Pump Station	-	-	-	-	-	552,191	113,655	2,852,708	6,407,518	-	-	-	-	-	-	-	9,926,072
	2.12	Sludge Thickeners Plant 1	-	-	-	-	-	546,298	186,780	2,456	6,570,272	3,850,434	-	-	-	-	-	-	11,156,240
	2.13	Sludge Thickeners Plant 2	-	-	-	-	561,391	77,681	2,739,338	5,796,932	376,975	-	-	-	-	-	-	-	9,552,318
	2.14	Digesters Plant 1	-	-	-	-	-	-	-	-	1,207,784	700,764	1,776,844	15,513,866	17,991,722	17,881,588	5,611,977	-	60,684,546
	2.15	Digesters Plant 2	-	-	1,665,295	1,452,860	8,484,586	18,247,999	18,821,982	19,344,453	18,271,910	19,429,354	17,043,429	-	-	-	-	-	122,761,868
	2.16	Dewatering Building	-	-	-	-	1,393,675	3,843,931	1,302,317	7,289,016	45,885,816	40,238,100	-	-	-	-	-	-	99,952,854
	2.17	Chlorination Facilities	-	-	867,598	247,011	936,785	14,662,561	-	-	-	-	-	-	-	-	-	-	16,713,956
	2.18	Odor Control Systems	-	-	-	-	-	1,125,307	228,456	4,986,019	13,868,541	-	-	-	-	-	-	-	20,208,323
	2.19	Co-Gen Facility	-	-	479,041	1,092,598	417,016	2,070,650	17,332,719	8,919,180	-	-	-	-	-	-	-	-	30,311,204
	2.20	Septage Unloading	-	-	-	-	-	-	-	1,549,079	394,410	4,683,584	22,434,543	-	-	-	-	-	29,061,616
	2.21	Pump Station 1	-	-	-	-	-	722,605	65,664	9,805,232	982,013	-	-	-	-	-	-	-	11,575,513
	2.22	Pump Station 2	-	-	-	335,348	30,474	4,569,620	435,919	-	-	-	-	-	-	-	-	-	5,371,361
	2.23	O2 Plant Process Controls Phase 2	-	-	29,932	2,651	267,233	183,093	-	-	-	-	-	-	-	-	-	-	482,909
	2.24	Gas Monitoring	-	-	-	20,571	2,306	312,036	-	-	-	-	-	-	-	-	-	-	334,913
	2.25	Ventilation Improvements	-	-	-	-	-	-	-	-	-	150,050	33,312	352,802	1,567,735	663,075	-	-	2,766,973
	2.26	Rehabilitation of Walkways and Stairways	-	-	155,070	160,032	165,606	170,438	175,892	181,521	187,843	193,324	199,511	205,895	213,066	219,283	226,300	231,622	2,685,405
	2.27	Oxygen Production	-	-	-	985,349	648,868	104,942	9,076,204	12,477,462	3,210,366	-	-	-	-	-	-	-	26,503,191
	2.28	SCADA RTU Upgrades	-	-	396,000	-	-	-	-	-	-	-	-	-	-	-	-	-	396,000
	2.29	High Strength Influent Impact Study	-	780,780	763,620	-	-	-	-	-	-	-	-	-	-	-	-	-	1,544,400
																			596,338,296
North District WWTP	3.1	Headworks and Sludge Degritting Transfer	-	1,639,000	491,699	-	17,047,686	9,091,560	3,507,930	-	-	-	-	-	-	-	-	-	31,777,875
	3.2	Primary Clarifiers and Odor Control	-	-	-	-	2,612,761	494,222	4,829,504	15,159,812	15,687,789	8,846,884	-	-	-	-	-	-	47,630,971
	3.3	Oxygenation Trains	-	-	-	-	-	-	-	1,270,471	466,019	15,199	10,447,256	11,179,751	3,445,446	-	-	-	26,824,143
	3.4	Oxygen Production	-	-	-	-	-	-	-	-	252,409	198,663	24,580	4,850,151	1,813,787	-	-	-	7,139,589
	3.5	Secondary Clarifiers	-	-	-	-	-	-	-	2,693,973	1,951,120	429,938	8,238,951	13,094,717	13,550,772	13,946,188	14,392,466	13,347,376	81,645,502
	3.6	Disinfection	-	-	-	-	-	1,101,627	153,361	5,799,971	11,666,790	-	-	-	-	-	-	-	18,721,749
	3.7	Effluent Disposal	-	-	-	-	1,372,663	398,129	359,972	7,533,010	7,795,365	8,022,837	2,018,853	-	-	-	-	-	27,500,829
	3.8	Plant Wide Electrical	-	-	244,034	275,217	284,803	286,490	89,794	3,251,687	4,854,550	4,996,207	4,576,909	-	-	-	-	-	18,859,689
	3.9	Flood Mitigation	-	-	187,928	90,573	10,977	4,038,111	-	-	-	-	-	-	-	-	-	-	4,327,589
	3.10	Yard Piping Replacement	-	-	-	-	234,813	79,320	1,900	1,367,338	1,450,730	1,493,063	274,396	-	-	-	-	-	4,901,560
	3.11	SCADA RTU Upgrades	-	-	803,000	397,320	-	-	-	-	-	-	-	-	-	-	-	-	1,200,320
																			270,529,817
Wastewater Collection and Transmission Lines	4.1	Collection System I/I Repairs	-	-	8,000,001	8,256,001	8,543,536	8,792,839	9,074,210	9,364,584	9,690,729	9,973,507	10,292,659	10,622,024	10,991,962	11,312,711	11,674,718	11,949,282	138,538,762
	4.2	Government Cut FM - Phase 1& 2 (construction ongoing)	-	35,187,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35,187,000
	4.3	Government Cut FM - Phase 3	-	7,280,002	1,170,001	21,903,244	56,665,193	30,357,681	-	-	-	-	-	-	-	-	-	-	117,376,121
	4.4	North Dade 72 inch PCCP FM Rehabilitation	-	-	1,418,160	161,284	6,167,132	11,115,002	4,902,538	-	-	-	-	-	-	-	-	-	23,764,116
	4.5	South Dade 54 inch PCCP FM Rehabilitation	-	-	1,088,205	151,492	5,004,319	10,590,039	1,736,650	-	-	-	-	-	-	-	-	-	18,570,705
	4.6	Replacement of Tamiami Canal Aerial Crossing FM's at NW 37th Ave	-	-	46,464	3,030	610,749	67,200	-	-	-	-	-	-	-	-	-	-	727,443
	4.7	Replacement of 18 inch DIP FM in Miami Lakes	-	-	140,614	15,879	1,117,718	1,049,122	-	-	-	-	-	-	-	-	-	-	2,323,333
	4.8	Rehabilitation of 54 inch PCCP FM in the City of Miami	-	-	656,196	74,100	5,216,016	4,895,901	-	-	-	-	-	-	-	-	-	-	10,842,213
	4.9	Replace Approximately 30 miles of AC FM Transmission System	-	-	2,531,777	855,518	20,484	15,559,048	16,416,757	16,942,093	383,216	-	-	-	-	-	-	-	52,708,893
	4.10	Opa-Locka Airport 48" PCCP force main replacement	-	-	1,263,122	306,376	2,522,364	14,617,293	4,959,467	-	-	-	-	-	-	-	-	-	23,668,622
																			423,707,208
Sewer Pump Station Systems	5.1	Upgrade of PS#0418	-	-	1,314,411	253,448	2,768,448	8,912,982	9,198,198	1,430,383	-	-	-	-	-	-	-	-	23,877,869
	5.2	Upgrade of PS#0691	-	-	312,822	79,649	313,521	2,228,245	2,299,548	773,707	-	-	-	-	-	-	-	-	6,007,492
	5.3	Upgrade of PS#0692	-	-	312,822	79,649	313,521	2,228,245	2,299,548	773,707	-	-	-	-	-	-	-	-	6,007,492
	5.4	Replacement of Switchgear PS#0414	-	-	82,090	15,903	220,424	715,769	447,252	-	-	-	-	-	-	-	-	-	1,481,438
	5.5	Replacement of Switchgear and Rehabilitation of Wet well PS#0415	-	-	250,256	63,718	250,817	1,782,597	1,839,640	618,966	-	-	-	-	-	-	-	-	4,805,995
	5.6	Replacement of Switchgear PS#0416	-	-	82,090	15,903	220,424	715,769	447,252	-	-	-	-	-	-	-	-	-	1,481,438
	5.7	Replacement of Switchgear and Rehabilitation of Wet well PS#0417	-	-	166,839	42,477	167,211	1,188,400	1,226,428	412,644	-	-	-	-	-	-	-	-	3,203,999
	5.8	Replacement of Electrical and Mechanical Equipment in PS#0107	-	-	208,548	53,097	209,014	1,485,496	1,533,032	515,804	-	-	-	-	-	-	-	-	4,004,992
	5.9	Replacement of Plumbing and Electrical Equipment at PS#0301	-	-	251,740	48,772	675,966	2,195,023	1,371,571	-	-	-	-	-	-	-	-	-	4,543,072
	5.10	Upgrade of PS#0488	-	-	164,178	31,809	440,848	1,431,539	894,504	-	-	-	-	-	-	-	-	-	2,962,877
	5.11	Installation of 60 inch FM from Kendall Dr to PS#0536	-	-	328,356	63,618	881,694	2,863,073	1,789,005	-	-	-	-	-	-	-	-	-	5,925,746
	5.12	Replacement of Switchgear at PS#0187	-	-	197,015	38,171	529,016	1,717,844	1,073,403	-	-	-	-	-	-	-	-	-	3,555,449
	5.13	Refurbish Emergency Generators and Controls at Regional Pump stations	-	-	195,639	12,758	2,845,744	-	-	-	-	-	-	-	-	-	-	-	3,054,141
	5.14	Upgrade of PS #0086, 0492	-	1,402,501	724,888	-	-	-	-	-	-	-	-	-	-	-	-	-	2,127,389
	5.15	Upgrade of PS #0065, 0201, 0334, 0374, 0607	-	-	413,901	3,576,929	1,844,840	-	-	-	-	-	-	-	-	-	-	-	5,835,671
	5.16	Upgrade of PS #00198, 0437, 0466, 0680	-	-	-	269,264	2,333,790	1,203,314	-	-	-	-	-	-	-	-	-	-	3,806,369
	5.17	Upgrade of PS #0037, 0351, 0370, 0403	-	-	-	-	380,968	3,292,323	1,698,051	-	-	-	-	-	-	-	-	-	5,371,342
	5.18	Upgrade of PS #0441, 0491, 0710, 0827, 0852, 1236	-	-	-	-	-	533,841	4,613,465	2,379,445	-	-	-	-	-	-	-	-	7,526,751
	5.19	SCADA RTU Upgrades	-	-	3,957,005	4,083,629	1,962,827	-	-	-	-	-	-	-	-	-	-	-	10,003,462
																			105,582,981
		Expenses	-	46,289,283	36,362,353	48,407,817	142,938,988	242,916,618	161,610,220	185,728,407	206,570,083	142,344,615	101,783,858	64,988,372	56,633,195	51,358,886	37,173,395	25,528,280	1,550,634,370

Appendix E

Flow Projection by Pump Station

Appendix E

Flow Projections by Pump Station / Volume Custumer

No.	Station/Basin	2035 Station Basin Flow, [MGD]			Downstream Stations / WWTP				Model Input Flow, [MGD] 72-Hour Hydrograph		Upgrade Required
		Dry Weather	AADF	Peak Hour					Min	Max	
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
1	1	25.128	29.219	86.655	CD	-	-	-	54.180	212.011	No
2	2	11.950	13.896	40.039	CD	-	-	-	17.370	62.430	No
3	4	0.727	0.845	1.756	1	CD	-	-	*	*	-
4	5	0.293	0.341	1.627	2	CD	-	-	*	*	-
5	6	0.715	0.831	2.097	2	CD	-	-	*	*	-
6	7	0.600	0.697	1.686	1	CD	-	-	*	*	-
7	8	3.080	3.582	7.883	CD	-	-	-	*	*	-
8	9	3.119	3.627	10.691	1	CD	-	-	*	*	-
9	10	1.064	1.237	2.620	1	CD	-	-	*	*	-
10	0010-P	0.020	0.023	0.105	CD	-	-	-	0.020	0.100	-
11	11	1.915	2.227	5.074	1	CD	-	-	*	*	-
12	0011-F1	0.014	0.016	0.075	**	**	**	**	**	**	-
13	0011-F2	0.006	0.007	0.034	**	**	**	**	**	**	-
14	0011-F4	0.002	0.002	0.009	**	**	**	**	**	**	-
15	12	0.135	0.157	0.271	1	CD	-	-	*	*	-
16	13	0.023	0.026	0.068	1	CD	-	-	*	*	-
17	14	1.310	1.524	4.025	187	CD	-	-	1.250	4.340	Yes
18	0014-F1	0.032	0.038	0.173	CD	-	-	-	0.030	0.170	-
19	16	1.245	1.448	4.273	1	CD	-	-	*	*	-
20	17	0.261	0.304	0.913	1	CD	-	-	*	*	-
21	0017-F1	0.014	0.016	0.073	**	**	**	**	**	**	-
22	18	0.101	0.118	0.273	1	CD	-	-	*	*	-
23	19	0.521	0.605	1.418	187	CD	-	-	0.670	2.560	No
24	20	0.249	0.290	0.789	1	CD	-	-	*	*	-
25	21	0.112	0.130	0.438	2	CD	-	-	*	*	-
26	22	0.213	0.247	1.144	19	187	CD	-	*	*	-
27	23	0.022	0.025	0.068	68	9	1	CD	*	*	-
28	26	0.630	0.732	2.344	187	CD	-	-	0.620	2.690	No
29	27	0.853	0.992	5.199	187	CD	-	-	0.860	5.200	No
30	28	0.126	0.146	0.351	26	187	CD	-	*	*	-
31	29	0.147	0.171	0.583	6	2	CD	-	*	*	-
32	32	0.011	0.012	0.080	152	1	CD	-	*	*	-
33	33	0.047	0.055	0.139	16	1	CD	-	*	*	-
34	34	0.047	0.055	0.137	152	1	CD	-	*	*	-
35	35	0.087	0.101	0.217	6	2	CD	-	*	*	-
36	37	0.011	0.013	0.027	48	2	CD	-	*	*	-
37	38	0.024	0.028	0.062	48	2	CD	-	*	*	-
38	41	0.032	0.037	0.101	62	2	CD	-	*	*	-
39	42	0.549	0.638	2.021	2	CD	-	-	*	*	-
40	44	0.617	0.717	1.883	2	CD	-	-	*	*	-
41	45	0.013	0.015	0.055	1	CD	-	-	*	*	-
42	46	0.057	0.066	0.178	6	2	CD	-	*	*	-
43	47	0.365	0.425	1.107	6	2	CD	-	*	*	-
44	48	1.205	1.401	2.683	2	CD	-	-	*	*	-
45	0048-F1	0.008	0.010	0.045	**	**	**	**	**	**	-
46	49	0.778	0.905	2.650	2	CD	-	-	*	*	-
47	50	0.181	0.211	0.516	1	CD	-	-	*	*	-
48	51	0.126	0.146	0.404	2	CD	-	-	*	*	-
49	52	0.228	0.265	0.686	2	CD	-	-	*	*	-
50	53	0.004	0.004	0.079	11	1	CD	-	*	*	-
51	54	4.637	5.392	10.363	1	CD	-	-	*	*	-
52	55	0.406	0.472	1.329	1	CD	-	-	*	*	-
53	56	0.293	0.341	0.790	1	CD	-	-	*	*	-
54	57	0.070	0.081	0.192	58	2	CD	-	*	*	-
55	58	0.299	0.348	0.862	2	CD	-	-	*	*	-
56	59	0.056	0.065	0.170	1	CD	-	-	*	*	-
57	60	0.019	0.022	0.144	CD	-	-	-	0.010	0.140	No
58	61	0.155	0.180	0.454	1	CD	-	-	*	*	-
59	62	1.035	1.204	4.202	2	CD	-	-	*	*	-
60	63	0.029	0.034	0.076	1	CD	-	-	*	*	-
61	64	0.235	0.274	0.492	1	CD	-	-	*	*	-
62	65	0.307	0.357	0.772	9	1	CD	-	*	*	-
63	66	0.022	0.025	0.114	9	1	CD	-	*	*	-
64	67	0.117	0.136	0.530	9	1	CD	-	*	*	-
65	68	0.113	0.131	0.374	9	1	CD	-	*	*	-
66	69	0.460	0.535	1.277	1	CD	-	-	*	*	-
67	70	0.004	0.005	0.029	80	78	117	1	*	*	-
68	71	0.070	0.082	0.279	1	CD	-	-	*	*	-
69	72	0.642	0.746	2.303	54	1	CD	-	*	*	-
70	73	0.029	0.034	0.115	1	CD	-	-	*	*	-
71	74	0.455	0.529	1.618	1	CD	-	-	*	*	-
72	75	0.272	0.316	1.298	1	CD	-	-	*	*	-
73	76	0.295	0.343	0.977	54	1	CD	-	*	*	-
74	77	0.197	0.229	0.853	1	CD	-	-	*	*	-

See page 19 for Legend

No.	Station/Basin	2035 Station Basin Flow, [MGD]			Downstream Stations / WWTP				Model Input Flow, [MGD] 72-Hour Hydrograph		Upgrade Required
		Dry Weather	AADF	Peak Hour					Min	Max	
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
75	78	0.161	0.187	0.855	117	1	CD	-	*	*	-
76	79	0.137	0.160	1.356	1	CD	-	-	*	*	-
77	80	0.174	0.202	0.423	78	117	1	CD	*	*	-
78	81	0.008	0.010	0.059	83	1	CD	-	*	*	-
79	82	0.023	0.027	0.091	79	1	CD	-	*	*	-
80	83	0.129	0.149	0.811	1	CD	-	-	*	*	-
81	84	0.085	0.099	0.316	48	2	CD	-	*	*	-
82	85	0.424	0.493	1.591	54	1	CD	-	*	*	-
83	86	0.248	0.289	0.825	1	CD	-	-	*	*	-
84	0086-F1	0.005	0.005	0.025	**	**	**	**	**	**	-
85	0086-F2	0.010	0.012	0.055	**	**	**	**	**	**	-
86	0086-F3	0.026	0.030	0.139	**	**	**	**	**	**	-
87	0086-F4	0.009	0.010	0.046	**	**	**	**	**	**	-
88	0086-F5	0.026	0.030	0.139	**	**	**	**	**	**	-
89	87	0.196	0.228	0.784	187	CD	-	-	0.120	0.780	No
90	88	0.020	0.023	0.110	102	1	CD	-	*	*	-
91	89	0.004	0.005	0.036	102	1	CD	-	*	*	-
92	90	0.063	0.073	0.155	187	CD	-	-	0.040	0.150	No
93	91	0.286	0.333	1.566	187	CD	-	-	0.090	1.570	No
94	92	0.085	0.099	0.517	187	CD	-	-	0.100	0.520	No
95	93	0.064	0.074	0.282	187	CD	-	-	0.060	0.280	No
96	94	0.153	0.177	0.731	187	CD	-	-	0.070	0.730	No
97	0094-F1	0.058	0.068	0.311	SD	-	-	-	0.060	0.310	-
98	95	0.025	0.029	0.095	CD	-	-	-	0.010	0.100	No
99	96	0.023	0.027	0.054	CD	-	-	-	0.010	0.050	No
100	97	0.557	0.647	1.815	187	CD	-	-	0.220	1.810	No
101	98	0.106	0.123	0.379	187	CD	-	-	0.130	0.380	No
102	99	0.138	0.161	0.545	187	CD	-	-	0.050	0.540	No
103	0099-F2	0.079	0.092	0.346	SD	-	-	-	0.060	0.350	-
104	100	0.195	0.227	0.406	1	CD	-	-	*	*	-
105	101	0.291	0.338	1.201	1	CD	-	-	*	*	-
106	102	0.265	0.308	1.058	1	CD	-	-	*	*	-
107	103	0.077	0.089	0.261	1	CD	-	-	*	*	-
108	0103-F1	0.183	0.213	0.733	**	**	**	**	**	**	-
109	104	0.388	0.451	1.192	1	CD	-	-	*	*	-
110	105	0.135	0.157	0.591	187	CD	-	-	0.060	0.590	No
111	106	0.369	0.429	0.898	1	CD	-	-	*	*	-
112	107	0.377	0.439	1.374	1	CD	-	-	*	*	-
113	0107-F3	0.004	0.004	0.020	**	**	**	**	**	**	-
114	108	0.035	0.041	0.210	187	CD	-	-	0.040	0.210	No
115	109	0.898	1.045	2.651	187	CD	-	-	0.720	2.650	Yes
116	0109-F1	0.107	0.124	0.468	CD	-	-	-	0.090	0.470	-
117	110	0.293	0.341	1.585	187	CD	-	-	0.470	1.590	Yes
118	0110-F1	0.069	0.080	0.368	**	**	**	**	**	**	-
119	0110-F2	0.050	0.058	0.268	CD	-	-	-	0.050	0.270	-
120	111	0.119	0.138	0.449	187	CD	-	-	0.080	0.450	No
121	112	1.934	2.249	5.177	1	CD	-	-	*	*	-
122	0112-F2	0.028	0.033	0.151	**	**	**	**	**	**	-
123	113	0.183	0.213	0.774	187	CD	-	-	0.120	0.770	No
124	114	0.234	0.272	1.247	187	CD	-	-	0.120	1.250	Yes
125	115	0.787	0.916	2.675	1	CD	-	-	*	*	-
126	0115-F1	0.122	0.142	0.535	**	**	**	**	**	**	-
127	0115-F2	0.033	0.038	0.174	**	**	**	**	**	**	-
128	116	0.057	0.067	0.261	187	CD	-	-	0.070	0.260	No
129	117	1.767	2.055	8.605	1	CD	-	-	*	*	-
130	118	0.055	0.064	0.313	14	187	CD	-	*	*	-
131	119	0.069	0.080	0.363	187	CD	-	-	0.070	0.360	No
132	120	1.290	1.500	3.792	187	CD	-	-	1.120	3.790	No
133	121	0.668	0.777	2.109	187	CD	-	-	0.480	2.110	No
134	0121-F1	0.024	0.028	0.127	CD	-	-	-	0.020	0.130	-
135	122	0.060	0.070	0.133	CD	-	-	-	0.040	0.130	No
136	123	0.052	0.061	0.202	187	CD	-	-	0.020	0.200	Yes
137	124	0.105	0.122	0.595	187	CD	-	-	0.120	0.590	No
138	125	0.380	0.441	1.345	187	CD	-	-	0.260	1.370	No
139	126	0.063	0.074	0.293	187	CD	-	-	0.020	0.290	No
140	127	0.012	0.013	0.031	125	187	CD	-	*	*	-
141	128	0.315	0.366	1.127	187	CD	-	-	0.250	1.130	Yes
142	129	0.302	0.351	0.945	187	CD	-	-	0.220	0.950	No
143	130	0.359	0.418	0.866	CD	-	-	-	0.360	0.960	Yes
144	0130-F1	0.001	0.001	0.003	**	**	**	**	**	**	-
145	131	0.088	0.102	0.253	CD	-	-	-	0.090	0.250	Yes
146	0131-F1	0.023	0.026	0.122	**	**	**	**	**	**	-
147	132	0.021	0.024	0.097	130	CD	-	-	*	*	-
148	133	0.120	0.140	0.182	CD	-	-	-	0.060	0.180	No
149	0133-F1	0.001	0.001	0.003	**	**	**	**	**	**	-
150	134	0.059	0.068	0.118	CD	-	-	-	0.020	0.120	No

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No.	Station/Basin	2035 Station Basin Flow, [MGD]			Downstream Stations / WWTP				Model Input Flow, [MGD] 72-Hour Hydrograph		Upgrade Required
		Dry Weather	AADF	Peak Hour					Min	Max	
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
151	135	0.216	0.251	0.544	CD	-	-	-	0.140	0.540	No
152	136	0.321	0.374	0.853	CD	-	-	-	0.330	1.200	No
153	137	0.070	0.082	0.350	136	CD	-	-	*	*	-
154	138	0.107	0.124	0.283	CD	-	-	-	0.060	0.280	Yes
155	139	0.015	0.017	0.060	187	CD	-	-	0.010	0.060	No
156	140	0.025	0.029	0.122	187	CD	-	-	0.030	0.120	No
157	142	0.278	0.324	1.188	187	CD	-	-	0.260	1.190	No
158	0142-F1	0.124	0.144	0.543	CD	-	-	-	0.100	0.540	-
159	0142-F2	0.057	0.067	0.306	**	**	**	**	**	**	-
160	0142-F3	0.052	0.060	0.275	**	**	**	**	**	**	-
161	143	0.094	0.109	0.516	187	CD	-	-	0.110	0.520	No
162	144	0.603	0.701	3.794	0536 & 0559	SD	-	-	0.760	3.790	Yes
163	0144-F1	0.034	0.039	0.180	**	**	**	**	**	**	-
164	0144-F2	0.058	0.067	0.307	**	**	**	**	**	**	-
165	145	0.755	0.878	2.495	187	CD	-	-	0.710	2.500	Yes
166	146	0.123	0.143	0.282	CD	-	-	-	0.060	0.280	No
167	147	0.287	0.334	1.065	187	CD	-	-	0.220	1.070	No
168	148	0.095	0.111	0.525	187	CD	-	-	0.110	0.520	No
169	149	0.990	1.152	3.105	187	CD	-	-	0.770	3.100	Yes
170	150	0.244	0.283	1.228	187	CD	-	-	0.250	1.230	No
171	151	0.024	0.028	0.065	187	CD	-	-	0.010	0.070	No
172	0151-F1	0.070	0.082	0.376	**	**	**	**	**	**	-
173	0151-F2	0.252	0.293	1.011	CD	-	-	-	0.200	1.010	-
174	152	2.014	2.342	8.010	1	CD	-	-	*	*	-
175	153	0.195	0.226	1.029	0536 & 0559	SD	-	-	0.210	1.030	No
176	0153-F1		0.000		**	**	**	**	**	**	-
177	0153-F3	0.054	0.062	0.286	CD	-	-	-	0.050	0.290	-
178	0153-F4	0.017	0.020	0.091	CD	-	-	-	0.020	0.090	-
179	0153-F6		0.000		**	**	**	**	**	**	-
180	0153-F7		0.000		**	**	**	**	**	**	-
181	0153-F8	0.043	0.050	0.230	**	**	**	**	**	**	-
182	0153-F9	0.038	0.044	0.202	**	**	**	**	**	**	-
183	154	0.059	0.068	0.467	187	CD	-	-	0.060	0.470	No
184	0154-F1	3.455	4.017	12.741	CD	-	-	-	3.340	12.740	-
185	155	0.187	0.217	1.254	187	CD	-	-	0.180	1.250	No
186	156	0.452	0.526	1.027	1	CD	-	-	*	*	-
187	157	0.412	0.479	1.643	187	CD	-	-	0.280	1.640	Yes
188	0157-F1	0.048	0.055	0.254	CD	-	-	-	0.050	0.250	-
189	158	0.194	0.226	1.136	187	CD	-	-	0.220	1.140	Yes
190	159	0.083	0.096	0.498	187	CD	-	-	0.100	0.500	No
191	160	0.317	0.369	1.245	187	CD	-	-	0.120	1.240	No
192	0160-P	0.008	0.010	0.045	CD	-	-	-	0.010	0.040	-
193	161	0.028	0.032	0.267	187	CD	-	-	0.010	0.270	Yes
194	162	0.058	0.067	0.356	187	CD	-	-	0.030	0.360	No
195	163	0.089	0.104	0.436	187	CD	-	-	0.060	0.440	No
196	164	0.022	0.026	0.216	1	CD	-	-	*	*	-
197	165	0.222	0.258	0.700	187	CD	-	-	0.120	0.700	Yes
198	166	0.080	0.093	0.581	187	CD	-	-	0.090	0.580	No
199	167	0.043	0.050	0.077	1	CD	-	-	*	*	-
200	168	0.062	0.073	0.155	187	CD	-	-	0.040	0.160	No
201	0168-P	0.136	0.159	0.600	CD	-	-	-	0.110	0.600	-
202	169	0.030	0.035	0.272	187	CD	-	-	0.050	0.270	No
203	170	0.173	0.201	0.531	CD	-	-	-	0.110	0.530	No
204	171	1.256	1.461	7.370	1	CD	-	-	*	*	-
205	172	0.209	0.243	1.195	187	CD	-	-	0.090	1.190	No
206	173	0.156	0.182	0.817	187	CD	-	-	0.160	0.820	Yes
207	0173-F2	0.005	0.005	0.024	CD	-	-	-	0.000	0.020	-
208	0173-F3	0.002	0.002	0.009	**	**	**	**	**	**	-
209	174	0.041	0.047	0.206	187	CD	-	-	0.040	0.210	No
210	0174-F3	0.006	0.007	0.032	CD	-	-	-	0.010	0.030	-
211	175	0.852	0.991	2.258	187	CD	-	-	0.650	2.260	No
212	0175-F1	0.071	0.083	0.381	**	**	**	**	**	**	-
213	0175-F2	0.032	0.037	0.172	**	**	**	**	**	**	-
214	176	0.857	0.996	3.478	1	CD	-	-	*	*	-
215	177	0.847	0.985	3.650	0536 & 0559	SD	-	-	1.340	4.940	Yes
216	179	0.033	0.039	0.159	177	0536 & 0559	SD	-	*	*	-
217	180	0.087	0.101	0.995	177	0536 & 0559	SD	-	*	*	-
218	181	0.022	0.026	0.080	177	0536 & 0559	SD	-	*	*	-
219	0181-F1	0.007	0.008	0.036	**	**	**	**	**	**	-
220	0181-F2	0.030	0.035	0.160	**	**	**	**	**	**	-
221	182	0.039	0.045	0.091	187	CD	-	-	0.020	0.090	No
222	183	0.196	0.228	1.066	0536 & 0559	SD	-	-	0.160	1.070	No
223	184	0.424	0.493	3.238	0536 & 0559	SD	-	-	0.450	3.240	No
224	185	0.148	0.172	0.791	0536 & 0559	SD	-	-	0.050	0.790	No
225	186	0.438	0.510	0.977	1	CD	-	-	*	*	-
226	188	0.106	0.124	0.571	187	CD	-	-	0.040	0.570	No

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No.	Station/Basin	2035 Station Basin Flow, [MGD]			Downstream Stations / WWTP				Model Input Flow, [MGD] 72-Hour Hydrograph		Upgrade Required
		Dry Weather	AADF	Peak Hour					Min	Max	
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
227	189	0.059	0.069	0.407	187	CD	-	-	0.080	0.410	No
228	190	0.534	0.621	2.357	1	CD	-	-	*	*	-
229	191	0.044	0.051	0.137	1	CD	-	-	*	*	-
230	192	0.105	0.122	0.631	187	CD	-	-	0.090	0.630	No
231	193	0.044	0.051	0.259	187	CD	-	-	0.050	0.260	No
232	194	0.026	0.030	0.340	187	CD	-	-	0.020	0.340	No
233	195	0.023	0.027	0.195	187	CD	-	-	0.040	0.190	No
234	0195-F1	0.029	0.034	0.155	SD	-	-	-	0.030	0.150	-
235	0195-F2	0.000	0.000	0.000	**	**	**	**	**	**	-
236	0195-F3		0.000		**	**	**	**	**	**	-
237	196	0.648	0.753	2.822	187	CD	-	-	0.730	2.820	Yes
238	197	0.095	0.111	0.420	187	CD	-	-	0.090	0.420	No
239	198	0.693	0.806	2.203	187	CD	-	-	0.640	2.200	Yes
240	0198-F1	0.027	0.031	0.142	**	**	**	**	**	**	-
241	199	0.014	0.017	0.052	187	CD	-	-	0.010	0.050	Yes
242	0199-F1	0.371	0.431	1.311	CD	-	-	-	0.310	1.310	-
243	200	0.100	0.116	0.228	190	1	CD	-	*	*	-
244	201	0.446	0.519	1.924	187	CD	-	-	0.410	1.920	Yes
245	202	0.076	0.088	0.400	187	CD	-	-	0.080	0.400	No
246	203	0.137	0.159	0.546	187	CD	-	-	0.080	0.550	No
247	204	0.133	0.154	0.833	0536 & 0559	SD	-	-	0.120	0.830	No
248	206	0.215	0.249	1.553	0536 & 0559	SD	-	-	0.100	1.550	No
249	0206-F3	0.036	0.042	0.192	CD	-	-	-	0.030	0.190	-
250	207	0.149	0.173	0.770	0536 & 0559	SD	-	-	0.050	0.770	No
251	0207-F1	0.003	0.003	0.015	**	**	**	**	**	**	-
252	0207-F2	0.003	0.003	0.016	**	**	**	**	**	**	-
253	208	0.047	0.054	0.154	187	CD	-	-	0.030	0.150	No
254	209	0.083	0.096	0.971	0536 & 0559	SD	-	-	0.030	0.970	No
255	210	0.078	0.091	0.512	187	CD	-	-	0.020	0.510	Yes
256	211	0.023	0.027	0.069	0536 & 0559	SD	-	-	0.000	0.070	No
257	212	0.191	0.222	0.560	0536 & 0559	SD	-	-	0.080	0.560	No
258	213	0.175	0.204	1.256	0536 & 0559	SD	-	-	0.110	1.260	Yes
259	0213-F1	0.037	0.043	0.197	**	**	**	**	**	**	-
260	0213-F2	0.144	0.168	0.578	SD	-	-	-	0.110	0.580	-
261	214	0.153	0.178	0.971	0536 & 0559	SD	-	-	0.180	0.970	No
262	0214-F1	0.103	0.119	0.451	SD	-	-	-	0.080	0.450	-
263	215	0.149	0.174	0.794	0536 & 0559	SD	-	-	0.070	0.790	No
264	0215-F1	0.037	0.043	0.196	**	**	**	**	**	**	-
265	0215-F2	0.036	0.042	0.192	**	**	**	**	**	**	-
266	0215-F3	0.039	0.046	0.210	**	**	**	**	**	**	-
267	0215-F4	0.014	0.017	0.077	**	**	**	**	**	**	-
268	0215-F5	0.024	0.028	0.128	**	**	**	**	**	**	-
269	216	0.378	0.439	0.997	0536 & 0559	SD	-	-	0.140	1.000	Yes
270	0216-F2	0.023	0.027	0.122	**	**	**	**	**	**	-
271	0216-F3	0.022	0.025	0.117	**	**	**	**	**	**	-
272	0216-F4	0.029	0.034	0.154	SD	-	-	-	0.030	0.150	-
273	0216-F5	0.025	0.029	0.132	**	**	**	**	**	**	-
274	217	0.169	0.197	1.200	0536 & 0559	SD	-	-	0.050	1.200	No
275	218	0.044	0.052	0.119	187	CD	-	-	0.020	0.120	No
276	219	0.032	0.037	0.088	0536 & 0559	SD	-	-	0.020	0.090	No
277	0219-F1	0.012	0.014	0.063	**	**	**	**	**	**	-
278	0219-F2	0.020	0.023	0.107	**	**	**	**	**	**	-
279	220	0.343	0.399	0.869	0536 & 0559	SD	-	-	0.130	0.870	No
280	221	0.039	0.045	0.073	0536 & 0559	SD	-	-	0.010	0.070	No
281	222	0.231	0.269	1.152	0536 & 0559	SD	-	-	0.130	1.150	No
282	223	0.255	0.297	0.921	0536 & 0559	SD	-	-	0.170	0.920	No
283	224	0.039	0.045	0.975	0536 & 0559	SD	-	-	0.230	0.980	No
284	225	0.739	0.860	2.034	0536 & 0559	SD	-	-	0.440	2.850	Yes
285	0225-F1	0.150	0.175	0.601	**	**	**	**	**	**	-
286	226	0.081	0.094	0.130	0536 & 0559	SD	-	-	0.030	0.130	Yes
287	227	0.109	0.127	0.473	0536 & 0559	SD	-	-	0.040	0.470	No
288	229	0.021	0.024	0.114	0536 & 0559	SD	-	-	0.010	0.110	No
289	230	0.306	0.356	0.790	0536 & 0559	SD	-	-	0.160	0.790	No
290	231	0.133	0.155	0.305	0536 & 0559	SD	-	-	0.060	0.300	No
291	232	0.379	0.441	1.605	0536 & 0559	SD	-	-	0.160	1.600	No
292	234	0.196	0.228	0.399	0536 & 0559	SD	-	-	0.130	0.400	No
293	235	0.292	0.340	0.877	0536 & 0559	SD	-	-	0.080	0.880	No
294	236	0.347	0.403	1.067	0536 & 0559	SD	-	-	0.350	1.070	No
295	237	0.387	0.450	1.178	0536 & 0559	SD	-	-	0.130	1.180	No
296	238	0.140	0.163	0.742	0536 & 0559	SD	-	-	0.150	0.740	No
297	239	0.443	0.515	1.147	0536 & 0559	SD	-	-	0.240	1.150	No
298	240	0.016	0.019	0.047	0536 & 0559	SD	-	-	0.010	0.050	No
299	241	0.044	0.051	0.202	0536 & 0559	SD	-	-	0.080	0.200	No
300	242	0.064	0.074	0.429	0536 & 0559	SD	-	-	0.090	0.430	No
301	243	0.003	0.004	0.012	0536 & 0559	SD	-	-	0.000	0.010	No
302	301	1.715	1.994	7.165	ND	-	-	-	3.260	12.840	No

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No.	Station/Basin	2035 Station Basin Flow, [MGD]			Downstream Stations / WWTP				Model Input Flow, [MGD] 72-Hour Hydrograph		Upgrade Required
		Dry Weather	AADF	Peak Hour					Min	Max	
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
303	0301-F1	0.004	0.005	0.021	**	**	**	**	**	**	-
304	304	0.017	0.020	0.042	345	0300 & 1310	ND	-	0.010	0.040	No
305	305	0.035	0.040	0.142	345	0300 & 1310	ND	-	0.030	0.140	No
306	308	0.227	0.264	0.855	345	0300 & 1310	ND	-	0.220	0.860	No
307	309	0.026	0.030	0.143	345	0300 & 1310	ND	-	0.020	0.140	Yes
308	310	0.891	1.036	1.346	ND	-	-	-	0.580	1.530	No
309	311	0.280	0.326	1.227	ND	-	-	-	0.370	1.680	No
310	312	0.187	0.218	0.451	311	ND	-	-	*	*	-
311	313	0.182	0.212	0.385	ND	-	-	-	0.140	0.390	No
312	314	0.057	0.066	0.183	310	ND	-	-	*	*	-
313	315	0.019	0.022	0.051	301	ND	-	-	*	*	-
314	316	0.330	0.384	2.298	301	ND	-	-	*	*	-
315	317	0.116	0.135	0.398	301	ND	-	-	*	*	-
316	318	0.935	1.088	2.977	421	ND	-	-	0.860	2.980	No
317	319	0.018	0.021	0.060	0300 & 1310	ND	-	-	0.010	0.060	No
318	320	0.009	0.010	0.030	425	ND	-	-	0.010	0.030	No
319	321	0.230	0.267	0.564	425	ND	-	-	0.160	0.560	No
320	0321-F1	0.097	0.112	0.424	ND	-	-	-	0.080	0.420	-
321	322	0.027	0.032	0.094	423	ND	-	-	*	*	-
322	323	0.539	0.627	2.270	345	0300 & 1310	ND	-	0.500	2.270	No
323	324	0.150	0.174	0.287	425	ND	-	-	0.100	0.290	No
324	325	0.020	0.023	0.056	345	0300 & 1310	ND	-	0.010	0.060	No
325	0325-F1	0.076	0.088	0.333	**	**	**	**	**	**	-
326	326	0.015	0.018	0.059	345	0300 & 1310	ND	-	0.010	0.060	No
327	327	0.002	0.002	0.008	345	0300 & 1310	ND	-	0.000	0.010	No
328	328	0.013	0.016	0.052	345	0300 & 1310	ND	-	0.010	0.050	No
329	329	0.152	0.176	0.756	0300 & 1310	ND	-	-	0.100	0.760	No
330	0329-F1	0.011	0.012	0.057	ND	-	-	-	0.010	0.060	-
331	330	0.213	0.248	0.670	0300 & 1310	ND	-	-	0.210	0.670	No
332	331	0.598	0.695	2.712	0300 & 1310	ND	-	-	0.510	2.710	Yes
333	332	0.115	0.134	0.312	0300 & 1310	ND	-	-	0.110	0.310	No
334	333	0.306	0.356	1.253	0300 & 1310	ND	-	-	0.340	1.450	No
335	334	0.040	0.047	0.194	333	0300 & 1310	ND	-	*	*	-
336	335	0.363	0.422	1.585	0300 & 1310	ND	-	-	0.340	1.970	No
337	0335-F1	0.029	0.034	0.157	ND	-	-	-	0.030	0.160	-
338	336	0.061	0.070	0.381	335	0300 & 1310	ND	-	*	*	-
339	337	0.113	0.131	1.096	0300 & 1310	ND	-	-	0.330	1.100	Yes
340	338	0.123	0.143	0.617	0300 & 1310	ND	-	-	0.090	0.620	Yes
341	339	0.007	0.008	0.030	0300 & 1310	ND	-	-	0.010	0.030	No
342	340	0.103	0.120	0.552	422	0300 & 1310	ND	-	0.100	0.550	No
343	0340-P	0.303	0.353	1.073	ND	-	-	-	0.250	1.070	-
344	341	0.045	0.052	0.209	0300 & 1310	ND	-	-	0.040	0.210	No
345	342	0.061	0.071	0.140	425	ND	-	-	0.030	0.140	No
346	343	0.405	0.471	1.391	425	ND	-	-	0.270	1.390	Yes
347	0343-F1	0.089	0.103	0.390	ND	-	-	-	0.070	0.390	-
348	344	0.743	0.864	1.060	425	ND	-	-	0.470	1.060	No
349	349	0.399	0.464	1.241	421	ND	-	-	0.270	1.240	No
350	350	0.337	0.392	1.932	421	ND	-	-	0.210	1.930	No
351	351	0.249	0.289	0.460	415	0300 & 1310	ND	-	*	*	-
352	352	0.115	0.134	0.328	415	0300 & 1310	ND	-	*	*	-
353	353	0.156	0.181	0.649	416	0300 & 1310	ND	-	0.110	0.650	No
354	354	0.198	0.230	1.477	416	0300 & 1310	ND	-	0.100	1.480	Yes
355	355	0.136	0.158	0.452	415	0300 & 1310	ND	-	*	*	-
356	356	0.046	0.054	0.739	415	0300 & 1310	ND	-	*	*	-
357	357	0.031	0.036	0.170	415	0300 & 1310	ND	-	*	*	-
358	358	0.007	0.008	0.049	415	0300 & 1310	ND	-	*	*	-
359	359	0.069	0.081	0.751	415	0300 & 1310	ND	-	*	*	-
360	360	0.056	0.065	0.239	415	0300 & 1310	ND	-	*	*	-
361	361	0.085	0.099	0.400	415	0300 & 1310	ND	-	*	*	-
362	362	0.150	0.175	0.388	415	0300 & 1310	ND	-	*	*	-
363	363	0.115	0.133	1.006	415	0300 & 1310	ND	-	*	*	-
364	364	0.082	0.096	0.330	415	0300 & 1310	ND	-	*	*	-
365	365	0.036	0.041	0.383	415	0300 & 1310	ND	-	*	*	-
366	366	0.194	0.225	1.408	415	0300 & 1310	ND	-	*	*	-
367	367	0.150	0.175	2.241	415	0300 & 1310	ND	-	*	*	-
368	368	0.167	0.195	0.651	415	0300 & 1310	ND	-	*	*	-
369	369	0.021	0.024	0.092	415	0300 & 1310	ND	-	*	*	-
370	370	0.036	0.042	0.308	415	0300 & 1310	ND	-	*	*	-
371	0370-F1	0.053	0.062	0.283	ND	-	-	-	0.050	0.280	-
372	371	0.092	0.107	0.379	415	0300 & 1310	ND	-	*	*	-
373	0371-F1	0.004	0.004	0.020	ND	-	-	-	0.000	0.020	-
374	372	0.099	0.115	0.427	415	0300 & 1310	ND	-	*	*	-
375	373	0.164	0.190	0.684	415	0300 & 1310	ND	-	*	*	-
376	374	0.174	0.202	0.441	415	0300 & 1310	ND	-	*	*	-
377	375	0.054	0.062	0.633	415	0300 & 1310	ND	-	*	*	-
378	376	0.043	0.050	0.326	415	0300 & 1310	ND	-	*	*	-

See page 19 for Legend

No.	Station/Basin	2035 Station Basin Flow, [MGD]			Downstream Stations / WWTP				Model Input Flow, [MGD] 72-Hour Hydrograph		Upgrade Required
		Dry Weather	AADF	Peak Hour					Min	Max	
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
379	377	0.108	0.125	0.478	415	0300 & 1310	ND	-	*	*	-
380	378	0.105	0.122	0.379	0300 & 1310	ND	-	-	0.070	0.380	No
381	379	0.039	0.045	0.108	417	0300 & 1310	ND	-	*	*	-
382	380	0.016	0.019	0.039	416	0300 & 1310	ND	-	0.010	0.040	Yes
383	381	0.016	0.019	0.052	417	0300 & 1310	ND	-	*	*	-
384	382	0.043	0.050	0.185	417	0300 & 1310	ND	-	*	*	-
385	383	0.013	0.016	0.300	417	0300 & 1310	ND	-	*	*	-
386	384	0.022	0.026	0.103	383	417	0300 & 1310	ND	*	*	-
387	0384-P	0.036	0.042	0.194	ND	-	-	-	0.030	0.190	-
388	385	0.021	0.025	0.295	415	0300 & 1310	ND	-	*	*	-
389	386	0.304	0.353	1.483	0300 & 1310	ND	-	-	0.260	1.480	Yes
390	387	0.143	0.166	0.613	0300 & 1310	ND	-	-	0.170	0.610	No
391	0387-F2	0.008	0.009	0.041	**	**	**	**	**	**	-
392	0387-F3	0.018	0.021	0.098	**	**	**	**	**	**	-
393	0387-F4	0.009	0.011	0.049	**	**	**	**	**	**	-
394	0387-F5	0.005	0.006	0.026	**	**	**	**	**	**	-
395	389	0.085	0.099	0.163	415	0300 & 1310	ND	-	*	*	-
396	390	0.010	0.012	0.026	416	0300 & 1310	ND	-	0.010	0.030	Yes
397	391	0.045	0.053	0.116	417	0300 & 1310	ND	-	*	*	-
398	392	0.067	0.078	0.168	ND	-	-	-	0.060	0.170	No
399	393	0.092	0.107	0.160	ND	-	-	-	0.050	0.160	No
400	394	0.143	0.166	0.337	423	ND	-	-	*	*	-
401	395	0.070	0.081	0.447	ND	-	-	-	0.100	0.450	No
402	0395-F1	0.000	0.000	0.002	**	**	**	**	**	**	-
403	397	0.049	0.057	0.177	423	ND	-	-	*	*	-
404	398	0.032	0.037	0.076	399	423	ND	-	*	*	-
405	399	0.630	0.733	1.939	423	ND	-	-	*	*	-
406	400	0.007	0.008	0.030	423	ND	-	-	*	*	-
407	401	0.029	0.034	0.136	0300 & 1310	ND	-	-	0.020	0.140	No
408	402	0.058	0.067	0.270	423	ND	-	-	*	*	-
409	0402-F1	0.008	0.009	0.041	**	**	**	**	**	**	-
410	403	0.047	0.055	0.317	416	0300 & 1310	ND	-	0.070	0.380	Yes
411	404	0.042	0.049	0.142	416	0300 & 1310	ND	-	0.020	0.140	No
412	405	0.030	0.034	0.064	403	416	0300 & 1310	ND	*	*	-
413	406	0.629	0.732	1.272	416	0300 & 1310	ND	-	0.390	1.270	No
414	0406-F2	0.055	0.064	0.296	ND	-	-	-	0.050	0.300	-
415	407	0.089	0.103	0.270	408	416	0300 & 1310	ND	*	*	-
416	408	0.069	0.080	0.973	416	0300 & 1310	ND	-	0.190	1.240	Yes
417	409	0.060	0.070	0.522	416	0300 & 1310	ND	-	0.040	0.520	Yes
418	410	0.063	0.073	0.342	416	0300 & 1310	ND	-	0.060	0.340	Yes
419	411	0.046	0.054	0.133	421	ND	-	-	0.040	0.130	No
420	0411-F1	0.062	0.072	0.330	**	**	**	**	**	**	-
421	0411-F3	0.009	0.011	0.050	**	**	**	**	**	**	-
422	412	0.045	0.052	0.135	421	ND	-	-	0.060	0.140	No
423	413	0.168	0.195	0.599	416	0300 & 1310	ND	-	0.100	0.600	No
424	414	0.216	0.251	0.596	0300 & 1310	ND	-	-	0.140	0.600	No
425	415	0.581	0.675	4.013	0300 & 1310	ND	-	-	2.970	19.960	No
426	417	0.613	0.712	1.515	0300 & 1310	ND	-	-	1.140	6.400	No
427	418	1.374	1.598	5.594	0300 & 1310	ND	-	-	0.963	5.594	-
428	419	0.184	0.214	0.728	415	0300 & 1310	ND	-	*	*	-
429	0419-F1	0.001	0.001	0.006	ND	-	-	-	0.000	0.010	-
430	420	0.163	0.190	0.315	421	ND	-	-	0.060	0.310	No
431	0420-F1	0.039	0.046	0.210	ND	-	-	-	0.040	0.210	-
432	423	0.313	0.364	1.133	ND	-	-	-	1.250	4.180	No
433	424	0.300	0.348	0.793	ND	-	-	-	0.150	0.790	No
434	0424-F1	0.006	0.007	0.033	**	**	**	**	**	**	-
435	427	0.081	0.094	0.338	415	0300 & 1310	ND	-	*	*	-
436	428	0.220	0.256	1.253	416	0300 & 1310	ND	-	0.260	1.250	Yes
437	429	0.231	0.268	2.358	416	0300 & 1310	ND	-	0.490	2.360	Yes
438	430	0.149	0.174	0.553	416	0300 & 1310	ND	-	0.070	0.550	Yes
439	431	0.147	0.171	1.899	416	0300 & 1310	ND	-	0.350	1.900	Yes
440	432	0.063	0.073	0.125	423	ND	-	-	*	*	-
441	433	0.038	0.045	0.110	0300 & 1310	ND	-	-	0.020	0.110	Yes
442	434	0.078	0.091	0.233	0300 & 1310	ND	-	-	0.090	0.230	No
443	435	0.564	0.656	2.455	425	ND	-	-	0.710	2.460	Yes
444	436	0.130	0.152	0.553	416	0300 & 1310	ND	-	0.080	0.550	Yes
445	437	0.643	0.748	2.342	416	0300 & 1310	ND	-	0.570	2.340	Yes
446	438	0.022	0.025	0.046	425	ND	-	-	0.010	0.050	No
447	439	0.095	0.111	0.372	425	ND	-	-	0.030	0.370	No
448	0439-P1	0.063	0.074	0.338	ND	-	-	-	0.060	0.340	-
449	0439-P2	0.039	0.045	0.207	ND	-	-	-	0.040	0.210	-
450	440	0.472	0.549	1.524	422	0300 & 1310	ND	-	0.310	1.520	Yes
451	0440-F1	0.010	0.011	0.052	**	**	**	**	**	**	-
452	441	0.182	0.211	1.467	422	0300 & 1310	ND	-	0.110	1.470	Yes
453	442	0.029	0.034	0.118	422	0300 & 1310	ND	-	0.020	0.120	No
454	443	0.049	0.057	0.256	422	0300 & 1310	ND	-	0.050	0.260	No

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No.	Station/Basin	2035 Station Basin Flow, [MGD]			Downstream Stations / WWTP				Model Input Flow, [MGD] 72-Hour Hydrograph		Upgrade Required
		Dry Weather	AADF	Peak Hour					Min	Max	
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
455	444	0.081	0.094	0.338	422	0300 & 1310	ND	-	0.040	0.340	No
456	445	0.174	0.202	0.401	422	0300 & 1310	ND	-	0.060	0.400	No
457	446	0.146	0.169	0.346	421	ND	-	-	0.150	0.350	No
458	447	0.062	0.073	0.219	421	ND	-	-	0.040	0.220	No
459	448	0.071	0.083	0.529	421	ND	-	-	0.040	0.530	No
460	449	0.212	0.247	0.892	421	ND	-	-	0.200	0.990	No
461	450	0.227	0.265	0.392	421	ND	-	-	0.180	0.390	No
462	0450-F1	0.028	0.033	0.150	**	**	**	**	**	**	-
463	451	0.045	0.052	0.172	421	ND	-	-	0.040	0.170	Yes
464	454	0.095	0.110	0.331	421	ND	-	-	0.090	0.420	No
465	455	0.397	0.461	1.818	421	ND	-	-	0.270	1.820	Yes
466	456	0.040	0.047	0.064	454	421	ND	-	*	*	-
467	457	0.076	0.089	0.190	421	ND	-	-	0.080	0.190	No
468	458	0.019	0.023	0.032	454	421	ND	-	*	*	-
469	460	0.077	0.090	0.112	449	421	ND	-	*	*	-
470	461	0.065	0.075	0.288	415	0300 & 1310	ND	-	*	*	-
471	462	0.019	0.022	0.063	0300 & 1310	ND	-	-	0.010	0.060	No
472	0462-P	0.129	0.150	0.566	ND	-	-	-	0.100	0.570	-
473	463	0.334	0.389	1.505	417	0300 & 1310	ND	-	*	*	-
474	464	0.094	0.109	0.399	ND	-	-	-	0.120	0.400	No
475	465	0.135	0.157	0.444	416	0300 & 1310	ND	-	0.070	0.440	Yes
476	466	0.209	0.243	1.138	426	ND	-	-	0.240	1.140	No
477	467	0.368	0.427	1.268	426	ND	-	-	0.290	1.270	No
478	468	0.272	0.317	0.919	426	ND	-	-	0.450	0.920	Yes
479	469	0.012	0.013	0.022	426	ND	-	-	0.010	0.020	Yes
480	470	0.231	0.268	0.886	426	ND	-	-	0.180	0.890	No
481	471	0.126	0.146	0.300	426	ND	-	-	0.080	0.300	No
482	472	0.112	0.130	0.171	426	ND	-	-	0.040	0.170	No
483	0472-F1	0.003	0.004	0.016	**	**	**	**	**	**	-
484	473	0.083	0.096	0.136	421	ND	-	-	0.040	0.140	No
485	474	0.145	0.168	0.352	426	ND	-	-	0.060	0.350	No
486	0474-F2	0.002	0.002	0.010	**	**	**	**	**	**	-
487	475	0.192	0.223	0.490	ND	-	-	-	0.090	0.490	No
488	476	0.206	0.239	0.608	416	0300 & 1310	ND	-	0.060	0.610	No
489	0476-F1	0.001	0.001	0.004	**	**	**	**	**	**	-
490	477	0.165	0.191	0.494	417	0300 & 1310	ND	-	*	*	-
491	0477-F1	0.012	0.014	0.062	ND	-	-	-	0.010	0.060	-
492	478	0.043	0.050	0.144	ND	-	-	-	0.010	0.140	No
493	0478-F1	0.007	0.009	0.039	**	**	**	**	**	**	-
494	479	0.080	0.093	0.295	416	0300 & 1310	ND	-	0.050	0.290	No
495	480	0.241	0.280	0.807	425	ND	-	-	0.160	0.810	No
496	481	0.022	0.025	0.068	345	0300 & 1310	ND	-	0.020	0.070	No
497	0481-F1	0.001	0.001	0.006	**	**	**	**	**	**	-
498	482	0.255	0.297	0.811	425	ND	-	-	0.170	0.810	Yes
499	483	0.042	0.049	0.137	416	0300 & 1310	ND	-	0.020	0.140	No
500	484	0.164	0.190	0.708	417	0300 & 1310	ND	-	*	*	-
501	0484-F4	0.016	0.019	0.086	ND	-	-	-	0.020	0.090	-
502	485	0.099	0.116	0.375	416	0300 & 1310	ND	-	0.060	0.370	Yes
503	486	0.217	0.253	0.543	416	0300 & 1310	ND	-	0.120	0.540	Yes
504	0486-F1	0.001	0.001	0.003	**	**	**	**	**	**	-
505	487	0.240	0.279	1.959	0300 & 1310	ND	-	-	0.150	1.960	Yes
506	488	0.054	0.063	0.303	0300 & 1310	ND	-	-	0.050	0.300	No
507	489	0.167	0.194	0.367	415	0300 & 1310	ND	-	*	*	-
508	490	0.083	0.097	0.185	416	0300 & 1310	ND	-	0.070	0.180	Yes
509	491	0.475	0.552	1.448	301	ND	-	-	*	*	-
510	492	0.281	0.327	0.903	301	ND	-	-	*	*	-
511	493	0.015	0.017	0.087	491	301	ND	-	*	*	-
512	494	0.022	0.026	0.245	301	ND	-	-	*	*	-
513	495	0.073	0.085	0.253	301	ND	-	-	*	*	-
514	496	0.058	0.067	0.166	ND	-	-	-	0.030	0.170	No
515	497	0.063	0.074	0.231	ND	-	-	-	0.050	0.230	No
516	498	0.100	0.116	0.246	416	0300 & 1310	ND	-	0.040	0.250	Yes
517	0498-F2	0.015	0.018	0.082	ND	-	-	-	0.010	0.080	-
518	499	0.086	0.100	0.537	426	ND	-	-	0.320	0.540	Yes
519	0499-F1	0.000	0.000	0.002	**	**	**	**	**	**	-
520	500	0.196	0.227	0.814	SD	-	-	-	0.170	0.810	Yes
521	501	0.565	0.657	1.296	0536 & 0559	SD	-	-	0.240	1.300	No
522	502	0.289	0.336	1.376	SD	-	-	-	0.270	1.380	Yes
523	503	0.160	0.186	0.888	0536 & 0559	SD	-	-	0.100	0.890	Yes
524	504	0.192	0.224	0.520	SD	-	-	-	0.080	0.520	No
525	505	0.044	0.052	0.368	0536 & 0559	SD	-	-	0.020	0.370	Yes
526	0505-F1	0.000	0.000	0.002	**	**	**	**	**	**	-
527	506	0.038	0.045	0.451	0536 & 0559	SD	-	-	0.070	0.450	No
528	507	0.150	0.175	0.473	0536 & 0559	SD	-	-	0.090	0.470	No
529	508	0.094	0.109	1.094	0536 & 0559	SD	-	-	0.090	1.090	No
530	509	0.095	0.111	0.436	0536 & 0559	SD	-	-	0.060	0.440	No

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No.	Station/Basin	2035 Station Basin Flow, [MGD]			Downstream Stations / WWTP				Model Input Flow, [MGD] 72-Hour Hydrograph		Upgrade Required
		Dry Weather	AADF	Peak Hour					Min	Max	
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
531	0509-P1	0.005	0.005	0.025	SD	-	-	-	0.000	0.020	-
532	0509-P2	0.040	0.046	0.212	SD	-	-	-	0.040	0.210	-
533	510	0.183	0.213	0.416	0536 & 0559	SD	-	-	0.100	0.420	No
534	511	0.049	0.057	0.182	0536 & 0559	SD	-	-	0.020	0.180	No
535	0511-F1	0.001	0.002	0.007	**	**	**	**	**	**	-
536	512	0.047	0.054	0.202	0536 & 0559	SD	-	-	0.030	0.200	Yes
537	513	0.119	0.138	0.915	0536 & 0559	SD	-	-	0.140	0.920	Yes
538	0513-F1	0.055	0.064	0.293	SD	-	-	-	0.050	0.290	-
539	0513-F4	0.011	0.012	0.057	**	**	**	**	**	**	-
540	514	0.502	0.584	1.534	0536 & 0559	SD	-	-	0.210	1.530	No
541	515	0.133	0.154	0.592	0536 & 0559	SD	-	-	0.050	0.590	No
542	516	0.446	0.518	1.013	SD	-	-	-	0.680	2.110	No
543	517	1.206	1.403	9.087	SD	-	-	-	3.930	12.600	No
544	0517-F1	0.013	0.015	0.069	**	**	**	**	**	**	-
545	518	0.110	0.128	0.318	187	CD	-	-	0.060	0.320	No
546	0518-F1	0.108	0.126	0.476	**	**	**	**	**	**	-
547	519	0.108	0.125	0.893	0536 & 0559	SD	-	-	0.030	0.890	No
548	520	0.101	0.117	0.354	0536 & 0559	SD	-	-	0.040	0.350	Yes
549	521	0.072	0.084	0.908	0536 & 0559	SD	-	-	0.040	0.910	No
550	0521-F1	0.023	0.027	0.125	**	**	**	**	**	**	-
551	0521-F2	0.013	0.015	0.069	**	**	**	**	**	**	-
552	523	0.235	0.273	1.094	0536 & 0559	SD	-	-	0.130	1.090	Yes
553	524	0.056	0.066	0.201	0536 & 0559	SD	-	-	0.020	0.200	No
554	0524-P	0.022	0.026	0.119	SD	-	-	-	0.020	0.120	-
555	525	0.114	0.133	1.128	0536 & 0559	SD	-	-	0.070	1.130	No
556	0525-F1	0.005	0.006	0.028	**	**	**	**	**	**	-
557	526	0.026	0.031	0.108	0536 & 0559	SD	-	-	0.010	0.110	No
558	527	0.217	0.252	0.983	SD	-	-	-	0.260	0.980	Yes
559	528	0.064	0.074	0.241	SD	-	-	-	0.070	0.240	No
560	0528-F1	0.004	0.004	0.020	SD	-	-	-	0.000	0.020	-
561	0528-F2	0.034	0.040	0.181	SD	-	-	-	0.030	0.180	-
562	529	0.014	0.016	0.028	752	0536 & 0559	SD	-	*	*	-
563	530	0.055	0.064	0.268	0536 & 0559	SD	-	-	0.060	0.270	No
564	531	0.018	0.021	0.139	SD	-	-	-	0.030	0.140	No
565	532	0.080	0.093	0.662	0536 & 0559	SD	-	-	0.060	0.660	No
566	0532-F1	0.008	0.009	0.043	**	**	**	**	**	**	-
567	533	0.181	0.210	1.052	0536 & 0559	SD	-	-	0.100	1.050	No
568	534	0.140	0.163	0.897	522	SD	-	-	0.090	0.900	Yes
569	535	0.402	0.468	1.200	0536 & 0559	SD	-	-	0.130	1.200	No
570	537	0.281	0.327	1.137	0536 & 0559	SD	-	-	0.240	1.140	No
571	538	0.177	0.206	0.808	0536 & 0559	SD	-	-	0.080	0.810	Yes
572	0538-F1	0.004	0.005	0.023	**	**	**	**	**	**	-
573	0538-F2	0.010	0.012	0.054	**	**	**	**	**	**	-
574	0538-F3	0.013	0.016	0.071	**	**	**	**	**	**	-
575	539	0.236	0.274	0.786	0536 & 0559	SD	-	-	0.090	0.790	No
576	540	0.071	0.083	0.536	SD	-	-	-	0.120	0.540	No
577	541	0.387	0.450	1.184	0536 & 0559	SD	-	-	0.150	1.180	No
578	542	0.100	0.116	0.870	0536 & 0559	SD	-	-	0.170	0.870	No
579	543	0.163	0.190	0.865	0536 & 0559	SD	-	-	0.100	0.870	Yes
580	0543-F1	0.003	0.003	0.016	**	**	**	**	**	**	-
581	0543-F2	0.003	0.003	0.016	**	**	**	**	**	**	-
582	544	0.104	0.121	0.874	0536 & 0559	SD	-	-	0.050	0.870	Yes
583	0544-F1	0.003	0.004	0.017	**	**	**	**	**	**	-
584	0544-P	0.258	0.300	1.033	CD	-	-	-	0.200	1.030	-
585	545	0.198	0.230	0.826	0536 & 0559	SD	-	-	0.060	0.830	No
586	0545-F1	0.004	0.004	0.019	SD	-	-	-	0.000	0.020	-
587	546	0.243	0.283	0.529	SD	-	-	-	0.150	0.530	No
588	547	0.042	0.048	0.326	SD	-	-	-	0.020	0.330	Yes
589	548	0.055	0.064	0.107	187	CD	-	-	0.020	0.110	No
590	0548-F1	0.059	0.068	0.313	**	**	**	**	**	**	-
591	0548-F2	0.021	0.024	0.110	**	**	**	**	**	**	-
592	0548-F3	0.007	0.008	0.037	**	**	**	**	**	**	-
593	0548-F4	0.013	0.015	0.070	**	**	**	**	**	**	-
594	0548-F5	0.217	0.252	0.870	**	**	**	**	**	**	-
595	549	0.045	0.053	0.320	SD	-	-	-	0.050	0.320	Yes
596	0549-F1	0.002	0.002	0.010	SD	-	-	-	0.000	0.010	-
597	550	0.187	0.217	0.594	187	CD	-	-	0.140	0.590	No
598	0550-F1	0.021	0.024	0.111	**	**	**	**	**	**	-
599	0550-F2	0.002	0.002	0.010	**	**	**	**	**	**	-
600	551	0.202	0.235	0.416	522	SD	-	-	0.150	0.420	No
601	552	0.387	0.450	0.929	0536 & 0559	SD	-	-	0.290	0.930	No
602	553	0.951	1.105	2.156	0536 & 0559	SD	-	-	0.750	2.160	Yes
603	554	0.073	0.085	0.434	0536 & 0559	SD	-	-	0.050	0.430	No
604	555	0.087	0.101	0.513	SD	-	-	-	0.040	0.510	Yes
605	556	0.017	0.020	0.214	0536 & 0559	SD	-	-	0.010	0.210	No
606	0558-F1	0.067	0.078	0.359	SD	-	-	-	0.060	0.360	-

See page 19 for Legend

No.	Station/Basin	2035 Station Basin Flow, [MGD]			Downstream Stations / WWTP				Model Input Flow, [MGD] 72-Hour Hydrograph		Upgrade Required
		Dry Weather	AADF	Peak Hour					Min	Max	
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
607	560	0.327	0.380	0.913	0536 & 0559	SD	-	-	0.150	0.910	No
608	561	0.147	0.171	0.695	187	CD	-	-	0.140	0.690	No
609	0561-F1	0.031	0.036	0.166	**	**	**	**	**	**	-
610	0561-F2	0.012	0.014	0.062	**	**	**	**	**	**	-
611	0561-F3	0.006	0.007	0.032	**	**	**	**	**	**	-
612	0561-F4	0.013	0.015	0.071	**	**	**	**	**	**	-
613	0561-F5	0.009	0.011	0.049	**	**	**	**	**	**	-
614	562	0.172	0.201	1.338	0536 & 0559	SD	-	-	0.110	1.340	Yes
615	563	0.942	1.095	2.729	0536 & 0559	SD	-	-	0.810	2.730	No
616	564	0.037	0.043	0.244	522	SD	-	-	0.050	0.240	No
617	565	0.093	0.108	0.160	0536 & 0559	SD	-	-	0.030	0.160	No
618	0565-F3	0.000	0.000	0.001	**	**	**	**	**	**	-
619	566	0.142	0.165	1.560	0536 & 0559	SD	-	-	0.100	1.560	Yes
620	0566-F1	0.002	0.002	0.009	**	**	**	**	**	**	-
621	0566-F2	0.002	0.002	0.009	**	**	**	**	**	**	-
622	567	0.068	0.079	0.118	187	CD	-	-	0.050	0.120	No
623	0567-F1	0.009	0.011	0.048	**	**	**	**	**	**	-
624	0567-F2	0.000	0.000	0.002	**	**	**	**	**	**	-
625	0567-F3	0.006	0.007	0.034	**	**	**	**	**	**	-
626	568	0.108	0.126	0.224	522	SD	-	-	0.050	0.220	No
627	569	0.312	0.362	1.019	0536 & 0559	SD	-	-	0.110	1.020	No
628	0569-F2	0.018	0.021	0.095	SD	-	-	-	0.020	0.090	-
629	570	0.017	0.020	0.110	683	0536 & 0559	SD	-	*	*	-
630	571	1.076	1.251	5.086	0536 & 0559	SD	-	-	1.600	5.280	No
631	572	0.035	0.041	0.137	SD	-	-	-	0.020	0.140	No
632	0572-F1	0.028	0.033	0.152	**	**	**	**	**	**	-
633	0572-F2	0.001	0.001	0.007	**	**	**	**	**	**	-
634	573	0.366	0.426	1.432	0536 & 0559	SD	-	-	0.340	1.430	No
635	574	0.433	0.503	1.285	0536 & 0559	SD	-	-	0.310	1.280	No
636	575	0.118	0.137	0.522	0536 & 0559	SD	-	-	0.050	0.520	No
637	576	0.112	0.130	0.416	0536 & 0559	SD	-	-	0.080	0.420	No
638	0576-F1	0.031	0.036	0.163	**	**	**	**	**	**	-
639	577	0.538	0.625	1.761	SD	-	-	-	0.280	1.760	No
640	0577-F1	0.145	0.169	0.581	SD	-	-	-	0.110	0.580	-
641	0577-F2	0.095	0.111	0.419	SD	-	-	-	0.080	0.420	-
642	578	0.014	0.016	0.070	SD	-	-	-	0.010	0.070	Yes
643	579	0.062	0.072	0.406	0536 & 0559	SD	-	-	0.030	0.410	No
644	580	0.008	0.009	0.076	SD	-	-	-	0.010	0.080	Yes
645	581	0.021	0.024	0.063	0536 & 0559	SD	-	-	0.010	0.060	No
646	0581-P	0.002	0.003	0.012	**	**	**	**	**	**	-
647	582	0.005	0.006	0.058	177	0536 & 0559	SD	-	*	*	-
648	0582-F1	0.038	0.044	0.203	**	**	**	**	**	**	-
649	0582-F2	0.082	0.095	0.360	**	**	**	**	**	**	-
650	583	0.098	0.114	1.028	SD	-	-	-	0.090	1.030	Yes
651	584	0.005	0.006	0.032	SD	-	-	-	0.010	0.030	No
652	0584-F1	0.029	0.033	0.152	**	**	**	**	**	**	-
653	585	0.081	0.094	0.154	0536 & 0559	SD	-	-	0.040	0.150	No
654	586	0.158	0.183	0.648	0536 & 0559	SD	-	-	0.070	0.650	No
655	587	0.004	0.004	0.016	SD	-	-	-	0.000	0.020	No
656	588	0.104	0.121	0.384	522	SD	-	-	0.030	0.380	No
657	589	0.078	0.090	0.996	522	SD	-	-	0.120	1.000	Yes
658	590	0.054	0.063	0.686	522	SD	-	-	0.040	0.690	Yes
659	591	0.005	0.006	0.019	SD	-	-	-	0.000	0.020	No
660	592	0.201	0.234	0.665	522	SD	-	-	0.160	0.670	No
661	0592-F1	0.011	0.012	0.056	**	**	**	**	**	**	-
662	0592-F2	0.006	0.007	0.031	**	**	**	**	**	**	-
663	0592-F3	0.054	0.063	0.288	**	**	**	**	**	**	-
664	0592-F4	0.026	0.030	0.136	**	**	**	**	**	**	-
665	593	0.012	0.013	0.025	0536 & 0559	SD	-	-	0.000	0.020	No
666	594	0.045	0.053	0.172	683	0536 & 0559	SD	-	*	*	-
667	0594-F1	0.002	0.003	0.012	**	**	**	**	**	**	-
668	0594-F2	0.001	0.002	0.007	**	**	**	**	**	**	-
669	0594-F3	0.003	0.004	0.017	**	**	**	**	**	**	-
670	0594-F4	0.001	0.001	0.004	**	**	**	**	**	**	-
671	595	0.102	0.118	0.340	0536 & 0559	SD	-	-	0.030	0.340	Yes
672	596	0.169	0.196	0.742	0536 & 0559	SD	-	-	0.130	0.740	Yes
673	597	0.009	0.010	0.077	SD	-	-	-	0.000	0.080	No
674	0597-F1	0.003	0.003	0.014	**	**	**	**	**	**	-
675	598	0.069	0.080	0.350	187	CD	-	-	0.080	0.350	No
676	599	0.049	0.057	0.197	187	CD	-	-	0.040	0.200	No
677	600	0.586	0.682	1.618	522	SD	-	-	0.860	2.840	Yes
678	0600-F1	0.066	0.076	0.351	**	**	**	**	**	**	-
679	601	0.097	0.113	0.347	SD	-	-	-	0.080	0.430	No
680	0601-F1	0.012	0.015	0.067	SD	-	-	-	0.010	0.070	-
681	602	0.475	0.552	1.899	SD	-	-	-	0.380	1.900	No
682	603	0.126	0.147	0.572	SD	-	-	-	0.100	0.570	Yes

See page 19 for Legend

No.	Station/Basin	2035 Station Basin Flow, [MGD]			Downstream Stations / WWTP				Model Input Flow, [MGD] 72-Hour Hydrograph		Upgrade Required
		Dry Weather	AADF	Peak Hour					Min	Max	
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
683	0603-F1	0.069	0.081	0.370	**	**	**	**	**	**	-
684	0603-F2	0.123	0.143	0.540	**	**	**	**	**	**	-
685	604	0.094	0.110	1.225	600	522	SD	-	*	*	-
686	0604-F1	0.009	0.010	0.048	SD	-	-	-	0.010	0.050	-
687	607	0.255	0.297	1.796	SD	-	-	-	0.250	1.800	Yes
688	608	0.092	0.107	0.877	522	SD	-	-	0.050	0.880	Yes
689	609	0.396	0.460	1.902	SD	-	-	-	0.410	1.900	Yes
690	610	0.076	0.089	0.576	SD	-	-	-	0.130	0.580	No
691	0610-F1	0.004	0.005	0.021	SD	-	-	-	0.000	0.020	-
692	0610-F2	0.012	0.014	0.065	SD	-	-	-	0.010	0.070	-
693	0610-F3		0.000		**	**	**	**	**	**	-
694	611	0.109	0.127	1.012	683	0536 & 0559	SD	-	*	*	-
695	612	0.076	0.088	0.636	683	0536 & 0559	SD	-	*	*	-
696	613	0.073	0.085	0.326	683	0536 & 0559	SD	-	*	*	-
697	614	0.081	0.094	0.416	0536 & 0559	SD	-	-	0.080	0.420	Yes
698	615	0.127	0.148	0.351	626	683	0536 & 0559	SD	*	*	-
699	616	0.151	0.175	0.901	683	0536 & 0559	SD	-	*	*	-
700	617	0.146	0.170	0.564	683	0536 & 0559	SD	-	*	*	-
701	618	0.052	0.061	0.424	683	0536 & 0559	SD	-	*	*	-
702	619	0.029	0.034	0.227	683	0536 & 0559	SD	-	*	*	-
703	620	0.012	0.014	0.292	683	0536 & 0559	SD	-	*	*	-
704	621	0.063	0.073	0.562	620	683	0536 & 0559	SD	*	*	-
705	622	0.051	0.059	0.317	SD	-	-	-	0.030	0.320	No
706	623	0.082	0.095	0.674	683	0536 & 0559	SD	-	*	*	-
707	624	0.072	0.083	0.580	683	0536 & 0559	SD	-	*	*	-
708	625	0.169	0.197	1.480	683	0536 & 0559	SD	-	*	*	-
709	626	0.199	0.232	1.387	683	0536 & 0559	SD	-	*	*	-
710	627	0.306	0.356	1.901	683	0536 & 0559	SD	-	*	*	-
711	0627-F1	0.014	0.016	0.075	**	**	**	**	**	**	-
712	628	0.087	0.101	0.428	683	0536 & 0559	SD	-	*	*	-
713	0628-F1	0.012	0.014	0.063	**	**	**	**	**	**	-
714	0628-F2	0.006	0.006	0.029	**	**	**	**	**	**	-
715	629	0.249	0.290	0.955	0536 & 0559	SD	-	-	0.220	1.030	Yes
716	0629-F1	0.002	0.002	0.009	**	**	**	**	**	**	-
717	0629-F2	0.021	0.025	0.113	**	**	**	**	**	**	-
718	630	0.214	0.249	1.613	683	0536 & 0559	SD	-	*	*	-
719	631	0.180	0.210	1.375	683	0536 & 0559	SD	-	*	*	-
720	0631-F1	0.002	0.002	0.010	**	**	**	**	**	**	-
721	632	0.099	0.115	0.574	SD	-	-	-	0.080	0.570	No
722	633	0.005	0.005	0.023	613	683	0536 & 0559	SD	*	*	-
723	634	0.005	0.006	0.025	629	0536 & 0559	SD	-	*	*	-
724	635	0.017	0.020	0.053	629	0536 & 0559	SD	-	*	*	-
725	0635-F1	0.076	0.088	0.332	**	**	**	**	**	**	-
726	636	0.071	0.082	0.275	522	SD	-	-	0.030	0.280	No
727	637	0.347	0.404	0.931	698	522	SD	-	*	*	-
728	0637-F1	0.065	0.076	0.348	**	**	**	**	**	**	-
729	638	0.281	0.327	1.110	522	SD	-	-	0.220	1.110	No
730	639	0.797	0.927	2.253	522	SD	-	-	0.550	2.330	No
731	640	0.269	0.312	1.076	522	SD	-	-	0.270	1.080	Yes
732	641	0.221	0.257	0.632	522	SD	-	-	0.120	0.630	Yes
733	642	0.440	0.512	1.257	0536 & 0559	SD	-	-	0.230	1.260	No
734	643	0.106	0.124	0.230	0536 & 0559	SD	-	-	0.030	0.230	Yes
735	644	0.240	0.279	1.394	0536 & 0559	SD	-	-	0.210	1.390	No
736	645	0.345	0.401	1.815	0536 & 0559	SD	-	-	0.440	1.820	No
737	646	0.064	0.074	0.459	685	0536 & 0559	SD	-	0.100	0.460	No
738	647	0.076	0.089	0.595	685	0536 & 0559	SD	-	0.130	0.600	No
739	648	0.174	0.202	1.640	0536 & 0559	SD	-	-	0.090	1.640	Yes
740	649	0.086	0.100	1.167	0536 & 0559	SD	-	-	0.050	1.170	Yes
741	650	0.850	0.989	2.794	0536 & 0559	SD	-	-	0.600	2.790	Yes
742	651	0.021	0.024	0.145	0536 & 0559	SD	-	-	0.010	0.150	Yes
743	652	0.034	0.040	0.233	653	0536 & 0559	SD	-	*	*	-
744	653	0.074	0.086	0.832	0536 & 0559	SD	-	-	0.060	1.060	No
745	654	0.026	0.030	0.060	655	0536 & 0559	SD	-	*	*	-
746	0654-F1	0.066	0.077	0.355	**	**	**	**	**	**	-
747	0654-F2	0.036	0.042	0.191	**	**	**	**	**	**	-
748	655	0.061	0.071	0.758	0536 & 0559	SD	-	-	0.050	0.820	Yes
749	656	0.104	0.121	0.627	0536 & 0559	SD	-	-	0.040	0.630	No
750	657	0.580	0.674	0.898	0536 & 0559	SD	-	-	0.550	0.900	No
751	658	0.110	0.128	0.567	0536 & 0559	SD	-	-	0.080	0.570	No
752	659	0.387	0.450	1.476	522	SD	-	-	0.290	1.480	No
753	0659-F2	0.050	0.058	0.267	SD	-	-	-	0.050	0.270	-
754	660	0.389	0.453	1.074	522	SD	-	-	0.200	1.070	Yes
755	0660-F1	0.032	0.037	0.169	SD	-	-	-	0.030	0.170	-
756	0660-F2	0.125	0.145	0.549	SD	-	-	-	0.100	0.550	-
757	0660-F4	0.019	0.022	0.103	SD	-	-	-	0.020	0.100	-
758	0660-F5	0.067	0.078	0.357	SD	-	-	-	0.060	0.360	-

See page 19 for Legend

No.	Station/Basin	2035 Station Basin Flow, [MGD]			Downstream Stations / WWTP				Model Input Flow, [MGD] 72-Hour Hydrograph		Upgrade Required
		Dry Weather	AADF	Peak Hour					Min	Max	
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
759	661	0.024	0.028	0.196	637	698	522	SD	*	*	-
760	662	0.028	0.032	0.079	639	522	SD	-	*	*	-
761	663	0.075	0.087	0.465	522	SD	-	-	0.040	0.460	Yes
762	664	0.124	0.144	0.998	0536 & 0559	SD	-	-	0.210	1.000	Yes
763	665	0.018	0.021	0.143	SD	-	-	-	0.010	0.140	Yes
764	666	0.454	0.528	2.111	0536 & 0559	SD	-	-	0.310	2.110	No
765	667	0.339	0.394	2.522	0536 & 0559	SD	-	-	0.540	2.520	Yes
766	668	0.745	0.866	3.660	0536 & 0559	SD	-	-	0.490	3.660	Yes
767	669	0.502	0.583	2.492	0536 & 0559	SD	-	-	0.680	2.490	No
768	670	0.132	0.154	1.053	0536 & 0559	SD	-	-	0.220	1.050	Yes
769	671	0.014	0.017	0.226	0536 & 0559	SD	-	-	0.050	0.230	No
770	672	0.103	0.119	0.987	0536 & 0559	SD	-	-	0.200	0.990	No
771	673	0.725	0.843	3.029	0536 & 0559	SD	-	-	0.890	3.030	No
772	674	0.090	0.105	0.758	0536 & 0559	SD	-	-	0.160	0.760	No
773	0674-F1	0.016	0.019	0.087	**	**	**	**	**	**	-
774	0674-F2	0.008	0.009	0.043	**	**	**	**	**	**	-
775	675	0.186	0.216	1.244	0536 & 0559	SD	-	-	0.140	1.240	No
776	676	0.219	0.255	0.970	0536 & 0559	SD	-	-	0.200	0.970	Yes
777	677	0.167	0.194	0.731	0536 & 0559	SD	-	-	0.150	0.730	No
778	678	0.006	0.008	0.136	SD	-	-	-	0.030	0.140	Yes
779	680	0.187	0.218	0.787	522	SD	-	-	0.170	0.790	Yes
780	0680-P	3.420	3.977	12.615	**	**	**	**	**	**	-
781	681	0.002	0.002	0.006	522	SD	-	-	0.000	0.010	No
782	0681-F1	0.394	0.458	1.395	SD	-	-	-	0.320	1.390	-
783	682	0.061	0.072	0.697	0536 & 0559	SD	-	-	0.150	0.700	Yes
784	683	0.490	0.570	2.528	0536 & 0559	SD	-	-	2.490	18.340	No
785	0683-F1	0.016	0.019	0.088	**	**	**	**	**	**	-
786	0683-F2	0.017	0.020	0.091	**	**	**	**	**	**	-
787	0683-F3	0.017	0.020	0.093	**	**	**	**	**	**	-
788	0683-F4	0.021	0.024	0.110	**	**	**	**	**	**	-
789	684	0.108	0.126	1.182	SD	-	-	-	0.100	1.180	No
790	686	0.037	0.044	0.195	683	0536 & 0559	SD	-	*	*	-
791	687	0.115	0.133	1.529	SD	-	-	-	0.100	1.530	Yes
792	688	0.204	0.238	1.316	0536 & 0559	SD	-	-	0.100	1.320	No
793	689	0.102	0.118	1.019	0536 & 0559	SD	-	-	0.210	1.020	Yes
794	0689-P	0.034	0.039	0.181	SD	-	-	-	0.030	0.180	-
795	690	0.057	0.066	0.743	0536 & 0559	SD	-	-	0.150	0.740	No
796	0690-F1	0.000	0.000	0.000	**	**	**	**	**	**	-
797	693	0.055	0.064	0.273	0536 & 0559	SD	-	-	0.020	0.270	Yes
798	694	0.082	0.095	0.942	0536 & 0559	SD	-	-	0.090	0.940	No
799	695	0.046	0.054	0.383	522	SD	-	-	0.020	0.380	Yes
800	696	0.084	0.098	0.949	0536 & 0559	SD	-	-	0.050	0.950	No
801	697	0.032	0.038	0.129	0536 & 0559	SD	-	-	0.020	0.130	No
802	698	0.116	0.135	0.938	522	SD	-	-	0.460	2.040	No
803	699	0.179	0.208	1.049	0536 & 0559	SD	-	-	0.230	1.050	No
804	700	0.042	0.049	0.318	SD	-	-	-	0.030	0.320	Yes
805	0700-F1	0.008	0.009	0.042	SD	-	-	-	0.010	0.040	-
806	701	0.227	0.263	0.565	516	SD	-	-	*	*	-
807	702	0.135	0.157	0.682	SD	-	-	-	0.060	0.680	Yes
808	703	0.027	0.032	0.074	SD	-	-	-	0.020	0.070	No
809	704	0.052	0.061	0.328	SD	-	-	-	0.040	0.330	No
810	705	0.168	0.195	0.936	SD	-	-	-	0.110	0.940	No
811	706	0.041	0.048	0.311	517	SD	-	-	*	*	-
812	707	0.129	0.150	1.104	SD	-	-	-	0.080	1.100	Yes
813	708	0.059	0.069	0.696	SD	-	-	-	0.040	0.700	Yes
814	709	0.130	0.151	1.087	SD	-	-	-	0.680	3.870	No
815	0709-F1	0.012	0.013	0.062	**	**	**	**	**	**	-
816	710	0.105	0.122	0.558	709	SD	-	-	*	*	-
817	0710-F1	0.041	0.048	0.219	**	**	**	**	**	**	-
818	711	0.171	0.199	0.900	SD	-	-	-	0.120	0.900	Yes
819	0711-F1	0.013	0.015	0.070	**	**	**	**	**	**	-
820	712	0.089	0.104	0.681	SD	-	-	-	0.040	0.680	No
821	713	0.116	0.135	0.201	SD	-	-	-	0.060	0.200	No
822	714	0.037	0.043	0.180	SD	-	-	-	0.020	0.180	Yes
823	715	0.208	0.242	0.375	SD	-	-	-	0.130	0.380	No
824	717	0.032	0.037	0.085	719	709	SD	-	*	*	-
825	0717-F1	0.038	0.044	0.204	**	**	**	**	**	**	-
826	718	0.307	0.358	1.283	SD	-	-	-	0.320	1.280	No
827	0718-F1	0.002	0.002	0.011	SD	-	-	-	0.000	0.010	-
828	719	0.105	0.123	0.437	709	SD	-	-	*	*	-
829	0719-F1	0.040	0.047	0.214	**	**	**	**	**	**	-
830	720	0.142	0.165	0.467	516	SD	-	-	*	*	-
831	0720-F1	0.090	0.105	0.395	**	**	**	**	**	**	-
832	722	0.010	0.012	0.121	725	SD	-	-	*	*	-
833	723	0.045	0.053	0.617	SD	-	-	-	0.040	0.620	Yes
834	0723-F1	0.092	0.107	0.404	**	**	**	**	**	**	-

See page 19 for Legend

No.	Station/Basin	2035 Station Basin Flow, [MGD]			Downstream Stations / WWTP				Model Input Flow, [MGD] 72-Hour Hydrograph		Upgrade Required
		Dry Weather	AADF	Peak Hour					Min	Max	
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
835	724	0.215	0.250	1.113	SD	-	-	-	0.260	1.110	Yes
836	725	0.070	0.082	0.653	SD	-	-	-	0.160	0.770	Yes
837	726	0.009	0.011	0.104	SD	-	-	-	0.000	0.100	No
838	727	0.027	0.032	0.084	601	SD	-	-	*	*	-
839	728	0.256	0.297	0.839	709	SD	-	-	*	*	-
840	729	0.017	0.020	0.162	728	709	SD	-	*	*	-
841	730	0.051	0.059	0.162	709	SD	-	-	*	*	-
842	0730-F1	0.013	0.015	0.069	**	**	**	**	**	**	-
843	731	0.011	0.013	0.021	SD	-	-	-	0.010	0.050	No
844	732	0.042	0.049	0.130	SD	-	-	-	0.020	0.130	No
845	0732-F1	0.002	0.003	0.012	**	**	**	**	**	**	-
846	0732-F2	0.008	0.009	0.041	**	**	**	**	**	**	-
847	733	0.079	0.092	0.160	SD	-	-	-	0.040	0.160	No
848	734	0.046	0.053	0.259	SD	-	-	-	0.030	0.260	No
849	735	0.058	0.068	0.139	709	SD	-	-	*	*	-
850	0735-F1	0.020	0.023	0.105	**	**	**	**	**	**	-
851	736	0.002	0.002	0.006	709	SD	-	-	*	*	-
852	737	0.005	0.005	0.062	517	SD	-	-	*	*	-
853	0737-F1	0.022	0.026	0.119	**	**	**	**	**	**	-
854	0737-F2	0.006	0.007	0.031	SD	-	-	-	0.010	0.030	-
855	738	0.044	0.051	0.149	728	709	SD	-	*	*	-
856	0738-F1	0.001	0.001	0.005	**	**	**	**	**	**	-
857	739	0.090	0.104	0.252	719	709	SD	-	*	*	-
858	740	0.047	0.055	0.101	SD	-	-	-	0.020	0.100	Yes
859	0740-F1	0.011	0.013	0.058	**	**	**	**	**	**	-
860	0740-F2	0.010	0.012	0.053	**	**	**	**	**	**	-
861	741	0.051	0.059	0.283	SD	-	-	-	0.060	0.280	Yes
862	742	0.493	0.574	0.809	SD	-	-	-	0.380	0.810	No
863	0742-F1	0.079	0.092	0.347	**	**	**	**	**	**	-
864	0742-F2	0.039	0.045	0.209	**	**	**	**	**	**	-
865	0742-F3	0.002	0.003	0.013	**	**	**	**	**	**	-
866	743	0.188	0.219	0.974	SD	-	-	-	0.370	0.970	Yes
867	744	0.014	0.016	0.068	701	516	SD	-	*	*	-
868	745	0.256	0.298	0.771	SD	-	-	-	0.220	0.770	Yes
869	746	0.008	0.009	0.100	SD	-	-	-	0.000	0.100	No
870	747	0.003	0.003	0.014	SD	-	-	-	0.000	0.010	No
871	0747-F1	0.012	0.014	0.063	**	**	**	**	**	**	-
872	748	0.097	0.113	0.293	SD	-	-	-	0.110	0.290	Yes
873	0748-F1	0.047	0.055	0.252	**	**	**	**	**	**	-
874	749	0.009	0.010	0.032	731	SD	-	-	*	*	-
875	0749-F1	0.037	0.044	0.200	**	**	**	**	**	**	-
876	750	0.041	0.048	0.219	SD	-	-	-	0.020	0.220	No
877	751	0.006	0.007	0.017	SD	-	-	-	0.000	0.020	No
878	0751-F1	0.006	0.007	0.032	**	**	**	**	**	**	-
879	752	0.088	0.103	0.317	0536 & 0559	SD	-	-	0.050	0.340	Yes
880	753	0.066	0.076	0.354	755	0536 & 0559	SD	-	*	*	-
881	0753-F1	0.011	0.012	0.056	**	**	**	**	**	**	-
882	754	0.042	0.049	0.130	757	755	0536 & 0559	SD	*	*	-
883	755	0.434	0.505	2.482	0536 & 0559	SD	-	-	0.710	5.440	Yes
884	756	0.012	0.014	0.054	0536 & 0559	SD	-	-	0.010	0.050	Yes
885	757	0.090	0.105	0.785	755	0536 & 0559	SD	-	*	*	-
886	758	0.052	0.061	0.244	0536 & 0559	SD	-	-	0.010	0.240	No
887	0758-F1	0.019	0.022	0.103	**	**	**	**	**	**	-
888	759	0.057	0.066	0.462	786	0536 & 0559	SD	-	*	*	-
889	760	0.201	0.234	1.038	755	0536 & 0559	SD	-	*	*	-
890	761	0.221	0.258	0.478	0536 & 0559	SD	-	-	0.430	1.920	No
891	762	0.243	0.283	0.768	761	0536 & 0559	SD	-	*	*	-
892	0762-F1	0.010	0.011	0.051	**	**	**	**	**	**	-
893	0762-F2	0.004	0.005	0.023	**	**	**	**	**	**	-
894	0762-F3	0.003	0.004	0.017	**	**	**	**	**	**	-
895	763	0.128	0.148	0.781	0536 & 0559	SD	-	-	0.070	0.780	Yes
896	764	0.014	0.017	0.043	187	CD	-	-	0.000	0.040	No
897	765	0.043	0.050	0.129	0536 & 0559	SD	-	-	0.020	0.130	No
898	766	0.055	0.064	0.926	0536 & 0559	SD	-	-	0.190	0.930	No
899	767	0.148	0.173	0.748	0536 & 0559	SD	-	-	0.160	0.750	No
900	0767-F1	0.034	0.040	0.184	**	**	**	**	**	**	-
901	0767-F2	0.087	0.101	0.382	**	**	**	**	**	**	-
902	768	0.071	0.083	0.412	761	0536 & 0559	SD	-	*	*	-
903	769	0.066	0.077	0.573	755	0536 & 0559	SD	-	*	*	-
904	770	0.088	0.103	0.517	772	0536 & 0559	SD	-	*	*	-
905	771	0.079	0.092	1.002	0536 & 0559	SD	-	-	0.070	1.000	Yes
906	772	0.050	0.059	0.509	0536 & 0559	SD	-	-	0.210	1.030	No
907	773	0.329	0.382	1.884	0536 & 0559	SD	-	-	0.390	1.880	Yes
908	774	0.135	0.157	1.011	0536 & 0559	SD	-	-	0.210	1.010	No
909	775	0.037	0.043	0.415	0536 & 0559	SD	-	-	0.040	0.420	Yes
910	776	0.325	0.378	1.295	0536 & 0559	SD	-	-	0.170	1.300	No

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No.	Station/Basin	2035 Station Basin Flow, [MGD]			Downstream Stations / WWTP				Model Input Flow, [MGD] 72-Hour Hydrograph		Upgrade Required
		Dry Weather	AADF	Peak Hour					Min	Max	
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
911	777	0.020	0.023	0.359	0536 & 0559	SD	-	-	0.010	0.360	Yes
912	778	0.044	0.051	0.514	0536 & 0559	SD	-	-	0.030	0.510	Yes
913	779	0.069	0.080	0.382	0536 & 0559	SD	-	-	0.030	0.380	No
914	780	0.005	0.005	0.027	762	761	0536 & 0559	SD	*	*	-
915	781	0.020	0.023	0.162	761	0536 & 0559	SD	-	*	*	-
916	782	0.076	0.088	0.382	0536 & 0559	SD	-	-	0.060	0.380	Yes
917	783	0.053	0.062	0.615	0536 & 0559	SD	-	-	0.030	0.610	No
918	784	0.388	0.451	1.231	0536 & 0559	SD	-	-	0.270	1.230	No
919	785	0.546	0.635	3.275	0536 & 0559	SD	-	-	0.490	3.280	No
920	786	0.150	0.174	1.150	0536 & 0559	SD	-	-	0.280	1.610	No
921	787	0.026	0.030	0.169	807	0536 & 0559	SD	-	*	*	-
922	788	0.010	0.011	0.069	801	0536 & 0559	SD	-	*	*	-
923	789	0.069	0.080	0.682	225	0536 & 0559	SD	-	*	*	-
924	0789-F1	0.019	0.023	0.104	**	**	**	**	**	**	-
925	0789-F2	0.004	0.004	0.020	**	**	**	**	**	**	-
926	790	0.018	0.021	0.058	0536 & 0559	SD	-	-	0.000	0.060	Yes
927	791	0.035	0.040	0.427	0536 & 0559	SD	-	-	0.090	0.430	No
928	792	0.068	0.079	0.619	0536 & 0559	SD	-	-	0.130	0.620	No
929	793	0.049	0.057	0.750	0536 & 0559	SD	-	-	0.070	0.750	No
930	0793-F1	0.015	0.018	0.081	SD	-	-	-	0.010	0.080	-
931	0793-F2	0.008	0.010	0.044	SD	-	-	-	0.010	0.040	-
932	794	0.212	0.247	0.962	0536 & 0559	SD	-	-	0.160	0.960	No
933	795	0.684	0.796	1.583	0536 & 0559	SD	-	-	0.460	1.580	Yes
934	796	0.136	0.158	1.182	0536 & 0559	SD	-	-	0.120	1.180	Yes
935	797	0.171	0.199	0.673	0536 & 0559	SD	-	-	0.080	0.670	No
936	798	0.186	0.216	0.630	0536 & 0559	SD	-	-	0.130	0.630	Yes
937	799	0.063	0.073	1.297	0536 & 0559	SD	-	-	0.270	1.300	Yes
938	800	0.087	0.102	0.898	0536 & 0559	SD	-	-	0.040	0.900	Yes
939	801	0.061	0.071	0.160	0536 & 0559	SD	-	-	0.030	0.230	No
940	0801-F1	0.003	0.004	0.017	**	**	**	**	**	**	-
941	802	0.027	0.032	0.608	0536 & 0559	SD	-	-	0.010	0.610	Yes
942	803	0.095	0.110	0.278	0536 & 0559	SD	-	-	0.040	0.280	Yes
943	0803-F1	0.012	0.014	0.062	**	**	**	**	**	**	-
944	0803-F2	0.013	0.016	0.071	**	**	**	**	**	**	-
945	0803-F3	0.008	0.009	0.042	**	**	**	**	**	**	-
946	0803-F4	0.011	0.012	0.057	**	**	**	**	**	**	-
947	0803-F5	0.006	0.007	0.032	**	**	**	**	**	**	-
948	804	0.011	0.013	0.051	571	0536 & 0559	SD	-	*	*	-
949	805	0.112	0.130	0.528	0536 & 0559	SD	-	-	0.090	0.530	Yes
950	806	0.402	0.468	1.766	0536 & 0559	SD	-	-	0.430	1.770	No
951	807	0.041	0.047	0.172	0536 & 0559	SD	-	-	0.030	0.340	Yes
952	0807-F1	0.003	0.004	0.019	**	**	**	**	**	**	-
953	0807-F2	0.003	0.003	0.015	**	**	**	**	**	**	-
954	0807-F3	0.017	0.020	0.092	**	**	**	**	**	**	-
955	0807-F4	0.043	0.050	0.229	**	**	**	**	**	**	-
956	808	0.428	0.498	0.985	0536 & 0559	SD	-	-	0.280	0.980	No
957	809	0.745	0.866	1.238	0536 & 0559	SD	-	-	0.470	1.240	No
958	810	0.205	0.238	1.322	0536 & 0559	SD	-	-	0.150	1.350	Yes
959	811	0.211	0.246	0.945	0536 & 0559	SD	-	-	0.140	0.950	Yes
960	812	0.123	0.143	0.725	0536 & 0559	SD	-	-	0.080	0.730	No
961	813	0.028	0.032	0.076	761	0536 & 0559	SD	-	*	*	-
962	814	0.024	0.028	0.076	757	755	0536 & 0559	SD	*	*	-
963	815	0.135	0.157	1.121	0536 & 0559	SD	-	-	0.080	1.120	No
964	0815-P	0.009	0.010	0.047	**	**	**	**	**	**	-
965	816	0.038	0.044	0.186	0536 & 0559	SD	-	-	0.020	0.190	Yes
966	817	0.024	0.027	0.164	0536 & 0559	SD	-	-	0.040	0.160	Yes
967	818	0.037	0.043	0.851	0536 & 0559	SD	-	-	0.040	0.850	Yes
968	819	0.044	0.052	0.145	0536 & 0559	SD	-	-	0.030	0.150	Yes
969	0819-F1	0.014	0.016	0.074	**	**	**	**	**	**	-
970	0819-F2	0.025	0.029	0.133	**	**	**	**	**	**	-
971	0819-F3	0.010	0.012	0.055	**	**	**	**	**	**	-
972	820	0.022	0.026	0.066	571	0536 & 0559	SD	-	*	*	-
973	821	0.011	0.013	0.029	571	0536 & 0559	SD	-	*	*	-
974	0821-F1	0.003	0.003	0.015	**	**	**	**	**	**	-
975	822	0.035	0.041	0.386	0536 & 0559	SD	-	-	0.080	0.390	Yes
976	823	0.039	0.046	0.201	0536 & 0559	SD	-	-	0.020	0.200	No
977	0823-F1	0.001	0.001	0.004	**	**	**	**	**	**	-
978	824	0.069	0.080	0.737	0536 & 0559	SD	-	-	0.060	1.030	Yes
979	825	0.159	0.185	0.437	0536 & 0559	SD	-	-	0.090	0.440	No
980	826	0.040	0.046	0.224	0536 & 0559	SD	-	-	0.030	0.280	No
981	0826-F1	0.001	0.001	0.006	**	**	**	**	**	**	-
982	827	0.010	0.011	0.083	0536 & 0559	SD	-	-	0.000	0.080	No
983	828	0.022	0.025	0.083	0536 & 0559	SD	-	-	0.010	0.080	No
984	0828-F1	0.144	0.167	0.632	**	**	**	**	**	**	-
985	829	0.029	0.034	0.057	571	0536 & 0559	SD	-	*	*	-
986	830	0.185	0.215	1.060	0536 & 0559	SD	-	-	0.170	1.060	No

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No.	Station/Basin	2035 Station Basin Flow, [MGD]			Downstream Stations / WWTP				Model Input Flow, [MGD] 72-Hour Hydrograph		Upgrade Required
		Dry Weather	AADF	Peak Hour					Min	Max	
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
987	0830-F1	0.378	0.440	1.338	**	**	**	**	**	**	-
988	0830-F2	0.054	0.063	0.289	**	**	**	**	**	**	-
989	0830-F3	0.003	0.003	0.015	**	**	**	**	**	**	-
990	0830-P	0.028	0.033	0.152	**	**	**	**	**	**	-
991	831	0.034	0.039	0.121	0536 & 0559	SD	-	-	0.020	0.120	No
992	0831-P	0.105	0.122	0.459	SD	-	-	-	0.080	0.460	-
993	832	0.050	0.058	0.487	0536 & 0559	SD	-	-	0.060	0.490	Yes
994	833	0.021	0.025	0.296	824	0536 & 0559	SD	-	*	*	-
995	0833-F1	0.008	0.009	0.042	**	**	**	**	**	**	-
996	834	0.100	0.116	1.858	SD	-	-	-	0.060	1.860	Yes
997	835	0.028	0.033	0.470	0536 & 0559	SD	-	-	0.100	0.470	No
998	836	0.104	0.121	0.467	0536 & 0559	SD	-	-	0.070	0.470	Yes
999	837	0.098	0.114	0.726	0536 & 0559	SD	-	-	0.080	0.730	Yes
1000	838	0.133	0.154	1.149	0536 & 0559	SD	-	-	0.240	1.150	Yes
1001	839	0.053	0.062	0.569	0536 & 0559	SD	-	-	0.120	0.570	Yes
1002	840	0.061	0.071	0.489	0536 & 0559	SD	-	-	0.070	0.490	Yes
1003	841	0.062	0.072	0.576	0536 & 0559	SD	-	-	0.060	0.670	Yes
1004	842	0.124	0.144	0.995	0536 & 0559	SD	-	-	0.160	1.000	Yes
1005	843	0.078	0.091	0.722	0536 & 0559	SD	-	-	0.060	0.720	Yes
1006	844	0.064	0.075	0.127	0536 & 0559	SD	-	-	0.060	0.240	Yes
1007	845	0.015	0.017	0.119	844	0536 & 0559	SD	-	*	*	-
1008	846	0.082	0.095	0.877	0536 & 0559	SD	-	-	0.180	0.880	Yes
1009	847	0.086	0.100	0.954	0536 & 0559	SD	-	-	0.200	0.950	Yes
1010	848	0.237	0.276	0.837	0536 & 0559	SD	-	-	0.080	0.840	Yes
1011	849	0.068	0.079	0.516	0536 & 0559	SD	-	-	0.030	0.520	Yes
1012	850	0.450	0.523	1.195	0536 & 0559	SD	-	-	0.210	1.200	Yes
1013	851	0.137	0.159	0.640	0536 & 0559	SD	-	-	0.120	0.640	No
1014	852	0.401	0.466	1.445	0536 & 0559	SD	-	-	0.290	1.450	Yes
1015	853	0.058	0.067	0.728	0536 & 0559	SD	-	-	0.070	0.730	Yes
1016	854	0.291	0.338	0.614	0536 & 0559	SD	-	-	0.130	0.610	No
1017	855	0.177	0.206	1.220	0536 & 0559	SD	-	-	0.160	1.220	Yes
1018	856	0.053	0.062	0.256	0536 & 0559	SD	-	-	0.050	0.260	No
1019	857	0.184	0.214	1.032	0536 & 0559	SD	-	-	0.230	1.030	Yes
1020	858	0.052	0.061	0.792	0536 & 0559	SD	-	-	0.160	0.790	No
1021	859	0.105	0.122	1.114	0536 & 0559	SD	-	-	0.230	1.110	Yes
1022	860	0.156	0.181	0.832	0536 & 0559	SD	-	-	0.130	0.830	No
1023	0860-F1	0.185	0.216	0.743	SD	-	-	-	0.150	0.740	-
1024	861	0.074	0.086	1.169	0536 & 0559	SD	-	-	0.070	1.170	Yes
1025	862	0.058	0.067	0.921	0536 & 0559	SD	-	-	0.080	0.920	Yes
1026	863	0.037	0.043	1.006	0536 & 0559	SD	-	-	0.040	1.010	Yes
1027	864	0.120	0.139	1.057	0536 & 0559	SD	-	-	0.070	1.060	No
1028	865	0.098	0.114	0.594	0536 & 0559	SD	-	-	0.090	0.590	No
1029	866	0.049	0.057	0.324	0536 & 0559	SD	-	-	0.080	0.320	No
1030	867	0.079	0.092	0.230	0536 & 0559	SD	-	-	0.040	0.230	No
1031	0867-F1	0.020	0.024	0.108	**	**	**	**	**	**	-
1032	868	0.139	0.162	1.390	0536 & 0559	SD	-	-	0.090	1.390	No
1033	869	0.070	0.082	0.179	0536 & 0559	SD	-	-	0.030	0.180	No
1034	870	0.022	0.026	0.573	0536 & 0559	SD	-	-	0.030	0.570	No
1035	871	0.143	0.166	1.187	0536 & 0559	SD	-	-	0.250	1.190	Yes
1036	872	0.103	0.120	0.442	0536 & 0559	SD	-	-	0.060	0.440	Yes
1037	873	0.138	0.161	0.561	0536 & 0559	SD	-	-	0.050	0.560	Yes
1038	874	0.063	0.073	0.484	0536 & 0559	SD	-	-	0.060	0.480	Yes
1039	875	0.099	0.115	0.357	0536 & 0559	SD	-	-	0.050	0.360	No
1040	876	0.069	0.080	0.477	0536 & 0559	SD	-	-	0.040	0.480	No
1041	877	0.479	0.557	1.918	0536 & 0559	SD	-	-	0.280	1.920	No
1042	878	0.050	0.058	0.235	0536 & 0559	SD	-	-	0.010	0.240	Yes
1043	879	0.114	0.133	0.531	0536 & 0559	SD	-	-	0.080	0.530	Yes
1044	880	0.087	0.101	0.370	0536 & 0559	SD	-	-	0.040	0.370	No
1045	881	0.079	0.092	0.317	0536 & 0559	SD	-	-	0.020	0.320	No
1046	0881-F1	0.028	0.033	0.152	**	**	**	**	**	**	-
1047	0881-F2	0.210	0.244	0.841	SD	-	-	-	0.160	0.840	-
1048	882	0.056	0.066	0.247	0536 & 0559	SD	-	-	0.030	0.250	Yes
1049	0882-F1	0.006	0.007	0.033	**	**	**	**	**	**	-
1050	883	0.129	0.150	1.065	0536 & 0559	SD	-	-	0.090	1.070	Yes
1051	884	0.019	0.022	0.060	826	0536 & 0559	SD	-	*	*	-
1052	885	0.027	0.031	0.098	841	0536 & 0559	SD	-	*	*	-
1053	886	0.075	0.087	0.678	0536 & 0559	SD	-	-	0.140	0.680	Yes
1054	887	0.237	0.276	1.212	0536 & 0559	SD	-	-	0.150	1.210	Yes
1055	888	0.077	0.089	0.730	0536 & 0559	SD	-	-	0.060	0.730	No
1056	889	0.206	0.239	0.626	0536 & 0559	SD	-	-	0.100	0.630	No
1057	0889-F1	0.006	0.007	0.032	SD	-	-	-	0.010	0.030	-
1058	0889-F2	0.003	0.004	0.017	SD	-	-	-	0.000	0.020	-
1059	890	0.025	0.029	0.161	0536 & 0559	SD	-	-	0.010	0.160	No
1060	891	0.041	0.047	0.217	0536 & 0559	SD	-	-	0.020	0.220	Yes
1061	892	0.305	0.355	0.885	0536 & 0559	SD	-	-	0.190	0.890	No
1062	893	0.032	0.037	0.142	0536 & 0559	SD	-	-	0.020	0.140	No

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No.	Station/Basin	2035 Station Basin Flow, [MGD]			Downstream Stations / WWTP				Model Input Flow, [MGD] 72-Hour Hydrograph		Upgrade Required
		Dry Weather	AADF	Peak Hour					Min	Max	
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
1063	0893-F1	0.018	0.021	0.098	**	**	**	**	**	**	-
1064	894	0.065	0.075	0.980	0536 & 0559	SD	-	-	0.200	0.980	No
1065	895	0.036	0.042	0.129	225	0536 & 0559	SD	-	*	*	-
1066	0895-F1	0.016	0.018	0.083	**	**	**	**	**	**	-
1067	0895-F2	0.014	0.016	0.076	**	**	**	**	**	**	-
1068	0895-F3	0.014	0.017	0.076	**	**	**	**	**	**	-
1069	0895-F4	0.005	0.006	0.027	**	**	**	**	**	**	-
1070	896	0.004	0.005	0.026	810	0536 & 0559	SD	-	*	*	-
1071	897	0.309	0.359	1.640	0536 & 0559	SD	-	-	0.350	1.640	Yes
1072	898	0.070	0.081	0.579	683	0536 & 0559	SD	-	*	*	-
1073	0898-F1	0.008	0.009	0.043	**	**	**	**	**	**	-
1074	899	0.012	0.015	0.028	0536 & 0559	SD	-	-	0.010	0.030	Yes
1075	0938-F1	0.003	0.004	0.018	**	**	**	**	**	**	-
1076	0942-F1	0.000	0.000	0.000	**	**	**	**	**	**	-
1077	0942-F2	0.000	0.000	0.001	**	**	**	**	**	**	-
1078	0942-F3	0.000	0.000	0.001	**	**	**	**	**	**	-
1079	0942-F4	0.000	0.000	0.001	**	**	**	**	**	**	-
1080	951	0.017	0.020	0.151	522	SD	-	-	0.010	0.150	No
1081	0951-P	0.027	0.032	0.145	SD	-	-	-	0.030	0.150	-
1082	1000	0.268	0.312	1.199	692	SD	-	-	0.380	1.200	No
1083	1001	0.356	0.414	1.490	692	SD	-	-	0.270	1.490	No
1084	1002	0.295	0.342	2.091	692	SD	-	-	0.360	2.090	Yes
1085	1003	0.353	0.410	2.333	692	SD	-	-	0.320	2.330	Yes
1086	1004	0.278	0.323	1.929	692	SD	-	-	0.440	1.930	Yes
1087	1005	0.014	0.016	0.045	1007	692	SD	-	*	*	-
1088	1006	0.016	0.018	0.047	1007	692	SD	-	*	*	-
1089	1007	0.635	0.738	2.993	692	SD	-	-	0.920	3.080	Yes
1090	1008	0.226	0.263	0.473	692	SD	-	-	0.290	0.970	Yes
1091	1009	0.408	0.474	1.842	692	SD	-	-	0.560	1.840	Yes
1092	1009-F1	0.123	0.143	0.541	**	**	**	**	**	**	-
1093	1009-F2	0.112	0.131	0.493	**	**	**	**	**	**	-
1094	1009-F3	0.148	0.172	0.594	**	**	**	**	**	**	-
1095	1009-F4	0.131	0.153	0.576	**	**	**	**	**	**	-
1096	1009-F5	0.017	0.020	0.093	SD	-	-	-	0.020	0.090	-
1097	1010	0.148	0.172	1.171	692	SD	-	-	0.180	1.170	Yes
1098	1011	0.329	0.383	0.821	692	SD	-	-	0.290	0.820	No
1099	1012	0.322	0.374	1.627	692	SD	-	-	0.390	1.630	Yes
1100	1013	0.251	0.292	0.983	692	SD	-	-	0.170	0.980	Yes
1101	1014	0.015	0.018	0.045	692	SD	-	-	0.010	0.050	Yes
1102	1015	0.062	0.072	0.516	692	SD	-	-	0.150	0.520	Yes
1103	1015-F3	0.077	0.090	0.339	**	**	**	**	**	**	-
1104	1016	0.069	0.080	1.348	SD	-	-	-	0.210	1.350	Yes
1105	1016-F1	0.006	0.006	0.029	SD	-	-	-	0.010	0.030	-
1106	1016-F2	0.002	0.003	0.012	**	**	**	**	**	**	-
1107	1016-F5	0.021	0.024	0.112	SD	-	-	-	0.020	0.110	-
1108	1016-F6	0.004	0.004	0.020	SD	-	-	-	0.000	0.020	-
1109	1016-F9	0.036	0.041	0.189	SD	-	-	-	0.030	0.190	-
1110	1017	0.115	0.133	1.059	SD	-	-	-	0.080	1.060	Yes
1111	1018	0.408	0.474	0.780	SD	-	-	-	0.390	0.780	No
1112	1019	0.491	0.571	2.233	SD	-	-	-	0.480	2.230	Yes
1113	1020	0.292	0.340	1.405	692	SD	-	-	0.300	1.400	Yes
1114	1020-F1	0.121	0.141	0.533	**	**	**	**	**	**	-
1115	1020-F2	0.151	0.175	0.604	SD	-	-	-	0.120	0.600	-
1116	1020-F3	0.128	0.149	0.564	SD	-	-	-	0.100	0.560	-
1117	1020-F4	0.000	0.000	0.001	**	**	**	**	**	**	-
1118	1020-F5		0.000		**	**	**	**	**	**	-
1119	1020-F6		0.000		**	**	**	**	**	**	-
1120	1021	0.155	0.180	1.277	SD	-	-	-	0.270	1.280	Yes
1121	1022	0.437	0.508	1.788	1072	1073	692	SD	*	*	-
1122	1022-F1	0.007	0.008	0.036	**	**	**	**	**	**	-
1123	1022-F10	0.054	0.063	0.289	SD	-	-	-	0.050	0.290	-
1124	1022-F11	0.053	0.061	0.281	SD	-	-	-	0.050	0.280	-
1125	1022-F12	0.018	0.021	0.095	SD	-	-	-	0.020	0.090	-
1126	1022-F13	0.093	0.108	0.408	SD	-	-	-	0.070	0.410	-
1127	1022-F2	0.061	0.070	0.323	SD	-	-	-	0.060	0.320	-
1128	1022-F3	0.003	0.003	0.014	**	**	**	**	**	**	-
1129	1022-F4	0.005	0.006	0.027	**	**	**	**	**	**	-
1130	1022-F6	0.041	0.048	0.219	SD	-	-	-	0.040	0.220	-
1131	1022-F7	0.027	0.031	0.143	SD	-	-	-	0.030	0.140	-
1132	1022-F9	0.020	0.023	0.107	SD	-	-	-	0.020	0.110	-
1133	1023	0.326	0.380	2.366	1072	1073	692	SD	*	*	-
1134	1024	0.053	0.062	0.766	692	SD	-	-	0.100	0.770	Yes
1135	1024-F1	0.019	0.022	0.103	**	**	**	**	**	**	-
1136	1024-F10	0.019	0.022	0.103	SD	-	-	-	0.020	0.100	-
1137	1024-F11	0.008	0.010	0.044	SD	-	-	-	0.010	0.040	-
1138	1024-F12	0.009	0.010	0.048	SD	-	-	-	0.010	0.050	-

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No.	Station/Basin	2035 Station Basin Flow, [MGD]			Downstream Stations / WWTP				Model Input Flow, [MGD] 72-Hour Hydrograph		Upgrade Required
		Dry Weather	AADF	Peak Hour					Min	Max	
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
1139	1024-F2	0.020	0.023	0.104	**	**	**	**	**	**	-
1140	1024-F3	0.019	0.022	0.100	**	**	**	**	**	**	-
1141	1024-F4	0.019	0.022	0.103	**	**	**	**	**	**	-
1142	1024-F6	0.009	0.011	0.049	SD	-	-	-	0.010	0.050	-
1143	1024-F7	0.019	0.022	0.103	SD	-	-	-	0.020	0.100	-
1144	1024-F8	0.020	0.023	0.106	SD	-	-	-	0.020	0.110	-
1145	1024-F9	0.018	0.021	0.094	SD	-	-	-	0.020	0.090	-
1146	1025	0.022	0.025	0.175	692	SD	-	-	0.050	0.180	Yes
1147	1025-F1	0.007	0.008	0.037	**	**	**	**	**	**	-
1148	1025-F2	0.017	0.020	0.091	**	**	**	**	**	**	-
1149	1025-F3	0.038	0.044	0.203	**	**	**	**	**	**	-
1150	1025-F4	0.013	0.015	0.070	**	**	**	**	**	**	-
1151	1025-F5	0.012	0.014	0.066	**	**	**	**	**	**	-
1152	1026	0.277	0.322	1.858	692	SD	-	-	0.170	1.860	Yes
1153	1026-F1	0.030	0.035	0.158	**	**	**	**	**	**	-
1154	1026-F2	0.007	0.008	0.038	**	**	**	**	**	**	-
1155	1026-F3	0.006	0.007	0.033	SD	-	-	-	0.010	0.030	-
1156	1026-F4	0.005	0.006	0.029	SD	-	-	-	0.010	0.030	-
1157	1026-F5	0.017	0.019	0.089	SD	-	-	-	0.020	0.090	-
1158	1026-F6	0.049	0.057	0.259	SD	-	-	-	0.050	0.260	-
1159	1026-F7	0.022	0.025	0.116	SD	-	-	-	0.020	0.120	-
1160	1027	0.013	0.016	0.217	SD	-	-	-	0.030	0.220	Yes
1161	1027-F1	0.023	0.027	0.122	SD	-	-	-	0.020	0.120	-
1162	1027-F2	0.161	0.187	0.644	SD	-	-	-	0.130	0.640	-
1163	1027-F3	0.021	0.024	0.111	SD	-	-	-	0.020	0.110	-
1164	1027-F4	0.013	0.015	0.070	**	**	**	**	**	**	-
1165	1027-F5	0.001	0.001	0.004	**	**	**	**	**	**	-
1166	1028	0.076	0.088	0.219	692	SD	-	-	0.040	0.220	Yes
1167	1029	0.451	0.524	2.352	SD	-	-	-	0.310	2.350	Yes
1168	1030	0.115	0.134	0.867	SD	-	-	-	0.180	0.870	Yes
1169	1030-F1	0.005	0.005	0.024	**	**	**	**	**	**	-
1170	1030-F2	0.002	0.003	0.013	**	**	**	**	**	**	-
1171	1030-F3		0.000		**	**	**	**	**	**	-
1172	1030-F4	0.002	0.002	0.008	**	**	**	**	**	**	-
1173	1031	0.115	0.134	0.372	1072	1073	692	SD	*	*	-
1174	1031-F1	0.000	0.000	0.000	SD	-	-	-	0.000	0.000	-
1175	1032	0.034	0.040	0.193	SD	-	-	-	0.010	0.190	No
1176	1032-F10		0.000		**	**	**	**	**	**	-
1177	1032-F11		0.000		**	**	**	**	**	**	-
1178	1032-F2	0.130	0.151	0.571	SD	-	-	-	0.100	0.570	-
1179	1032-F3	0.001	0.001	0.007	**	**	**	**	**	**	-
1180	1032-F4	0.003	0.003	0.014	**	**	**	**	**	**	-
1181	1032-F5	0.003	0.003	0.014	**	**	**	**	**	**	-
1182	1032-F6	0.005	0.006	0.029	**	**	**	**	**	**	-
1183	1032-F7	0.005	0.006	0.027	**	**	**	**	**	**	-
1184	1032-F8	0.002	0.003	0.013	**	**	**	**	**	**	-
1185	1032-F9		0.000		**	**	**	**	**	**	-
1186	1033	0.042	0.049	0.264	SD	-	-	-	0.020	0.260	No
1187	1034	0.168	0.195	0.500	1008	692	SD	-	*	*	-
1188	1035	0.129	0.150	0.472	522	SD	-	-	0.040	0.470	No
1189	1035-F1	0.029	0.034	0.155	**	**	**	**	**	**	-
1190	1036	0.055	0.063	0.192	SD	-	-	-	0.040	0.190	No
1191	1037	0.047	0.054	0.160	SD	-	-	-	0.020	0.160	No
1192	1038	0.004	0.005	0.010	0536 & 0559	SD	-	-	0.000	0.010	No
1193	1039	0.134	0.156	0.687	692	SD	-	-	0.140	0.690	Yes
1194	1039-F1	0.079	0.092	0.349	SD	-	-	-	0.060	0.340	-
1195	1039-F4	0.046	0.054	0.246	SD	-	-	-	0.040	0.250	-
1196	1040	0.008	0.010	0.059	0536 & 0559	SD	-	-	0.010	0.060	No
1197	1041	0.022	0.025	0.038	0536 & 0559	SD	-	-	0.020	0.040	No
1198	1041-F3	0.004	0.004	0.020	SD	-	-	-	0.000	0.020	-
1199	1042	0.029	0.033	0.057	0536 & 0559	SD	-	-	0.020	0.060	No
1200	1043	0.106	0.123	0.456	522	SD	-	-	0.050	0.460	No
1201	1044	0.044	0.052	0.452	522	SD	-	-	0.030	0.450	No
1202	1045	0.087	0.101	0.273	SD	-	-	-	0.050	0.270	No
1203	1046	0.189	0.219	1.199	SD	-	-	-	0.090	1.200	Yes
1204	1047	0.023	0.026	0.139	0536 & 0559	SD	-	-	0.010	0.140	No
1205	1048	0.063	0.074	0.476	0536 & 0559	SD	-	-	0.060	0.480	Yes
1206	1049	0.107	0.124	0.286	SD	-	-	-	0.030	0.290	Yes
1207	1051	0.118	0.137	0.807	SD	-	-	-	0.140	0.810	No
1208	1052	0.023	0.027	0.423	SD	-	-	-	0.060	0.490	No
1209	1053	0.018	0.021	0.067	1052	SD	-	-	*	*	-
1210	1054	0.153	0.177	0.473	SD	-	-	-	0.070	0.470	No
1211	1054-F1	0.053	0.061	0.281	SD	-	-	-	0.050	0.280	-
1212	1055	0.032	0.037	0.213	SD	-	-	-	0.030	0.210	Yes
1213	1056	0.066	0.077	0.274	SD	-	-	-	0.050	0.270	Yes
1214	1057	0.012	0.014	0.064	SD	-	-	-	0.010	0.060	Yes

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No.	Station/Basin	2035 Station Basin Flow, [MGD]			Downstream Stations / WWTP				Model Input Flow, [MGD] 72-Hour Hydrograph		Upgrade Required
		Dry Weather	AADF	Peak Hour					Min	Max	
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
1215	1058	0.051	0.060	0.490	517	SD	-	-	*	*	-
1216	1059	0.251	0.292	0.853	517	SD	-	-	*	*	-
1217	1060	0.101	0.117	0.350	SD	-	-	-	0.090	0.400	No
1218	1061	0.164	0.191	0.698	517	SD	-	-	*	*	-
1219	1062	0.017	0.020	0.281	517	SD	-	-	*	*	-
1220	1062-F1	0.005	0.006	0.028	**	**	**	**	**	**	-
1221	1062-F2	0.011	0.013	0.061	**	**	**	**	**	**	-
1222	1063	0.060	0.070	0.502	517	SD	-	-	*	*	-
1223	1064	0.021	0.024	0.055	1060	SD	-	-	*	*	-
1224	1065	0.115	0.134	0.350	SD	-	-	-	0.090	0.350	Yes
1225	1066	0.060	0.069	0.113	SD	-	-	-	0.050	0.110	No
1226	1067	0.127	0.148	0.319	1063	517	SD	-	*	*	-
1227	1068	0.020	0.023	0.077	SD	-	-	-	0.010	0.080	No
1228	1069	0.044	0.051	0.190	SD	-	-	-	0.010	0.190	Yes
1229	1070	0.031	0.036	0.083	1071	SD	-	-	*	*	-
1230	1071	0.030	0.035	0.052	SD	-	-	-	0.040	0.130	No
1231	1072	0.032	0.037	0.735	1073	692	SD	-	0.900	5.260	No
1232	1072-F1	0.000	0.000	0.001	SD	-	-	-	0.000	0.000	-
1233	1072-F3	0.062	0.072	0.331	SD	-	-	-	0.060	0.330	-
1234	1074	0.018	0.021	0.050	SD	-	-	-	0.000	0.050	No
1235	1075	0.036	0.042	0.105	SD	-	-	-	0.020	0.100	No
1236	1076	0.037	0.043	0.127	0536 & 0559	SD	-	-	0.030	0.130	Yes
1237	1076-F1	0.029	0.034	0.155	**	**	**	**	**	**	-
1238	1076-F2	0.010	0.012	0.056	**	**	**	**	**	**	-
1239	1076-F3	0.006	0.007	0.034	**	**	**	**	**	**	-
1240	1077	0.085	0.099	0.476	0536 & 0559	SD	-	-	0.080	0.480	Yes
1241	1078	0.005	0.006	0.018	0536 & 0559	SD	-	-	0.000	0.020	No
1242	1078-F1	0.005	0.005	0.025	**	**	**	**	**	**	-
1243	1079	0.226	0.263	0.794	SD	-	-	-	0.220	0.790	Yes
1244	1080	0.036	0.042	0.192	SD	-	-	-	0.030	0.190	No
1245	1081	0.056	0.065	0.585	522	SD	-	-	0.090	0.580	No
1246	1081-F1	0.000	0.000	0.001	**	**	**	**	**	**	-
1247	1082	0.275	0.320	0.379	SD	-	-	-	0.190	0.380	Yes
1248	1083	0.043	0.050	0.313	522	SD	-	-	0.070	0.310	Yes
1249	1083-F1	0.087	0.101	0.380	SD	-	-	-	0.060	0.390	-
1250	1084	0.018	0.021	0.059	692	SD	-	-	0.010	0.060	No
1251	1085	0.192	0.223	0.436	692	SD	-	-	0.090	0.440	Yes
1252	1085-F2	0.102	0.119	0.449	**	**	**	**	**	**	-
1253	1086	0.224	0.261	1.409	522	SD	-	-	0.080	1.410	No
1254	1087	0.023	0.027	0.243	SD	-	-	-	0.030	0.240	No
1255	1088	0.227	0.264	0.738	SD	-	-	-	0.060	0.740	No
1256	1089	0.039	0.045	0.181	SD	-	-	-	0.010	0.180	No
1257	1090	0.123	0.143	0.241	SD	-	-	-	0.080	0.240	No
1258	1090-F1	0.035	0.041	0.188	SD	-	-	-	0.030	0.190	-
1259	1090-F2	0.005	0.006	0.029	SD	-	-	-	0.010	0.030	-
1260	1090-F3	0.000	0.000	0.002	**	**	**	**	**	**	-
1261	1090-F4	0.003	0.004	0.018	**	**	**	**	**	**	-
1262	1090-F5	0.003	0.003	0.014	**	**	**	**	**	**	-
1263	1090-F6	0.003	0.003	0.014	**	**	**	**	**	**	-
1264	1090-F7	0.001	0.001	0.006	**	**	**	**	**	**	-
1265	1091	0.206	0.240	0.519	522	SD	-	-	0.150	0.520	Yes
1266	1092	0.061	0.071	0.195	SD	-	-	-	0.030	0.200	No
1267	1093	0.026	0.031	0.077	SD	-	-	-	0.020	0.080	No
1268	1094	0.098	0.114	0.330	522	SD	-	-	0.070	0.330	Yes
1269	1094-F1	0.000	0.000	0.002	**	**	**	**	**	**	-
1270	1094-F2	0.033	0.038	0.174	SD	-	-	-	0.030	0.170	-
1271	1094-F3	0.000	0.000	0.001	**	**	**	**	**	**	-
1272	1095	0.021	0.025	0.069	0536 & 0559	SD	-	-	0.010	0.070	No
1273	1095-F1	0.047	0.055	0.250	**	**	**	**	**	**	-
1274	1096	0.072	0.083	0.204	SD	-	-	-	0.040	0.200	Yes
1275	1096-F1	0.088	0.103	0.388	SD	-	-	-	0.070	0.390	-
1276	1096-F2	0.001	0.001	0.004	**	**	**	**	**	**	-
1277	1096-F3		0.000		**	**	**	**	**	**	-
1278	1097	1.159	1.348	2.857	SD	-	-	-	1.230	2.860	No
1279	1098	0.025	0.029	0.177	0536 & 0559	SD	-	-	0.010	0.180	No
1280	1099	0.076	0.089	0.257	522	SD	-	-	0.030	0.260	No
1281	1100	0.034	0.039	0.073	SD	-	-	-	0.030	0.070	No
1282	1101	0.095	0.111	0.328	SD	-	-	-	0.040	0.330	No
1283	1101-F1	0.011	0.012	0.056	SD	-	-	-	0.020	0.060	-
1284	1102	0.149	0.174	0.471	SD	-	-	-	0.160	0.470	No
1285	1103	0.198	0.230	0.387	522	SD	-	-	0.160	0.390	No
1286	1104	0.043	0.050	0.078	SD	-	-	-	0.020	0.080	No
1287	1105	0.215	0.250	0.750	SD	-	-	-	0.100	0.750	No
1288	1106	0.086	0.100	0.281	0536 & 0559	SD	-	-	0.040	0.280	No
1289	1107	0.178	0.207	0.787	SD	-	-	-	0.170	0.790	No
1290	1108	0.046	0.053	0.205	SD	-	-	-	0.010	0.210	No

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No.	Station/Basin	2035 Station Basin Flow, [MGD]			Downstream Stations / WWTP				Model Input Flow, [MGD] 72-Hour Hydrograph		Upgrade Required
		Dry Weather	AADF	Peak Hour					Min	Max	
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
1291	1109	0.041	0.048	0.316	SD	-	-	-	0.010	0.320	No
1292	1110	0.195	0.227	0.559	0536 & 0559	SD	-	-	0.100	0.560	Yes
1293	1111	0.585	0.680	1.842	SD	-	-	-	0.430	1.840	No
1294	1113	0.051	0.059	0.121	522	SD	-	-	0.050	0.120	No
1295	1114	0.019	0.022	0.232	SD	-	-	-	0.030	0.230	No
1296	1115	0.014	0.016	0.036	522	SD	-	-	0.010	0.040	No
1297	1116	0.064	0.074	0.190	692	SD	-	-	0.020	0.190	No
1298	1117	0.484	0.563	1.250	SD	-	-	-	0.330	1.250	No
1299	1118	0.120	0.140	0.353	522	SD	-	-	0.070	0.350	Yes
1300	1119	0.243	0.283	1.326	SD	-	-	-	0.100	1.330	No
1301	1120	0.493	0.573	2.514	SD	-	-	-	0.370	2.510	No
1302	1121	0.312	0.362	0.814	SD	-	-	-	0.210	0.810	No
1303	1122	0.042	0.049	0.118	522	SD	-	-	0.030	0.120	No
1304	1123	0.144	0.168	0.454	0536 & 0559	SD	-	-	0.100	0.450	No
1305	1124	0.065	0.076	0.217	522	SD	-	-	0.050	0.220	No
1306	1126	0.082	0.095	0.230	SD	-	-	-	0.060	0.230	No
1307	1127	0.089	0.104	0.265	692	SD	-	-	0.060	0.260	No
1308	1129	0.023	0.027	0.061	SD	-	-	-	0.020	0.060	No
1309	1130	0.098	0.114	0.284	SD	-	-	-	0.080	0.280	No
1310	1131	0.276	0.321	0.785	SD	-	-	-	0.180	0.780	No
1311	1132	0.266	0.309	0.758	SD	-	-	-	0.180	0.760	No
1312	1133	0.029	0.034	0.085	SD	-	-	-	0.020	0.080	No
1313	1134	0.003	0.003	0.009	SD	-	-	-	0.000	0.010	No
1314	1136	0.035	0.041	0.092	SD	-	-	-	0.020	0.090	No
1315	1200	0.033	0.039	0.165	187	CD	-	-	0.030	0.170	No
1316	1201	0.749	0.871	1.763	187	CD	-	-	0.180	1.760	Yes
1317	1202	0.227	0.264	0.542	187	CD	-	-	0.080	0.540	No
1318	1203	0.036	0.041	0.099	2	CD	-	-	*	*	-
1319	1204	0.030	0.035	0.065	1	CD	-	-	*	*	-
1320	1205	0.256	0.297	1.120	187	CD	-	-	0.300	1.120	No
1321	1206	0.034	0.039	0.108	0300 & 1310	ND	-	-	0.010	0.110	No
1322	1207	0.163	0.190	0.701	0536 & 0559	SD	-	-	0.090	0.700	No
1323	1208	0.127	0.147	0.392	187	CD	-	-	0.040	0.390	No
1324	1209	0.021	0.025	0.124	ND	-	-	-	0.000	0.120	No
1325	1210	0.084	0.098	0.273	ND	-	-	-	0.120	0.270	No
1326	1211	0.015	0.017	0.068	187	CD	-	-	0.020	0.070	No
1327	1212	0.023	0.027	0.106	0300 & 1310	ND	-	-	0.020	0.110	No
1328	1213	0.648	0.753	1.797	0536 & 0559	SD	-	-	0.340	1.800	No
1329	1214	0.449	0.522	1.010	0536 & 0559	SD	-	-	0.230	1.010	No
1330	1215	0.475	0.552	1.387	0536 & 0559	SD	-	-	0.100	1.390	No
1331	1216	0.305	0.355	0.863	187	CD	-	-	0.260	0.860	No
1332	1217	0.535	0.623	1.900	187	CD	-	-	0.380	1.900	Yes
1333	1218	0.906	1.053	3.870	187	CD	-	-	0.670	3.870	No
1334	1220	0.013	0.015	0.048	187	CD	-	-	0.010	0.050	No
1335	1221	0.020	0.023	0.071	187	CD	-	-	0.020	0.070	No
1336	1222	0.002	0.002	0.042	187	CD	-	-	0.010	0.040	Yes
1337	1223	0.419	0.488	1.449	187	CD	-	-	0.300	1.450	No
1338	1224	0.296	0.345	0.994	187	CD	-	-	0.240	0.990	No
1339	1225	0.681	0.791	2.349	187	CD	-	-	0.460	2.350	Yes
1340	1226	0.039	0.046	0.122	187	CD	-	-	0.030	0.120	No
1341	1227	0.008	0.010	0.031	187	CD	-	-	0.010	0.030	No
1342	1228	0.004	0.004	0.013	187	CD	-	-	0.000	0.010	No
1343	1229	0.687	0.799	2.156	187	CD	-	-	0.460	2.160	No
1344	1233	0.602	0.700	1.659	1	CD	-	-	*	*	-
1345	1234	0.251	0.292	0.835	1	CD	-	-	*	*	-
1346	1235	0.185	0.216	0.658	1	CD	-	-	*	*	-
1347	1236	0.322	0.374	1.053	1	CD	-	-	*	*	-
1348	1237	0.212	0.246	0.767	1	CD	-	-	*	*	-
1349	1238	0.168	0.195	0.633	1	CD	-	-	*	*	-
1350	1239	0.229	0.266	0.822	1	CD	-	-	*	*	-
1351	1240	0.220	0.255	0.783	1	CD	-	-	*	*	-
1352	1241	0.222	0.258	0.795	1	CD	-	-	*	*	-
1353	1242	0.210	0.244	0.770	1	CD	-	-	*	*	-
1354	1243	0.205	0.238	0.742	1	CD	-	-	*	*	-
1355	1244	0.222	0.258	0.796	1	CD	-	-	*	*	-
1356	1245	0.265	0.308	0.856	1	CD	-	-	*	*	-
1357	1246	0.154	0.179	0.592	1	CD	-	-	*	*	-
1358	1247	0.326	0.379	0.883	1	CD	-	-	*	*	-
1359	1248	0.282	0.327	0.771	1	CD	-	-	*	*	-
1360	1249	0.274	0.319	0.796	1	CD	-	-	*	*	-
1361	1251	0.003	0.003	0.019	187	CD	-	-	0.000	0.020	No
1362	1252	0.261	0.303	0.824	CD	-	-	-	0.180	0.820	No
1363	1300	0.141	0.164	0.516	0300 & 1310	ND	-	-	0.050	0.520	Yes
1364	1301	0.040	0.047	0.136	417	0300 & 1310	ND	-	*	*	-
1365	1302	0.112	0.130	0.369	0300 & 1310	ND	-	-	0.040	0.370	No
1366	1303	0.131	0.152	1.555	0300 & 1310	ND	-	-	0.150	1.550	Yes

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No.	Station/Basin	2035 Station Basin Flow, [MGD]			Downstream Stations / WWTP				Model Input Flow, [MGD] 72-Hour Hydrograph		Upgrade Required
		Dry Weather	AADF	Peak Hour					Min	Max	
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
1367	1304	0.101	0.117	0.424	0300 & 1310	ND	-	-	0.040	0.420	Yes
1368	1305	0.254	0.295	0.920	416	0300 & 1310	ND	-	0.120	0.920	No
1369	1306	0.093	0.109	0.334	417	0300 & 1310	ND	-	*	*	-
1370	1306-F1	0.130	0.151	0.570	ND	-	-	-	0.100	0.570	-
1371	1306-F12	0.002	0.003	0.012	**	**	**	**	**	**	-
1372	1306-F13	0.005	0.006	0.026	**	**	**	**	**	**	-
1373	1306-F16	0.009	0.010	0.048	**	**	**	**	**	**	-
1374	1306-F19	0.005	0.006	0.026	ND	-	-	-	0.000	0.030	-
1375	1306-F20	0.010	0.011	0.051	ND	-	-	-	0.010	0.050	-
1376	1306-F21	0.013	0.015	0.068	ND	-	-	-	0.010	0.070	-
1377	1306-F22	0.013	0.016	0.071	ND	-	-	-	0.010	0.070	-
1378	1306-F23	0.006	0.006	0.030	ND	-	-	-	0.010	0.030	-
1379	1306-F24	0.051	0.060	0.275	ND	-	-	-	0.050	0.270	-
1380	1306-F25	0.006	0.007	0.031	**	**	**	**	**	**	-
1381	1306-F26	0.030	0.034	0.158	ND	-	-	-	0.030	0.160	-
1382	1306-F27	0.010	0.012	0.056	**	**	**	**	**	**	-
1383	1306-F28	0.011	0.012	0.056	**	**	**	**	**	**	-
1384	1306-F29	0.029	0.034	0.156	**	**	**	**	**	**	-
1385	1306-F3	0.107	0.124	0.468	ND	-	-	-	0.090	0.470	-
1386	1306-F4	0.034	0.039	0.181	**	**	**	**	**	**	-
1387	1306-F5	0.055	0.063	0.291	**	**	**	**	**	**	-
1388	1307	0.049	0.057	0.179	345	0300 & 1310	ND	-	0.040	0.180	No
1389	1309	0.028	0.033	0.092	0300 & 1310	ND	-	-	0.020	0.090	No
1390	1311	0.074	0.086	0.174	0300 & 1310	ND	-	-	0.030	0.170	Yes
1391	1312	0.029	0.034	0.091	0300 & 1310	ND	-	-	0.010	0.090	No
1392	1313	0.218	0.254	1.139	ND	-	-	-	0.200	1.140	No
1393	1314	0.142	0.165	0.393	421	ND	-	-	0.110	0.390	No
1394	1315	0.006	0.007	0.022	426	ND	-	-	0.000	0.020	No
1395	1316	0.005	0.006	0.017	ND	-	-	-	0.000	0.020	No
1396	1317	0.039	0.045	0.128	ND	-	-	-	0.030	0.130	No
1397	1319	0.175	0.203	0.850	417	0300 & 1310	ND	-	*	*	-
1398	1321	0.076	0.088	0.262	ND	-	-	-	0.050	0.260	No
1399	1322	0.020	0.023	0.067	421	ND	-	-	0.010	0.070	No
1400	1323	0.036	0.042	0.152	421	ND	-	-	0.030	0.150	No
1401	MEDLEY 042	0.338	0.394	1.380	0300 & 1310	ND	-	-	0.270	1.380	-
1402	MEDLEY 043	2.440	2.838	9.930	0300 & 1310	ND	-	-	3.390	9.930	-
1403	MEDLEY 044	0.281	0.327	1.140	0300 & 1310	ND	-	-	0.000	1.140	-
1404	MIAMI AIRPORT	3.145	3.657	11.084	1	CD	-	-	*	*	-
1405	MIAMI BEACH	17.475	20.320	71.120	CD	-	-	-	18.960	71.120	-
1406	NORTH MIAMI BEACH1	0.636	0.740	2.500	306	ND	-	-	0.370	2.500	-
1407	NORTH MIAMI BEACH2	0.807	0.939	3.930	ND	-	-	-	0.640	3.930	-
1408	'NORTH MIAMI M11	4.304	5.005	19.320	ND	-	-	-	5.110	19.320	-
1409	'NORTH MIAMI M12	3.688	4.288	9.960	ND	-	-	-	2.820	9.960	-
1410	NORTH MIAMI P56	2.135	2.483	7.380	ND	-	-	-	1.060	7.380	-
1411	OPALOCKA	1.308	1.521	4.770	0300 & 1310	ND	-	-	1.190	4.770	-
1412	PS0003DIS	7.172	8.340	29.190	CD	-	-	-	15.703	29.190	-
1413	WEST MIAMI	0.308	0.359	1.218	1	CD	-	-	*	*	-
1414	39125 (PS 8)	0.927	1.077	2.660	CD	-	-	-	0.973	2.660	-
1415	CORAL GABLES	2.052	2.386	7.252	1	CD	-	-	*	*	-
1416	FLORIDA CITY	2.851	3.316	12.250	1073	692	SD	-	0.960	12.250	-
1417	Hia.PS.200	7.821	9.094	31.830	ND	-	-	-	5.479	31.830	-
1418	HIALEAH 024	5.956	6.926	24.240	348	0300 & 1310	ND	-	7.150	24.240	-
1419	HIALEAH 050	0.260	0.303	1.060	0300 & 1310	ND	-	-	0.280	1.060	-
1420	HIALEAH 7A	5.214	6.062	21.219	307	0300 & 1310	ND	-	4.490	21.219	-
1421	HIALEAH GARDENS	0.620	0.721	2.320	0300 & 1310	ND	-	-	0.250	2.320	-
1422	HiaPS260Dis	4.797	5.578	19.521	ND	-	-	-	4.130	19.521	-
1423	HOMESTEAD	6.467	7.520	26.320	691	692	SD	-	7.090	26.320	-
		307.9[1]	358.0[1]	1,253.5[1]					249.78	1,253.5	248

LEGEND This table includes all Basins (connected, to be connected by 2035 and to remain in septic tank)

* Flow for this basin is included in the downstream basin

** Basin to Remain on Septic Tank

1 Totals do not include flows from basins which will remain on septic tank.
Theses flows are xxx for Dry Weather, xxx for AADF and xxxx for Peak Hour

See page 19 for Legend

Appendix F

NDWWTP, CDWWTP Flow Analysis 2003-2012

Appendix F
NDWWTP, CDWWTP Flow Analysis 2003 - 2012

NDWWTP										
Flow/	# of Hours in a year				Yearly Volume					
AADF	Count		[%]		[MG]			[%]		
Ratio	Above	Below	Above	Below	HLD	Outfall	Total	HLD	Outfall	Total
1	4,509	4,251	51%	49%	28,960	2,065	31,025	93.3%	6.70%	100%
1.1	2,533	6,227	29%	71%	30,030	995	31,025	96.8%	3.20%	100%
1.2	1,221	75,339	14%	86%	30,474	551	31,025	98.2%	1.80%	100%
1.3	640	8,120	7%	93%	30,700	325	31,025	99.0%	1.00%	100%
1.4	361	8,399	4%	96%	30,839	186	31,025	99.4%	0.60%	100%
1.5	212	8,548	2%	98%	30,905	120	31,025	99.6%	0.40%	100%
1.6	119	8,641	1%	99%	30,952	73	31,025	99.8%	0.20%	100%
1.7	71	8,689	1%	99%	30,978	47	31,025	99.8%	0.20%	100%

CDWWTP										
Flow/	# of Hours in a year				Yearly Volume					
AADF	Count		[%]		[MG]			[%]		
Ratio	Above	Below	Above	Below	HLD	Outfall	Total	HLD	Outfall	Total
1	3,666	5,094	42%	58%	28,567	1,728	30,295	94.3%	5.70%	100%
1.1	2,416	6,344	28%	72%	29,187	1,108	30,295	96.3%	3.70%	100%
1.2	1,569	7,191	18%	82%	29,533	762	30,295	97.5%	2.50%	100%
1.3	1,016	7,744	12%	88%	29,789	506	30,295	98.3%	1.70%	100%
1.4	676	8,084	8%	92%	29,947	348	30,295	98.9%	1.10%	100%
1.5	439	8,321	5%	95%	30,074	221	30,295	99.3%	0.70%	100%
1.6	290	8,470	3%	97%	30,143	152	30,295	99.5%	0.50%	100%
1.7	199	8,561	2%	98%	30,183	112	30,295	99.6%	0.40%	100%

Appendix G

Detailed Alternative Cost Breakdowns

Table 1
Alternative 1
Project Descriptions and Costs

No.	Description	Length, LF	Diameter, in	OOL [1]	Project Cost
Pipelines					
CL-1	NORTH BISCAYNE 42-INCH FM EXT. S TO PS 2 DISCHARGE 48-INCH IN NW 4 ST	11,500	42		$23,570,000
CL-3	60-INCH FORCE MAIN CONNECTION BETWEEN C-1 AND C-2 TO PS1.	5,880	60	x	$24,980,000
CL-4	EAST/WEST 84-INCH FM FROM CP-1 TO EXIST. 102-INCH FM IN SW 15 RD	39,984	84	x	$174,640,000
CL-5	EAST/WEST 72/84-INCH FM FROM CP-1 TO 54-INCH IN SW 137 AVE	34,454	54/72/84	x	$128,320,000
CL-6	24-INCH FM CONNECTION IN NW 74 ST FROM NW 97 TO NW 107 AVE - DORAL	5,236	24		$4,920,000
CL-7	24-INCH FM CONNECTION IN NW 53 ST FROM PS 14 TO NW 72 AVE - DORAL	6,114	16/24		$5,260,000
CL-8	24-INCH FM CONNECTION IN SW 8 ST FROM SW 152 TO 177 AVE - WEST DADE	13,340	24		$11,240,000
CL-9	60-INCH FORCE MAIN CONNECTION FROM CP-1 TO PS187	28,252	60		$90,730,000
CL-10	60-INCH FORCE MAIN CONNECTION FROM CP-1 TO NL-2 FM AT NW 87 AVE/W 76 ST	28,430	60		$91,240,000
NL-1	72-INCH FORCE MAIN FROM PS300 TO NDWWTP	40,404	72		$150,230,000
NL-2	FM EXT. FROM 36-INCH AT NW 87 AVE /W 76 ST TO 48-INCH IN NW 67 AVE	20,020	36/48/60		$54,400,000
NL-3	30-INCH FM FROM 36-INCH AT W 76 ST/NW 67 AVE TO 48-INCH AT PS 307	1,646	30		$2,760,000
NL-4	48-INCH FM CONNECTION IN NW 67 AVE FROM W 84 ST TO NW 122 ST	5,610	48		$16,140,000
NL-5	24-INCH FM EXTENSION IN NW 167 ST FROM NW 57 TO 47 AVE IN NW 156 ST	8,000	24		$6,120,000
NL-6	24-INCH FM CONNECTION FROM PS 416 TO 30-INCH FM AT NW 171 ST / 67 AVE	8,768	24		$6,580,000
NL-7	48-INCH FM ALLOWS PS300 TO PUMP NORTH TO PS1310	900	48		$2,900,000
SL-1	54-INCH FM CONNECTION IN SW 232 ST FROM SW 127 AVE TO SDWWTP	16,072	54		$49,240,000
SL-2	FORCE MAIN CONNECTION SW 137 AVE FROM SP-1 TO SW 232 ST/SW 127 AVE	25,517	30/36		$36,960,000
SL-3	36-INCH FORCE MAIN CONNECTION IN SW 137 AVE FROM SW 136 ST TO SP-1	14,457	24/30/36		$30,810,000
SL-4	FORCE MAIN CONNECTION FROM PS 692 TO SL-2 AT SW 232 ST/SW 127 AVE	33,748	48/54		$91,220,000
SL-5	42-INCH FM CONNECTION FROM PS 691 TO PS 692	21,919	42		$42,100,000
SL-6	24-INCH FM CONNECTION FROM PS 1073 TO PS 691	8,560	24		$6,450,000
			Subtotal-Pipelines		**$1,050,810,000**
Major Pumping Stations					
CP-1E	UPGRADE TO PS1				$50,000,000
CP-2E	UPGRADE TO PS2				$30,000,000
CP-187E	UPGRADE TO PS187			x	$100,000,000
CP-1	CENTRAL EAST BOOSTER STATION AT A D BARNES PARK			x	$50,000,000
NP-300E	UPGRADE TO PS300 TO ALLOW STATION TO PUMP NORTH AND EAST				$50,000,000
NP-416E	UPGRADE TO PS416				$10,000,000
NP-1310E	UPGRADE TO PS1310				$3,000,000
NP-1	NORTH DADE BOOSTER STATION AT NW 183 ST/57 AVE				$15,000,000
SP-522E	UPGRADE TO PS522				$10,000,000
SP-692E	UPGRADE TO PS692				$50,000,000
SP-1	SOUTHWEST DADE BOOSTER STATION AT SW 137 AVE				$75,000,000
CP-1073E	UPGRADE TO PS1073				$20,000,000
WP-1	DORAL BOOSTER STATION			x	$50,000,000
			Subtotal-Major Pumping Station		**$513,000,000**
Local Pumping Stations and Force Mains					
	Estimated 341 pumping stations and 23 miles of 8-16 inch force mains				**$435,940,000**
Wastewater Treatment					
NT-1	NDWWTP - INTERIM WET WEATHER IMPROVEMENTS				$111,643,632
NT-2	NDWWTP - HLD TREATMENT			x	$122,937,407
NT-3	NDWWTP - PEAK FLOW TREATMENT			x	$111,672,190
CT-2	CDWWTP - HLD TREATMENT			x	$286,554,285
CT-3	CDWWTP - PEAK FLOW TREATMENT			x	$362,807,926
ST-1	SDWWTP - TREATMENT PLANT EXPANSION				$73,854,638
ST-2	SDWWTP - HLD TREATMENT				$37,430,105
			Subtotal-Wastewater Treatment		**$1,106,900,185**
Effluent Disposal					
NE-1	NDWWTP - INJECTION WELL PUMP STATION			x	$67,893,045
NE-2	NDWWTP - INJECTION WELLS			x	$148,561,957
CE-1	CDWWTP - INJECTION WELL PUMP STATION			x	$138,663,643
CE-2	CDWWTP - INJECTION WELLS			x	$297,123,914
CE-3	CDWWTP - CENTRATE DISPOSAL PUMP STATION			x	$20,000,000
CE-4	CDWWTP - CENTRATE DISPOSAL WELL			x	$20,000,000
SE-1	SDWWTP - INJECTION WELL PUMP STATION			x	$7,588,558
SE-2	SDWWTP - INJECTION WELLS			x	$18,570,245
			Subtotal Effluent Disposal		**$718,401,362**
Biosolids					
CB-2	CDWWTP - CLASS AA - HEAT RECOVERY/THERMAL DRYING				$243,830,422
SB-2	SDWWTP - CLASS AA - HEAT RECOVERY/THERMAL DRYING				$193,586,577
			Subtotal Biosolids		**$437,416,999**
Reclaimed Water Facilities					
CR-1	CDWWTP - FLORIDAN AQUIFER RECHARGE			x	$38,337,075
SR-1	SDWWTP - FLORIDAN AQUIFER RECHARGE			x	$38,337,075
SR-2	SDWWTP - FPL RECLAIMED WATER PIPELINE			x	$95,000,000
WR-1	WDWWTP - FLORIDAN AQUIFER RECHARGE			x	$0
			Subtotal Reclaimed Water Facilities		**$171,674,149**
WWTP Storm Surge Protection					
	Installation of concrete walls, flood logs, and water tight doors				**$30,000,000**
	Total Treatment Facilities				*$2,434,392,695*
	PROJECT COSTS TO MEET OCEAN OUTFALL LEGISLATION				**$2,301,987,320**
	Alternative 1 Total				**$4,464,142,695**

Table 2
Alternative 2A-1-1
Project Descriptions and Costs

No.	Description	Length, LF	Diameter, in	OOL [1]	Project Cost
Pipelines					
CL-1	NORTH BISCAYNE 42-INCH FM EXT. S TO PS 2 DISCHARGE 48-INCH IN NW 4 ST	11,500	42		23,570,000
CL-2	CORAL GABLES 48-INCH FM FROM SW 22 TER TO 102-INCH FM SW 15TH RD	11,750	48		30,650,000
CL-3	DORAL 36-INCH FM ALONG NW 107TH AVE FROM NW 7TH ST TO NW 41ST ST	13,212	36	x	21,800,000
CL-4	EAST/WEST 72/84-INCH FM CONNECTION FROM PS 187 TO WDWWTP	40,271	48/72/84	x	157,380,000
CL-5	72-INCH FM CONNECTION IN SW 137 AVE TO CL-4 FM IN NW 6TH ST	7,573	72	x	30,730,000
CL-6	24-INCH FM CONNECTION IN NW 74 ST FROM NW 97 TO NW 107 AVE - DORAL	5,236	24		4,920,000
CL-7	24-INCH FM CONNECTION IN NW 53 ST FROM PS 14 TO NW 72 AVE - DORAL	6,114	16/24		5,260,000
CL-8	24-INCH FM CONNECTION IN SW 8 ST FROM SW 152 TO 177 AVE - WEST DADE	13,340	24		11,240,000
CL-X	FLOW CONTROL - PIPELINE INTERCONNECTIONS	varies	varies	x	5,000,000
NL-1	72-INCH FORCE MAIN FROM PS300 TO NDWWTP	40,404	72		150,230,000
NL-2	FM EXT. FROM 36-INCH AT NW 87 AVE /W 76 ST TO 48-INCH IN NW 67 AVE	20,020	36/48		46,130,000
NL-3	30-INCH FM FROM 36-INCH AT W 76 ST/NW 67 AVE TO 48-INCH AT PS 307	1,646	30		2,760,000
NL-4	48-INCH FM CONNECTION IN NW 67 AVE FROM W 84 ST TO NW 122 ST	5,610	48		16,140,000
NL-5	24-INCH FM EXTENSION IN NW 167 ST FROM NW 57 TO 47 AVE IN NW 156 ST	8,000	24		6,120,000
NL-6	24-INCH FM CONNECTION FROM PS 416 TO 30-INCH FM AT NW 171 ST / 67 AVE	8,768	24		6,580,000
NL-7	48-INCH FM ALLOWS PS300 TO PUMP NORTH TO PS1310	900	48		2,900,000
SL-1	54-INCH FM CONNECTION IN SW 232 ST FROM SW 127 AVE TO SDWWTP	16,072	54		49,240,000
SL-2	FORCE MAIN CONNECTION SW 137 AVE FROM SP-1 TO SW 232 ST/SW 127 AVE	25,517	30/36		36,960,000
SL-3	FORCE MAIN CONNECTION IN SW 137 AVE FROM SW 136 ST TO SP-1	14,457	24/30/36		30,810,000
SL-4	FORCE MAIN CONNECTION FROM PS 692 TO SL-2 AT SW 232 ST/SW 127 AVE	33,748	48/54		91,220,000
SL-5	42-INCH FM CONNECTION FROM PS 691 TO PS 692	21,919	42		42,100,000
SL-6	24-INCH FM CONNECTION FROM PS 1073 TO PS 691	8,560	24		6,450,000
			Subtotal-Pipelines		**$778,190,000**
Major Pumping Stations					
CP-187E	UPGRADE TO PS187			x	$100,000,000
NP-416E	UPGRADE TO PS416				$10,000,000
NP-1	NORTH DADE BOOSTER STATION AT NW 183 ST/57 AVE				$15,000,000
SP-522E	UPGRADE TO PS522				$10,000,000
SP-692E	UPGRADE TO PS692				$50,000,000
SP-1073E	UPGRADE TO PS1073				$20,000,000
SP-1	SOUTHWEST DADE BOOSTER STATION AT SW 137 AVE				$75,000,000
			Subtotal-Major Pumping Station		**$280,000,000**
Local Pumping Stations and Force Mains					
	Estimated 293 pumping stations and 20 miles of 8-16 inch force mains				**$405,500,000**
Wastewater Treatment					
NT-1	NDWWTP - INTERIM WET WEATHER IMPROVEMENTS				$111,643,632
NT-2	NDWWTP - HLD TREATMENT			x	$63,940,937
NT-3	NDWWTP - PEAK FLOW TREATMENT			x	$74,762,443
CT-2	CDWWTP - HLD TREATMENT			x	$173,321,438
CT-3	CDWWTP - PEAK FLOW TREATMENT			x	$87,559,618
ST-1	SDWWTP - TREATMENT PLANT EXPANSION				$73,854,638
ST-2	SDWWTP - HLD TREATMENT				$27,726,004
WT-1	WDWWTP - TREATMENT PLANT			x	$1,306,538,763
WT-2	WDWWTP - PEAK FLOW TREATMENT			x	$207,572,177
			Subtotal-Wastewater Treatment		**$2,126,919,651**
Effluent Disposal					
NE-1	NDWWTP - INJECTION WELL PUMP STATION			x	$37,711,282
NE-2	NDWWTP - INJECTION WELLS			x	$92,851,223
CE-1	CDWWTP - INJECTION WELL PUMP STATION			x	$75,828,087
CE-2	CDWWTP - INJECTION WELLS			x	$167,132,202
CE-3	CDWWTP - CENTRATE DISPOSAL PUMP STATION			x	$20,000,000
CE-4	CDWWTP - CENTRATE DISPOSAL WELL			x	$20,000,000
SE-1	SDWWTP - INJECTION WELL PUMP STATION			x	$6,208,820
SE-2	SDWWTP - INJECTION WELLS			x	$18,570,245
WE-1	WDWWTP - INJECTION WELL PUMP STATION			x	$124,061,419
WE-2	WDWWTP - INJECTION WELLS			x	$259,983,425
			Subtotal Effluent Disposal		**$822,346,702**
Biosolids					
CB-2	CDWWTP - CLASS AA - HEAT RECOVERY/THERMAL DRYING				$134,919,500
SB-2	SDWWTP - CLASS AA - HEAT RECOVERY/THERMAL DRYING				$193,586,577
WB-1	WDWWTP - CLASS AA - HEAT RECOVERY/THERMAL DRYING				$150,731,533
			Subtotal Biosolids		**$479,237,610**
Reclaimed Water Facilities					
CR-1	CDWWTP - FLORIDAN AQUIFER RECHARGE			x	$25,558,050
SR-1	SDWWTP - FLORIDAN AQUIFER RECHARGE			x	$25,558,050
SR-2	SDWWTP - FPL RECLAIMED WATER PIPELINE			x	$95,000,000
WR-1	WDWWTP - FLORIDAN AQUIFER RECHARGE			x	$25,558,050
			Subtotal Reclaimed Water Facilities		**$171,674,149**
WWTP Storm Surge Protection					
	Installation of concrete walls, flood logs, and water tight doors				**$30,000,000**
	Total Treatment Facilities				*$3,600,178,112*
	PROJECT COSTS TO MEET OCEAN OUTFALL LEGISLATION				**$3,222,626,227**
	Alternative 2A-1-1 Total				**$5,093,868,112**

Table 3
Alternative 2A-1-2
Project Descriptions and Costs

No.	Description	Length, LF	Diameter, in	OOL [1]	Project Cost
Pipelines					
CL-1	NORTH BISCAYNE 42-INCH FM EXT. S TO PS 2 DISCHARGE 48-INCH IN NW 4 ST	11,500	42		23,570,000
CL-2	CORAL GABLES 48-INCH FM FROM SW 22 TER TO 102-INCH FM SW 15TH RD	11,750	48		30,650,000
CL-3	DORAL 36-INCH FM ALONG NW 107TH AVE FROM NW 7TH ST TO NW 41ST ST	13,212	36	x	21,800,000
CL-4	EAST/WEST 72/84-INCH FM CONNECTION FROM PS 187 TO WDWWTP	40,271	48/72/84	x	157,380,000
CL-5	72-INCH FM CONNECTION IN SW 137 AVE TO CL-4 FM IN NW 6TH ST	7,573	72	x	30,730,000
CL-6	24-INCH FM CONNECTION IN NW 74 ST FROM NW 97 TO NW 107 AVE - DORAL	5,236	24		4,920,000
CL-7	24-INCH FM CONNECTION IN NW 53 ST FROM PS 14 TO NW 72 AVE - DORAL	6,114	16/24		5,260,000
CL-8	24-INCH FM CONNECTION IN SW 8 ST FROM SW 152 TO 177 AVE - WEST DADE	13,340	24		11,240,000
CL-X	FLOW CONTROL - PIPELINE INTERCONNECTIONS	varies	varies	x	5,000,000
NL-1	72-INCH FORCE MAIN FROM PS300 TO NDWWTP	40,404	72		150,230,000
NL-2	FM EXT. FROM 36-INCH AT NW 87 AVE /W 76 ST TO 48-INCH IN NW 67 AVE	20,020	36/48		46,130,000
NL-3	30-INCH FM FROM 36-INCH AT W 76 ST/NW 67 AVE TO 48-INCH AT PS 307	1,646	30		2,760,000
NL-4	48-INCH FM CONNECTION IN NW 67 AVE FROM W 84 ST TO NW 122 ST	5,610	48		16,140,000
NL-5	24-INCH FM EXTENSION IN NW 167 ST FROM NW 57 TO 47 AVE IN NW 156 ST	8,000	24		6,120,000
NL-6	24-INCH FM CONNECTION FROM PS 416 TO 30-INCH FM AT NW 171 ST / 67 AVE	8,768	24		6,580,000
NL-7	48-INCH FM ALLOWS PS300 TO PUMP NORTH TO PS1310	900	48		2,900,000
SL-1	54-INCH FM CONNECTION IN SW 232 ST FROM SW 127 AVE TO SDWWTP	16,072	54		49,240,000
SL-2	FORCE MAIN CONNECTION SW 137 AVE FROM SP-1 TO SW 232 ST/SW 127 AVE	25,517	30/36		36,960,000
SL-3	FORCE MAIN CONNECTION IN SW 137 AVE FROM SW 136 ST TO SP-1	14,457	24/30/36		30,810,000
SL-4	FORCE MAIN CONNECTION FROM PS 692 TO SL-2 AT SW 232 ST/SW 127 AVE	33,748	48/54		91,220,000
SL-5	42-INCH FM CONNECTION FROM PS 691 TO PS 692	21,919	42		42,100,000
SL-6	24-INCH FM CONNECTION FROM PS 1073 TO PS 691	8,560	24		6,450,000
			Subtotal-Pipelines		**$778,190,000**
Major Pumping Stations					
CP-187E	UPGRADE TO PS187			x	$100,000,000
NP-416E	UPGRADE TO PS416				$10,000,000
NP-1	NORTH DADE BOOSTER STATION AT NW 183 ST/57 AVE				$15,000,000
SP-522E	UPGRADE TO PS522				$10,000,000
SP-692E	UPGRADE TO PS692				$50,000,000
SP-1073E	UPGRADE TO PS1073				$20,000,000
SP-1	SOUTHWEST DADE BOOSTER STATION AT SW 137 AVE				$75,000,000
			Subtotal-Major Pumping Station		**$280,000,000**
Local Pumping Stations and Force Mains					
	Estimated 293 pumping stations and 20 miles of 8-16 inch force mains				**$405,500,000**
Wastewater Treatment					
NT-1	NDWWTP - INTERIM WET WEATHER IMPROVEMENTS				$111,643,632
NT-2	NDWWTP - HLD TREATMENT			x	$63,940,937
NT-3	NDWWTP - PEAK FLOW TREATMENT			x	$37,044,454
CT-2	CDWWTP - HLD TREATMENT			x	$173,321,438
CT-3	CDWWTP - PEAK FLOW TREATMENT			x	$66,680,017
ST-1	SDWWTP - TREATMENT PLANT EXPANSION				$73,854,638
ST-2	SDWWTP - HLD TREATMENT				$27,726,004
WT-1	WDWWTP - TREATMENT PLANT			x	$1,306,538,763
WT-2	WDWWTP - PEAK FLOW TREATMENT			x	$207,572,177
			Subtotal-Wastewater Treatment		**$2,068,322,060**
Effluent Disposal					
NE-1	NDWWTP - INJECTION WELL PUMP STATION			x	$37,711,282
NE-2	NDWWTP - INJECTION WELLS			x	$92,851,223
CE-1	CDWWTP - INJECTION WELL PUMP STATION			x	$75,828,087
CE-2	CDWWTP - INJECTION WELLS			x	$167,132,202
CE-3	CDWWTP - CENTRATE DISPOSAL PUMP STATION			x	$20,000,000
CE-4	CDWWTP - CENTRATE DISPOSAL WELL			x	$20,000,000
SE-1	SDWWTP - INJECTION WELL PUMP STATION			x	$6,208,820
SE-2	SDWWTP - INJECTION WELLS			x	$18,570,245
WE-1	WDWWTP - INJECTION WELL PUMP STATION			x	$124,061,419
WE-2	WDWWTP - INJECTION WELLS			x	$259,983,425
			Subtotal Effluent Disposal		**$822,346,702**
Biosolids					
CB-2	CDWWTP - CLASS AA - HEAT RECOVERY/THERMAL DRYING				$134,919,500
SB-2	SDWWTP - CLASS AA - HEAT RECOVERY/THERMAL DRYING				$193,586,577
WB-1	WDWWTP - CLASS AA - HEAT RECOVERY/THERMAL DRYING				$150,731,533
			Subtotal Biosolids		**$479,237,610**
Reclaimed Water Facilities					
CR-1	CDWWTP - FLORIDAN AQUIFER RECHARGE			x	$25,558,050
SR-1	SDWWTP - FLORIDAN AQUIFER RECHARGE			x	$25,558,050
SR-2	SDWWTP - FPL RECLAIMED WATER PIPELINE			x	$95,000,000
WR-1	WDWWTP - FLORIDAN AQUIFER RECHARGE			x	$25,558,050
			Subtotal Reclaimed Water Facilities		**$171,674,149**
WWTP Storm Surge Protection					
	Installation of concrete walls, flood logs, and water tight doors				**$30,000,000**
	Total Treatment Facilities				*$3,541,580,522*
	PROJECT COSTS TO MEET OCEAN OUTFALL LEGISLATION				**$3,164,028,636**
	Alternative 2A-1-2 Total				**$5,035,270,522**

Table 4
Alternative 2A-2-1
Project Descriptions and Costs

No.	Description	Length, LF	Diameter, in	OOL [1]	Project Cost
Pipelines					
CL-1	NORTH BISCAYNE 42-INCH FM EXT. S TO PS 2 DISCHARGE 48-INCH IN NW 4 ST	11,500	42		23,570,000
CL-2	CORAL GABLES 48-INCH FM FROM SW 22 TER TO 102-INCH FM SW 15TH RD	11,750	48		30,650,000
CL-3	48-INCH FM CONNECTION IN NW 58 ST FROM NW 107 AVE TO 87 AVE - DORAL	15,370	48	x	41,370,000
CL-4	EAST/WEST 72/84-INCH FM CONNECTION FROM PS 187 TO WDWWTP	40,271	48/72/84	x	157,380,000
CL-5	72-INCH FM CONNECTION IN SW 137 AVE TO CL-4 FM IN NW 6TH ST	7,573	72	x	30,730,000
CL-6	24-INCH FM CONNECTION IN NW 74 ST FROM NW 97 TO NW 107 AVE - DORAL	5,236	24		4,920,000
CL-7	48-INCH FM CONNECTION IN NW 53 ST FROM PS 14 TO NW 72 AVE - DORAL	6,114	16/48		16,370,000
CL-8	24-INCH FM CONNECTION IN SW 8 ST FROM SW 152 TO 177 AVE - WEST DADE	13,340	24		11,240,000
CL-9	54-INCH FORCE MAIN FROM WP-1 (DORAL) TO WDWWTP	35,723	54		99,580,000
CL-X	FLOW CONTROL - PIPELINE INTERCONNECTIONS	varies	varies	x	5,000,000
NL-1	72-INCH FORCE MAIN FROM PS300 TO NDWWTP	40,404	72		150,230,000
NL-2	FM EXT. FROM 36-INCH AT NW 87 AVE /W 76 ST TO 48-INCH IN NW 67 AVE	20,020	36/48		46,130,000
NL-3	30-INCH FM FROM 36-INCH AT W 76 ST/NW 67 AVE TO 48-INCH AT PS 307	1,646	30		2,760,000
NL-4	48-INCH FM CONNECTION IN NW 67 AVE FROM W 84 ST TO NW 122 ST	5,610	48		16,140,000
NL-5	24-INCH FM EXTENSION IN NW 167 ST FROM NW 57 TO 47 AVE IN NW 156 ST	8,000	24		6,120,000
NL-6	24-INCH FM CONNECTION FROM PS 416 TO 30-INCH FM AT NW 171 ST / 67 AVE	8,768	24		6,580,000
NL-7	48-INCH FM ALLOWS PS300 TO PUMP NORTH TO PS1310	900	48		2,900,000
SL-1	54-INCH FM CONNECTION IN SW 232 ST FROM SW 127 AVE TO SDWWTP	16,072	54		49,240,000
SL-2	FORCE MAIN CONNECTION SW 137 AVE FROM SP-1 TO SW 232 ST/SW 127 AVE	25,517	30/36		36,960,000
SL-3	FORCE MAIN CONNECTION IN SW 137 AVE FROM SW 136 ST TO SP-1	14,457	24/30/36		30,810,000
SL-4	FORCE MAIN CONNECTION FROM PS 692 TO SL-2 AT SW 232 ST/SW 127 AVE	33,748	48/54		91,220,000
SL-5	42-INCH FM CONNECTION FROM PS 691 TO PS 692	21,919	42		42,100,000
SL-6	24-INCH FM CONNECTION FROM PS 1073 TO PS 691	8,560	24		6,450,000
			Subtotal-Pipelines		**$908,450,000**
Major Pumping Stations					
CP-187E	UPGRADE TO PS187			x	$100,000,000
NP-416E	UPGRADE TO PS416				$10,000,000
NP-1	NORTH DADE BOOSTER STATION AT NW 183 ST/57 AVE				$15,000,000
SP-522E	UPGRADE TO PS522				$10,000,000
SP-692E	UPGRADE TO PS692				$50,000,000
SP-1073E	UPGRADE TO PS1073				$20,000,000
SP-1	SOUTHWEST DADE BOOSTER STATION AT SW 137 AVE				$75,000,000
WP-1	DORAL BOOSTER STATION			x	$50,000,000
			Subtotal-Major Pumping Station		**$330,000,000**
Local Pumping Stations and Force Mains					
	Estimated 291 pumping stations and 20 miles of 8-16 inch force mains				**$402,730,000**
Wastewater Treatment					
NT-1	NDWWTP - INTERIM WET WEATHER IMPROVEMENTS				$111,643,632
NT-2	NDWWTP - HLD TREATMENT			x	$63,940,937
NT-3	NDWWTP - PEAK FLOW TREATMENT			x	$81,497,798
CT-2	CDWWTP - HLD TREATMENT			x	$173,321,438
CT-3	CDWWTP - PEAK FLOW TREATMENT			x	$87,559,618
ST-1	SDWWTP - TREATMENT PLANT EXPANSION				$73,854,638
ST-2	SDWWTP - HLD TREATMENT				$27,726,004
WT-1	WDWWTP - TREATMENT PLANT			x	$1,303,913,184
WT-2	WDWWTP - PEAK FLOW TREATMENT			x	$182,649,075
			Subtotal-Wastewater Treatment		**$2,106,106,324**
Effluent Disposal					
NE-1	NDWWTP - INJECTION WELL PUMP STATION			x	$37,711,282
NE-2	NDWWTP - INJECTION WELLS			x	$92,851,223
CE-1	CDWWTP - INJECTION WELL PUMP STATION			x	$75,828,087
CE-2	CDWWTP - INJECTION WELLS			x	$167,132,202
CE-3	CDWWTP - CENTRATE DISPOSAL PUMP STATION			x	$20,000,000
CE-4	CDWWTP - CENTRATE DISPOSAL WELL			x	$20,000,000
SE-1	SDWWTP - INJECTION WELL PUMP STATION			x	$6,208,820
SE-2	SDWWTP - INJECTION WELLS			x	$18,570,245
WE-1	WDWWTP - INJECTION WELL PUMP STATION			x	$118,312,512
WE-2	WDWWTP - INJECTION WELLS			x	$259,983,425
			Subtotal Effluent Disposal		**$816,597,794**
Biosolids					
CB-2	CDWWTP - CLASS AA - HEAT RECOVERY/THERMAL DRYING				$134,919,500
SB-2	SDWWTP - CLASS AA - HEAT RECOVERY/THERMAL DRYING				$193,586,577
WB-1	WDWWTP - CLASS AA - HEAT RECOVERY/THERMAL DRYING				$150,731,533
			Subtotal Biosolids		**$479,237,610**
Reclaimed Water Facilities					
CR-1	CDWWTP - FLORIDAN AQUIFER RECHARGE			x	$25,558,050
SR-1	SDWWTP - FLORIDAN AQUIFER RECHARGE			x	$25,558,050
SR-2	SDWWTP - FPL RECLAIMED WATER PIPELINE			x	$95,000,000
WR-1	WDWWTP - FLORIDAN AQUIFER RECHARGE			x	$25,558,050
			Subtotal Reclaimed Water Facilities		**$171,674,149**
WWTP Storm Surge Protection					
	Installation of concrete walls, flood logs, and water tight doors				**$30,000,000**
	Total Treatment Facilities				*$3,573,615,878*
	PROJECT COSTS TO MEET OCEAN OUTFALL LEGISLATION				**$3,265,633,993**
	Alternative 2A-2-1 Total				**$5,244,795,878**

Table 5
Alternative 2A-2-2
Project Descriptions and Costs

No.	Description	Length, LF	Diameter, in	OOL [1]	Project Cost
Pipelines					
CL-1	NORTH BISCAYNE 42-INCH FM EXT. S TO PS 2 DISCHARGE 48-INCH IN NW 4 ST	11,500	42		23,570,000
CL-2	CORAL GABLES 48-INCH FM FROM SW 22 TER TO 102-INCH FM SW 15TH RD	11,750	48		30,650,000
CL-3	48-INCH FM CONNECTION IN NW 58 ST FROM NW 107 AVE TO 87 AVE - DORAL	15,370	48	x	41,370,000
CL-4	EAST/WEST 72/84-INCH FM CONNECTION FROM PS 187 TO WDWWTP	40,271	48/72/84	x	157,380,000
CL-5	72-INCH FM CONNECTION IN SW 137 AVE TO CL-4 FM IN NW 6TH ST	7,573	72	x	30,730,000
CL-6	24-INCH FM CONNECTION IN NW 74 ST FROM NW 97 TO NW 107 AVE - DORAL	5,236	24		4,920,000
CL-7	48-INCH FM CONNECTION IN NW 53 ST FROM PS 14 TO NW 72 AVE - DORAL	6,114	16/48	x	16,370,000
CL-8	24-INCH FM CONNECTION IN SW 8 ST FROM SW 152 TO 177 AVE - WEST DADE	13,340	24		11,240,000
CL-9	54-INCH FORCE MAIN FROM WP-1 (DORAL) TO WDWWTP	35,723	54	x	99,580,000
CL-X	FLOW CONTROL - PIPELINE INTERCONNECTIONS	varies	varies	x	5,000,000
NL-1	72-INCH FORCE MAIN FROM PS300 TO NDWWTP	40,404	72		150,230,000
NL-2	FM EXT. FROM 36-INCH AT NW 87 AVE /W 76 ST TO 48-INCH IN NW 67 AVE	20,020	36/48		46,130,000
NL-3	30-INCH FM FROM 36-INCH AT W 76 ST/NW 67 AVE TO 48-INCH AT PS 307	1,646	30		2,760,000
NL-4	48-INCH FM CONNECTION IN NW 67 AVE FROM W 84 ST TO NW 122 ST	5,610	48		16,140,000
NL-5	24-INCH FM EXTENSION IN NW 167 ST FROM NW 57 TO 47 AVE IN NW 156 ST	8,000	24		6,120,000
NL-6	24-INCH FM CONNECTION FROM PS 416 TO 30-INCH FM AT NW 171 ST / 67 AVE	8,768	24		6,580,000
NL-7	48-INCH FM ALLOWS PS300 TO PUMP NORTH TO PS1310	900	48		2,900,000
SL-1	54-INCH FM CONNECTION IN SW 232 ST FROM SW 127 AVE TO SDWWTP	16,072	54		49,240,000
SL-2	FORCE MAIN CONNECTION SW 137 AVE FROM SP-1 TO SW 232 ST/SW 127 AVE	25,517	30/36		36,960,000
SL-3	FORCE MAIN CONNECTION IN SW 137 AVE FROM SW 136 ST TO SP-1	14,457	24/30/36		30,810,000
SL-4	FORCE MAIN CONNECTION FROM PS 692 TO SL-2 AT SW 232 ST/SW 127 AVE	33,748	48/54		91,220,000
SL-5	42-INCH FM CONNECTION FROM PS 691 TO PS 692	21,919	42		42,100,000
SL-6	24-INCH FM CONNECTION FROM PS 1073 TO PS 691	8,560	24		6,450,000
			Subtotal-Pipelines		**$908,450,000**
Major Pumping Stations					
CP-187E	UPGRADE TO PS187			x	$100,000,000
NP-416E	UPGRADE TO PS416				$10,000,000
NP-1	NORTH DADE BOOSTER STATION AT NW 183 ST/57 AVE				$15,000,000
SP-522E	UPGRADE TO PS522				$10,000,000
SP-692E	UPGRADE TO PS692				$50,000,000
SP-1073E	UPGRADE TO PS1073				$20,000,000
SP-1	SOUTHWEST DADE BOOSTER STATION AT SW 137 AVE				$75,000,000
WP-1	DORAL BOOSTER STATION			x	$50,000,000
			Subtotal-Major Pumping Station		**$330,000,000**
Local Pumping Stations and Force Mains					
	Estimated 291 pumping stations and 20 miles of 8-16 inch force mains				**$402,730,000**
Wastewater Treatment					
NT-1	NDWWTP - INTERIM WET WEATHER IMPROVEMENTS				$111,643,632
NT-2	NDWWTP - HLD TREATMENT			x	$63,940,937
NT-3	NDWWTP - PEAK FLOW TREATMENT			x	$43,779,809
CT-2	CDWWTP - HLD TREATMENT			x	$173,321,438
CT-3	CDWWTP - PEAK FLOW TREATMENT			x	$66,680,017
ST-1	SDWWTP - TREATMENT PLANT EXPANSION				$73,854,638
ST-2	SDWWTP - HLD TREATMENT				$27,726,004
WT-1	WDWWTP - TREATMENT PLANT			x	$1,303,913,184
WT-2	WDWWTP - PEAK FLOW TREATMENT			x	$182,649,075
			Subtotal-Wastewater Treatment		**$2,047,508,734**
Effluent Disposal					
NE-1	NDWWTP - INJECTION WELL PUMP STATION			x	$37,711,282
NE-2	NDWWTP - INJECTION WELLS			x	$92,851,223
CE-1	CDWWTP - INJECTION WELL PUMP STATION			x	$75,828,087
CE-2	CDWWTP - INJECTION WELLS			x	$167,132,202
CE-3	CDWWTP - CENTRATE DISPOSAL PUMP STATION			x	$20,000,000
CE-4	CDWWTP - CENTRATE DISPOSAL WELL			x	$20,000,000
SE-1	SDWWTP - INJECTION WELL PUMP STATION			x	$6,208,820
SE-2	SDWWTP - INJECTION WELLS			x	$18,570,245
WE-1	WDWWTP - INJECTION WELL PUMP STATION			x	$118,312,512
WE-2	WDWWTP - INJECTION WELLS			x	$259,983,425
			Subtotal Effluent Disposal		**$816,597,794**
Biosolids					
CB-2	CDWWTP - CLASS AA - HEAT RECOVERY/THERMAL DRYING				$134,919,500
SB-2	SDWWTP - CLASS AA - HEAT RECOVERY/THERMAL DRYING				$193,586,577
WB-1	WDWWTP - CLASS AA - HEAT RECOVERY/THERMAL DRYING				$150,731,533
			Subtotal Biosolids		**$479,237,610**
Reclaimed Water Facilities					
CR-1	CDWWTP - FLORIDAN AQUIFER RECHARGE			x	$25,558,050
SR-1	SDWWTP - FLORIDAN AQUIFER RECHARGE			x	$25,558,050
SR-2	SDWWTP - FPL RECLAIMED WATER PIPELINE			x	$95,000,000
WR-1	WDWWTP - FLORIDAN AQUIFER RECHARGE			x	$25,558,050
			Subtotal Reclaimed Water Facilities		**$171,674,149**
WWTP Storm Surge Protection					
	Installation of concrete walls, flood logs, and water tight doors				**$30,000,000**
	Total Treatment Facilities				*$3,515,018,288*
	PROJECT COSTS TO MEET OCEAN OUTFALL LEGISLATION				**$3,322,986,402**
	Alternative 2A-2-2 Total				**$5,186,198,288**

Table 6
Alternative 2B-1
Project Descriptions and Costs

No.	Description	Length, LF	Diameter, in	OOL [1]	Project Cost
Pipelines					
CL-1	NORTH BISCAYNE 42-INCH FM EXT. S TO PS 2 DISCHARGE 48-INCH IN NW 4 ST	11,500	42		23,570,000
CL-2	FM CONNECTION FROM CP-2 (CORAL GABLES) TO 60-INCH AT SW 77 AVE/120 ST	45,176	54		125,220,000
CL-3	48-INCH FM CONNECTION IN NW 58 ST FROM NW 107 AVE TO 87 AVE - DORAL	15,370	48		41,370,000
CL-4	EAST/WEST 72/84-INCH FM CONNECTION FROM PS 187 TO WDWWTP	40,271	48/72/84	x	157,380,000
CL-5	72-INCH FM CONNECTION IN SW 137 AVE TO CL-4 FM IN NW 6TH ST	7,573	72	x	30,730,000
CL-6	24-INCH FM CONNECTION IN NW 74 ST FROM NW 97 TO NW 107 AVE - DORAL	5,236	24		4,920,000
CL-7	48-INCH FM CONNECTION IN NW 53 ST FROM PS 14 TO NW 72 AVE - DORAL	6,114	16/48	x	16,370,000
CL-8	24-INCH FM CONNECTION IN SW 8 ST FROM SW 152 TO 177 AVE - WEST DADE	13,340	24		11,240,000
CL-9	60-INCH FORCE MAIN FROM WP-1 (DORAL) TO WDWWTP	35,723	60	x	114,640,000
CL-10	54-INCH FORCE MAIN CONNECTION FROM CP-1 TO NL-2 FM AT NW 87 AVE/W 76 ST	28,430	54	x	79,250,000
CL-X	FLOW CONTROL - PIPELINE INTERCONNECTIONS	varies	varies	x	5,000,000
NL-2	FM EXT. FROM 36-INCH AT NW 87 AVE /W 76 ST TO 48-INCH IN NW 67 AVE	20,020	48		48,360,000
NL-3	30-INCH FM FROM 36-INCH AT W 76 ST/NW 67 AVE TO 48-INCH AT PS 307	1,646	30		2,760,000
NL-4	48-INCH FM CONNECTION IN NW 67 AVE FROM W 84 ST TO NW 122 ST	5,610	48		16,140,000
NL-5	24-INCH FM EXTENSION IN NW 167 ST FROM NW 57 TO 47 AVE IN NW 156 ST	8,000	24		6,120,000
NL-6	24-INCH FM CONNECTION FROM PS 416 TO 30-INCH FM AT NW 171 ST / 67 AVE	8,768	24		6,580,000
NL-7	48-INCH FM ALLOWS PS300 TO PUMP NORTH TO PS1310	900	48		2,900,000
SL-1	72-INCH FM CONNECTION IN SW 232 ST FROM SW 127 AVE TO SDWWTP	16,072	72		64,530,000
SL-2	FORCE MAIN CONNECTION SW 137 AVE FROM SP-1 TO SW 232 ST/SW 127 AVE	25,517	60		75,970,000
SL-3	FORCE MAIN CONNECTION IN SW 137 AVE FROM SW 136 ST TO SP-1	14,457	24/30/36		30,810,000
SL-4	FORCE MAIN CONNECTION FROM PS 692 TO SL-2 AT SW 232 ST/SW 127 AVE	33,748	48/54		91,220,000
SL-5	42-INCH FM CONNECTION FROM PS 691 TO PS 692	21,919	42		42,100,000
SL-6	24-INCH FM CONNECTION FROM PS 1073 TO PS 691	8,560	24		6,450,000
SL-7	54-INCH FM CONNECTION FROM PS1073 TO SP-2	35,723	54		99,580,000
			Subtotal-Pipelines		**$1,103,210,000**
Major Pumping Stations					
CP-187E	UPGRADE TO PS187			x	$100,000,000
CP-2	CORAL GABLES BOOSTER STATION TO REROUTE SOUTH				$50,000,000
NP-416E	UPGRADE TO PS416				$10,000,000
NP-1	NORTH DADE BOOSTER STATION AT NW 183 ST/57 AVE				$15,000,000
SP-522E	UPGRADE TO PS522				$10,000,000
SP-692E	UPGRADE TO PS692				$50,000,000
SP-1073E	UPGRADE TO PS1073				$20,000,000
SP-1	SOUTHWEST DADE BOOSTER STATION AT SW 137 AVE				$75,000,000
SP-2	SOUTHWEST DADE BOOSTER STATION AT SW 137 AVE				$50,000,000
WP-1	DORAL BOOSTER STATION			x	$50,000,000
			Subtotal-Major Pumping Station		**$430,000,000**
Local Pumping Stations and Force Mains					
	Estimated 306 pumping stations and 21 miles of 8-16 inch force mains				**$423,490,000**
Wastewater Treatment					
NT-1	NDWWTP - INTERIM WET WEATHER IMPROVEMENTS				$111,643,632
NT-2	NDWWTP - HLD TREATMENT			x	$63,940,937
CT-2	CDWWTP - HLD TREATMENT			x	$173,477,643
ST-1	SDWWTP - TREATMENT PLANT EXPANSION				$73,854,638
ST-2	SDWWTP - HLD TREATMENT				$137,243,720
ST-3	SDWWTP - PEAK FLOW TREATMENT				$70,152,794
WT-1	WDWWTP - TREATMENT PLANT			x	$1,420,214,970
WT-2	WDWWTP - PEAK FLOW TREATMENT			x	$540,184,615
			Subtotal-Wastewater Treatment		**$2,590,712,949**
Effluent Disposal					
NE-1	NDWWTP - INJECTION WELL PUMP STATION			x	$37,711,282
NE-2	NDWWTP - INJECTION WELLS			x	$92,851,223
CE-1	CDWWTP - INJECTION WELL PUMP STATION			x	$75,828,087
CE-2	CDWWTP - INJECTION WELLS			x	$167,132,202
CE-3	CDWWTP - CENTRATE DISPOSAL PUMP STATION			x	$20,000,000
CE-4	CDWWTP - CENTRATE DISPOSAL WELL			x	$20,000,000
SE-1	SDWWTP - INJECTION WELL PUMP STATION			x	$51,625,187
SE-2	SDWWTP - INJECTION WELLS			x	$111,421,468
WE-1	WDWWTP - INJECTION WELL PUMP STATION			x	$217,193,717
WE-2	WDWWTP - INJECTION WELLS			x	$445,685,871
			Subtotal Effluent Disposal		**$1,239,449,036**
Biosolids					
CB-2	CDWWTP - CLASS AA - HEAT RECOVERY/THERMAL DRYING				$134,919,500
SB-2	SDWWTP - CLASS AA - HEAT RECOVERY/THERMAL DRYING				$193,586,577
WB-1	WDWWTP - CLASS AA - HEAT RECOVERY/THERMAL DRYING				$150,731,533
			Subtotal Biosolids		**$479,237,610**
Reclaimed Water Facilities					
CR-1	CDWWTP - FLORIDAN AQUIFER RECHARGE			x	$25,558,050
SR-1	SDWWTP - FLORIDAN AQUIFER RECHARGE			x	$25,558,050
SR-2	SDWWTP - FPL RECLAIMED WATER PIPELINE			x	$95,000,000
WR-1	WDWWTP - FLORIDAN AQUIFER RECHARGE			x	$25,558,050
			Subtotal Reclaimed Water Facilities		**$171,674,149**
WWTP Storm Surge Protection					
	Installation of concrete walls, flood logs, and water tight doors				**$30,000,000**
	Total Treatment Facilities				*$4,481,073,745*
	PROJECT COSTS TO MEET OCEAN OUTFALL LEGISLATION				**$4,162,311,350**
	Alternative 2B-1 Total				**$6,467,773,745**

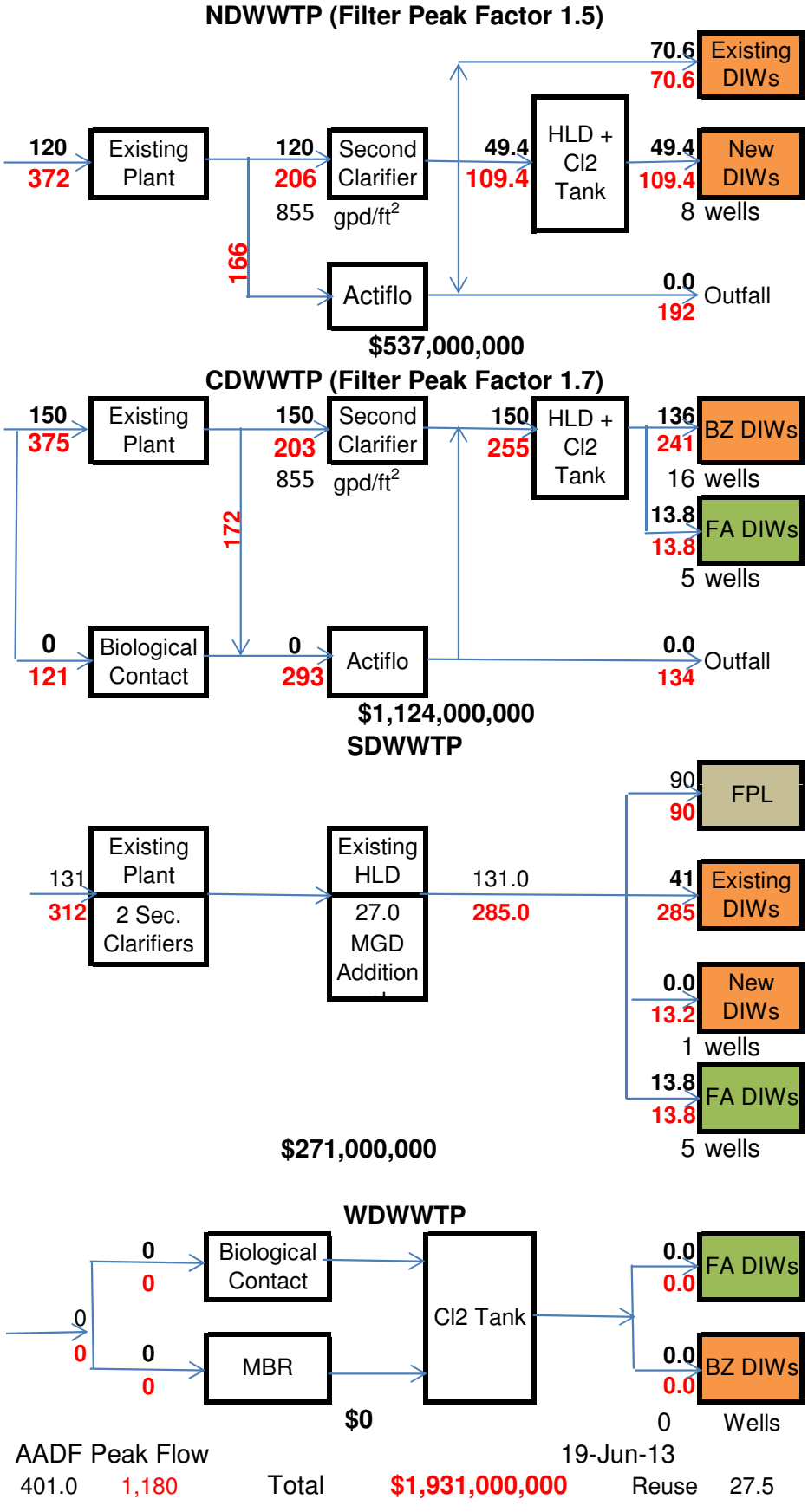
Table 7
Alternative 2B-2
Project Descriptions and Costs

No.	Description	Length, LF	Diameter, in	OOL [1]	Project Cost
Pipelines					
CL-1	NORTH BISCAYNE 42-INCH FM EXT. S TO PS 2 DISCHARGE 48-INCH IN NW 4 ST	11,500	42		23,570,000
CL-2	CORAL GABLES 48-INCH FM FROM SW 22 TER TO 102-INCH FM SW 15TH RD	11,750	48		30,650,000
CL-3	48-INCH FM CONNECTION IN NW 58 ST FROM NW 107 AVE TO 87 AVE - DORAL	15,370	48		41,370,000
CL-4	EAST/WEST 72/84-INCH FM CONNECTION FROM PS 187 TO WDWWTP	40,271	48/72/84	x	157,380,000
CL-5	72-INCH FM CONNECTION IN SW 137 AVE TO CL-4 FM IN NW 6TH ST	7,573	72	x	30,730,000
CL-6	24-INCH FM CONNECTION IN NW 74 ST FROM NW 97 TO NW 107 AVE - DORAL	5,236	24		4,920,000
CL-7	48-INCH FM CONNECTION IN NW 53 ST FROM PS 14 TO NW 72 AVE - DORAL	6,114	16/48	x	16,370,000
CL-8	24-INCH FM CONNECTION IN SW 8 ST FROM SW 152 TO 177 AVE - WEST DADE	13,340	24	x	11,240,000
CL-9	54-INCH FORCE MAIN FROM WP-1 (DORAL) TO WDWWTP	35,723	54	x	99,580,000
NL-1	60-INCH FORCE MAIN FROM PS300 TO NDWWTP	40,404	60		129,320,000
NL-2	FM EXT. FROM 36-INCH AT NW 87 AVE /W 76 ST TO 48-INCH IN NW 67 AVE	20,020	36/48		46,130,000
NL-3	30-INCH FM FROM 36-INCH AT W 76 ST/NW 67 AVE TO 48-INCH AT PS 307	1,646	30		2,760,000
NL-4	48-INCH FM CONNECTION IN NW 67 AVE FROM W 84 ST TO NW 122 ST	5,610	48		16,140,000
NL-5	24-INCH FM EXTENSION IN NW 167 ST FROM NW 57 TO 47 AVE IN NW 156 ST	8,000	24		6,120,000
NL-6	24-INCH FM CONNECTION FROM PS 416 TO 30-INCH FM AT NW 171 ST / 67 AVE	8,768	24		6,580,000
NL-7	48-INCH FM ALLOWS PS300 TO PUMP NORTH TO PS1310	900	48		2,900,000
SL-1	54-INCH FM CONNECTION IN SW 232 ST FROM SW 127 AVE TO SDWWTP	16,072	54		49,240,000
SL-2	FORCE MAIN CONNECTION SW 137 AVE FROM SP-1 TO SW 232 ST/SW 127 AVE	25,517	30/36		36,960,000
SL-3	FORCE MAIN CONNECTION IN SW 137 AVE FROM SW 136 ST TO SP-1	14,457	24/30/36		30,810,000
SL-4	FORCE MAIN CONNECTION FROM PS 692 TO SL-2 AT SW 232 ST/SW 127 AVE	33,748	48/54		91,220,000
SL-5	42-INCH FM CONNECTION FROM PS 691 TO PS 692	21,919	42		42,100,000
SL-6	24-INCH FM CONNECTION FROM PS 1073 TO PS 691	8,560	24		6,450,000
			Subtotal-Pipelines		**$882,540,000**
Major Pumping Stations					
CP-187E	UPGRADE TO PS187			x	$100,000,000
NP-416E	UPGRADE TO PS416				$10,000,000
NP-1	NORTH DADE BOOSTER STATION AT NW 183 ST/57 AVE				$15,000,000
SP-522E	UPGRADE TO PS522				$10,000,000
SP-692E	UPGRADE TO PS692				$50,000,000
SP-1073E	UPGRADE TO PS1073				$20,000,000
SP-1	SOUTHWEST DADE BOOSTER STATION AT SW 137 AVE				$75,000,000
WP-1	DORAL BOOSTER STATION			x	$50,000,000
			Subtotal-Major Pumping Station		**$330,000,000**
Local Pumping Stations and Force Mains					
	Estimated 305 pumping stations and 21 miles of 8-16 inch force mains				**$422,100,000**
Wastewater Treatment					
NT-1	NDWWTP - INTERIM WET WEATHER IMPROVEMENTS				$111,643,632
NT-2	NDWWTP - HLD TREATMENT			x	$63,940,937
CT-2	CDWWTP - HLD TREATMENT			x	$173,477,643
ST-1	SDWWTP - TREATMENT PLANT EXPANSION				$73,854,638
ST-2	SDWWTP - HLD TREATMENT				$20,794,503
WT-1	WDWWTP - TREATMENT PLANT			x	$1,418,875,809
WT-2	WDWWTP - PEAK FLOW TREATMENT			x	$533,259,171
			Subtotal-Wastewater Treatment		**$2,395,846,334**
Effluent Disposal					
NE-1	NDWWTP - INJECTION WELL PUMP STATION			x	$37,711,282
NE-2	NDWWTP - INJECTION WELLS			x	$92,851,223
CE-1	CDWWTP - INJECTION WELL PUMP STATION			x	$75,828,087
CE-2	CDWWTP - INJECTION WELLS			x	$167,132,202
CE-3	CDWWTP - CENTRATE DISPOSAL PUMP STATION			x	$20,000,000
CE-4	CDWWTP - CENTRATE DISPOSAL WELL			x	$20,000,000
SE-1	SDWWTP - INJECTION WELL PUMP STATION			x	$3,334,366
SE-2	SDWWTP - INJECTION WELLS			x	$18,570,245
WE-1	WDWWTP - INJECTION WELL PUMP STATION			x	$215,469,044
WE-2	WDWWTP - INJECTION WELLS			x	$445,685,871
			Subtotal Effluent Disposal		**$1,096,582,320**
Biosolids					
CB-2	CDWWTP - CLASS AA - HEAT RECOVERY/THERMAL DRYING				$134,919,500
SB-2	SDWWTP - CLASS AA - HEAT RECOVERY/THERMAL DRYING				$0
WB-1	WDWWTP - CLASS AA - HEAT RECOVERY/THERMAL DRYING				$150,731,533
			Subtotal Biosolids		**$479,237,610**
Reclaimed Water Facilities					
CR-1	CDWWTP - FLORIDAN AQUIFER RECHARGE			x	$25,558,050
SR-1	SDWWTP - FLORIDAN AQUIFER RECHARGE			x	$25,558,050
SR-2	SDWWTP - FPL RECLAIMED WATER PIPELINE			x	$95,000,000
WR-1	WDWWTP - FLORIDAN AQUIFER RECHARGE			x	$25,558,050
			Subtotal Reclaimed Water Facilities		**$171,674,149**
WWTP Storm Surge Protection					
	Installation of concrete walls, flood logs, and water tight doors				**$30,000,000**
	Total Treatment Facilities				*$4,143,340,413*
	PROJECT COSTS TO MEET OCEAN OUTFALL LEGISLATION				**$3,923,110,029**
	Alternative 2B-2 Total				**$5,807,980,413**

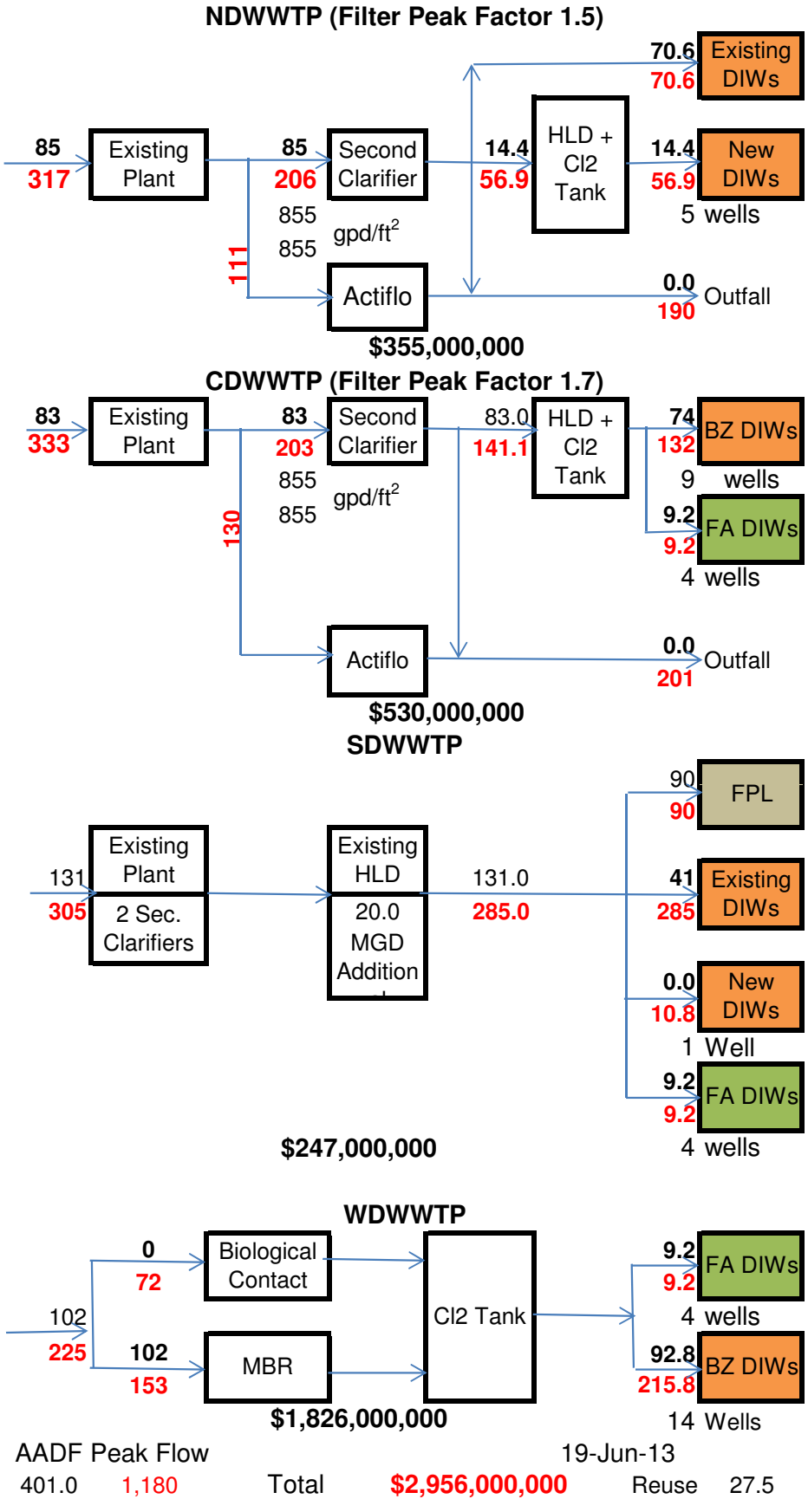
Appendix H

WWTP Alternatives Flow Diagrams

Alternative 1



Alternative 2A - 1 - 1



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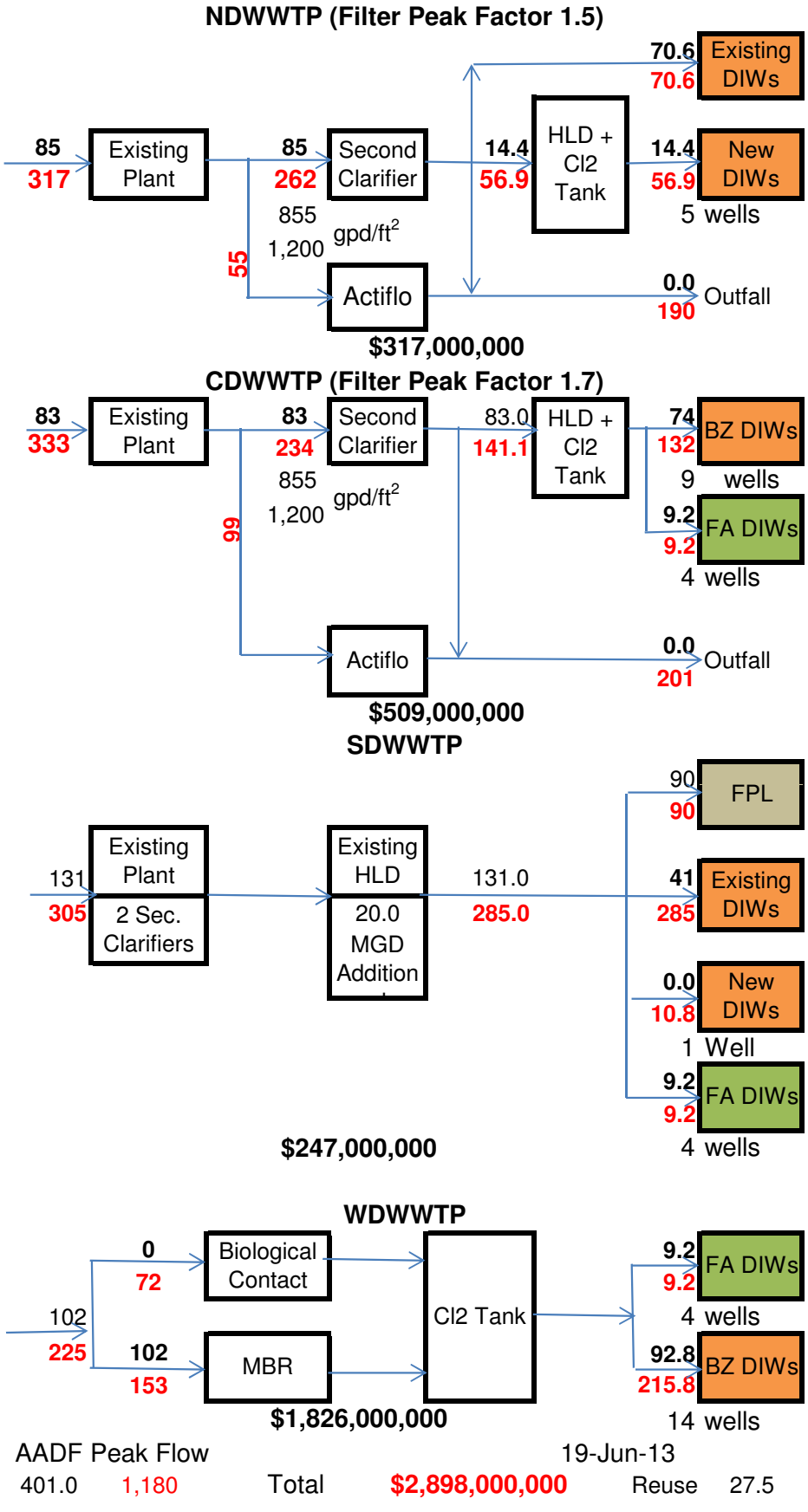

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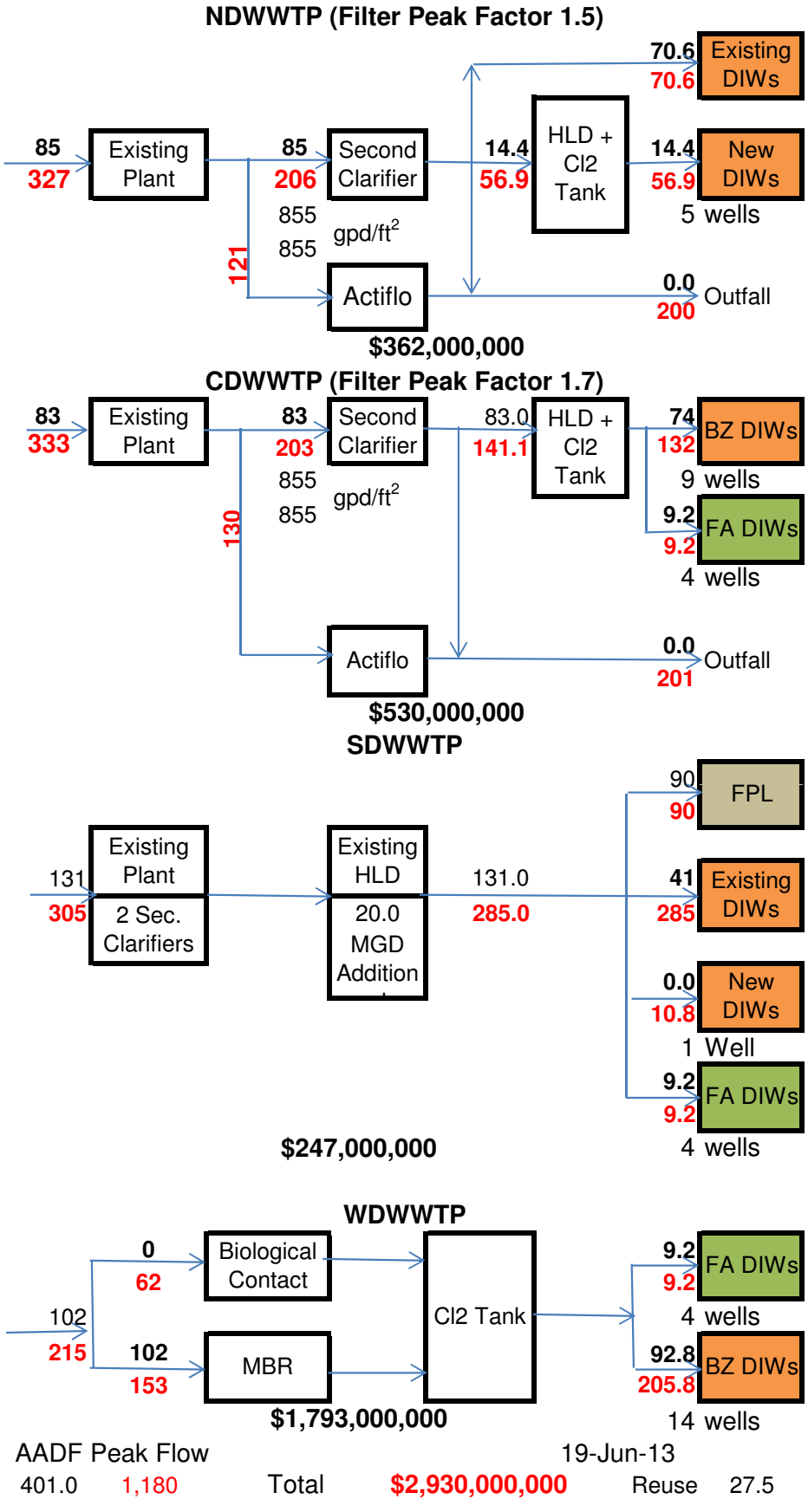

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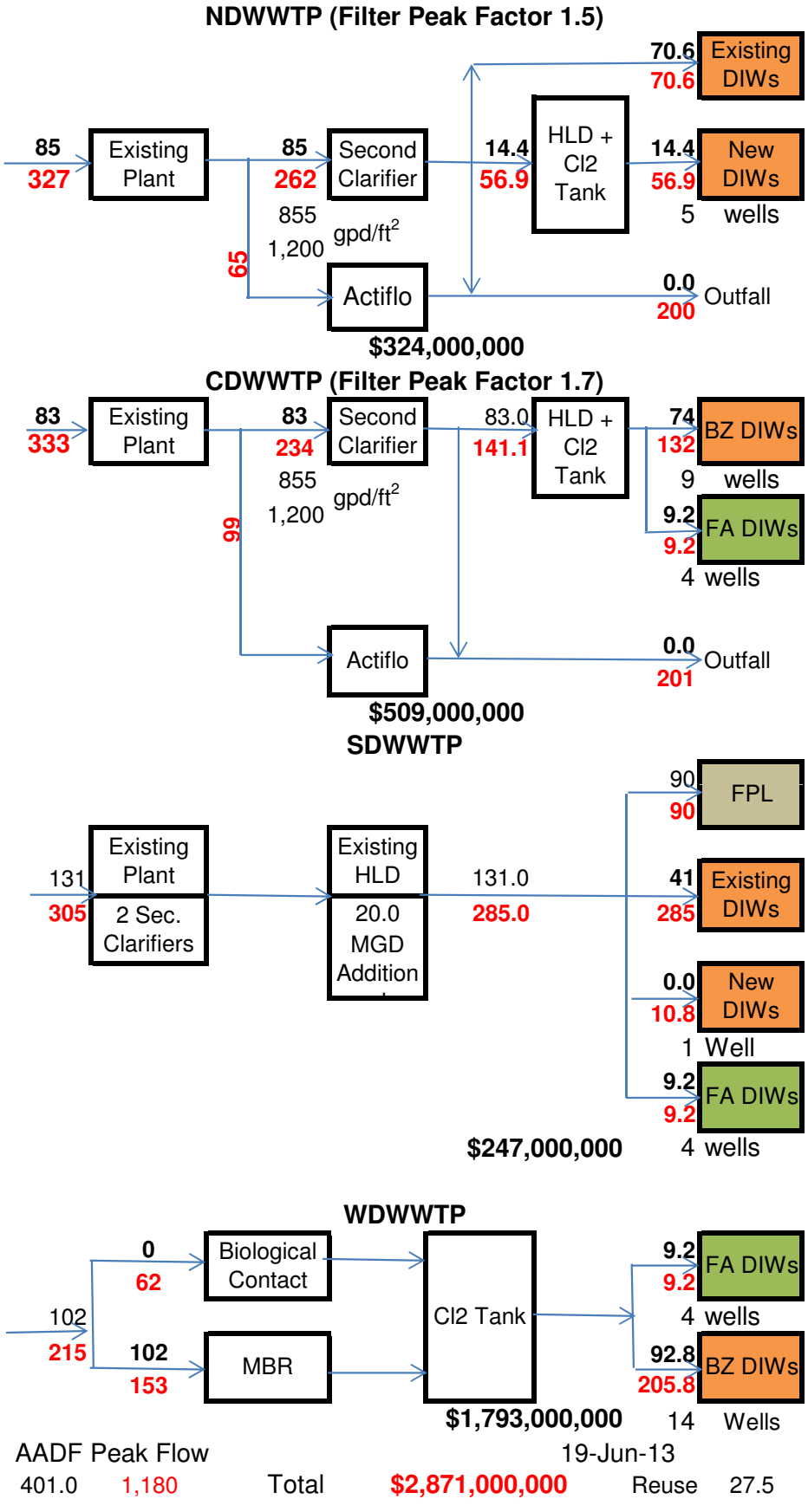
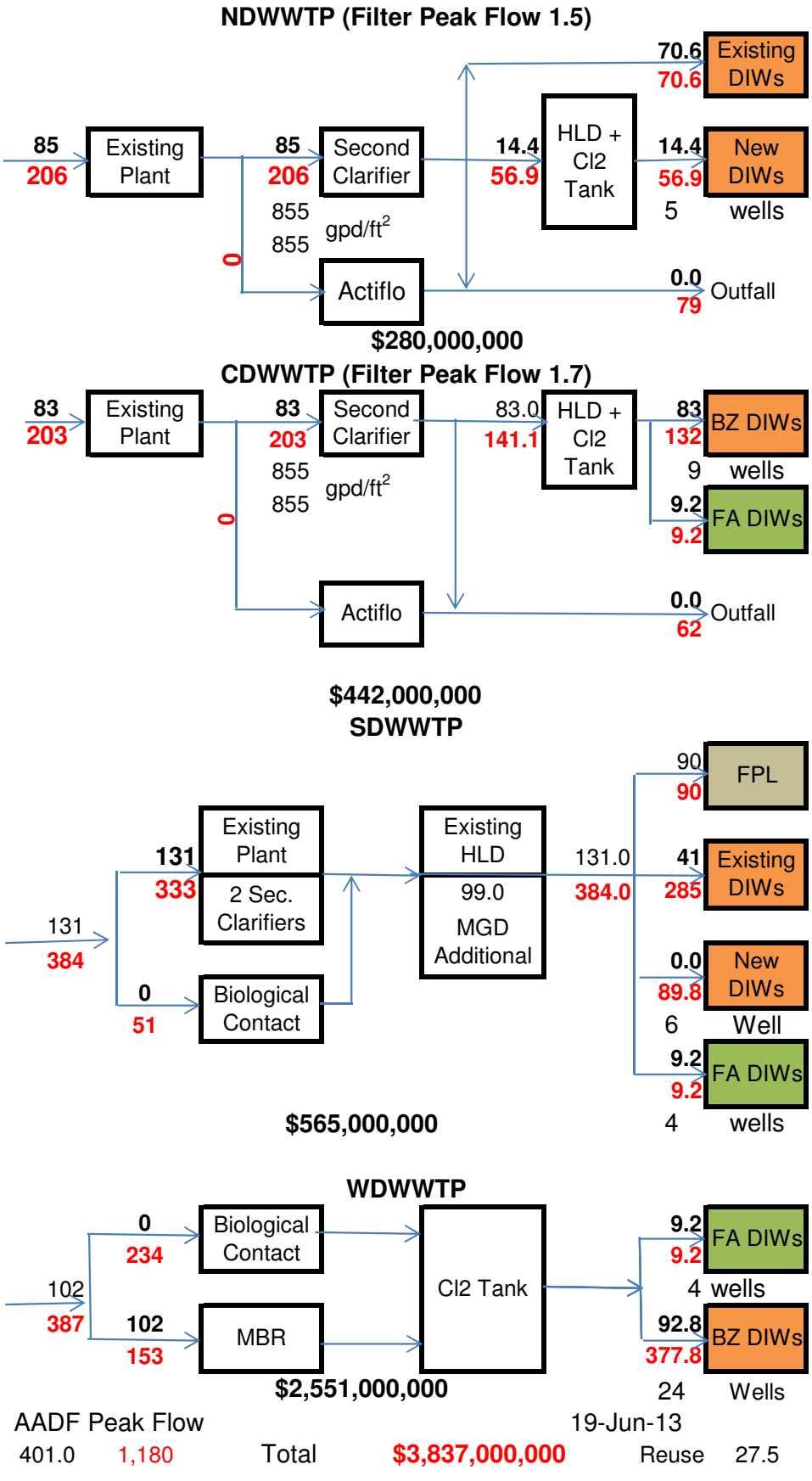
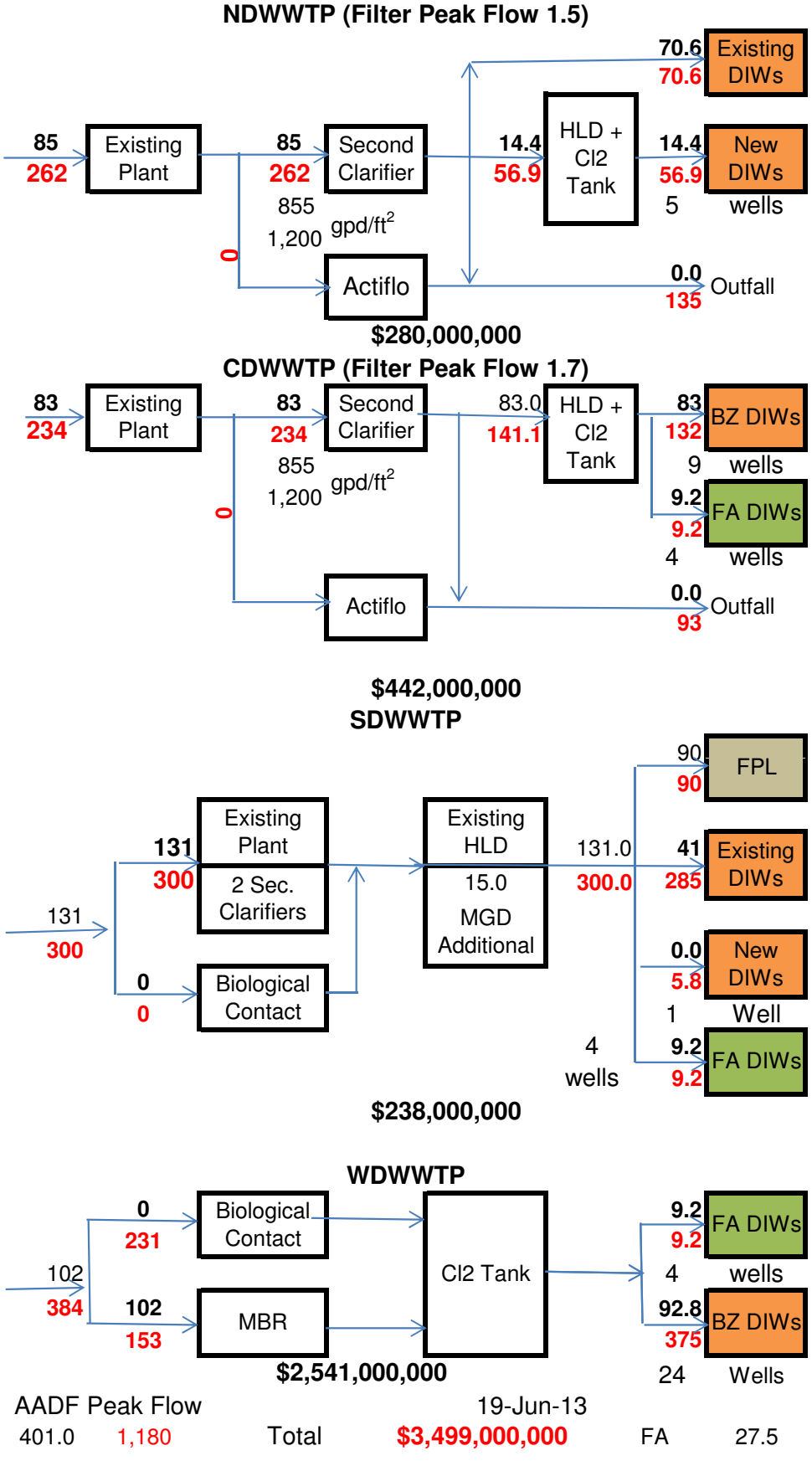


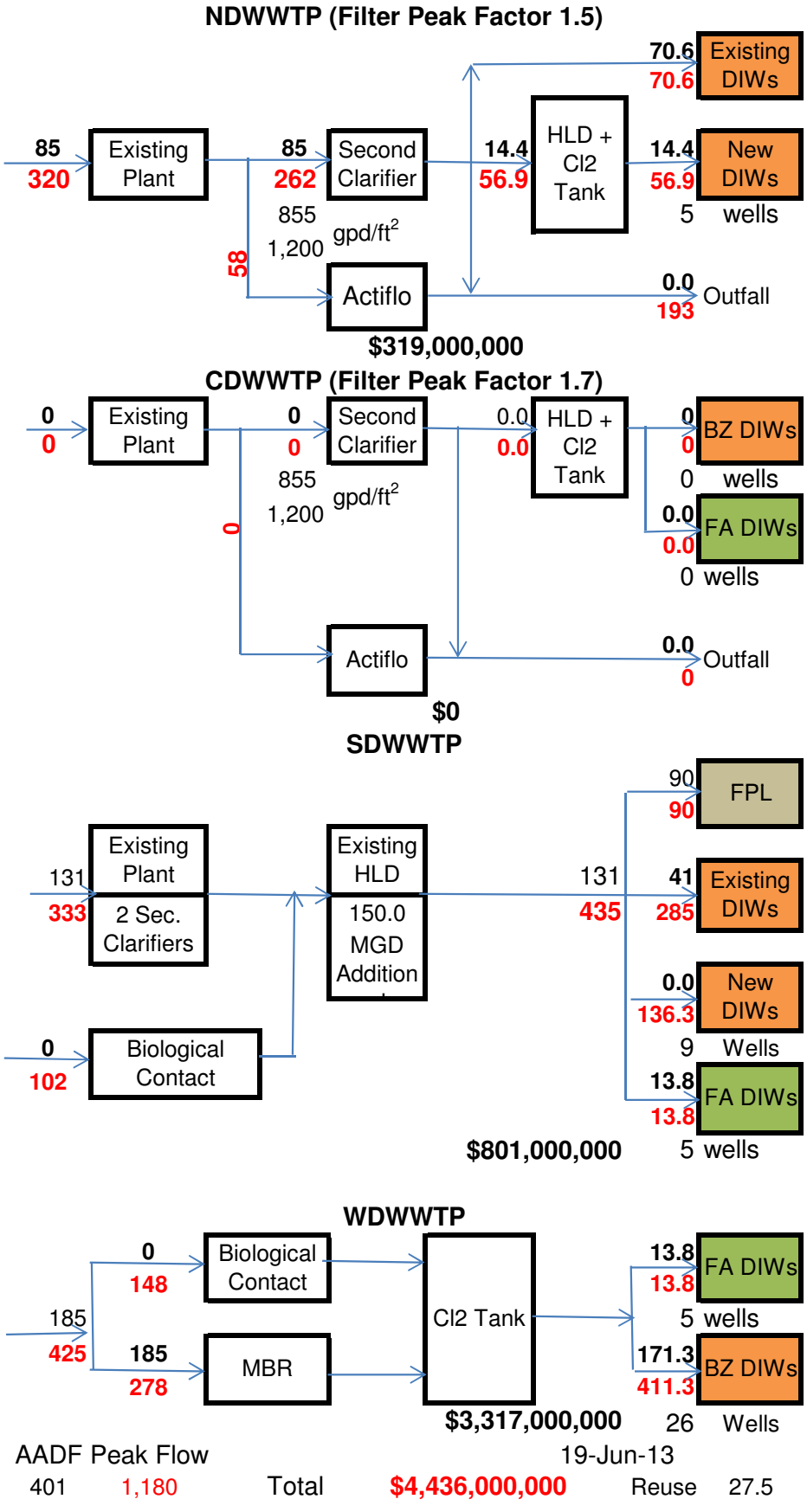
Alternative 2B - 1



Alternative 2B - 2

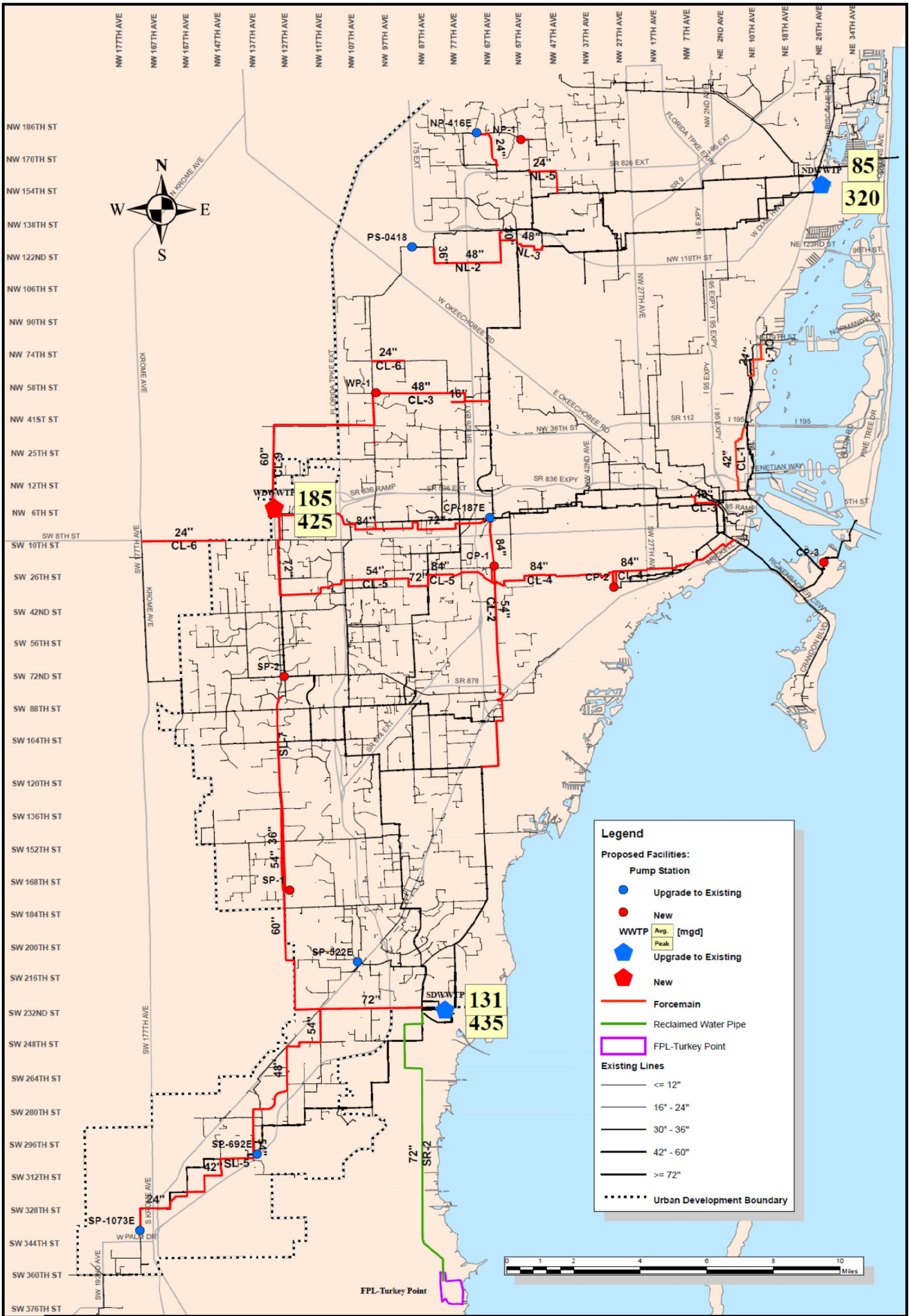


Alternative 3



Appendix I

CDWWTP Decommissioning Transmission System and Cost Breakdown



MIAMI-DADE COUNTY Water and Sewer Department	OCEAN OUTFALL LEGISLATION COMPLIANCE PLAN	Alternative 3 Proposed Facilities	Appendix I

Table 8
Alternative 3
Project Descriptions and Costs

No.	Description	Length, LF	Diameter, in	OOL [1]	Project Cost
Pipelines					
CL-1	NORTH BISCAYNE 42-INCH FM EXT. S TO PS 2 DISCHARGE 48-INCH IN NW 4 ST	11,500	42		23,570,000
CL-2	FM CONNECTION FROM CP-1 (CORAL GABLES) TO 60-INCH AT SW 77 AVE/120 ST	37,715	54	x	105,080,000
CL-3	48-INCH FM CONNECTION IN NW 58 ST FROM NW 107 AVE TO 87 AVE - DORAL	15,370	48	x	41,370,000
CL-4	EAST/WEST 72/84-INCH FM CONNECTION FROM PS 187 TO WDWWTP	40,271	48/72/84	x	157,380,000
CL-5	84-INCH FM CONNECTION IN SW 137 AVE TO CL-4 FM IN NW 6TH ST	7,573	84	x	33,840,000
CL-6	24-INCH FM CONNECTION IN NW 74 ST FROM NW 97 TO NW 107 AVE - DORAL	5,236	24		4,920,000
CL-7	48-INCH FM CONNECTION IN NW 53 ST FROM PS 14 TO NW 72 AVE - DORAL	6,114	16/48	x	16,370,000
CL-8	24-INCH FM CONNECTION IN SW 8 ST FROM SW 152 TO 177 AVE - WEST DADE	13,340	24		11,240,000
CL-9	60-INCH FORCE MAIN FROM WP-1 (DORAL) TO WDWWTP	35,723	60	x	114,640,000
CL-10	60-INCH FORCE MAIN CONNECTION BETWEEN C-1 AND C-2 TO PS1.	5,880	60	x	24,980,000
CL-11	EAST/WEST 72/84-INCH FM FROM CP-1 TO EXIST. 102-INCH FM IN SW 15 RD	39,983	72/84	x	160,000,000
CL-12	EAST/WEST 72-INCH FM FROM CP-1 TO CL-4 IN SW 137 AVE	46,316	72	x	174,150,000
CL-13	NORTH/SOUTH 84-INCH FM INTERCONNECT BETWEEN PS187 AND CP-1	7,931	84	x	35,940,000
CL-14	54-INCH FORCE MAIN FROM CP-2 TO CL-11	3,898	54	x	13,210,000
CL-S	TWIN 16-INCH SLUDGE TRANSFER LINES	93,872	16	x	85,050,000
NL-2	FM EXT. FROM 36-INCH AT NW 87 AVE /W 76 ST TO 48-INCH IN NW 67 AVE	20,020	48		48,360,000
NL-3	30-INCH FM FROM 36-INCH AT W 76 ST/NW 67 AVE TO 48-INCH AT PS 307	1,646	30		2,760,000
NL-4	48-INCH FM CONNECTION IN NW 67 AVE FROM W 84 ST TO NW 122 ST	5,610	48		16,140,000
NL-5	24-INCH FM EXTENSION IN NW 167 ST FROM NW 57 TO 47 AVE IN NW 156 ST	8,000	24		6,120,000
NL-6	24-INCH FM CONNECTION FROM PS 416 TO 30-INCH FM AT NW 171 ST / 67 AVE	8,768	24		6,580,000
NL-7	48-INCH FM ALLOWS PS300 TO PUMP NORTH TO PS1310	900	48		2,900,000
SL-1	72-INCH FM CONNECTION IN SW 232 ST FROM SW 127 AVE TO SDWWTP	16,072	72		64,530,000
SL-2	FORCE MAIN CONNECTION SW 137 AVE FROM SP-1 TO SW 232 ST/SW 127 AVE	25,517	60		75,970,000
SL-3	FORCE MAIN CONNECTION IN SW 137 AVE FROM SW 136 ST TO SP-1	14,457	24/30/36		30,810,000
SL-4	FORCE MAIN CONNECTION FROM PS 692 TO SL-2 AT SW 232 ST/SW 127 AVE	33,748	48/54		91,220,000
SL-5	42-INCH FM CONNECTION FROM PS 691 TO PS 692	21,919	42		42,100,000
SL-6	24-INCH FM CONNECTION FROM PS 1073 TO PS 691	8,560	24		6,450,000
SL-7	54-INCH FM CONNECTION FROM PS1073 TO SP-2	35,723	54		99,580,000
			Subtotal-Pipelines		**$1,495,260,000**
Major Pumping Stations					
CP-187E	UPGRADE TO PS187			x	$100,000,000
CP-1	CENTRAL EAST BOOSTER STATION AT A D BARNES PARK			x	$50,000,000
CP-2	CORAL GABLES BOOSTER STATION TO REROUTE SOUTH			x	$50,000,000
CP-3	BOOSTER STATION AT CDWWTP FOR MIAMI BCH AND KEY BISCAYNE			x	$50,000,000
NP-416E	UPGRADE TO PS416				$10,000,000
NP-1	NORTH DADE BOOSTER STATION AT NW 183 ST/57 AVE				$15,000,000
SP-522E	UPGRADE TO PS522				$10,000,000
SP-692E	UPGRADE TO PS692				$50,000,000
SP-1073E	UPGRADE TO PS1073				$20,000,000
SP-1	SOUTHWEST DADE BOOSTER STATION AT SW 137 AVE				$75,000,000
SP-2	SOUTHWEST DADE BOOSTER STATION AT SW 137 AVE			x	$50,000,000
WP-1	DORAL BOOSTER STATION			x	$50,000,000
			Subtotal-Major Pumping Station		**$530,000,000**
Local Pumping Stations and Force Mains					
	Estimated 384 pumping stations and 26 miles of 8-16 inch force mains				**$531,430,000**
Wastewater Treatment					
NT-1	NDWWTP - INTERIM WET WEATHER IMPROVEMENTS				$111,643,632
NT-2	NDWWTP - HLD TREATMENT			x	$63,940,937
NT-3	NDWWTP - PEAK FLOW TREATMENT			x	$39,065,060
ST-1	SDWWTP - TREATMENT PLANT EXPANSION				$73,854,638
ST-2	SDWWTP - HLD TREATMENT			x	$207,945,030
ST-3	SDWWTP - PEAK FLOW TREATMENT			x	$139,949,761
WT-1	WDWWTP - TREATMENT PLANT			x	$2,238,807,946
WT-2	WDWWTP - PEAK FLOW TREATMENT			x	$418,628,314
			Subtotal-Wastewater Treatment		**$3,293,835,319**
Effluent Disposal					
NE-1	NDWWTP - INJECTION WELL PUMP STATION			x	$37,711,282
NE-2	NDWWTP - INJECTION WELLS			x	$92,851,223
CE-3	CDWWTP - CENTRATE DISPOSAL PUMP STATION			x	$20,000,000
CE-4	CDWWTP - CENTRATE DISPOSAL WELL			x	$20,000,000
SE-1	SDWWTP - INJECTION WELL PUMP STATION			x	$78,328,861
SE-2	SDWWTP - INJECTION WELLS			x	$167,132,202
WE-1	WDWWTP - INJECTION WELL PUMP STATION			x	$236,423,811
WE-2	WDWWTP - INJECTION WELLS			x	$482,826,360
			Subtotal Effluent Disposal		**$1,135,273,740**
Biosolids					
SB-2	SDWWTP - CLASS AA - HEAT RECOVERY/THERMAL DRYING				$193,586,577
WB-1	WDWWTP - CLASS AA - HEAT RECOVERY/THERMAL DRYING				$273,385,624
			Subtotal Biosolids		**$466,972,201**
Reclaimed Water Facilities					
SR-1	SDWWTP - FLORIDAN AQUIFER RECHARGE			x	$38,198,172
SR-2	SDWWTP - FPL RECLAIMED WATER PIPELINE			x	$95,000,000
WR-1	WDWWTP - FLORIDAN AQUIFER RECHARGE			x	$38,198,172
			Subtotal Reclaimed Water Facilities		**$171,396,344**
WWTP Storm Surge Protection					
	Installation of concrete walls, flood logs, and water tight doors				**$17,986,565**
	Total Treatment Facilities				*$5,067,477,605*
	PROJECT COSTS TO MEET OCEAN OUTFALL LEGISLATION				**$5,727,017,133**
	Alternative 3 Total				**$7,642,154,170**

Appendix J

Floridan Aquifer Hydrogeological Model Results

Summary of Floridan Aquifer Groundwater Modeling

Miami-Dade Water and Sewer Department (MDWASD) conducted groundwater flow modeling to determine feasibility of recharge to the Upper Floridan Aquifer (UFA), in Miami-Dade County, FL, in order to comply with Ocean Outfall Legislation (OOL) Florida Statutes Section 403.086(9) and Amendment CS/SB 444. The statute requires all southeast Florida utilities utilizing ocean outfalls for disposal of treated wastewater to cease using the outfalls by year 2025, and requires utilities to beneficially reuse 60% of the diverted outfall flows. MDWASD will require 117.5 million gallons per day (mgd) of beneficial reuse by 2025 as a result of the OOL. MDWASD currently has a Joint Participation Agreement (JPA) with Florida Power and Light (FPL) whereby FPL will use 90 mgd of reuse water from the MDWASD South District Wastewater Treatment Plant (SDWWTP), leaving 27.5 mgd of reuse to be utilized in the county. Per the Florida Department of Environmental Protection (FDEP), reuse to the UFA is considered beneficial. This report summarizes the groundwater modeling results of applying 27.5 mgd of reuse to various locations in Miami-Dade County, with the objective of locating reuse injection wells that would maintain aquifer head pressures at less than 200 pounds per square inch (psi).

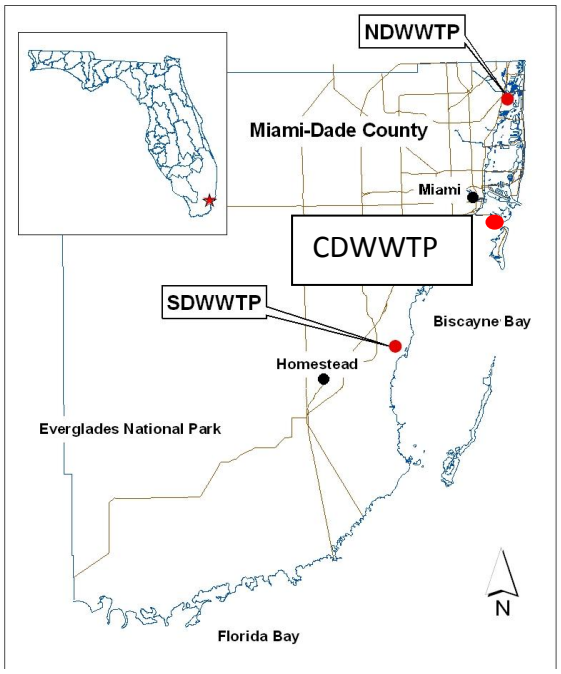


Figure 1. Location Miami-Dade County.

The U.S. Geological Survey (USGS) developed a highly parameterized variable-density groundwater flow and solute transport model to test multiple hypotheses for upward movement of treated wastewater (effluent) injected at the SDWWTP (Dausman et. al., 2010), for the Floridan Aquifer in Miami-Dade County. The model was designed to assess risk to a drinking water aquifer above the zone of injection at the SDWWTP. The model was developed using SEAWAT (a computer program for the simulation of three-dimensional variable-density groundwater flow and solute transport) Version 4 (Langevin et al. 2007). The SEAWAT model grid was comprised of 17 layers, with 127 rows and 163 columns. The model layers primarily corresponded to hydrostratigraphic layers as defined by Reese and Richardson (2008). The horizontal discretization was more refined at the SDWWTP, with cell sizes of 30 by 30 meters, increasing gradually toward the model edge (approximately 4500 feet by 4500 ft). The model encompassed a large area to ensure that simplifications made at model boundaries had minimal effects near the SDWWTP. The model simulated a time period spanning January of 1983 through December of 2005 using an initial steady-state stress period, followed by 275 monthly transient stress periods. The model simulated the transport of two species, salinity and relative effluent concentration.

Constant-head cells representing the Atlantic Ocean were assigned to the model grid based on the intersection of sea floor bathymetry with the model grid. The top layer of the model, representing the surficial aquifer system, also contained constant-head cells. Immediately underlying the surficial aquifer system is the Hawthorne Formation, a thick semi-confining unit that hydraulically isolates the surficial aquifer from the Floridan aquifer system. Therefore, the constant-head cells representing the surficial aquifer system are likely to have little effect on the Floridan aquifer system. Below layer 1, only layers 4 and 6 contain constant-head boundaries on the landward side of the model. Water levels and concentrations for these constant-head boundaries were estimated as part of the calibration process. Heads for the northernmost boundary in layers 4 and 6 were estimated as one parameter; heads for the southernmost boundary in layers 4 and 6 were estimated as a separate parameter. Spatial variations of hydraulic conductivity were determined using the pilot point method. These variations were employed for both horizontal and vertical hydraulic conductivity in layers 4

through 12. The hydraulic conductivity of other model layers (Surficial, Hawthorn, Boulder Zone LFA and Lower Confining Unit (LCU), as well as porosity and storage in all 17 layers, is assumed to be spatially uniform and is represented by a single parameter in each case in the model. Please refer to Dausman et.al., 2010, for the model documentation and calibration.

Table 1. Estimated parameters in USGS SEAWAT model (from Dausman et. Al., 2010)

Estimated Parameter(s)	Parameterization methodology	Number of parameters used
Vertical/Horizontal Hydraulic Conductivity for layers 1-3, 13	Uniform	3
Horizontal Hydraulic Conductivity for layers 14-17	Uniform	2
Vertical Hydraulic Conductivity for layers 14-17	Uniform	2
Vertical/Horizontal Hydraulic Conductivity for layers 4-5, 7-12	Pilot Points	1164
Horizontal Hydraulic Conductivity for layer 6	Pilot Points	194
Vertical Hydraulic Conductivity for layer 6	Pilot Points	194
Porosity for layers 1-17	Uniform	17
Storage for layers 1-17	Uniform	17
Water Levels-Constant-head cells along north in first 9 columns in layers 4 and 6	Uniform	1
Water Levels-Constant-head cells along south in first 9 columns in layers 4 and 6	Uniform	1
Interface thickness	Single Value	1

In order to allow MDWASD to run the model, and to reduce the run times for the USGS SEAWAT model, MDWASD contracted MWH to reconfigure the model into the graphical user interface (GUI) Groundwater Vistas (GWV) version 6. MWH formatted the model input files to

GWV compatibility, and refined the model spatial discretization in the proximity of the Central District WWTP (CDWWTP), and verified that model calibration had not been altered (MWH, 2011 – attached). The grid was refined to approximately 70 feet by 70 feet in the vicinity of the CDWWTP, and MDWASD aquifer storage and recovery (ASR) systems in the UFA located at the Southwest and West wellfields. No hydrogeological input parameters were revised or

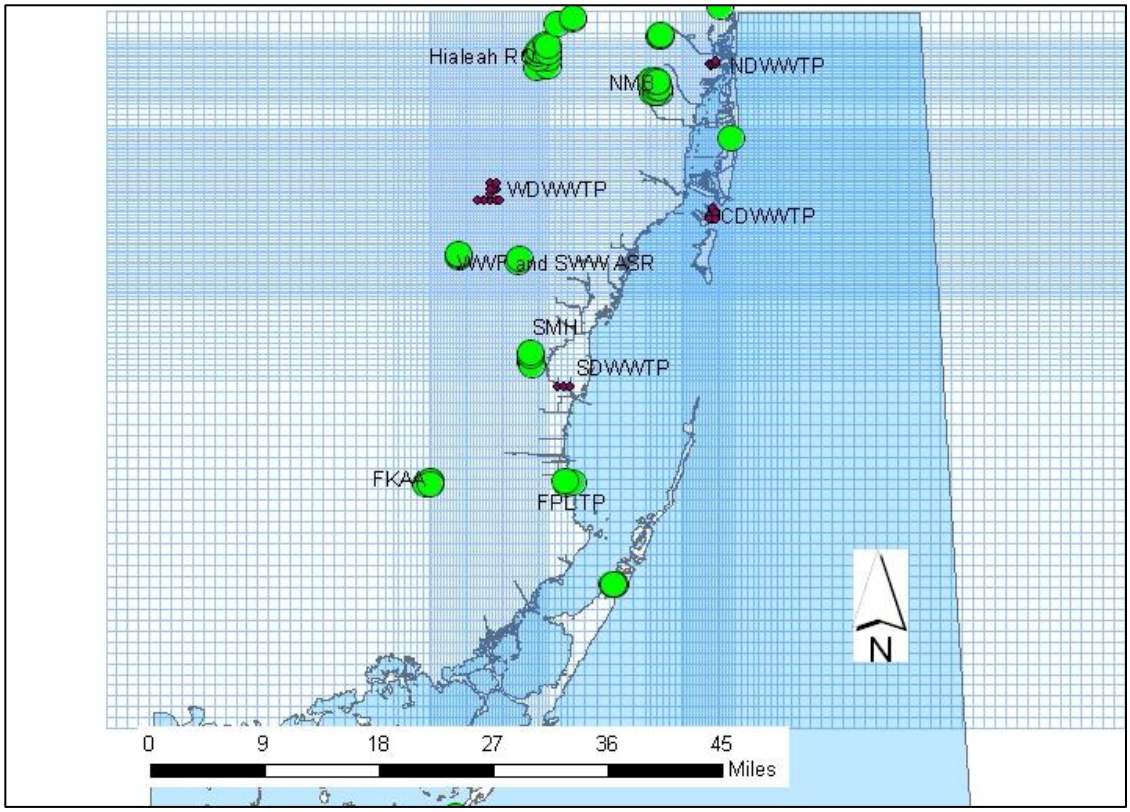


Figure 2. blue grid lines indicate model spatial extent and grid refinement. Green dots are permitted existing legal users for the UFA; red dots are located on MDWASD wastewater treatment plant sites as indicated.

calibrated as a result of the MWH reconfiguration. Please refer to the attached MWH report for a complete review of the reconfiguration process. MDWASD then used the MWH reconfigured model to simulate recharge to the UFA (layer 4 in the model) in various locations in Miami-Dade

County, specifically at MDWASD wastewater treatment plants (Figure 2). MDWASD staff ran the model initially for a 10 year simulation period, in order to assess model run times, and time required to reach steady state conditions. Due to extremely long transient model run times, MDWASD completed the evaluations of the various UFA recharge scenarios using a steady state condition in order to evaluate as many scenarios as possible. (Comparison of head values at the end of the 10 year transient run and the steady state run indicated virtually no head difference). All recharge wells were located in layer 4 in the model (UFA), and were first located in a GIS well shape file, and then imported into the model through GWV, in order to locate the recharge wells on MDWASD property as much as possible. Various recharge rates at the CDWWTP, SDWWTP, North District WWTP (NDWWTP), and the planned West District WWTP (WDWWTP) and well configurations were run, in order to narrow down possible feasible scenarios. Model output files were evaluated for head pressures in the UFA. Discussions with MDWASD engineers indicated aquifer pressures less than 200 psi and wells located on each plant site would be the most feasible and preferred options. It was assumed for this modeling report that each injection well would have a recharge rate of 2.5 mgd. A summary of selected feasible model runs is included as Table 2.

Table 2. Summary of selected model scenarios run for 27.5 mgd recharge option.

	Location					
	ND	**CD**	**SD**	**WD**	**TOTAL**	**Comments**
Flow (mgd)	6.9	6.9	6.9	6.9	27.5	Flows evenly distributed between plants: 3 wells per site at 2.5 mgd/well. All wells located on plant sites.
	27.5				27.5	All flows at ND. Exceeded 200 psi maximum pressure, with wells located off site.
		27.5			27.5	All flows at CD. Exceeded 200 psi maximum pressure.
			27.5		27.5	All flows at SD. Max pressure on site 493 psi. May require off site wells and pipelines to remain < 200 psi.
				27.5	27.5	All flows at WD. Will require off site pipelines and wells to remain < 200 psi.
		9.2	9.2	9.2	27.5	Flows evenly distributed between CD, SD and WD.
	9.2		9.2	9.2	27.5	Flows evenly distributed between ND, SD and WD.
		10.0	10.0	7.5	27.5	Flows at CD, SD and WD: psi's <180; wells all located on plant sites.

Model results were imported into GIS and maps produced indicating aquifer head contours (blue indicates increase in head, red indicates decrease in head), and maximum pressures for each recharge site. Existing legal users permitted for UFA use by the South Florida Water Management District (SFWMD) are also indicated on the maps, with the associated drawdowns (red contour lines) as a result of permitted withdrawals. Locating all recharge wells at a single facility resulted in pressures well exceeding the <200 psi threshold (Figure 3). In order to achieve the pressure threshold, recharge wells had to be located off site from a plant site.

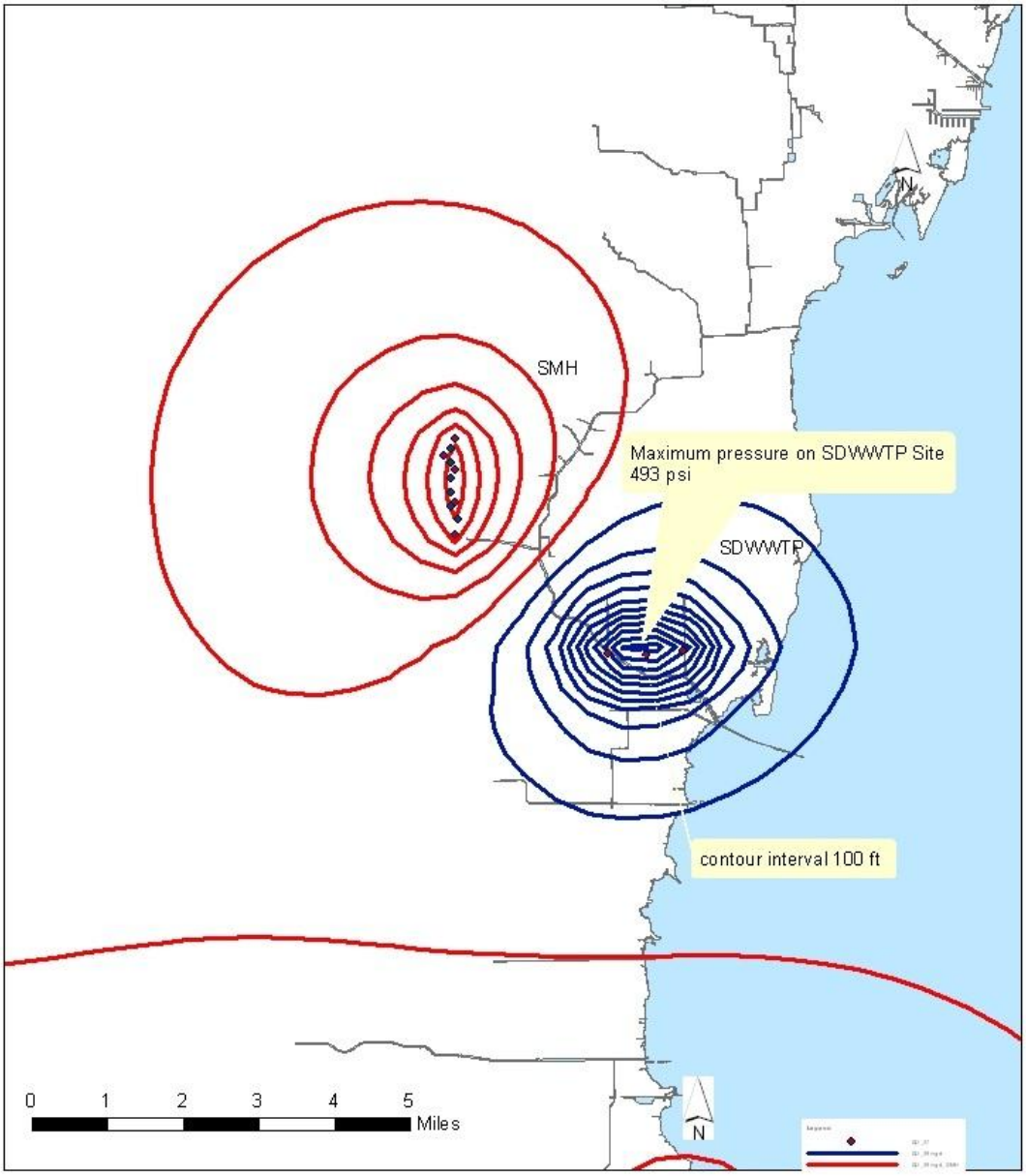


Figure 3. All recharge (27.5 mgd) at SDWWTP. Pressures exceeded the 200 psi preferred threshold.

Due to space constraints at the NDWWTP site, this location was ruled out as a feasible location for recharge wells. Many various scenarios were run, with distributing the 27.5 mgd between SDWWTP, CDWWTP and the planned WDWWTP resulting in pressures < 200 psi for all sites, and recharge wells remaining located on site (Figure 4).

Therefore, based on the preliminary modeling results, distributing the 27.5 mgd recharge flows between SDWWTP, CDWWTP and WDWWTP is the recommended configuration.

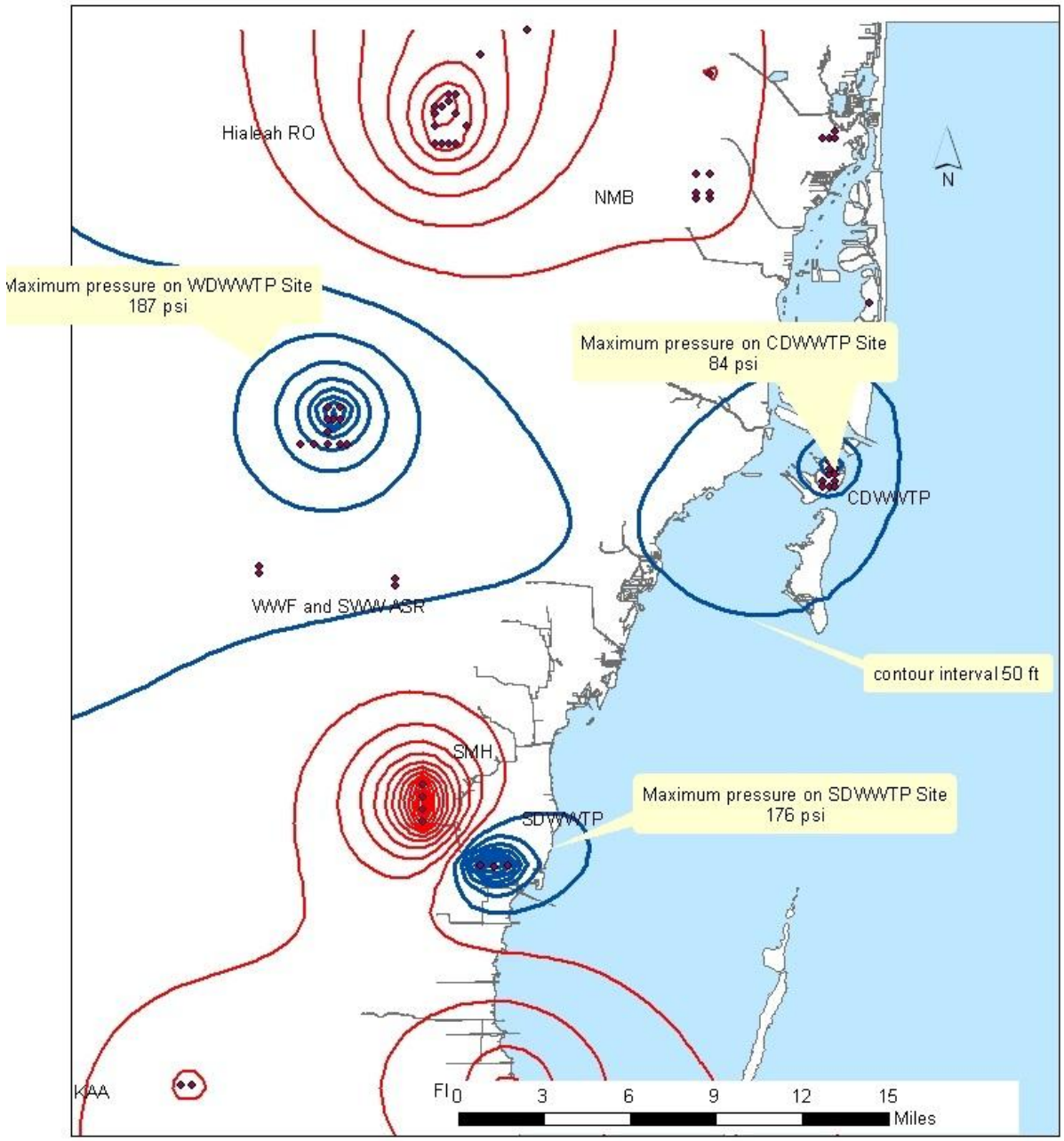


Figure 4. Recharge (27.5 mgd) distributed between SDWWTP (9.2 mgd), CDWWTP (9.2 mgd) and the planned WDWWTP (9.2 mgd). Pressures are below the 200 psi preferred threshold.

There are no Floridan aquifer wells in the vicinity of CDWWTP and WDWWTP, and therefore all aquifer hydrogeologic parameters were estimated based on the methods described in Dausman et. al., 2010. Actual recharge pressures may vary significantly from the modeled pressures if aquifer hydrogeologic properties obtained from future exploratory wells is different than the calibrated values. For example, if actual hydraulic conductivity values for the UFA in the vicinity of the WDWWTP are higher than the calibrated values, then injection pressures would be less than modeled. Conversely, if hydraulic conductivity values are lower than what was calibrated, injection pressures would be higher. Due to the limited data available for the Floridan aquifer in Miami-Dade County, the model results should be interpreted as approximate pressure results, and should be used to only suggest recharge volumes and locations at selected sites. Model results should not be used for any actual recharge well and facility design. Exploratory wells and site specific hydrologic testing must be completed prior to any final engineering designs.

References:

Dausman, A. M., J. Doherty, C. D. Langevin, and J. Dixon. 2010. Hypothesis testing of buoyant plume migration using a highly parameterized variable-density groundwater model at a site in Florida, USA. Hydrogeology Journal, 18:147-160.

Langevin CD, Thorne D., Dausman AM, Sukop MC, Guo W. 2008. SEAWAT Version 4: A Computer Program for Simulation of Multi-Species Solute and Heat Transport. U.S. Geological Survey Techniques and Methods: Book 6, Chapter A22, 39 p.

MWH. 2011. Technical Memorandum Contract 07<WHA006 Tasl3 – Scope Task 1 – United States Geological Survey (USGS) SEAWAT Model Reconfiguration. 28 pps.

Reese RS, Richardson E. 2008. Synthesis of the hydrogeologic framework of the Floridan Aquifer System and delineation of a major Avon Park permeable zone in central and southern Florida. U.S. Geological Survey Scientific Investigations Report 2007-5207.

M E M O R A N D U M

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Date: September 27, 2011

From: Richard Walther, P.G.

Subject: Contract 07MWHA006 Task 3 -
Scope Task 1 - United States Geological Survey (USGS) SEAWAT Model Reconfiguration

1.0 INTRODUCTION

Miami-Dade County Water and Sewer Department (MDWASD) contracted with MWH Americas, Inc. to incorporate the SEAWAT groundwater model created by the USGS, as described in: Dausman, A.M., Doherty, J., and Langevin, C.D. (2009) *Hypothesis testing of buoyant plume migration using a highly parameterized variable-density groundwater model at a site in Florida, USA*, Hydrogeology Journal (2010) 18: 147-160, into the graphical user interface (GUI) Groundwater Vistas version 6. The USGS SEAWAT groundwater model is currently formatted to run from a DOS command prompt window.

It was agreed upon within the Scope of Work that no hydrogeological input parameters would be revised or calibration efforts will be performed as part of this effort. The purpose of this project is to import the USGS SEAWAT groundwater model into a commonly used GUI for the ease of manipulation by MDWASD staff. The scope of the work is to:

1. Format the model input files to Groundwater Vistas compatibility.
2. Import model input files into Groundwater Vistas.
3. Refine model spatial discretization in the proximity of the Central District WWTP (CDWWTP).
4. Verify that model calibration has not been altered.
5. Summary of the results of the model reconfiguration.

2.0 USGS SEAWAT MODEL FORMAT AND DESCRIPTION

The USGS SEAWAT model files were received via DVD from MDWASD, which contained three working SEAWAT Version 4 models developed by the USGS. These model folders were labeled:

- Calib_run_1
- Calib_run_2
- Calib_run_3

Each model (Calib_run_1, 2, & 3) is calibrated differently to test the hypothesis regarding plume migration pathways from injection wells at the South District WWTP. Each folder (Calib_run_1, 2, & 3) contains 2 models; a calibrated model (such as Calib_run_1), plus a sub-folder called "unigrid_link". The sub-folder “unigrid_link” contains a course, uniform grid steady-state model used to calculate initial concentrations and heads, which are then used in the calibrated model. The calibrated model is a transient model with a variable grid centered at the South District WWTP (i.e. Calib_run_1, 2, & 3.)

Model-independent parameter estimation software, PEST, runs the models through a PEST control file, which first runs the sub-folder “unigrid_link” model to produce initial heads and concentrations. The pest control file then runs the Calib_run_1, 2, & 3 model with the calculated initial heads and concentrations from the “unigrid_link” model in each corresponding sub-folder. Alyssa Dausman at the USGS was contacted to verify that MWH assumptions regarding the operation and structure of the USGS SEAWAT model were correct prior to running and assessing the model input files.

MWH ran all three models with the PEST control file through a command prompt window to ensure that all three models ran properly with no conversion errors. Each model group took approximately 32 minutes to run on a quad-Core 64-bit desktop computer running the Windows 7 operating system. A decision was made by MDWASD, after discussion with the USGS, to proceed with the “unigrid_link” uniform, course grid steady-state model contained within the Calib_run_1 folder for manipulation into a format compatible with Groundwater Vistas 6 .

The unigrid_link model within the Calib_run_1 folder is a steady-state variable-density groundwater flow and solute transport model developed using SEAWAT Version 4 (Langevin et al., 2007). The model has uniform grid spacing and is comprised of 17 layers, with 127 rows and 163 columns, with heterogeneous aquifer properties, initial heads and initial concentrations.

3.0 FORMAT MODEL INPUT FILES TO GROUNDWATER VISTAS COMPATIBILITY

An evaluation of the Calib_run_1 unigrid_link model files was completed to determine which input files were used within the USGS SEAWAT model and if the file format was compatible with Groundwater Vistas 6. The input files used in the Calib_run_1 unigrid_link model and Groundwater Vistas 6 compatibility status are detailed in **Table 1**.

The majority of the MODFLOW model files used in the Calib_run_1 unigrid_link model were in a compatible format suitable for direct importation into Groundwater Vistas 6 through the provided MODFLOW *.nam file, which contains the basic model commands. The *.lpf model file contained links to external matrix files of hydraulic parameters, not recognized by Groundwater Vistas 6 for direct importation through the MODFLOW *.nam file. These matrix files are recognized by Groundwater Vistas 6, but require manual importation into their respective properties and layers within the Groundwater Vistas 6 user interface.

Minor changes to the MT3DMS (transport model) root file names were required to render them capable of direct importation into Groundwater Vistas 6 using the MT3DMS *.btn file, which contains the basic transport model commands. The *.btn model file also required minor modification for importation into Groundwater Vistas 6. The .btn model file also contained links to external matrix files of hydraulic parameters and initial concentrations, not recognized by Groundwater Vistas 6 for direct importation through the MT3DMS *.btn file. These matrix files are also recognized by Groundwater Vistas 6, but require manual importation into their respective properties and layers within the Groundwater Vistas 6 user interface.

The SEAWAT Version 4 *.vdf file is in a standard format, but Groundwater Vistas 6 does not have the functionality to directly import this file. The commands within the *.vdf file require manual entry into Groundwater Vistas 6, which was confirmed by Jim Rumbaugh of Environmental Simulations Inc. (ESI), who created, maintains and supports Groundwater Vistas software.

Table 1
Input Files Used in the Calib_run_1 "unigrid_link" Model Located in the Calib_run_1 Folder

Model File	Input Package	Groundwater Vistas Compatible?	Brief Description of File
MODFLOW 2000 Files			
fas_tr_trans2.nam	Name	Y/N	Tells the model which files to use. Not all files are formatted for Vistas.
fas_tr.bas	Basic	Y	Details groundwater flow processes.
fas_tr.dis	Discretization	Y	Temporal and spatial discretization.
fas_tr_mod.lpf	Layer property flow	N	Linked to external matrix files containing horizontal and vertical hydraulic conductivities, and storage for each model layer.
fas_tr.wel	Well	Y	No wells are used in the model.
fas_tr_mod.chd	Constant heads	Y	Constant water level heads in layer 1, boundaries, and random cells.
fas_tr.oc	Output control	Y	Specifies output data and format per stress period.
fas_tr.pcg	Pre-Conditioned Conjugate Gradient Solver	Y	Solves equations to calculate modeled head.
MT3DMS Files			
fas_tr_mod2.btn	Basic transport	Y/N	Includes basic MT3DMS transport functions. Linked to external porosity and initial concentrations matrix files for each model layer.
fas_tr.adv	Advection	Y	Transport mechanism of contaminants.
fas_tr.ssm	Sink and source mixing	Y	Represents solute mass entering and leaving the model domain.
fas_tr.gcg	Conjugate Gradient Solver	Y	Solves equations to calculate transport.
SEAWAT2000 Version4 Files			
fas_tr.vdf	Variable density flow	N	Solves the SEAWAT variable-density flow equation. Must be entered into Vistas manually.

4.0 IMPORT MODEL INPUT FILES INTO GROUNDWATER VISTAS

The provided *.nam and revised *.btn root file name packages were directly imported into Groundwater Vistas 6. Input parameters that could not be directly imported into Groundwater Vistas 6 through the *.nam and *.btn packages were manually imported into the appropriate properties within Groundwater Vistas 6. An exception to the input files within the *.nam and *.btn was made in regard to the initial heads and initial concentrations files. The initial heads and concentrations files, used by the USGS Calib_run_1 unigrid_link model, were calibrated during the initial model simulation to produce calibrated values for the Calib_run_1 variable grid model. The calibrated heads and concentrations files (fas_tr.hds and mt3d001.ucn) produced by the USGS Calib_run_1 unigrid_link model were imported into the Groundwater Vistas 6 model as the initial model conditions. This was confirmed and approved by Alyssa Dausman at the USGS. Additionally, the USGS Calib_run_1 unigrid_link model produced storage parameter reference files to be used with the transient, variable grid model contained in the Calib_run_1 folder. The storage parameter reference files were not included in the fas_tr_mod.lpf file, as they are not used in the steady-state model. However, the storage data was added to the Groundwater Vistas 6 model in case that model is revised to a transient model at a later date.

Additionally, the wells associated with the West ASR Wellfield (WWF) and Southwest ASR Wellfield (SWWF) and the potential injection well at the CDWWTP were added to the well input file as monitor wells in their respective layers. Well flow values may be added to the wells within the well input file through Groundwater Vistas 6, at a later date by MDWASD.

To facilitate the use of geographic information systems (GIS) to visualize, analyze, and present model input and output, the model grid was projected in the Florida State Plane East, NAD 83 coordinate system. This was accomplished by establishing the origin of the model from the grid shapefile included with the provided USGS SEAWAT model files and inputting this data into Groundwater Vistas 6. The model grid used in the USGS Calib_run_1 unigrid_link model is provided in **Figure 1**.

After manual importation of all input parameters, the parameters were spot checked against the provided input file to verify that parameter values were recognized by the appropriate cells within Groundwater Vistas 6. SEAWAT Version 4 run options and parameters contained within the *.vdf package were manually entered into the Groundwater Vistas 6 model.

The root file name in Groundwater Vistas 6 was changed to unigrid_1 and SEAWAT Version 4 input files were created and then run in Groundwater Vistas 6. The model took less than a minute to run on a dual-core 64-bit desktop computer running the Windows 7 operating system with no convergence or other errors.

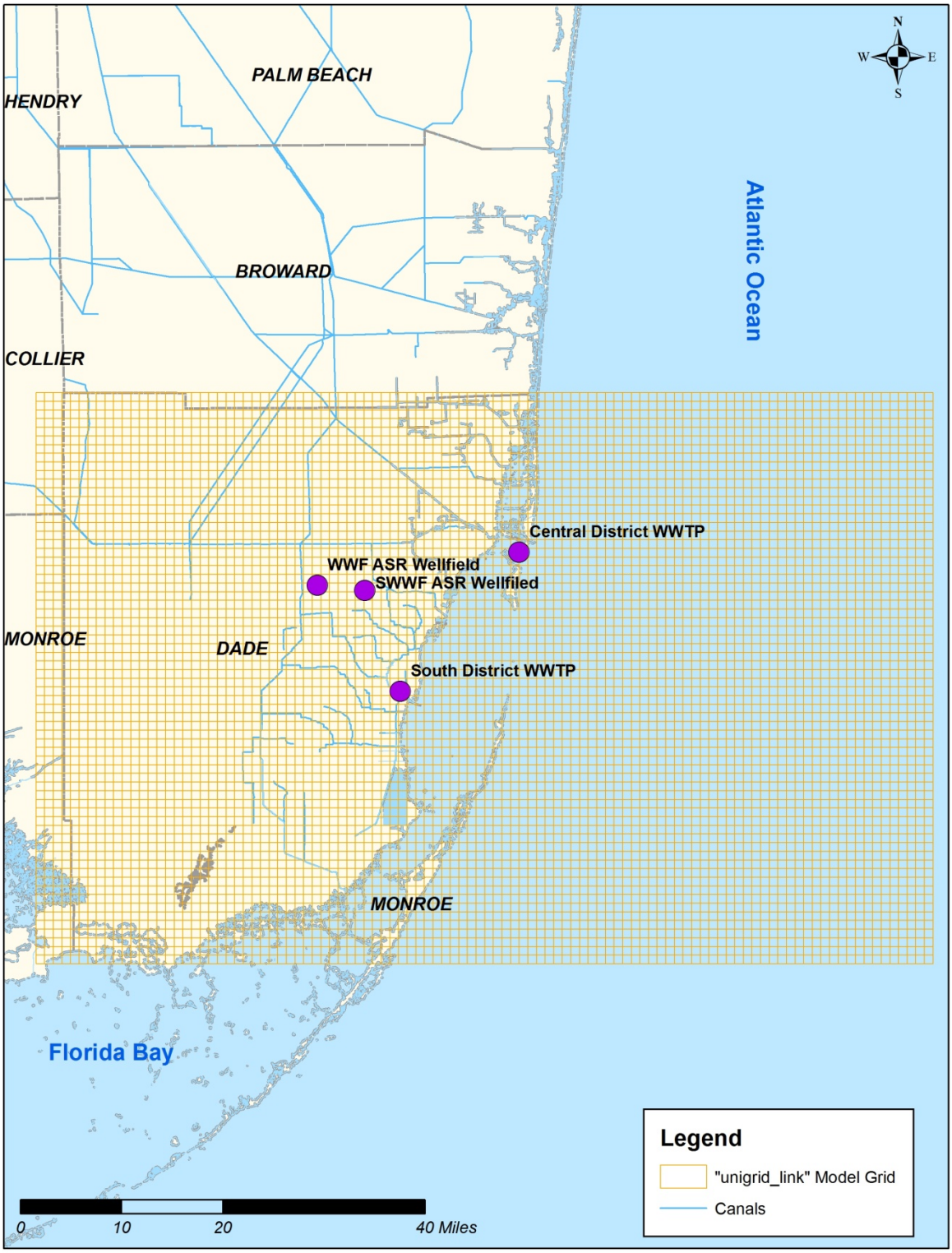


Figure 1
USGS Calib_run_1 unigrid_link Model Grid

4.1 Model Calibration Verification After Conversion to Groundwater Vistas 6

To determine that the modeled output heads (unigrid_1.hds) from Groundwater Vistas 6 matched the USGS Calib_run_1 unigrid_link heads (fas_tr.hds), the difference between both binary head files were compared. The heads were subtracted from each other and the difference contours (in feet) between the Groundwater Vistas 6 (unigrid_1.hds) and USGS (fas_tr.hds) binary head files are displayed in **Figures 2** through **17**, for layers 2 through 17, respectively. Layer 1 contains constant head boundary conditions producing no difference in heads between the model simulations.

The difference in the calculated head between both models averages 0.01 to 0.001 feet over all modeled layers (except layer 1). This minimal difference in head between modeled results is likely due to the importation to Groundwater Vistas 6 or use of different computers.

The local calibration at the CDWWTP, SWWF ASR wellfield and the WWF ASR wellfield was verified by inserting a monitor well within the Lower Floridan aquifer (layer 16) at the CDWWTP location, and within the Upper Floridan aquifer (layer 4) at the SWWF ASR and WWF ASR wellfields and recording head for both binary head files. Both binary head files, unigrid_1.hds (new) and fas_tr.hds (original) were separately imported into Groundwater Vistas and the head for each simulation was recorded at the monitor wells. The head values were exported, compared and quantified to provide a statistical analysis between the two head values to determine if the calibration from the original USGS SEAWAT model remained valid. The head values between the GWV Model unigrid_1.hds (new) and the USGS Model fas_tr.hds (original) are compared in **Table 2**. A statistical analysis between the unigrid_1.hds (new) and fas_tr.hds (original) is provided in **Table 3**.

Table 2
Comparison of Head Values Between the USGS Model and GWV Model Head Files

Location Name	Model Layer	Head (feet)		Head Difference (feet)
		Fas_tr.hds (original)	Unigrid_1.hds (new)	
Central District WWTP	16	-0.619	-0.600	-0.019
WWF ASR Wellfield	4	48.139	48.131	0.008
SWWF ASR Wellfield	4	47.143	47.126	0.017

Table 3
Statistical Analysis Between the USGS Model and GWV Model Head Files

Statistic	Value
Residual Mean Head (Feet)	0.002
Residual Standard Deviation (RMS)	0.015%
Normalized Residual Standard Deviation (NRMS)	0.019%
Correlation Coefficient	1.000

Based on the qualitative and quantitative analysis of the GWV Model unigrid_1.hds (new) and USGS Model fas_tr.hds (original) head files, the Groundwater Vistas 6 model results are considered to mimic the results of the USGS unigrid_link model, indicating that the USGS Calib_run_1 unigrid_link model has been successfully imported into Groundwater Vistas 6.

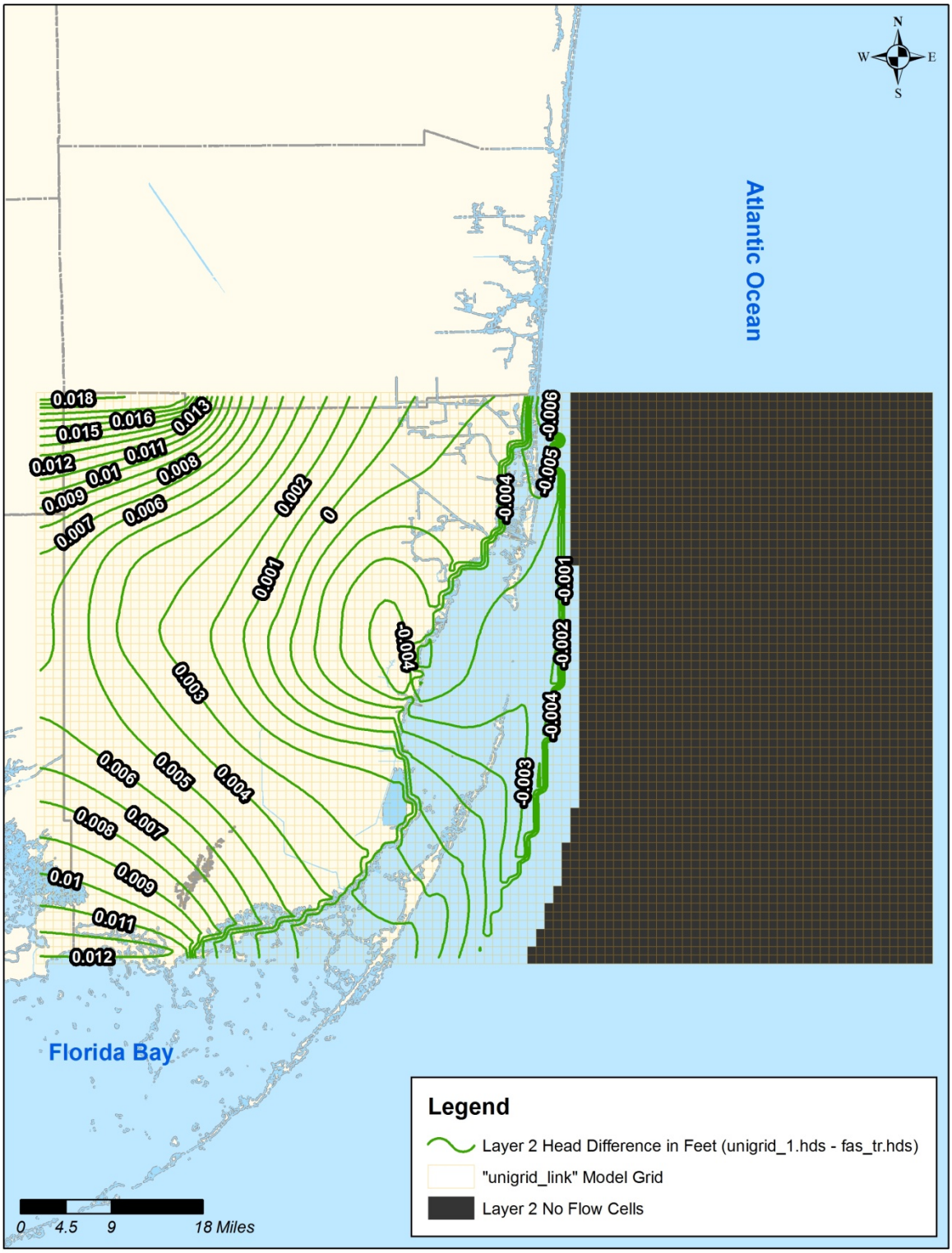


Figure 2
Layer 2 Head Difference

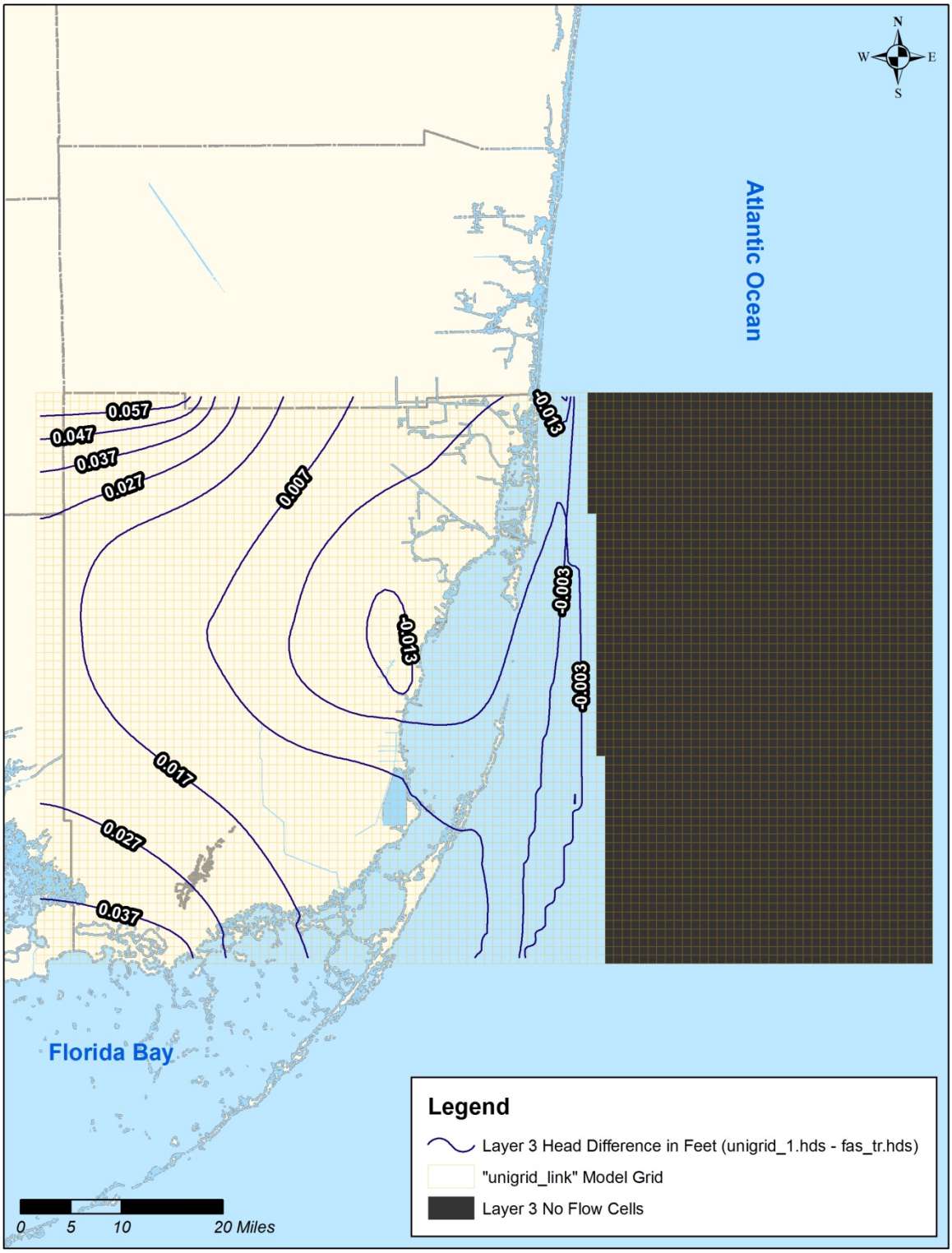


Figure 3
Layer 3 Head Difference

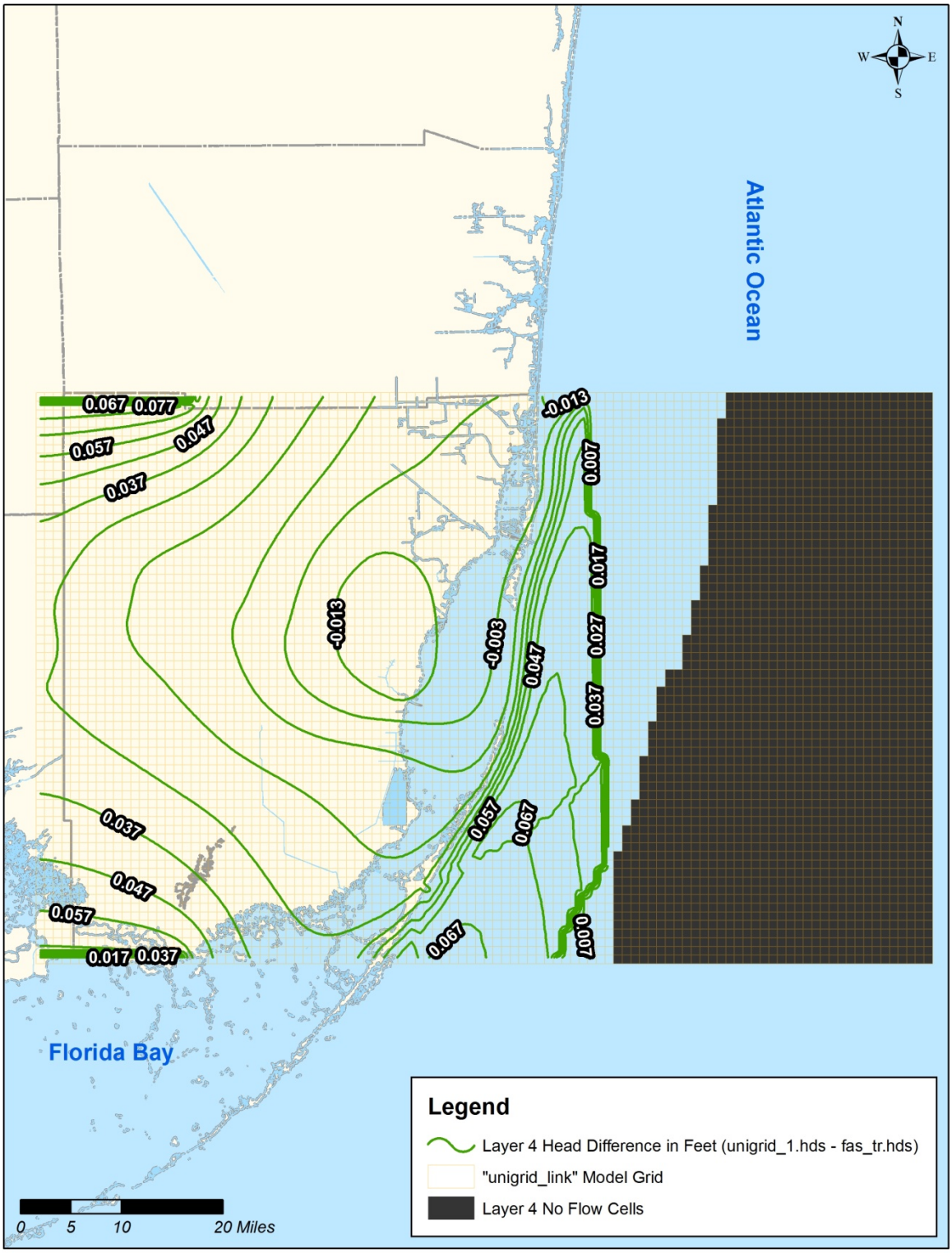


Figure 4
Layer 4 Head Difference

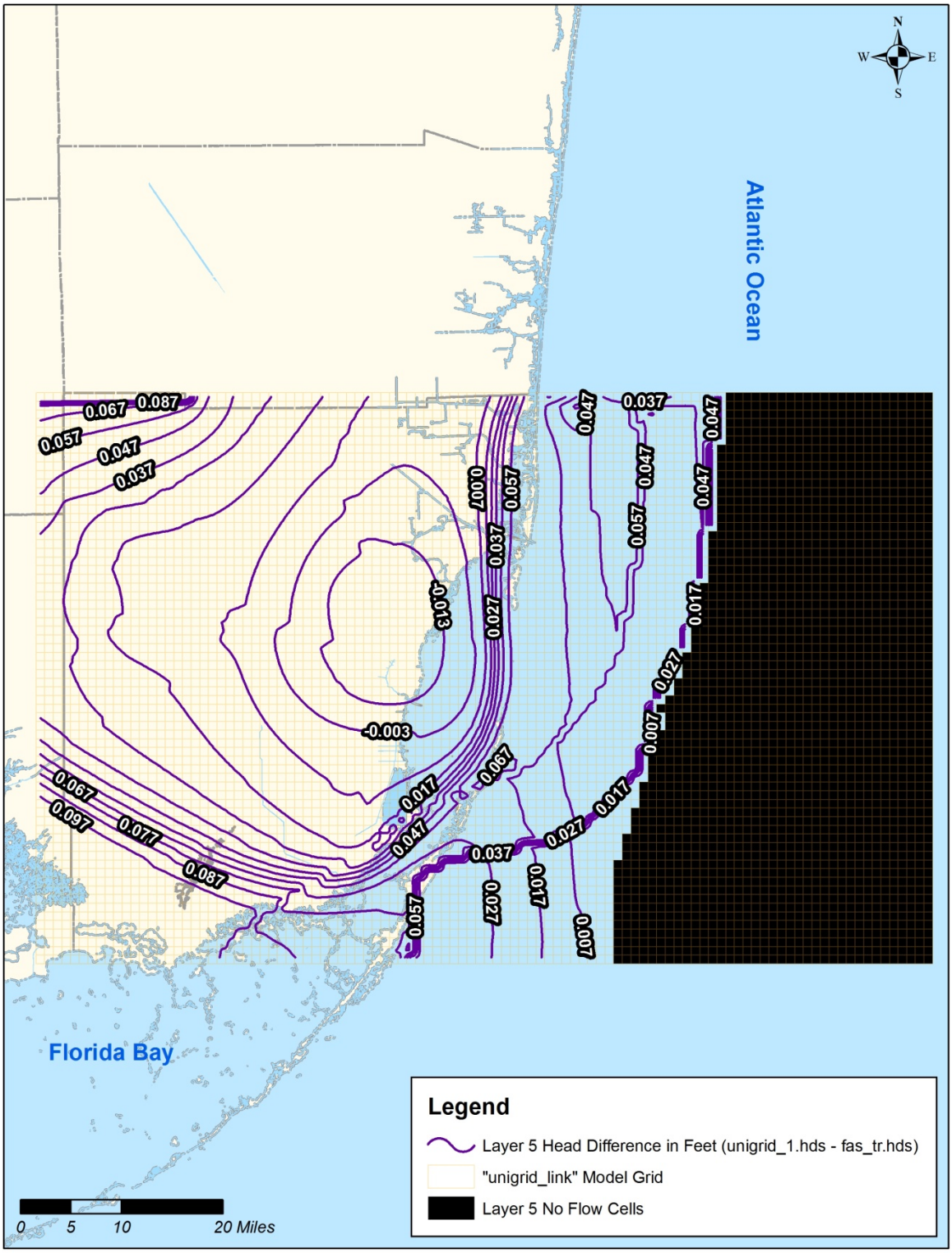


Figure 5
Layer 5 Head Difference

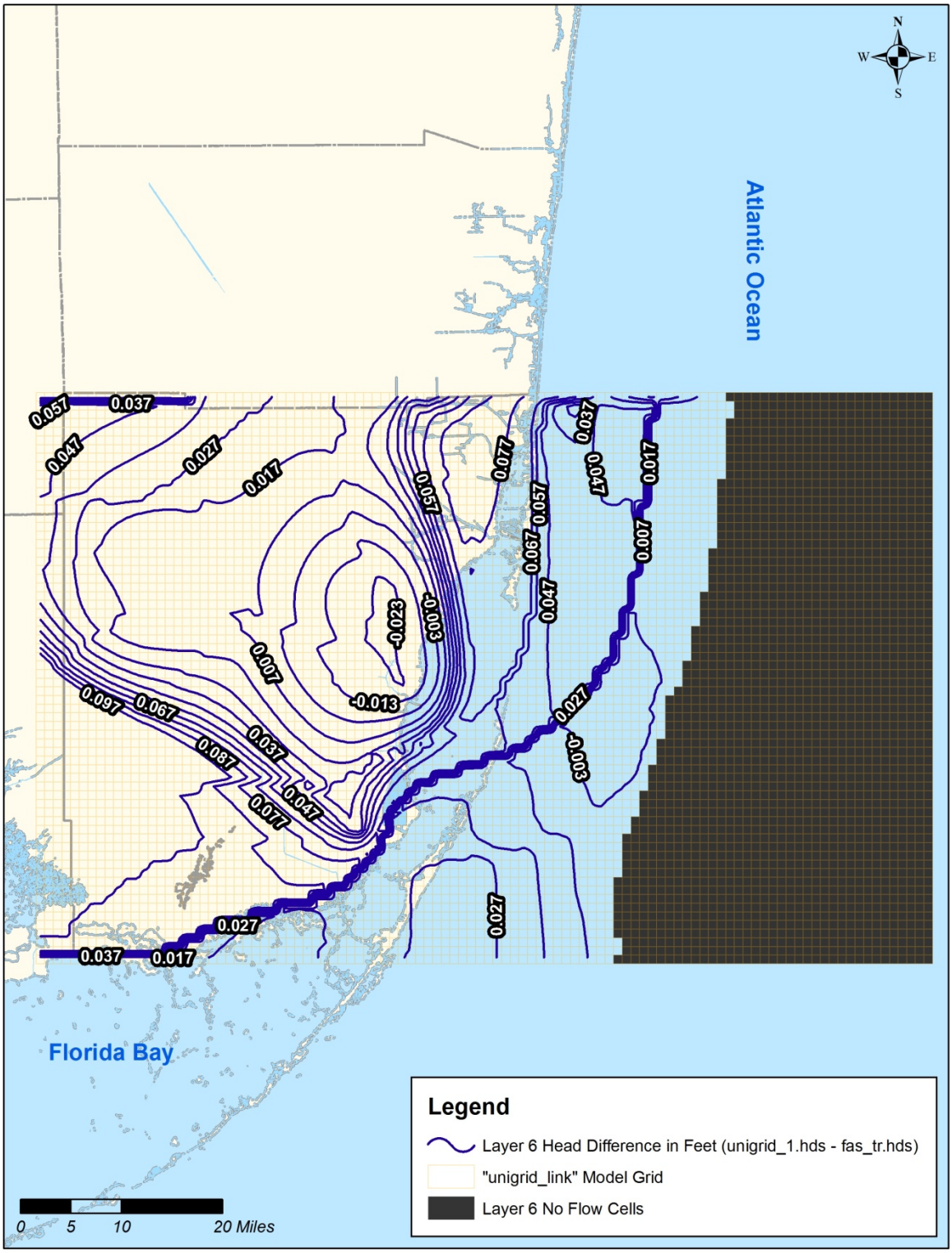


Figure 6
Layer 6 Head Difference

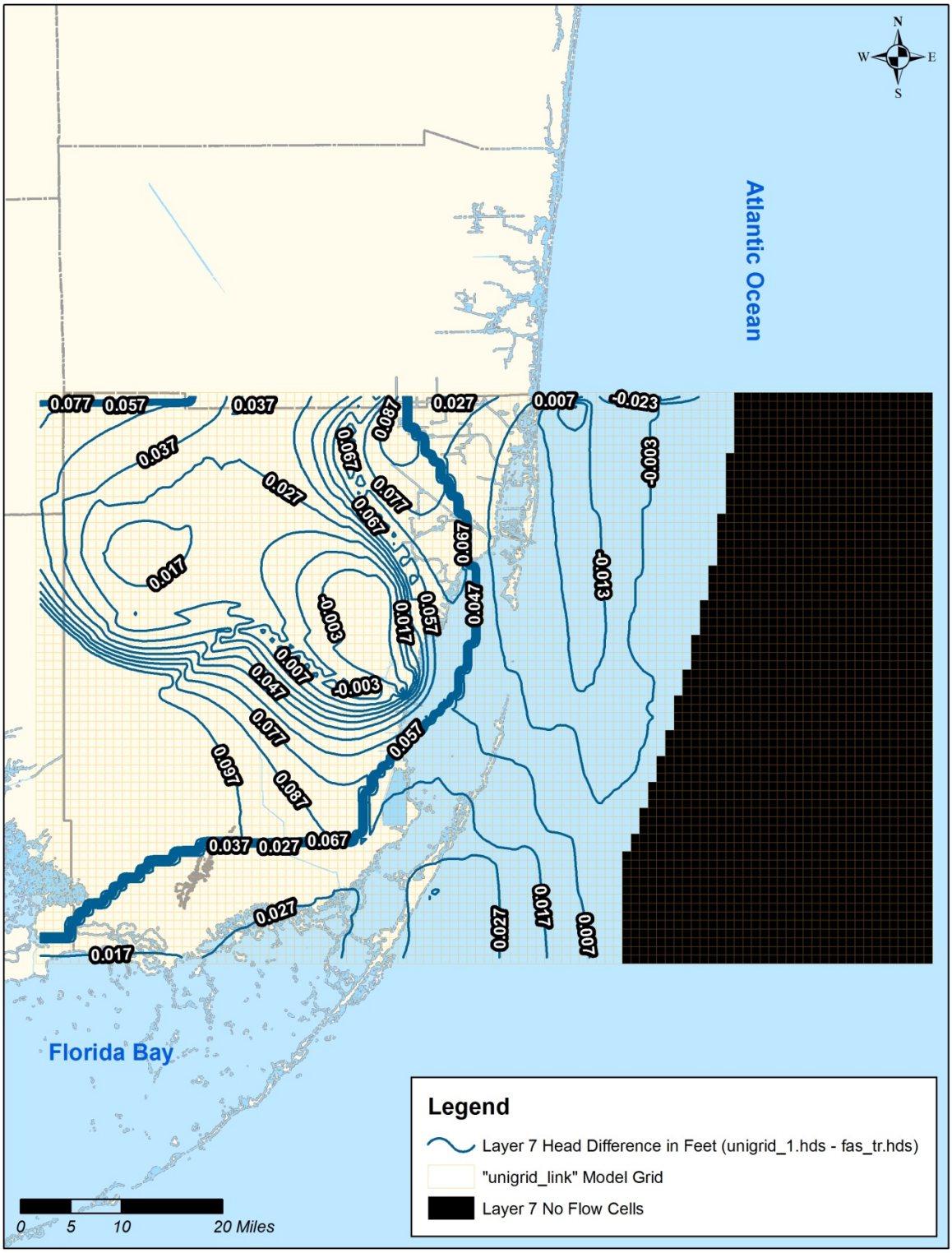


Figure 7
Layer 7 Head Difference

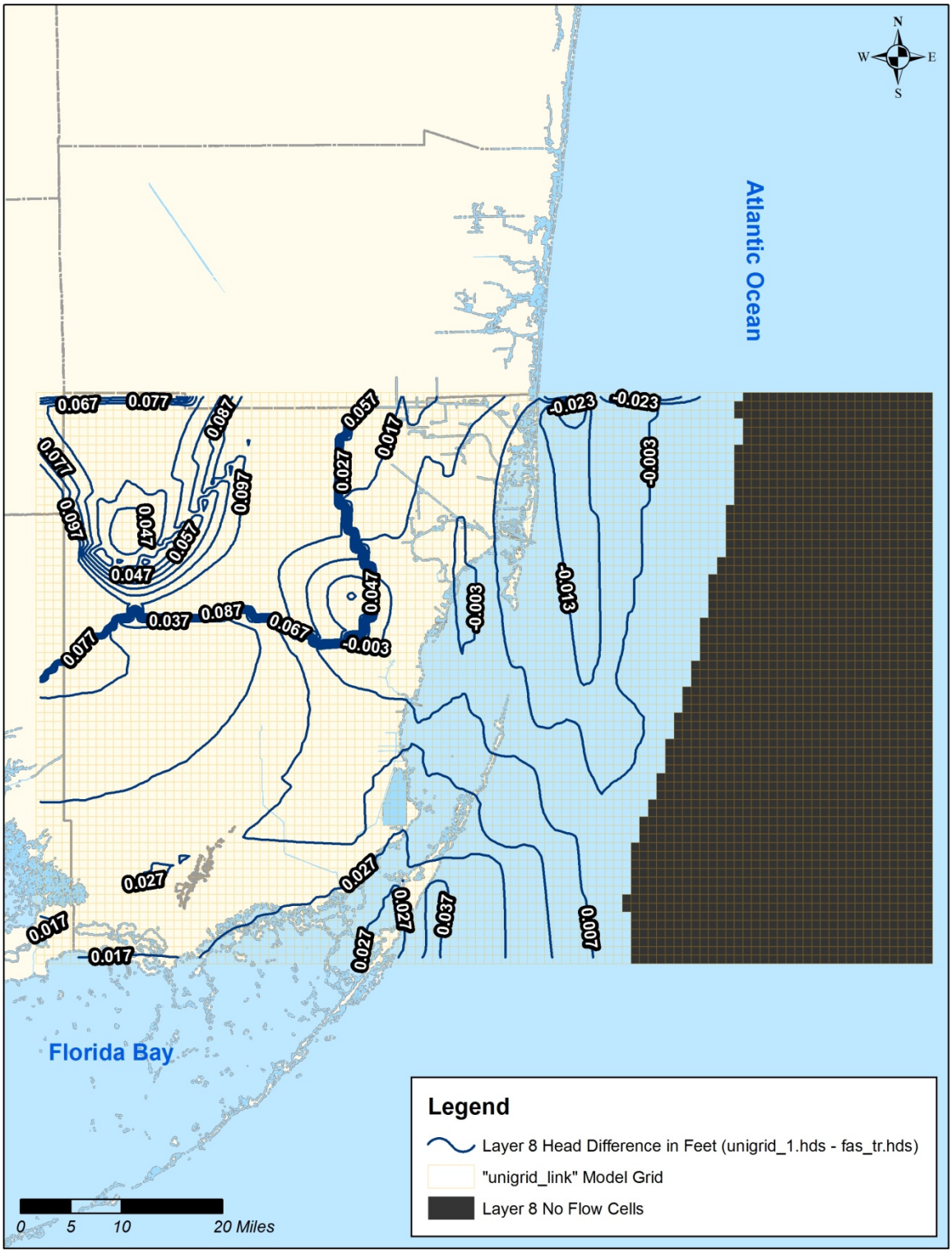


Figure 8
Layer 8 Head Difference

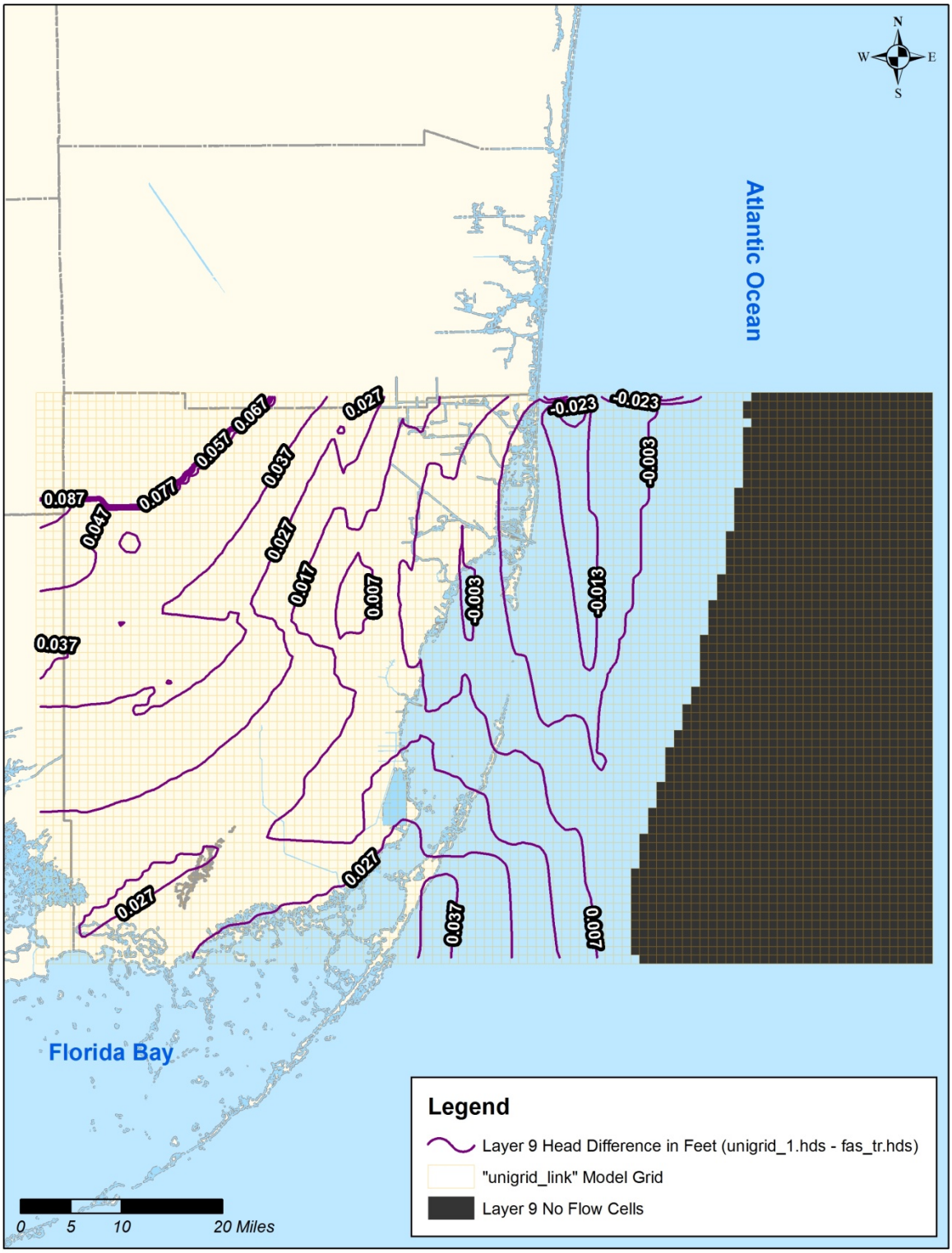


Figure 9
Layer 9 Head Difference

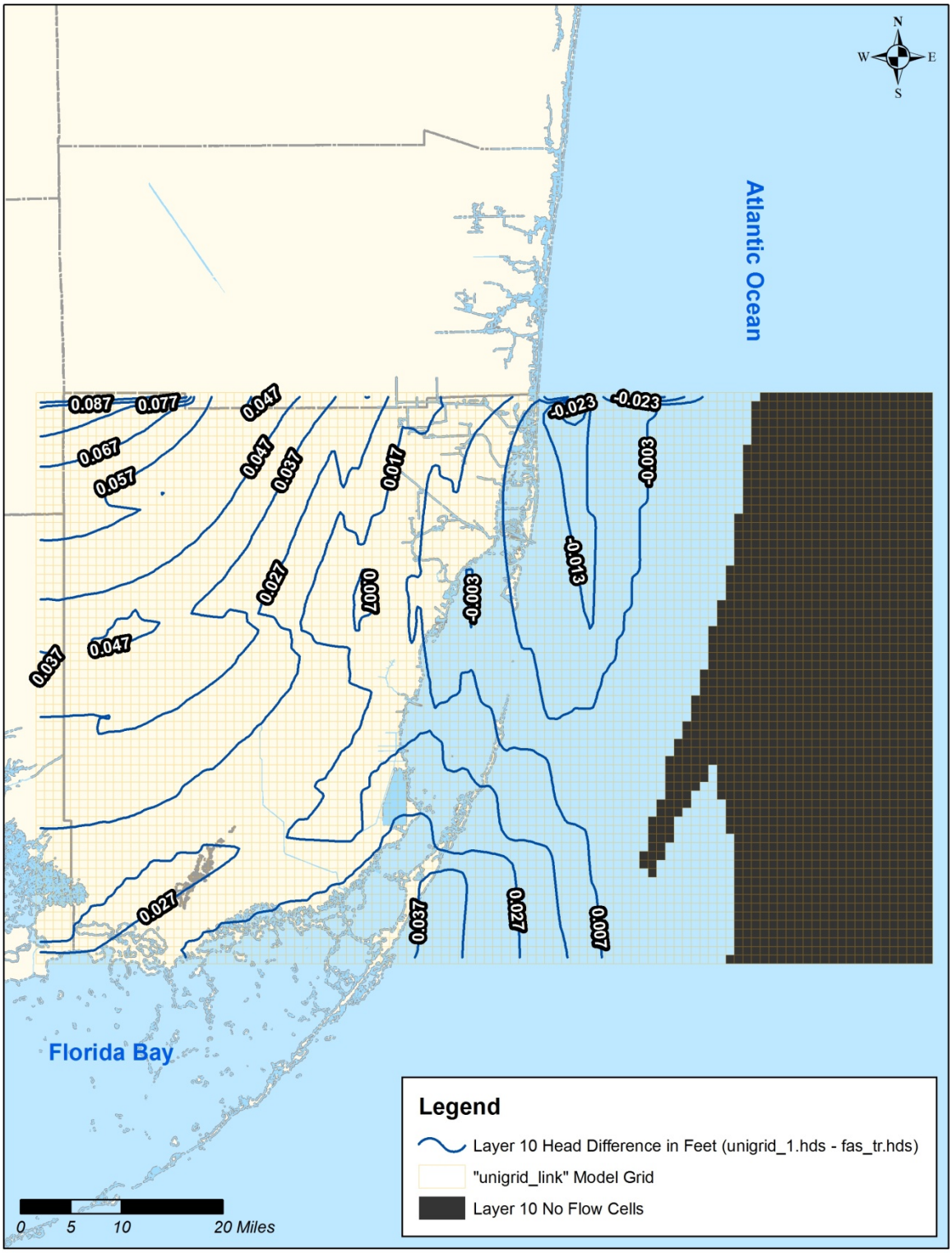


Figure 10
Layer 10 Head Difference

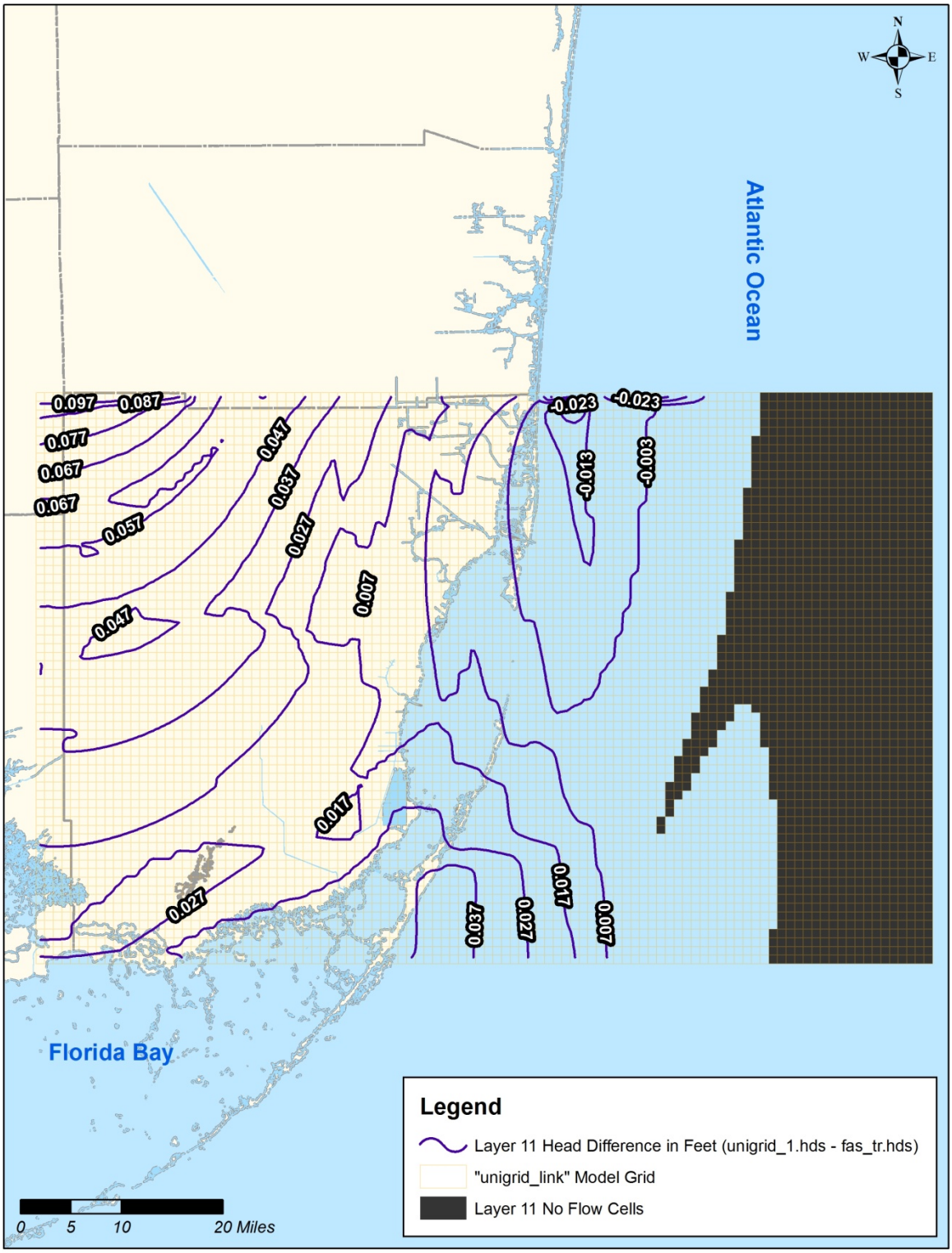


Figure 11
Layer 11 Head Difference

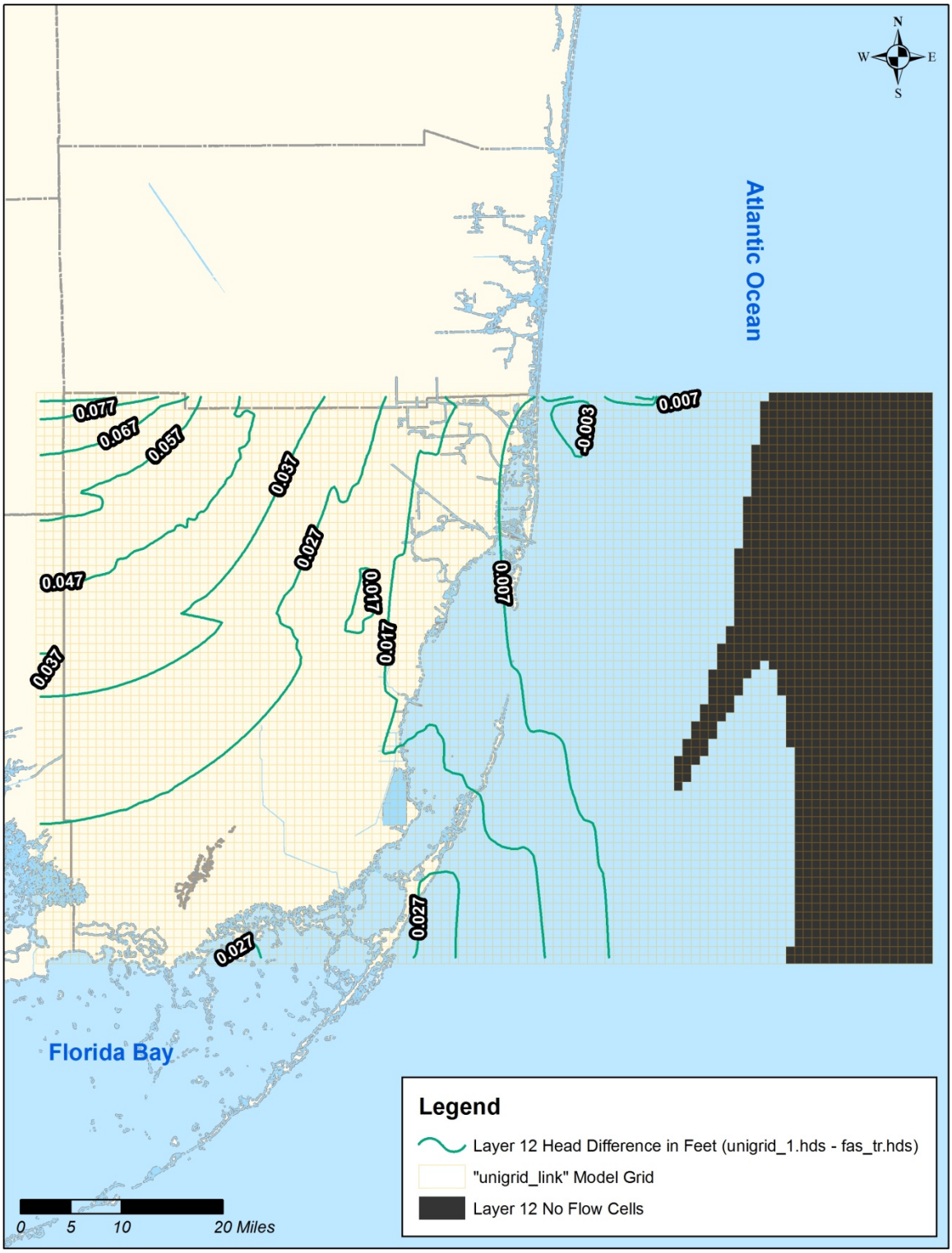


Figure 12
Layer 12 Head Difference

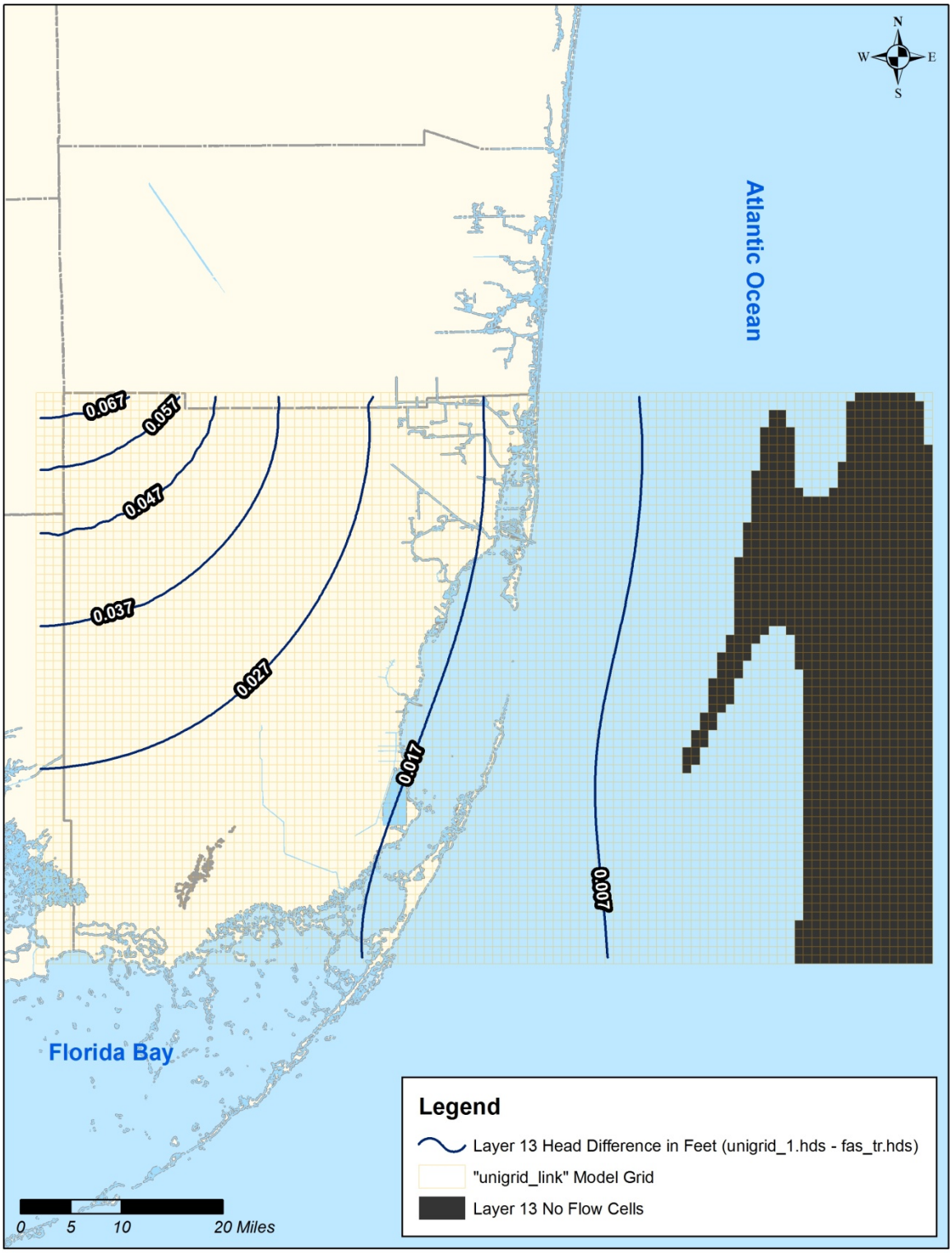


Figure 13
Layer 13 Head Difference

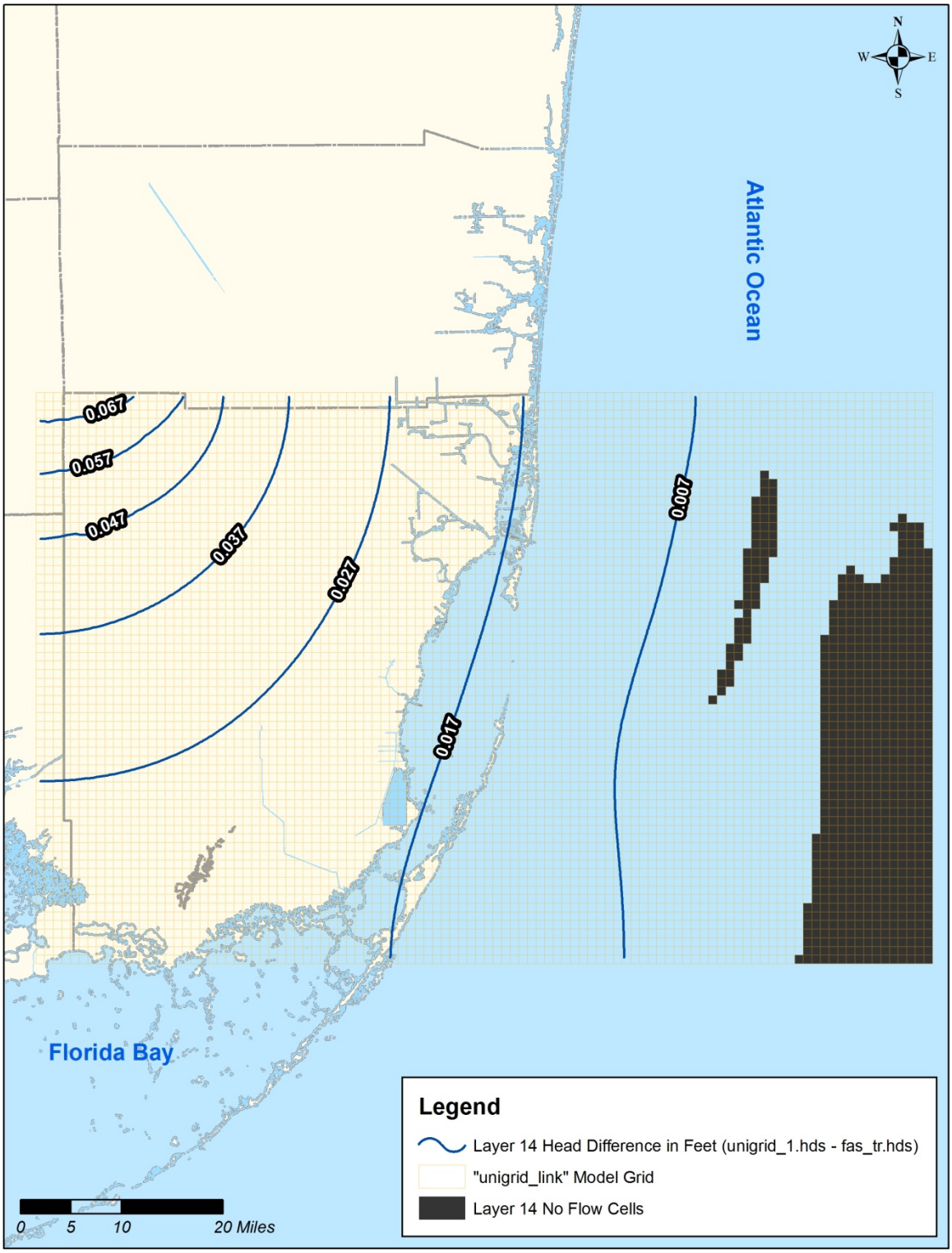


Figure 14
Layer 14 Head Difference

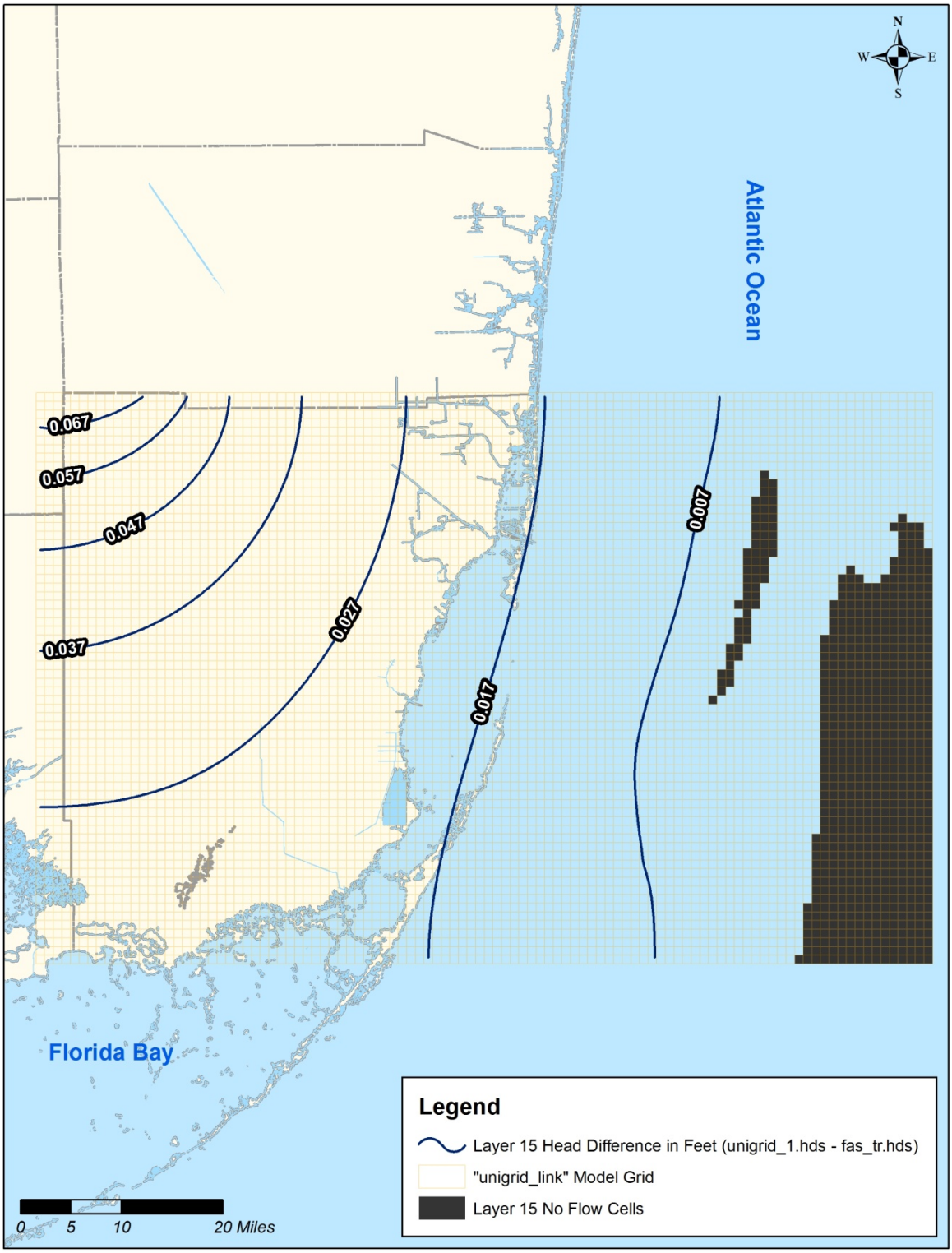


Figure 15
Layer 15 Head Difference

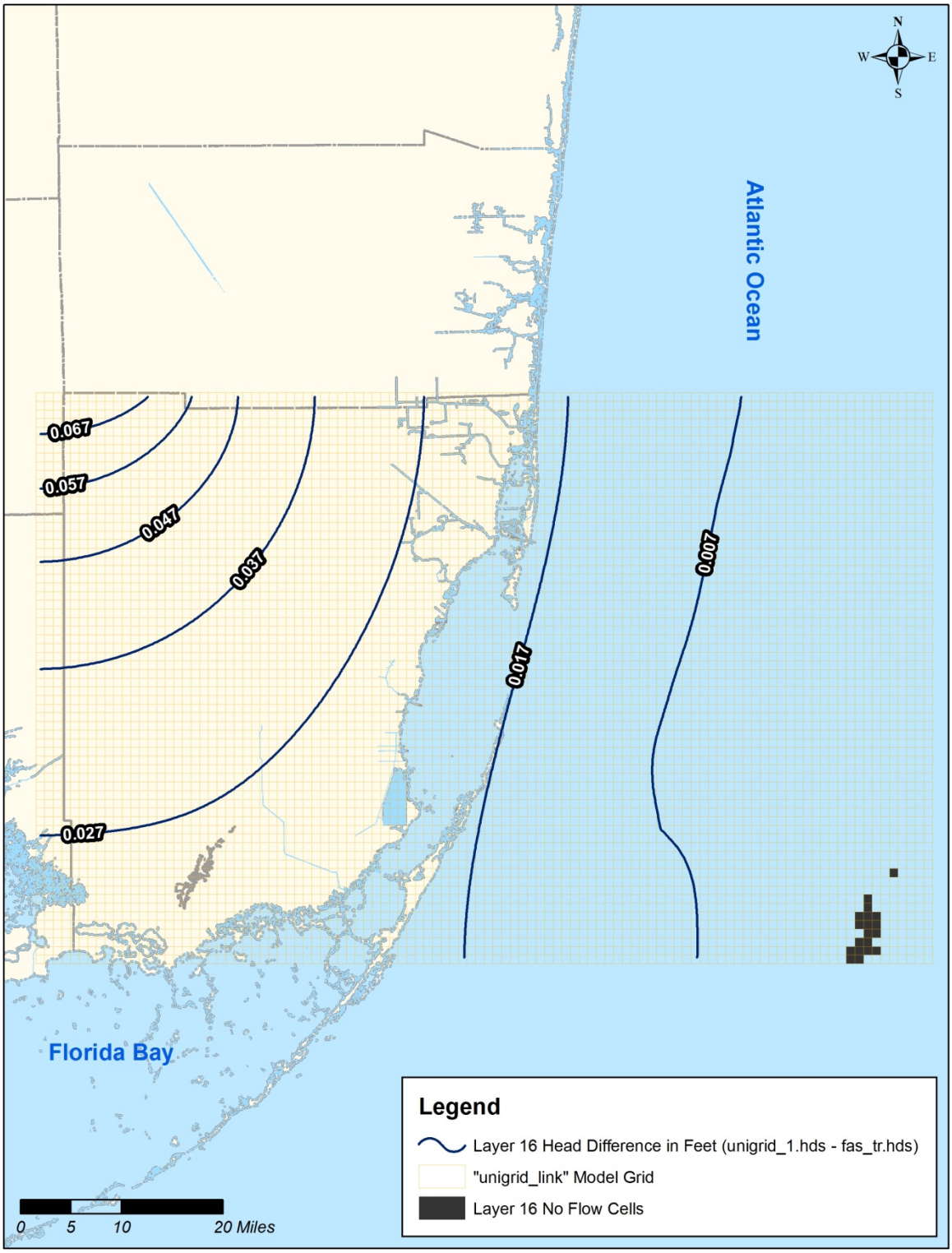


Figure 16
Layer 16 Head Difference

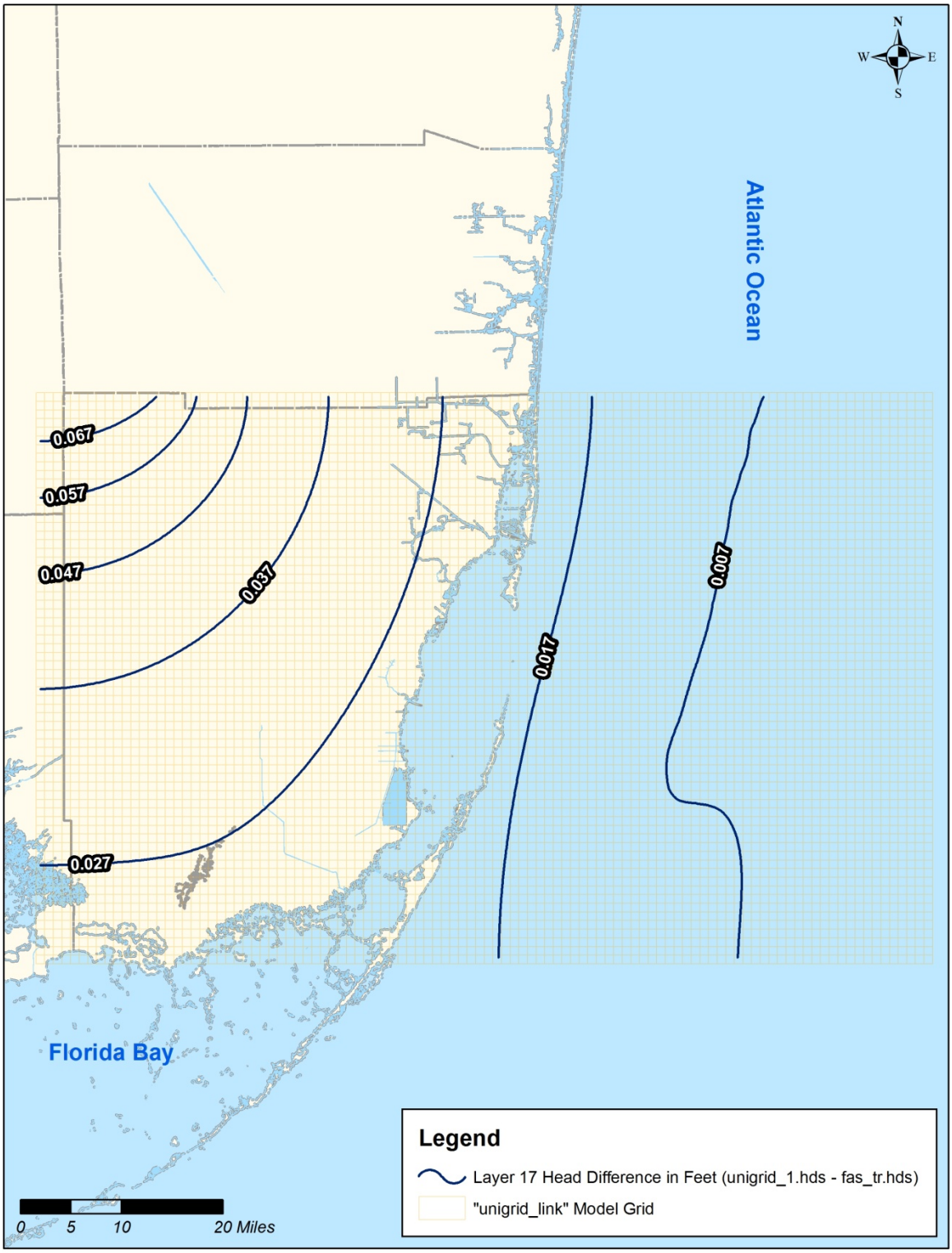


Figure 17
Layer 17 Head Difference

5.0 REFINE MODEL SPATIAL DISCRETIZATION

The Groundwater Vistas SEAWAT model grid was re-discretized (using a finer grid spacing) to provide a greater numerical approximation detail in proximity to the CDWWTP, SWWF ASR wellfield and WWF ASR wellfield. The grid was refined from a uniform 4,500 by 4,500 feet (approximate) spacing to a 70 by 70 feet grid spacing encompassing a 1-mile radius around each the CDWWTP, SWWF ASR wellfield and WWF ASR wellfield. The grid spacing was also reduced to 280 by 280 feet from 1-mile to 2.5-miles surrounding the CDWWTP, SWWF ASR wellfield and WWF ASR wellfield. The grid spacing gradually expands to the original 4,500 by 4,500 foot spacing, while not increasing by more than a factor of 1.5 between cells. The Groundwater Vistas variable grid is displayed on **Figure 18**. The refined variable grid model was re-run on a dual-core 64-bit desktop computer running the Windows 7 operating system with no convergence or other errors. Runtime was less than a minute.

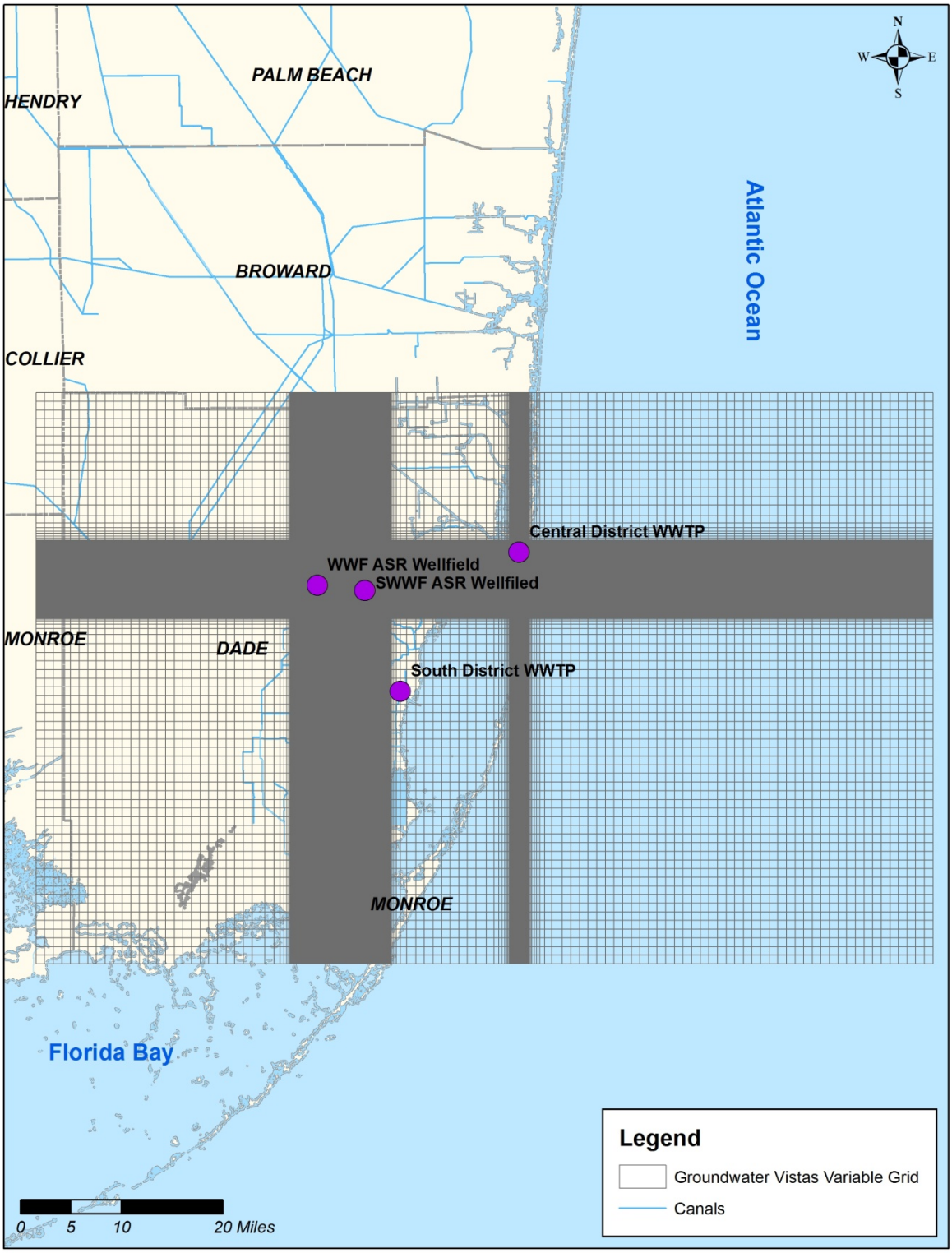


Figure 18
Groundwater Vistas Variable Grid

5.1 Model Calibration Verification After Grid Re-discretization

The modeled output heads from the uniform Groundwater Vistas 6 grid were compared to the re-discretized variable spaced grid to verify that calibration has not been adversely affected. The difference in head between both grids was observed to average 0.01 to 0.001 feet over all modeled layers (except layer 1).

The local calibration at the CDWWTP, SWWF ASR wellfield and WWF ASR wellfield was verified by comparing the heads at those locations produced by the Groundwater Vistas uniform and variable grid models. The head values between the Groundwater Vistas uniform and variable grid models are compared in **Table 4**. A statistical analysis between the Groundwater Vistas uniform and variable grid models is provided in **Table 5**. The results show a good correlation between both models, and verifies that no degradation of model results has occurred.

Table 4
Comparison of Head Values Between the Groundwater Vistas Uniform and Variable Grid Models

Location Name	Model Layer	Head (feet)		Head Difference (feet)
		Uniform Grid Model	Variable Grid Model	
Central District WWTP	16	-0.600	-0.599	-0.001
WWF ASR Wellfield	4	48.131	48.134	-0.003
SWWF ASR Wellfield	4	47.126	47.212	-0.086

Table 5
Statistical Analysis Between the Groundwater Vistas Uniform and Variable Grid Models

Statistic	Value
Residual Mean Head (Feet)	0.03
Residual Standard Deviation (RMS)	0.04%
Normalized Residual Standard Deviation (NRMS)	0.09%
Correlation Coefficient	0.99

6.0 SUMMARY

In summary, the tasks have been successfully completed:

- Conversion of the USGS Groundwater Model to Groundwater Vistas 6,
- Grid re-discretization to provided finer detail in proximity of the CDWWTP, WWF and SWWF ASR Wellfields,
- The calibration of the resulting Groundwater Vistas 6 Model was verified at a regional and site specific level, before and after re-discretization.

7.0 CONCLUSIONS

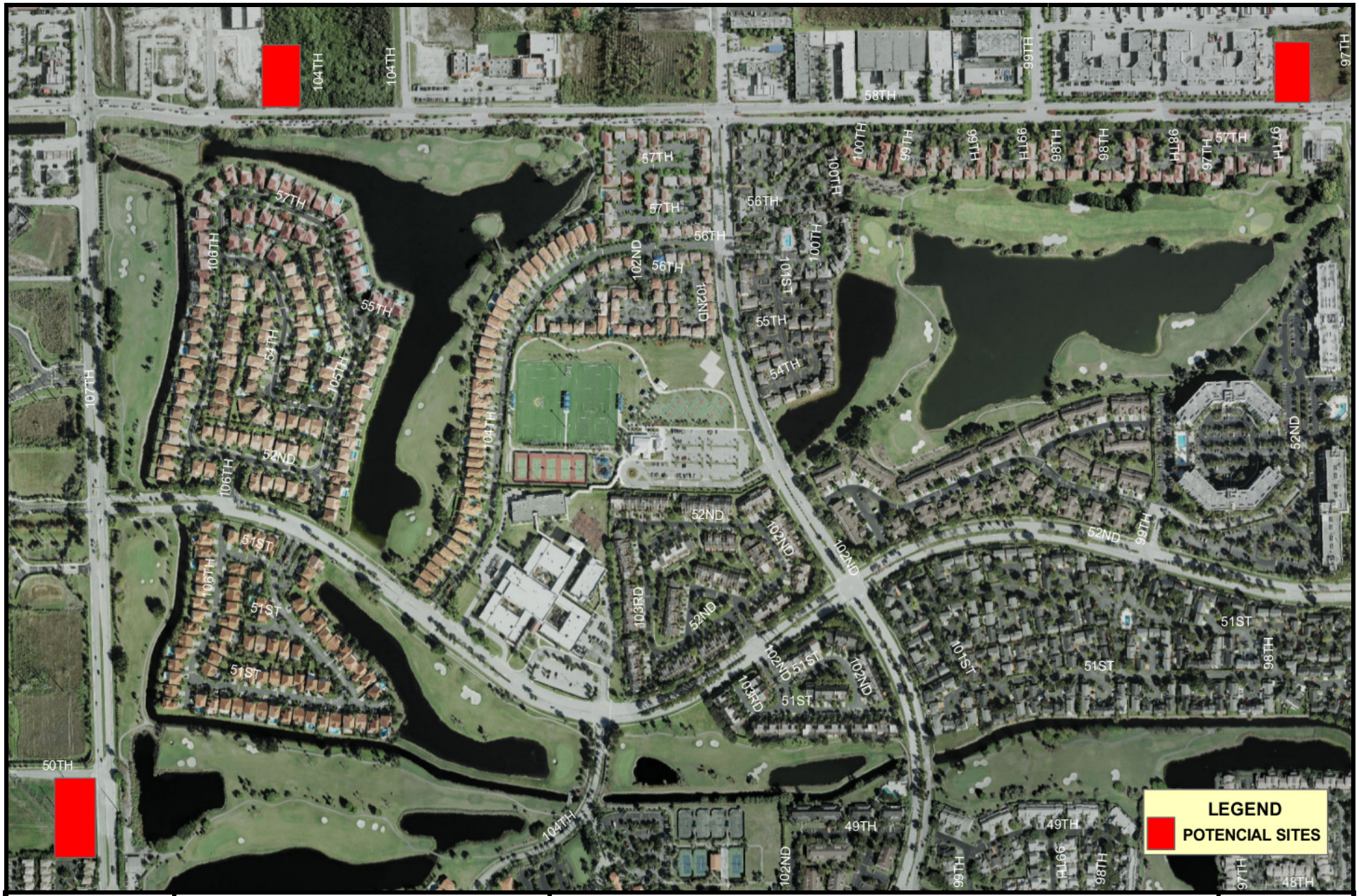
USGS Groundwater Model has been successfully modified from a uniform grid model run through a Command Prompt window to a variable grid model run through Groundwater Vistas 6. The variable grid SEAWAT model is fully functional within 64-bit Groundwater Vistas 6 and is capable of density-dependent head and solute transport modeling. Based on the qualitative and quantitative analysis of the Groundwater Vistas uniform and variable grid models, the variable grid model results are considered to mimic the results of the USGS unigrid_link model and the groundwater vistas uniform grid model.

Due to the size of the variable grid model, it is unknown if the 32-bit version of Groundwater Vistas will be capable of running model simulations. Additionally, the current number of total model nodes is 2,990,470, which may be close to the limit of what the SEAWAT version 4 program is capable of running, so additional re-discretization may not be possible. This limitation should have no affect on changes made to the other MODFLOW and MT3D packages.

The Groundwater Vistas 6 model allows the user to visually modify and simulate wellfield and injection well operations and expansion.

Appendix K

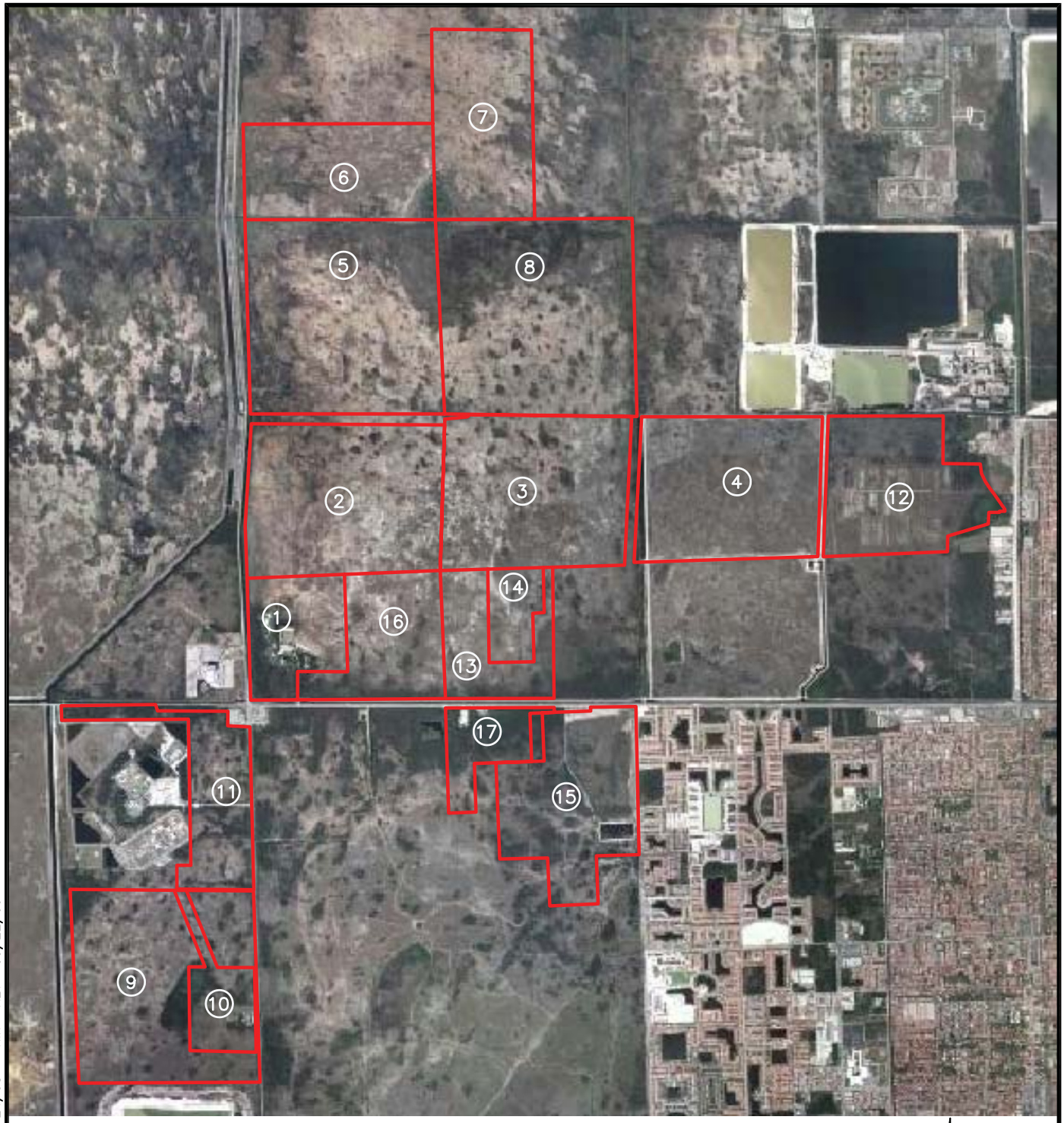
Doral Pump Station (CP-2) Potential Sites



MIAMI-DADE COUNTY Water and Sewer Department	OCEAN OUTFALL LEGISLATION COMPLIANCE PLAN	Doral Pump Station (CP-2) Potential Sites	Appendix K

Appendix L

WDWWTP Site Selection Summary and Preliminary Site Fill Requirements and Cost Estimate



LEGEND

APPROXIMATE CANDIDATE SITE BOUNDARIES

(10) CANDIDATE SITE NUMBER

N

APPROXIMATE SCALE IN FEET

0 1000 2000 4000

87804 02 WDWRP\87804 SITE FIGURES.DWG 11/24/08 YMT REV 09/22/09

Environmental Resources Management

ERM

OVERALL STUDY AREA LOCATION SHOWING CANDIDATE SITES 1-17
WEST DISTRICT WATER RECLAMATION PLANT SITING EVALUATION
MIAMI-DADE COUNTY WATER & SEWER DEPARTMENT
MIAMI-DADE COUNTY, FLORIDA

FIGURE 1

87804 MD WASD FIG 2.DWG 7/9/09 1=1 WCC REV 09/22/09 YMT

Environmental Resources Management

ERM

SITE LAYOUT

CANDIDATE SITE 12

MIAMI-DADE WATER AND SEWER DEPARTMENT

MIAMI-DADE COUNTY, FLORIDA

FIGURE

2

MIAMI-DADE WATER AND SEWER DEPARTMENT

Project No. EDP-WS-168

Water Reclamation Projects and Miscellaneous Wastewater Treatment Plant Process Evaluations

Preliminary Site Fill Requirements and Cost Estimate

Proposed West District Wastewater Treatment Plant and Reclamation Facility

January 28, 2013

Miami-Dade Water and Sewer Department
3071 SW 38th Avenue
Miami, Florida 33133

Prepared By:

8390 NW 53RD STREET
SUITE 200,
DORAL, FL 33166

Phone: (305) 392-9979

TABLE OF CONTENTS

INTRODUCTION

Miami-Dade Water and Sewer Department (MDWASD) retained King Engineering Associates, Inc. (King) to evaluate the feasibility of water reclamation projects and miscellaneous plant process energy reduction projects, including Reuse Feasibility Study/Master Plan Updates.

As part of this work, MDWASD requested a preliminary planning level cost estimate of site fill requirements and related development costs for the proposed West District Wastewater Treatment Plant and Reclamation Facility (WDWRTP). The objective of this assignment is to rely on readily available existing information to develop preliminary estimates prior to more detail engineering analysis.

FACILITY FOOTPRINT AREA

The proposed WDWRTP is presently in its initial planning stages and its capacity and components will likely change. The most current facility is intended to produce an average annual daily flow (AADF) of 107.5 MGD with total peak flow capacity of 356 MGD. The facility will consist of membrane bioreactors to treat approximately 107.5 MGD of AADF and 161.3 MGD during peak flow conditions. A parallel biological contact treatment train coupled with high level disinfection (HLD) will handle the remaining 194.8 MGD of peak flow. The facility will also include a bio-solids processing facility. The WDWRTP will provide reuse water for public access irrigation and/or aquifer recharge.

In the absence of a site plan for the proposed WDWRTP, the estimated footprint of the facility was estimated based on its AADF. Comparing the AADF of MDWASD's three existing WWTP with their respective site plan areas, the ratio of site area to AADF averaged 0.8 acre/MGD and ranged from 0.5 to 1.0, with 1.0 reflecting the SDWWTP that includes HLD. For this initial planning stage, the more representative value of 1.0 was used to estimate an initial site area of 107.5 acres for the proposed WDWRTP.

LAND ACQUISITION COST

The proposed candidate site for the WDWRTP is located in western Miami-Dade County west of NW 137th Avenue between NW 6th St. and NW 9th Lane as shown on the attached aerial (Appendix A). Table 1 below provides the folio number, acreage, and 2012 land value estimated by Miami-Dade County. The total site area of the two properties is approximately 246 acres.

Table 1
Candidate Property Data

Folio Number	Area (acres)	2012 Land Value
30-3953-000-0130	234.13	$ 5,057,251
30-3953-000-0138	11.36	$ 340,800
TOTAL	245.49	$ 5,397,251

MDWASD performed a property appraisal for the purchase of both properties and the estimated cost amounted to $12M. That number was used for cost estimating purposes.

FINISHED GRADE ELEVATIONS

As shown on the attached aerial photograph (Appendix A), the average ground surface elevation is approximately 3 feet NGVD. A summary of relevant site data is shown on Table 2.

Table 2
Relevant Site Data

Parameter	Elevation (ft-NGVD)
Average site elevation	3
FEMA 100-yr Base Flood Elevation (AE)	7
County Flood Criteria Elevation	7.5
Miami-Dade Average Yearly High Groundwater Elevation	6
Miami-Dade Average October Groundwater Level	4.5
Miami-Dade Average Yearly Low Groundwater Level	3

Permitting of this site will be challenging. Because the site is located in the North Trail Basin and the site ground surface elevations are very low, it will be necessary to fill a portion of the site while at the same time complying with both the South Florida Water Management District's (SFWMD) floodplain compensation and Miami-Dade County's Cut and Fill Criteria to avoid increasing floodplain elevations in the area. As shown on Table 2, ground surface elevations are lower than the County's October groundwater elevations, indicating that the site is likely an importing site that will require extensive floodplain compensation. Further, wetland impacts will need to be addressed.

Since the site would be developed by the County, the SFWMD will take the lead on the Environmental Resource Permit (ERP). The County's Water Control Section, independent of the ERP permit, may require a Class IV permit if wetlands are involved, approval of cut and fill calculations, and a Class II permit if a lake is planned on site and/or an overflow is envisioned.

Minimum finished grades, road crown elevations, and building floor elevations are based on the requirements of Miami-Dade County, the Florida Building Code (FBC), and the SFWMD. These elevations are normally established as an iterative process that includes developing various site plans and performing water management calculations until all regulations and requirements are met cost-effectively.

For this planning level evaluation, a simplified approach was used to estimate finished grade elevations. Various calculations were performed to estimate the crown of road elevations and the building floor elevations and the highest numbers used to estimate fill quantities.

Crown of road calculations:

- Crown of road based on water table = Yearly High Water Table + 2 feet = 6 + 2 = 8 feet NGVD
- Crown of road based on County flood criteria = 7.5 feet NGVD

Use 8 feet NGVD.

Finished floor calculations

- Florida Building Code criteria = base flood elevation + 1 foot = 7 + 1 = 8 feet NGVD
- County's crown of road criteria = crown of road + 8" = 8 + 0.67 = 8.67 feet NGVD
- Sea Level Rise criteria - In the recent past, the County has incorporated projections of sea level rise to their building floor elevations. While estimates of sea level rise are readily available for the coast, these values have not been adjusted to account for the effect of backwater due to sea level rise. That limitation notwithstanding, coastal sea level rise projections were incorporated into the finished floor elevation. Sea level rise estimates for the southeast coast were obtained from the publication titled: A Unified Sea Level Rise Projection for Southeast Florida, April 2011,

prepared by the Technical Ad hoc Work Group of the Southeast Florida Regional Compact on Climate Change. Adopted projections of coastal sea level rise for the year 2075 range up to 3 feet. The higher value of 3 feet was added to the building floor elevation of 8.67 feet to reach a value of 11.67 feet, and subsequently rounded up to 12 feet NGVD.

Use 12 feet NGVD.

PRELIMINARY SITE DEVELOPMENT COST ESTIMATE

A preliminary site development cost estimate was prepared using the unit costs reported in the Preliminary Design Technical Memorandum No. 9, Site Development, dated February 9, 2010, prepared for MDWASD for the proposed South District Water Reclamation Plant (SDWRF). In addition, the cost of land was incorporated based on a recent appraisal performed by MDWASD. Finally, construction costs were adjusted to include total project costs using standard MDWASD costing methodology.

For this preliminary estimate, it was assumed that all fill material would be imported to the site. It is expected, however, that fill material may be available on site during lake excavation that may supply a portion the required fill more economically.

Table 2
Preliminary Site Development Cost Estimate

Site Work Item	Unit	Unit Cost	Quantity	Amount
Land Acquisition	AC	LS	246	$ 12,000,000
Clearing and Grubbing	AC	$2,500	108	$ 269,000
Imported Fill	CY	$25	1,821,050	$ 45,527,000
Demucking	CY	$10	260,150	$ 2,602,000
Rough Grading	SY	$4	520,300	$ 2,082,000
Sub-Total				$ 62,480,000
Construction Allowance	10%			$ 6,248,000
Construction Cost				**$ 68,726,000**
Reimbursable Fess	2%			$ 1,375,000
Planning	2%			$ 1,250,000
Eng/Survey/Geotech/Env	10%			$ 6,873,000
A&E Selection	LS			$ 5,000
Contractor Selection	LS			$ 10,000
Construction Management	12%			$ 7,498,000
Total Direct Costs				**$ 85,737,000**
Indirect Costs (Cont, legal, DBED)	16%			$ 13,667,000
Department OH	11%			$ 10,537,000
Total Project Cost				**$ 109,941,000**

SUMMARY

A preliminary planning level estimate of site fill requirements and related costs was prepared for the proposed West District Wastewater Treatment Plant and Reclamation Facility based on readily available existing information and prior to more detail engineering analyses.

The WDWRTP is intended to produce 107.5 MGD AADF and handle a peak flow capacity of 356 MGD. The facility will provide reuse water for public access irrigation and/or aquifer recharge. It also includes a bio-solids processing facility. The proposed site area, excluding water management facilities, was estimated at 108 acres for initial planning purposes.

Finished grade elevations were estimated at a minimum of 8 feet NGVD for road crowns and 12 feet NGVD for buildings and equipment areas. The resulting construction cost estimate for site development, including land acquisition, was estimated at $69M, with a total project cost estimated at $110M.

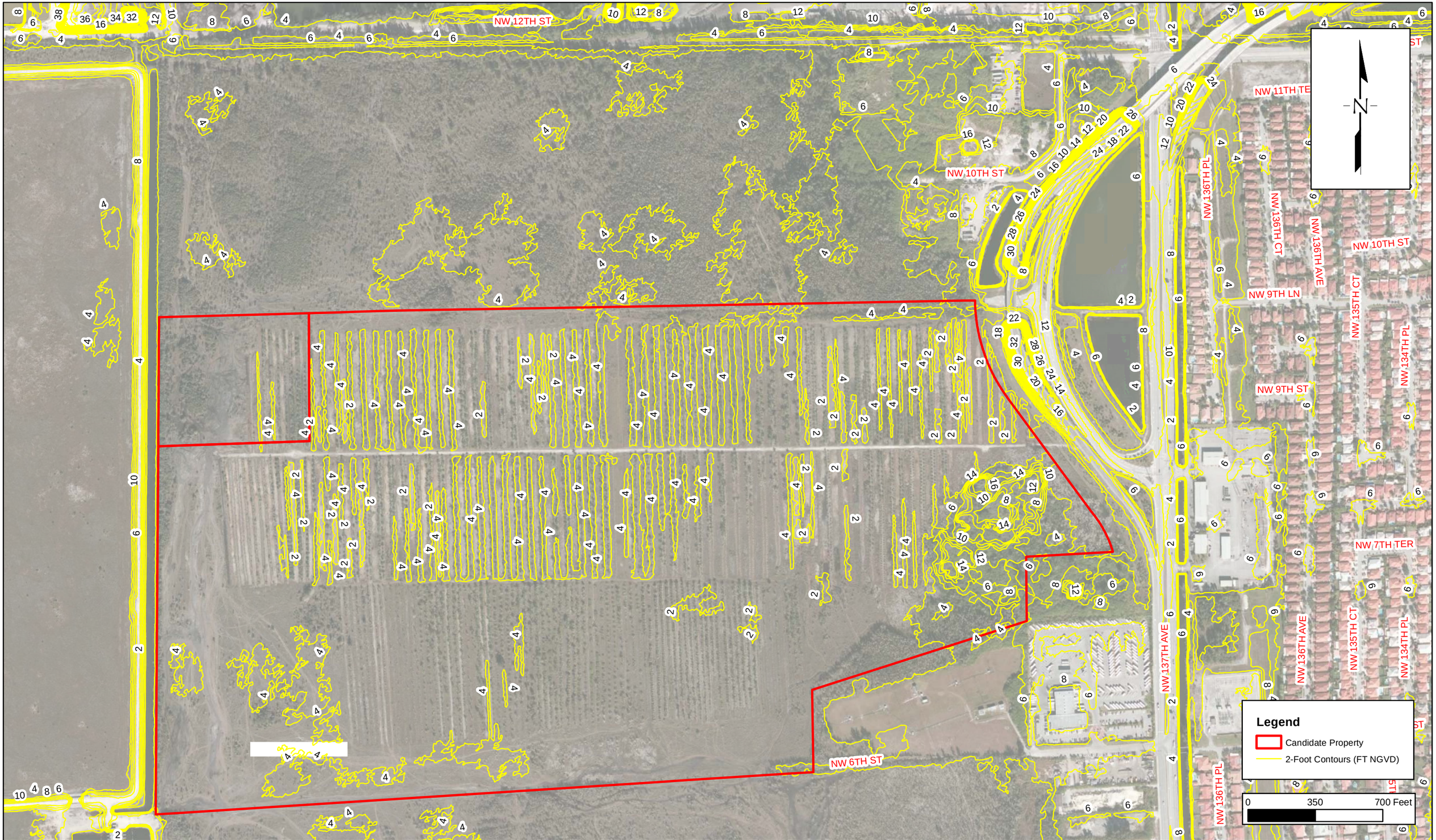
Permitting for the property currently earmarked for this facility will be challenging but possible given the large tract of land (~246 acres) relative to the expected facility footprint (~108 acres). Because the site is located in the North Trail Basin and ground surface elevations are very low, it will be necessary fill a portion of the site while at the same time providing for SFWMD floodplain compensation and Miami-Dade Cut and Fill Criteria to avoid increasing floodplain elevations in the area. Further, wetland impacts will need to be addressed.

Since the site would be developed by the County, the SFWMD will take the lead on the ERP permit. The County's Water Control Section, independently from the ERP permit, may require a Class IV permit if wetlands are involved, approval of cut and fill calculations, and a Class II permit if a lake is planned on site and/or an overflow discharge is envisioned for the site.

Considering the potential substantial costs associated with site development for the WDWRTP, MDWASD may consider performing a more detailed site development evaluation to provide more definitive cost information. This work may include development of alternative conceptual facility layouts including water management facilities and access roads, preliminary wetland mitigation evaluation, limited geotechnical investigation to assess the suitability of local soils for backfill, establishing design criteria, and identifying permitting requirements and time frames.

Appendix "A"

Site Topography Map



MIAMI-DADE COUNTY
Delivering Excellence Every Day

WATER AND SEWER DEPARTMENT
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8390 NW 53rd Street, Suite 200
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www.Kingengineering.com
Engineering License #2610

Water Reclamation Projects and Miscellaneous Wastewater Treatment Plant Process Evaluations
Preliminary Site Fill Requirements and Cost Estimate
Proposed West District Wastewater Treatment Plant and Reclamation Facility
Site Topography Map

JOB NO. 4651-300-001
DATE: DEC. 2012
SCALE:
EXHIBIT

Appendix M

Public Meeting – Presentation and Sign-In List

Ocean Outfall Legislation Draft Plan

Miami-Water and Sewer Department

Ocean Outfall Legislation Draft Plan

June 5, 2013

2008 Ocean Outfall Legislation

- By July 1, 2013, submit implementation plan to Florida Department of Environmental Protection (FDEP)
- Reduce nutrient loading to the ocean
  - Meet Advance Wastewater Treatment (AWT) by Dec 31, 2018, or
  - Reduce cumulative outfall loadings (from 2008-2025) equivalent to AWT from 2018-2025
- December 31, 2025, stop using outfall and implement 60% reuse

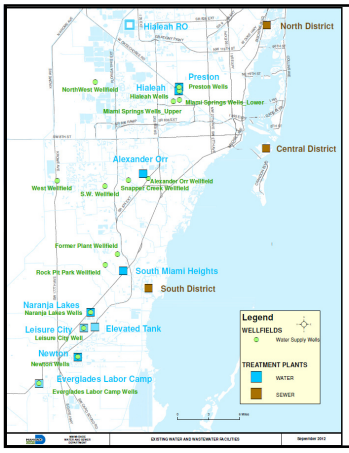
2013 Legislation Amendment

On April 24, 2013, the Governor signed amendment to the law including:

- Allowing use of outfall after 2025, as back-up for wet weather flows (up to 5% of baseline flow)
- Giving credit for reuse at other facilities
  - MDWASD/FPL 90 MGD reuse project
- By July 1, 2016 submit update of plan documenting any refinements in:
  - Costs
  - Actions
  - Financing

July 1, 2013 Plan

- Technical, environmental, and economic feasibility of reuse
- Land acquisition
- Facilities necessary to provide for reuse of the domestic wastewater & costs to meet the requirements (treatment levels...)
- Cost comparison
- Financing plan
- Detailed schedule



MDWASD Treatment Facilities

Existing Outfall Facilities

Wastewater Treatment Plant (WWTP)	Current Rated Capacity (mgd)	Baseline Flow (1) (mgd)
North District	120	81.0
Central District	143	114.8
Total	263	195.8

(1) Baseline flow is the average from 2003 to 2007

mgd = million gallons per day

Ocean Outfall Legislation Draft Plan

Planning Criteria

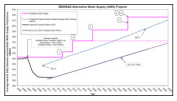
- Projected demands to year 2035
  - Including conservation
- Peak flows meeting EPA criteria
- 60% reuse
- Remaining flows disposed to the Boulder Zone thru deep injections wells or outfall backup
- All new flow diversion from outfall will meet High Level Disinfection (HLD) level of treatment

Planning Criteria (Cont.)

- Reduction of flows at existing North and Central WWTPs require new infrastructure to reverse flows in collection system (east to west)
- Land acquisition for proposed West District WWTP and transmission system included in costs
- 50-yr life for new treatment facilities
- Climate change impacts
  - Sea Level Rise (3 ft by 2075)
  - Storm Surge

Reuse Feasibility Evaluations

- 60% of baseline flow = 117.5 mgd
  - Already committed to 90 mgd for FPL cooling
  - Need to address feasibility of 27.5 mgd
- Considered options in 2007 Reuse Feasibility Study
  - Public access reuse
  - Aquifer recharge
  - Wetlands rehydration
  - Industrial



- Based on cost and feasibility of implementation Floridan aquifer (FA) recharge proposed
- Reuse not needed to meet water supply prior to 2035

Nutrient Reduction Implementation

- December 2008, started using injections wells at NDWWTP to remove flow from outfall (reducing loadings)
- Total cumulative loading reduction as of 2012:

Nutrient	Cumulative Target (lbs)	Actual (lbs)
TN	59,874,077	6,954,437
TP	1,661,217	548,777

- At CDWWTP, planning installation of injection well to remove nutrients from dewatering, instead of sending back to head of plant
  (operational by Dec 2015)

Alternative A-1

- All flows to existing WWTPs
- Reuse to FPL from SDWWTP
- FA recharge at CDWWTP & SDWWTP
- Total cost $3.94 Billion

WWTP	Design Flow (mgd)	
	Avg	Peak
ND	120	372
CD	150	496
SD	131	312
WD	-	-
Total	401	1180

Alternative 2A-1 (Subs 1-2)

- New West District WWTP
- Average flow reduction at ND & CD WWTPs, *less peaks at ND*
- Reuse to FPL from SDWWTP & FA recharge at CD, SD, & WD WWTPs
- 2-subalternatives/options for peak flow treatment (high rate clarification)
- Total cost $4.37 – $4.43 Billion

WWTP	Design Flow (mgd)	
	Avg	Peak
ND	85	*317*
CD	83	333
SD	131	305
WD	102	225
Total	401	1180

Ocean Outfall Legislation Draft Plan

Alternative 2A-2 (Subs 1-2)

- New West District WWTP
- Average flow reduction at ND & CD WWTPs, *more peaks at ND*
- Reuse to FPL from SDWWTP & FA recharge at CD, SD, & WD WWTPs
- 2-subalternatives/options for peak flow treatment (high rate clarification)
- Total cost $4.38 - $4.56 Billion

WWTP	Design Flow (mgd)	
	Avg	Peak
ND	85	*327*
CD	83	333
SD	131	305
WD	102	215
Total	401	1180

Alternative 2B-1

- New West District WWTP/*higher peak flows*
- Average & *peak flow reduction* at ND & CD WWTPs
- Reuse to FPL from SDWWTP & FA recharge at CD, SD, & WD WWTPs
- 2-subalternatives/options for peak flow treatment
- Total cost $5.79 Billion

WWTP	Design Flow (mgd)	
	Avg	Peak
ND	85	*206*
CD	83	*203*
SD	131	384
WD	102	*387*
Total	401	1180

Alternative 2B-2

- New West District WWTP/*higher peak flows*
- Average & *peak flow reduction* at ND & CD WWTPs
- Reuse to FPL from SDWWTP & FA recharge at CD, SD, & WD WWTPs
- 2-subalternatives/options for peak flow treatment
- Total cost $5.12 Billion

WWTP	Design Flow (mgd)	
	Avg	Peak
ND	85	262
CD	83	234
SD	131	300
WD	102	*384*
Total	401	1180

Recommending Alternative 2A-2-2

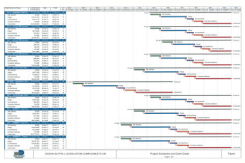
- Average flow reduction near the coast (ND & CD)
- Optimum peak flow diversion to minimize cost
- More climate change resilient alternative
- Cost comparable to other 2A alternatives, but less than 2Bs

WWTP	Design Flow (mgd)	
	Avg	Peak
ND	85	*327*
CD	83	333
SD	131	305
WD	102	215
Total	401	1180

Total cost $4.38 Billion

Schedule

- All proposed facilities to be in service by 2025
- Land acquisition for West District WWTP to be completed in FY2014
- Finalizing detail schedule



Financial Plan

- Financing Options:
  - Building Better Communities General Obligation Bonds (GOB)
  - Rate supported Revenue Bonds
  - State and Federal loans and grants, as available
  - Explore public/private partnership opportunities
- On June 4, 2013, Board of County Commissioners approved the issuance of not to exceed $4.245 Billion Water and Sewer Revenue Bonds
- Rate increases over time to support required financing

MIAMI-DADE COUNTY

SIGN-IN SHEET
OCEAN OUTFALL LEGISLATION PLAN MEETING
WEDNESDAY, JUNE 5, 2013 6:00 P. M. - 8:00 P.M.

NAME	REPRESENTING	PHONE NO.	EMAIL
Nem Gomez	URS Corp.	305-514-2426	nem.gomez@urs.com
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Steven Eagle	Nova Consulting	305 436-9200	seagle@nova-consulting.com
Shery Negalba	WASD	786 552-8576	negsc@miamidade.gov
Ed Rectenwald	MWH	239-233-0812	edward.rectenwald@mwhglobal.com
Rogan Cahy	WTR		rcahy@watertr...
David Rutledge	LIUNA	615.739.8535	drutledge@seb...
Michael Viñas	MSA	786-202-0609	mvina@miamidade.gov

MIAMI-DADE COUNTY

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OCEAN OUTFALL LEGISLATION PLAN MEETING
WEDNESDAY, JUNE 5, 2013 6:00 P. M. - 8:00 P.M.

NAME	REPRESENTING	PHONE NO.	EMAIL
Bertha Goldenberg	MDWASD	786-552-8120	bmg@miamidade.gov
JOSE LOPEZ	ATKINS	954-260-1353	jlopez@atki[illegible]
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TERRY Murphy	PAC Miami (self)	305 322-6707	terrymurphy06@GMAIL.com

MIAMI-DADE COUNTY

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WEDNESDAY, JUNE 5, 2013 6:00 P. M. - 8:00 P.M.

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MIAMI-DADE COUNTY

SIGN-IN SHEET
OCEAN OUTFALL LEGISLATION PLAN MEETING
WEDNESDAY, JUNE 5, 2013 6:00 P. M. - 8:00 P.M.

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DAN EDWARDS	MDWASD / MPS	786 552-8354	djedwf1@miamidade.gov
Vince Arrebola	WASD / Wtr Ops	786 552-8116	arrebv@miamidade.gov
VIRGINIA WALSH	WASD	786 552 8266	Walshvm@miamidade.gov
Debbie Swain	MSA	305/441-0123	dswain@miamisawa.com

MIAMI-DADE COUNTY

SIGN-IN SHEET
OCEAN OUTFALL LEGISLATION PLAN MEETING
WEDNESDAY, JUNE 5, 2013 6:00 P. M. - 8:00 P.M.

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