HAZEN AND SAWYER
Environmental Engineers & Scientists

Date: July 5, 2011

TO: Western Wake Partners

FROM: Hazen and Sawyer

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SUBJECT: Western Wake Water Reclamation Facility
Effluent Conveyance Facilities
Impact of Holly Springs Withdrawal with Scenario 3 (Dual Pipeline) and Scenario 4 (60-inch pipeline) Included

Introduction

This memorandum evaluates the impacts to the Effluent Conveyance Facilities of the Western Wake Water Reclamation Facilities if Holly Springs withdraws from the Western Wake Partnership. The purpose of this memorandum is to determine the scope of the modifications required to meet the revised design flow conditions and to establish an engineer's opinion of costs and schedule impacts associated with the withdrawal.

Design Flows

Design flows for the Effluent Conveyance Facilities were revised to reflect the decrease in flow if Holly Springs withdraws from the partnership. The revised flows are shown in Table 1.

Table 1
Effluent Conveyance Facilities Design Flows

Description	Existing Design	w/o Holly Springs
Phase I (2020)		
Minimum Flow (mgd)	6.4	4.8
Average Flow (mgd)	20.5	15.2
Peak Flow (mgd)	62.5	46.4
Phase II (2030)		
Minimum Flow (mgd)	11.0	8.9
Average Flow (mgd)	31.1	24.2
Peak Flow (mgd)	91.3	69.9

Pumping Equipment and Electrical Requirements

A hydraulic analysis was performed, utilizing the effluent conveyance system flows without Holly Springs as shown in Table 1, to determine impact on the Effluent Conveyance Facilities. The objective of the analysis was to determine the pump and electrical requirements for the revised design flows and to determine the appropriate effluent force main diameter for the reduced flows.

The original design (with Holly Springs) included a 60" diameter force main, which provided capacity for Phase 2 design flows. For Phase 2 flows without Holly Springs, the hydraulic analysis showed the existing 60-inch FM was hydraulically feasible and would require less connected horsepower, however a 54" force main is adequate for the reduced flows. The reduction in force main size from 60" to 54" results in capital cost savings of $4,053,000. The hydraulic analysis also showed that fewer pumps would be required to meet the new design flows. Two different size pumps will still be required to meet the wide range of flow conditions: smaller pumps for low flow conditions and larger pumps for peak flow conditions. Two small and three large pumps would be installed in Phase I, with space for a future fourth large pump, to be installed in Phase II. All pump discharge piping would be downsized under the revised flow conditions. For the Phase 1 design, total connected horsepower requirements would decrease from the original design as shown in Table 2.

The Partners also wished to investigate the potential for additional capital cost savings by sizing the force main for Phase 1 flows only. It was determined that a 48" line would be required for Phase 1 flows without Holly Springs. The reduction in force main size from 60-inch to 48-inch results in a capital cost savings of $9,203,000. However, the 48" line would need to be paralleled with a 36" force main in the future in order to provide for Phase 2 flows. Assuming the parallel line is installed in 10 years, the present worth cost of the parallel 36" line is estimated at $17,033,900. With a 48" force main, six pumps would be required for Phase 1 flows. Two different size pumps will still be required to meet the wide range of flow conditions: two smaller pumps for low flow conditions and four larger pumps for peak flow conditions. All pump discharge piping would be downsized under the revised flow conditions. For the Phase 1 design, total connected horsepower requirements would increase from the original design, as shown in Table 2, due to additional friction losses in the smaller pipeline.

It is still recommended that all pumps be provided with variable frequency drives. As with the current design, it will still be necessary to replace all pump motors and VFDs in the second phase of the project to meet Phase II pumping requirements. The new arrangement still includes low voltage (480 VAC) motors and electrical equipment. The revised pump and electrical requirements are summarized in Table 2 and are shown in comparison with the current design which includes the Holly Springs flow. The pumping and electrical requirements for the 48" pipeline option assume a parallel 36" line under Phase 2.

Table 2
Revised Pump/Electrical Requirements

	Existing Design	Without Holly Springs		
Description	**60" Pipeline**	**60" Pipeline**	**54" Pipeline**	**48" Pipeline***
Phase I Pumping Equipment				
Small Pumps				
Number of Pumps	2	2	2	2
Pump Flow (mgd)	10	7.8	7.8	5.9
Motor Horsepower	125 hp	100 hp	100 hp	150 hp
Large Pumps				
Number of Pumps	4	3	3	4
Pump Flow (mgd)	20.9	15.5	15.5	11.7
Motor Horsepower	250 hp	200 hp	200 hp	300 hp
Total Connected Pump HP	1250 hp	800 hp	800 hp	1500 hp
Maximum Operating Pump HP	750 hp	460 hp	500 hp	1020 hp
Phase II Pumping Equipment				
Small Pumps				
Number of Pumps	2	2	2	2
Pump Flow (mgd)	10	8.8	8.8	8.8
Motor Horsepower	125 hp	150 hp	250 hp	250 hp
Large Pumps				
Number of Pumps	6	4	4	4
Pump Flow (mgd)	18.3	17.5	17.5	17.5
Motor Horsepower	500 hp	300 hp	500 hp	500 hp
Total Connected Pump HP	3250 hp	1500 hp	2500 hp	2500 hp
Maximum Operating Pump HP	2500 hp	1100 hp	1750 hp	1820 hp

* Assumes a 36" parallel force main for Phase 2 flows

Effluent Pump Station Redesign

A complete redesign of the pump station to accommodate the proposed equipment changes would involve all the engineering disciplines (civil, mechanical, structural, architectural, electrical, HVAC, and instrumentation). However, the scope of the design effort could be reduced significantly by leaving the concrete structure and building as currently designed. This "reduced scope" redesign would be focused on mechanical, electrical, and instrumentation disciplines, with only minor changes to the structure.

The "reduced scope" redesign is graphically illustrated in Figures 1 and 2. The Holly Springs force main and all associated piping would be eliminated, along with the parshall flume and sampler dedicated to the Holly Springs flow. The number and size of the effluent pumps would be revised as summarized in Table 2 to meet the new flow requirements. All discharge piping in the building and in the yard would be reduced and electrical gear would be redesigned and downsized accordingly. However, the current design of the pump station structure and building would not be modified. The "reduced scope" redesign results in an estimated capital cost savings of $2,046,000.

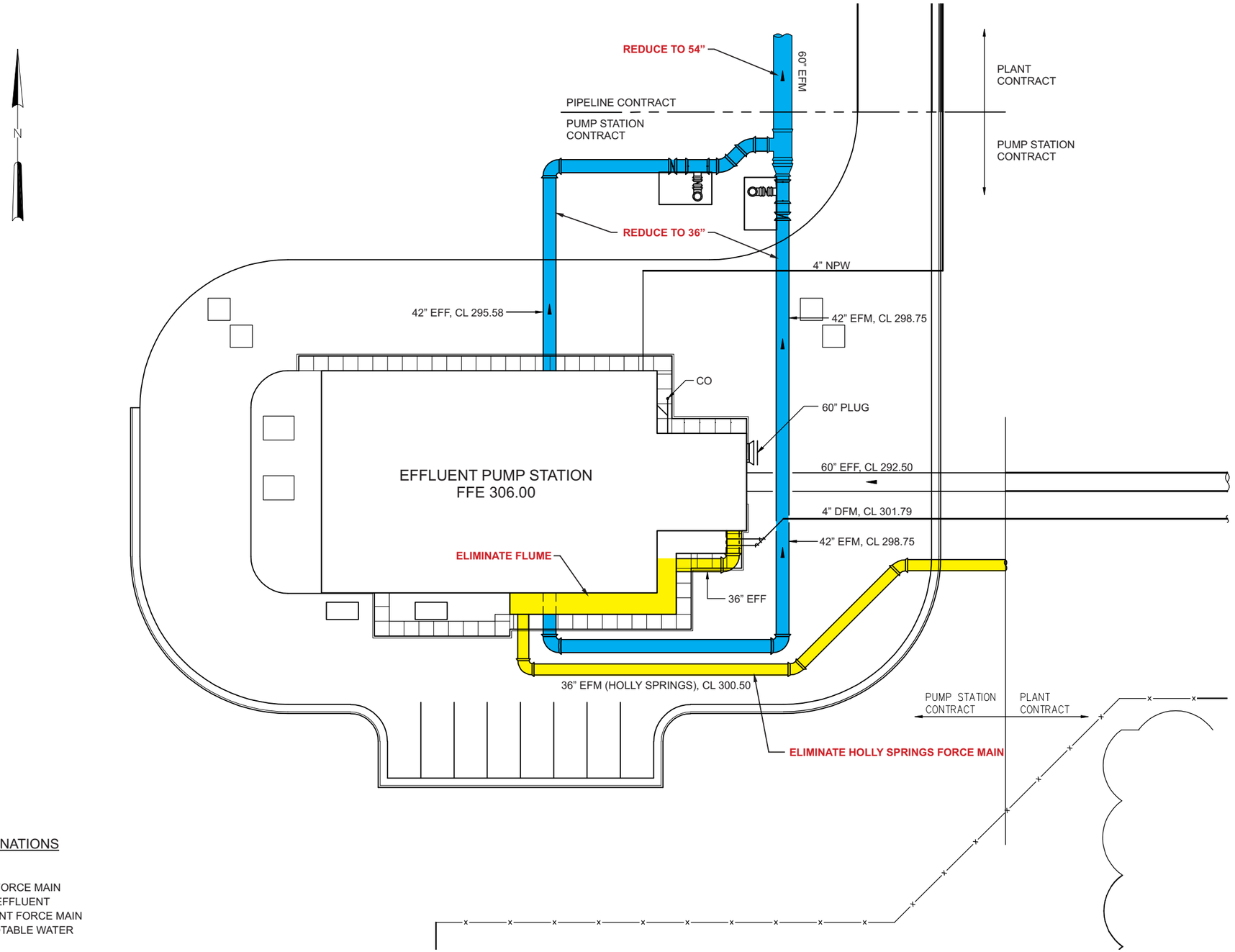
The "complete" redesign includes all work described above but also includes modifications to the Effluent Pump Station structure. The wet well and pump room superstructure would be reduced in length by approximately 11 feet to eliminate the space for the two future pumps that would no longer be required. The size of the electrical room would also be reduced by approximately 3' due to the reduced electrical equipment requirements. Reducing the size of the structure would involve site, structural, architectural, and HVAC modifications. The estimated capital cost savings for this alternative is $2,260,000.

Scenarios for Effluent Conveyance Facilities Redesign

Four scenarios were evaluated for the redesign of the Effluent Conveyance Facilities if Holly Springs withdraws from the Partnership.

Scenario 1 includes the "reduced scope" redesign of the pump station and a reduction of the force main diameter to 54". This scenario is comparable to Scenario 2 in terms of cost savings, but provides flexibility for the future with additional space being left in the wet well and electrical room. The 54" pipeline is adequate for Phase 2 design flows. This scenario requires a minimal redesign effort for the pump station and pipeline.

Scenario 2 includes the "complete" redesign of pump station and a reduction of the force main diameter to 54". This scenario provides additional cost savings (approximately $154,000) but



LEGEND

- MODIFY
- ELIMINATE

PIPING DESIGNATIONS

D	DRAIN
DFM	DRAIN FORCE MAIN
EFF	PLANT EFFLUENT
EFM	EFFLUENT FORCE MAIN
NPW	NON-POTABLE WATER

HOLLY SPRINGS WITHDRAWAL EVALUATION

FIGURE 1
SCENARIOS 1 AND 2 YARD PIPING PLAN

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HOLLY SPRINGS WITHDRAWAL EVALUATION

FIGURE 2
SCENARIOS 1 AND 2 MECHANICAL TOP PLAN

reduces flexibility for the future and requires additional redesign effort. The 54" pipeline is adequate for Phase 2 flows.

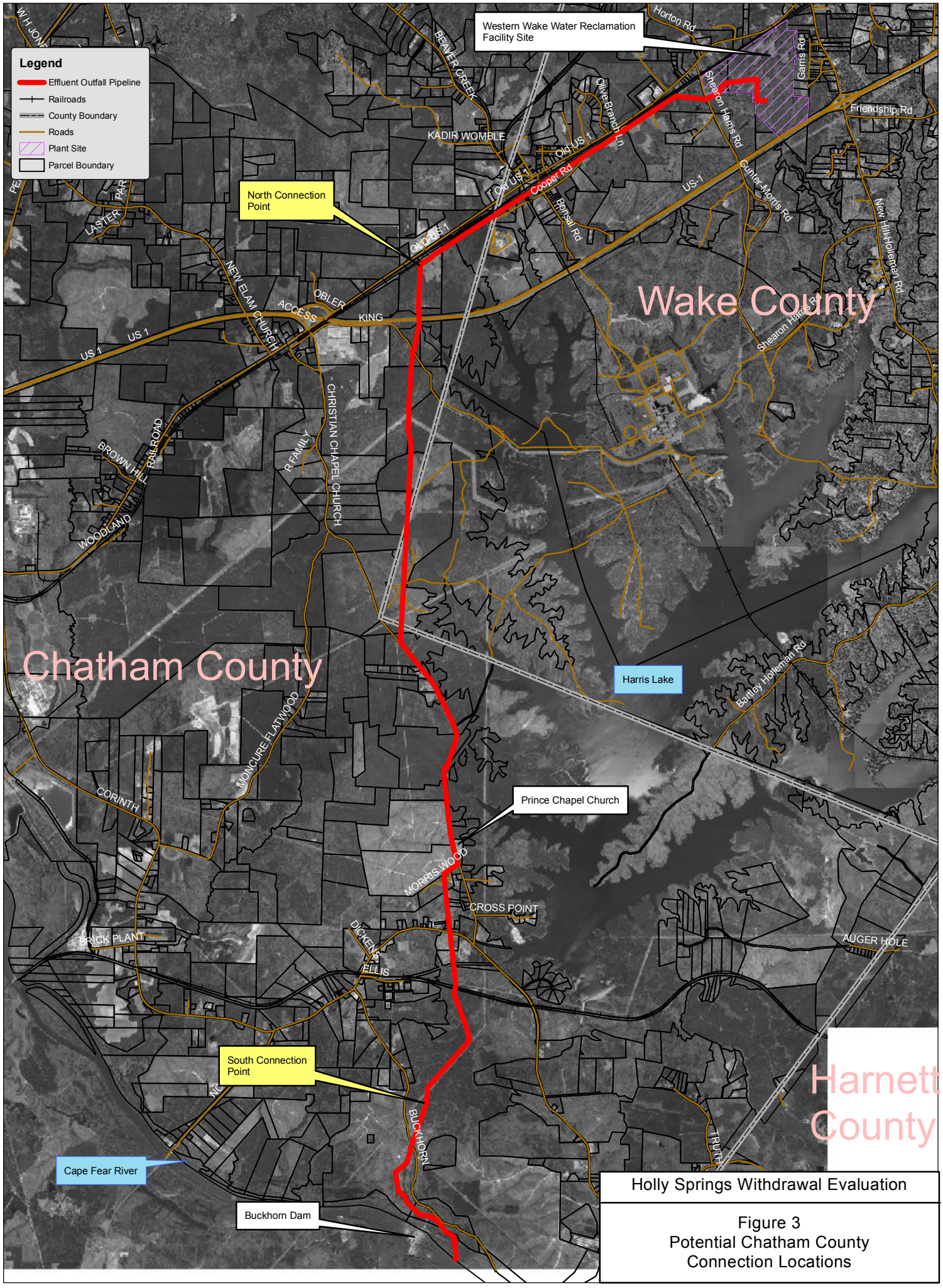
Scenario 3 includes the "complete" redesign of pump station and a reduction of the force main diameter to 48" (adequate for Phase 1 flows only). This scenario provides maximum cost savings for the initial construction project but is the most costly scenario on a present worth basis (factoring in the cost of the future parallel force main). This scenario offers the least flexibility for the future and requires a redesign effort similar to Scenario 2.

Scenario 4 includes the "reduced scope" redesign of the pump station but assumes the force main diameter will remain at 60 inches as currently designed. In addition to pump station flexibility similar to Scenario 1, this scenario provides the Partners with the most flexibility to allow the partners to accept treated wastewater flow from Holly Springs, Chatham County, or another municipality or sewer provider. This Scenario offers the least Phase 1 cost savings, but is less expensive than Scenario 3 on a present worth basis.

Chatham County Excess Capacity Analysis

The fourth term of an agreement between the Western Wake Partners (Partners) and Chatham County signed on April 1, 2011 provides Chatham County the ability to purchase any available (i.e. excess) capacity in the effluent outfall pipeline. The agreement also requires the Partners to design and construct a connection point on the effluent outfall pipeline sized to accept not less than 6 mgd of treated effluent from Chatham County. The agreement did not specify where along the pipeline the connection would be made. Two potential connection points have been identified which are representative of the extremes with the least excess capacity being available at the northern connection point and the most capacity at the southern connection point. These potential connection points are shown on Figure 3. The northern (north) connection point is approximately 17,700 feet from the Effluent Pump Station just south of Old US 1 where the pipeline first turns south. The southern (south) connection point was assumed to be at the last high point in the line where the pressure flow transitions to gravity flow (approximately 57,000 feet from the Effluent Pump Station. Note: The effluent outfall pipeline diameter is reduced by one pipe size at the gravity transition point in all scenarios).

Table 3 summarizes the excess flow capacity available for purchase at the two connection points for the Phase 1 and Phase 2 flows assuming the Partners utilize 100% of their design peak flows of 46.4 and 69.9 mgd, respectively. The excess capacity analysis assumes no design changes to the effluent pump station are required to accommodate the Chatham County flow. Table 3 shows the "South" connection point would provide greater than 6 mgd of capacity to Chatham County for any scenario or phase. However, only Scenario 4 with its 60-inch diameter pipeline would accommodate excess flow from Chatham County at the "North"



Holly Springs Withdrawal Evaluation

Figure 3
Potential Chatham County
Connection Locations

connection point, and then only in Phase 1.

Table 3
Excess Flow Capacity Available to Chatham County by Scenario and Phase

	Scenario 1 and 2 54" Pipeline		Scenario 3 48" Pipeline		Scenario 4 60" Pipeline	
	Phase 1	Phase 2	Phase 1	Phase 2	Phase 1	Phase 2
North Connection Point Excess Capacity (mgd)	0[1]	0[2]	0[1]	0[2]	>6	0[1]
South Connection Point Excess Capacity (mgd)	>6	>6	>6	>6	>6	>6

[1] Minor increases to pumping head and motor horsepower would be required for the pipeline to accept 6 mgd of Chatham County flow.
[2] Significant increase in pumping head and motor horsepower would be required for the pipeline to accept 6 mgd of Chatham County flow.

Excess capacity (6 mgd) could be made available for Chatham County at the "North" connection point for the Phase 1 flows of Scenario's 1 through 3 and the Phase 2 flow for Scenario 4 if the effluent pumps are replaced with higher horsepower pumps capable of pumping against the increased pumping head. In addition to the pump replacement, this design change would require changes in the electrical design to accommodate the increased electrical loads. Similarly, the effluent pumps could be replaced and accept 6 mgd of flow from Chatham County in Phase 2 for Scenario's 1 through 3, however the increased pumping head would require pump motors that exceed 500 HP, potentially requiring the installation of medium voltage switchgear.

Easements

A full evaluation of the impacts of design changes on the effluent outfall pipeline easement width has not been performed as part of this evaluation. The 0.5 ft reduction in pipe diameter from the current 60-inch pipeline to a 54-inch pipeline for Scenario 1 and 2 does not warrant a change in easement width. Consequently, for Scenarios 1 and 2 there would be no additional costs for re-design of easements and development of new easement plats, and there would be no change in overall land costs when compared with the original design. However, should the Western Wake Partners elect to pursue Scenario 3 (the parallel pipeline option) the easement design would need to be thoroughly re-evaluated. The permanent easement width for the majority of the current design is 30 feet. In order to accommodate 48-inch and 36-inch parallel pipelines the easement width will need to be increased to a minimum of 40 feet, similar to the easement used for the parallel 42-inch and 36-inch Beaver Creek Force Mains. Areas where the permanent easement is currently wider than 30 feet would have to be evaluated to see if additional easement is required to facilitate both pipelines. The majority of the redesign could likely be

done within the existing pipeline corridor depicted on the current drawings by converting areas shown as temporary construction easement to permanent easement and offsetting the two pipelines within the corridor. In areas where the corridor encroaches on Dixie Pipeline for temporary construction easement, additional permanent easement on the side of the corridor furthest from the gas pipeline may be required. Costs for redesigning the easement, modifying the easement plats, and the additional land for permanent easement for the parallel pipeline scenario have not been included as part of this evaluation.

Cost Summary

Table 4 shows a cost comparison between facilities as currently designed and the four scenarios for redesign. This summary includes all estimated capital savings resulting from redesign as well as the engineering costs associated with the redesign effort.

Table 4
Cost Comparison – Effluent Conveyance Redesign Scenarios

	Existing Design	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Pump Station*	$9,764,000	$7,718,000	$7,504,000	$7,537,000	$7,718,000
Cascade	$834,000	$834,000	$834,000	$834,000	$834,000
Force Main	$39,328,000	$35,275,000	$35,275,000	$30,125,000	$39,328,000
Total	$49,926,000	$43,827,000	$43,613,000	$38,496,000	$47,880,000
Capital Cost Savings					
Pump Station		($2,046,000)	($2,260,000)	($2,227,000)	($2,046,000)
Force Main		($4,053,000)	($4,053,000)	($9,203,000)	$0
Total Capital Cost Savings		($6,099,000)	($6,313,000)	($11,430,000)	($2,046,000)
Engineering Cost Increase					
Pump Station		$55,000	$115,000	$115,000	$55,000
Force Main		$42,000	$42,000	$42,000	$0
Total Engineering		$97,000	$157,000	$157,000	$55,000
Total Initial Cost Savings		($6,002,000)	($6,156,000)	($11,273,000)	($1,991,000)
Present Worth Cost of Future Parallel Force Main		$0	$0	$17,033,900	$0

*Pump station costs include 64" effluent line from WRF. The "current design" pump station cost also includes the portion of the Holly Springs force main located on the WRF site.

Tables 5, 6, 7, 8, and 9 show the cost breakdowns for each partner for the original design and for the four Holly Springs withdrawal scenarios. These tables assume that Holly Springs will

bear 100% of the cost of the redesign efforts. Table 8 (Scenario 3) also includes the present worth cost of the future parallel 36" force main.

Schedule Impacts

Redesign of the Effluent Conveyance Facilities for Scenario 1 or Scenario 4 would require approximately 3 months, while redesign of the more extensive Scenarios 2 and 3 would require approximately 6 months. Obtaining the Authorization to Construct (ATC) for any of the scenarios is anticipated to take an additional 4 to 6 months. The ATC timeframe could be reduced if the original designs are accepted and approved and Construction Grants and Loans determines the design changes do not constitute a "major modification" which triggers full re-submittal of plans and specifications. The redesign effort does not include any necessary changes to the Engineering Report or Environmental Impact Statement and subsequent approvals which may impact the schedule. None of the other permits or encroachments (Erosion and Sedimentation Control, DOT Encroachments, Railroad Encroachments, Dixie Pipeline Encroachment, Progress Energy Encroachment) are anticipated to affect the schedule as we anticipate any administrative changes related to the design changes to be completed concurrent with the ATC.

TABLE 5
EFFLUENT PUMP STATION AND PIPELINE COST PROJECTIONS[1]
EXISTING DESIGN

Existing Design	*Apex*		*Cary*		*Holly Springs*		*Morrisville*		*Total*
	%	*Total*	*%*	*Total*	*%*	*Total*	*%*	*Total*	
Engineering Services	25.6	$564,869	43.4	$957,630	24.8	$547,217	6.2	$136,804	$2,206,520
Effluent Convey SCADA	25.6	$58,529	43.4	$99,225	24.8	$56,700	6.2	$14,175	$228,630
Construction Cost									
64 " Plant Effluent Line	34.1	$192,567	57.7	$325,840	0	$0	8.2	$46,307	$564,714
36" FM (Holly Springs)	0	$0	0	$0	100	$832,014	0	$0	$832,014
Effluent Pump Station Cost	25.6	$2,142,047	43.4	$3,631,439	24.8	$2,075,108	6.2	$518,777	$8,367,371
Effluent Force Main Cost	25.6	$10,068,065	43.4	$17,068,516	24.8	$9,753,438	6.2	$2,438,359	$39,328,378
River Discharge Structure	25.6	$213,621	43.4	$362,155	24.8	$206,946	6.2	$51,736	$834,458
Total Construction Cost		$12,616,300		$21,387,950		$12,867,505		$3,055,179	$49,926,935
Total Cost Per Project Partner		**$13,239,699**		**$22,444,805**		**$13,471,422**		**$3,206,158**	**$52,362,085**

1 Cost breakdowns by partner are estimates based on the existing pro-rata cost share structure and would ultimately need to be reviewed and approved by the PAC
2 Land Acquisition costs are not included.

TABLE 6
EFFLUENT PUMP STATION AND PIPELINE COST PROJECTIONS[1]
SCENARIO 1

Proposed Design w/o Holly Springs	*Apex*		*Cary*		*Holly Springs*		*Morrisville*		*Total*
SCENARIO 1	*%*	*Total*	*%*	*Total*	*%*	*Total*	*%*	*Total*	
Engineering Services for Original Design	25.6	$564,869	43.4	$957,630	24.8	$547,217	6.2	$136,804	$2,206,520
Engineering Services for Redesign	0	$0	0	$0	100	$97,000	0	$0	$97,000
Effluent Convey SCADA	34.1	$77,963	57.7	$131,920	0	$0	8.2	$18,748	$228,630
Construction Cost									
64 " Plant Effluent Line	34.1	$192,567	57.7	$325,840	0	$0	8.2	$46,307	$564,714
36" FM (Holly Springs)	0	$0	0	$0	0	$0	0	$0	$0
Effluent Pump Station Cost	34.1	$2,439,286	57.7	$4,127,473	0	$0	8.2	$586,573	$7,153,332
Effluent Force Main Cost	34.1	$12,028,721	57.7	$20,353,584	0	$0	8.2	$2,892,537	$35,274,842
River Discharge Structure	34.1	$284,550	57.7	$481,482	0	$0	8.2	$68,426	$834,458
Total Construction Cost		$14,945,125		$25,288,379		$0		$3,593,842	$43,827,346
Total Cost Per Project Partner		**$15,587,957**		**$26,377,928**		**$644,217**		**$3,749,394**	**$46,359,496**
Difference in cost from Existing Design		$2,348,258		$3,933,123		($12,827,206)		$543,236	($6,002,589)

1 Cost breakdowns by partner are estimates based on the existing pro-rata cost share structure and would ultimately need to be reviewed and approved by the PAC.
2 Land Acquisition costs are not included.

TABLE 7
EFFLUENT PUMP STATION AND PIPELINE COST PROJECTIONS[1]
SCENARIO 2

Proposed Design w/o Holly Springs	*Apex*		*Cary*		*Holly Springs*		*Morrisville*		*Total*
SCENARIO 2	*%*	*Total*	*%*	*Total*	*%*	*Total*	*%*	*Total*	
Engineering Services for Original Design	25.6	$564,869	43.4	$957,630	24.8	$547,217	6.2	$136,804	$2,206,520
Engineering Services for Redesign	0	$0	0	$0	100	$157,000	0	$0	$157,000
Effluent Convey SCADA	34.1	$77,963	57.7	$131,920	0	$0	8.2	$18,748	$228,630
Construction Cost									
64 " Plant Effluent Line	34.1	$192,567	57.7	$325,840	0	$0	8.2	$46,307	$564,714
36" FM (Holly Springs)	0	$0	0	$0	0	$0	0	$0	$0
Effluent Pump Station Cost	34.1	$2,366,354	57.7	$4,004,066	0	$0	8.2	$569,035	$6,939,455
Effluent Force Main Cost	34.1	$12,028,721	57.7	$20,353,584	0	$0	8.2	$2,892,537	$35,274,842
River Discharge Structure	34.1	$284,550	57.7	$481,482	0	$0	8.2	$68,426	$834,458
Total Construction Cost		$14,872,193		$25,164,972		$0		$3,576,304	$43,613,469
Total Cost Per Project Partner		**$15,515,025**		**$26,254,521**		**$704,217**		**$3,731,856**	**$46,205,619**
Difference in cost from Existing Design		$2,275,326		$3,809,716		($12,767,206)		$525,698	($6,156,466)

1 Cost breakdowns by partner are estimates based on the existing pro-rata cost share structure and would ultimately need to be reviewed and approved by the PAC.
2 Land Acquisition costs are not included.

TABLE 8
EFFLUENT PUMP STATION AND PIPELINE COST PROJECTIONS[1]
SCENARIO 3

Proposed Design w/o Holly Springs	*Apex*		*Cary*		*Holly Springs*		*Morrisville*		*Total*
SCENARIO 3	*%*	*Total*	*%*	*Total*	*%*	*Total*	*%*	*Total*	
Engineering Services for Original Design	25.6	$564,869	43.4	$957,630	24.8	$547,217	6.2	$136,804	$2,206,520
Engineering Services for Redesign	0	$0	0	$0	100	$157,000	0	$0	$157,000
Effluent Convey SCADA	34.1	$77,963	57.7	$131,920	0	$0	8.2	$18,748	$228,630
Construction Cost									
64 " Plant Effluent Line	34.1	$192,567	57.7	$325,840	0	$0	8.2	$46,307	$564,714
36" FM (Holly Springs)	0	$0	0	$0	0	$0	0	$0	$0
Effluent Pump Station Cost	34.1	$2,377,701	57.7	$4,023,265	0	$0	8.2	$571,764	$6,972,729
Effluent Force Main Cost	34.1	$10,272,530	57.7	$17,381,965	0	$0	8.2	$2,470,227	$30,124,722
River Discharge Structure	34.1	$284,550	57.7	$481,482	0	$0	8.2	$68,426	$834,458
Total Construction Cost		$13,127,348		$22,212,551		$0		$3,156,723	$38,496,623
Total Cost Per Project Partner		**$13,770,180**		**$23,302,100**		**$704,217**		**$3,312,276**	**$41,088,773**
Difference in cost from Existing Design		$530,482		$857,296		($12,767,206)		$106,116	($11,273,312)
Present Worth Cost of Future Force Main	34.1	$5,808,560	57.7	$9,828,560			8.2	$1,396,780	$17,033,900

1 Cost breakdowns by partner are estimates based on the existing pro-rata cost share structure and would ultimately need to be reviewed and approved by the PAC.
2 Land Acquisition costs are not included.

TABLE 9
EFFLUENT PUMP STATION AND PIPELINE COST PROJECTIONS[1]
SCENARIO 4

Proposed Design w/o Holly Springs	*Apex*		*Cary*		*Holly Springs*		*Morrisville*		*Total*
SCENARIO 3	*%*	*Total*	*%*	*Total*	*%*	*Total*	*%*	*Total*	
Engineering Services for Original Design	25.6	$564,869	43.4	$957,630	24.8	$547,217	6.2	$136,804	$2,206,520
Engineering Services for Redesign	0	$0	0	$0	100	$55,000	0	$0	$55,000
Effluent Convey SCADA	34.1	$77,963	57.7	$131,920	0	$0	8.2	$18,748	$228,630
Construction Cost									
64 " Plant Effluent Line	34.1	$192,567	57.7	$325,840	0	$0	8.2	$46,307	$564,714
36" FM (Holly Springs)	0	$0	0	$0	0	$0	0	$0	$0
Effluent Pump Station Cost	34.1	$2,439,286	57.7	$4,127,473	0	$0	8.2	$586,573	$7,153,332
Effluent Force Main Cost	34.1	$13,410,977	57.7	$22,692,474	0	$0	8.2	$3,224,927	$39,328,378
River Discharge Structure	34.1	$284,550	57.7	$481,482	0	$0	8.2	$68,426	$834,458
Total Construction Cost		$16,327,381		$27,627,269		$0		$3,926,232	$47,880,882
Total Cost Per Project Partner		**$16,970,213**		**$28,716,818**		**$602,217**		**$4,081,784**	**$50,371,032**
Difference in cost from Existing Design		$3,730,514		$6,272,013		($12,869,206)		$875,626	($1,991,053)

1 Cost breakdowns by partner are estimates based on the existing pro-rata cost share structure and would ultimately need to be reviewed and approved by the PAC.
2 Land Acquisition costs are not included.