

WESTERN WAKE PARTNERS

Report to the Policy Advisory Committee (PAC08-23)

Date: March 12, 2008
To: Policy Advisory Committee
From: Steve Brown, P.E. – Town of Cary, Director of Public Works and Utilities
Prepared By: Leila Goodwin, P.E. – Town of Cary, Water Resources Manager
Subject: Western Wake Regional Wastewater Facilities Budget Update and Proposed FY09 Operating Budget

Background

Section 3.3 of the “*Design, Construction, Ownership, Management and Operation Agreement*” dated August 22, 2005 (“Implementation Agreement”), specifies that:

“The Lead Agency shall prepare the Annual Budget for each Fiscal Year and as expeditiously as possible shall provide each of the Project Partners with the Annual Budget. The Lead Agency shall endeavor to prepare and provide to each Project Partner by each March 15 a preliminary Annual Budget for the ensuing Fiscal Year. To the extent possible, the Lead Agency shall prepare the Annual Budget so that it will be possible to determine from such budget the Current Expenses for the Wastewater Management Facilities that will be allocable to each Project Partner during the Fiscal Year.”

Discussion

The Project Partners entered into two agreements specifying tasks to be undertaken by the Lead Agency, how costs for those tasks will be allocated, and anticipated budgets:

- 1) *The Interlocal Agreement for Regional Wastewater Management Facilities Land Acquisition and Preliminary Work*, as amended (“Preliminary Work Agreement”), addressed purchase of land for the Water Reclamation Facility (WRF) and pump stations; permitting; and organizational, institutional and financial development. For budget discussion purposes, land costs will be included in facility design and construction costs.
- 2) *The Agreement For Design, Construction, Ownership, Management And Operation Of Western Wake Regional Wastewater Management Facilities*, as amended (Implementation Agreement), addressed design and construction of the facilities, and defined Fixed Current Expenses, which includes project management expenses before facility startup.

Report PAC07-10 presented several potential cost allocations for implementation of the Apex/Site 14 Water and Sewer Extension Policy and although Option 1 was selected by the Policy Advisory Committee at that time and is used in this update for discussion purposes, the Policy Advisory Committee subsequently agreed to revisit the cost

allocations for this item. The Lead Agency proposes bringing this item back to the Policy Advisory Committee in the summer of 2008, when we expect to have a better idea of how the EIS process is going relative to site selection.

Table 1 presents the cost shares for various components of the facilities.

Preliminary Work

The Preliminary Work included two items: permitting; and organizational, institutional and financial development. Table 2 shows a summary of the updated preliminary work budget, including additional funding that is needed for permitting, due to the transition from the NCDENR SEPA process to the U. S. Army Corps of Engineers NEPA process for developing an Environmental Impact Statement. A portion of the permitting cost has been reimbursed from a State Revolving Fund (SRF) loan, for which repayment has already begun.

Although the organizational, institutional and financial development is largely unspent at this time, it is anticipated that more work remains to be done to finalize the service agreements between the Lead Agency and each partner. Therefore, there are no recommended changes in the organizational, institutional and financial development budget.

Land Acquisition, Design and Construction

Costs have been updated based on the ongoing design of the facilities and increased knowledge of pipeline routes and potential easement costs.

Summary of Capital Costs

Table 3 presents the updated cost estimates for land acquisition and facilities. Table 4 presents a comparison of updated costs with the previously budgeted costs, by Partner. Note that:

- several project components have been added (Beaver Creek Gravity Sewer, Beaver Creek Trunk Sewer and Tunnel, Holly Springs Effluent Line on WRF Site, Value Engineering);
- decisions were made to increase the capacity of the Effluent Pipeline and Outfall to meet 2030 needs and to use parallel pipelines for several of the raw wastewater conveyance lines; and
- most costs are now on 2009 dollars (instead of 2008).

Project Management

As has been discussed previously, there are operating expenses before startup of the facilities which are being billed to the Project Partners by the Lead Agency as Fixed Current Expenses. To date these include salary costs for a project manager, contract costs for land acquisition services, and the cost for the annual audit.

FY09 and Future Year Cash Flow Estimates

Table 5 presents an estimate of the timing of cash flow for the project, for each Project Partner. The cash flow estimates incorporate the use and repayment of two SRF loans: about \$4 million for planning and permitting (including some design) and \$60 million

for WRF construction. Table 6 shows the proposed FY09 Operating Budget broken down into permitting, capital, and project management costs.

Requested Action: The Technical Advisory Committee requests that the Policy Advisory Committee accept the recommended FY09 Operating Budget.

Table 1 Cost Share Allocations for Western Wake Regional Wastewater Management Facilities				
Project Component	Apex	Cary	Holly Springs	Morrisville
Preliminary Work and Land Acquisition Agreement				
Preliminary Work (Permitting)	26.9%	44.3%	22.5%	6.3%
Organizational, Financial, Institutional	26.9%	44.3%	22.5%	6.3%
West Cary PS Land	0%	87.5%	0%	12.5%
Beaver Creek PS Land	34.7%	57.2%	0%	8.1%
Western Wake WRF Land	34.7%	57.2%	0%	8.1%
Effluent Pump Station Land	26.9%	44.3%	22.5%	6.3%
Design, Construction, Ownership, Management And Operation Agreement				
West Cary PS	0%	87.8%	0%	12.2%
West Cary Force Main	0%	87.8%	0%	12.2%
West Cary Force Main Land	0%	87.5%	0%	12.5%
West Reedy Branch Gravity Sewer	9.3%	78.7%	0%	12.0%
West Reedy Branch Gravity Sewer Land	10.6%	78.2%	0%	11.2%
Beaver Creek Gravity Sewer	100.0%	0.00%	0.00%	0.00%
Beaver Creek Gravity Sewer Land	100.0%	0.00%	0.00%	0.00%
Beaver Creek Trunk Sewer and Tunnel	50.0%	43.8%	0.00%	6.2%
Beaver Creek Trunk Sewer and Tunnel Land	50.0%	43.8%	0.00%	6.2%
Beaver Creek PS	21.3%	69.0%	0%	9.7%
Beaver Creek Force Main	21.3%	69.0%	0%	9.7%
Beaver Creek Force Main Land	34.7%	57.2%	0%	8.1%
Western Wake WRF	34.1%	57.7%	0%	8.2%
Effluent PS, Pipeline and Outfall Design	25.6%	43.4%	24.8%	6.2%
Effluent Pump Station	25.6%	43.4%	24.8%	6.2%
Effluent Pipeline and Outfall	26.9%	44.3%	22.5%	6.3%
Effluent Pipeline and Outfall Land	26.9%	44.3%	22.5%	6.3%
Holly Springs Effluent Line on WRF Site	0%	0%	100.0%	0%
Operating Budget				
Project Management(Fixed Current Expenses)	26.7%	59.6%	5.3%	8.4%
Additional Items				
SCADA	25.6%	43.4%	24.8%	6.2%
Value Engineering	25.6%	43.4%	24.8%	6.2%
Apex/Site 14 W/S Extension Policy (Option 1)	26.9%	44.3%	22.5%	6.3%

Table 2 Updated Budget for Preliminary Work	
Permitting (Cary Project SW 1109)	
Costs presented in February 2007 (PAC07-08)	\$ 2,500,000
Additional permitting costs to date	\$ 210,330
<i>CDM/CH2M Hill (preparing EIS with USACE direction)</i>	
<i>Brown and Caldwell (Partners' EIS Consultant)</i>	
<i>Poyner and Spruill (legal review)</i>	
Additional budget to complete current tasks	\$ 2,259,000
<u>Recommended Contingency</u>	\$ 200,000
Total costs for budget planning purposes	\$ 5,169,330
<i>Amount spent that was reimbursed by SRF loan</i>	\$ 1,430,214.00
Total of SRF loan payments (11/01/2007 – 05/01/2027)	\$ 1,771,842.43
Total estimated costs not funded by SRF Loan	\$ 3,739,116.00
Total payments for budget planning purposes	\$ 5,510,958.43
Amount paid by Partners through 03/03/09 (including loan pmt)	\$ 628,117.67
Estimated additional FY08 payments	\$ 647,778.83
Remaining Budget Amount for FY09 and later	\$ 4,235,061.93
Organizational, Institutional, Financial (Cary Project SW1113)	\$ 600,000
<i>(Amount spent through 3/3/08)</i>	\$ 67,320

Table 3 Phase 1 Project Component Costs

Facility	Total Updated Project Costs (either actual spent or 2008\$)					Total Updated Costs	Feb 2007 costs	Increase (Decrease)	
	Engineering Costs	Construction Costs	Land costs	Subtotal Eng & Const Costs (2008\$)					
West Cary PS (peak hourly)	\$1,217,111	\$13,191,000	\$318,000	\$14,408,111	\$14,726,111	\$13,227,500	\$1,498,611	11%	
West Cary Force Main (peak hourly)	\$743,376	\$10,349,800	\$509,800	\$11,093,176	\$11,602,976	\$7,950,300	\$3,652,676	46%	
West Reedy Branch Gravity Sewer (peak hourly)	\$866,675	\$10,178,000	\$312,500	\$11,044,675	\$11,357,175	\$9,685,300	\$1,671,875	17%	
Beaver Creek Gravity Sewer	\$23,890	\$1,718,000	\$70,000	\$1,741,890	\$1,811,890		\$1,811,890		
Beaver Creek Trunk Sewer and Tunnel	\$0	\$4,609,500	\$65,500	\$4,609,500	\$4,675,000		\$4,675,000		
Beaver Creek PS (peak hourly)	\$769,450	\$16,686,500	\$580,000	\$17,455,950	\$18,035,950	\$18,239,600	(\$203,650)	-1%	
Beaver Creek Force Main (peak hourly)	\$1,068,287	\$24,857,000	\$743,700	\$25,925,287	\$26,668,987	\$15,134,200	\$11,534,787	76%	
subtotal raw ww conveyance	\$4,688,789	\$81,589,800	\$2,599,500	\$86,278,589	\$88,878,089	\$64,236,900	\$24,641,189	38%	
Western Wake WRF (maximum month)	\$10,826,000	\$130,000,000	\$7,585,000	\$140,826,000	\$148,411,000	\$142,629,200	\$5,781,800	4%	
Effluent Pump Station (maximum month)	\$1,002,560	\$8,600,000	\$1,235,000	\$9,602,560	\$10,837,560	\$10,459,100	\$378,460	4%	
Effluent Pipeline and Outfall (maximum month)	\$1,203,960	\$36,480,220	\$1,464,900	\$37,684,180	\$39,149,080	\$35,958,200	\$3,190,880	9%	
Holly Springs Effluent Line on WRF site	\$73,300	\$755,000	\$0	\$828,300	\$828,300		\$828,300		
subtotal effluent conveyance	\$2,206,520	\$45,080,220	\$2,699,900	\$47,286,740	\$49,986,640	\$46,417,300	\$3,569,340	8%	
SCADA ¹	\$1,250,007	\$0	\$0	\$1,250,007	\$1,250,007	\$1,283,300	(\$33,293)	-3%	
Value Engineering ¹	\$292,000	\$0	\$0	\$292,000	\$292,000		\$292,000		
SUBTOTAL	\$18,971,316	\$256,670,020	\$12,884,400	\$275,641,336	\$288,525,736	\$254,566,700	\$33,959,036	13%	
Water and Sewer Extension Policy ²	\$251,596	\$2,515,961	\$232,443	\$2,767,557	\$3,000,000	\$3,000,000	\$0		
TOTAL	\$19,222,912	\$259,185,981	\$13,116,843	\$278,408,893	\$291,525,736	\$257,566,700	\$33,959,036	13%	

¹ SCADA costs allocated according to EPS design/construction cost allocation

² Costs allocated according to preliminary work (permitting) cost allocation

Table 4

Updated Allocation of Western Wake Regional Wastewater Management Facilities By Project Partner

Preliminary Work (Permitting, Organizational, Institutional)	Apex	Cary	Holly Springs	Morrisville	Total
	26.9%	44.3%	22.5%	6.3%	
Costs in ILA (amended)	\$704,000	\$1,159,300	\$588,800	\$164,900	\$2,617,000
Costs from Feb 2007 update (PAC07-08)	\$1,065,200	\$1,754,300	\$891,000	\$249,500	\$3,960,000
Updated Preliminary Work Costs	\$1,482,400	\$2,441,400	\$1,240,000	\$347,200	\$5,510,958
Increase (Decrease) from Feb 2007	\$417,200	\$687,100	\$349,000	\$97,700	\$1,550,958
%	39%	39%	39%	39%	39%
Facilities and Land					
Costs in ILA	\$62,363,000	\$137,425,000	\$12,341,000	\$19,386,000	\$231,515,000
Costs from Feb 2007 update (PAC07-08)	\$70,064,200	\$151,364,500	\$11,770,300	\$21,367,700	\$254,566,700
Updated Facility Costs (excluding land)	\$75,263,191	\$165,718,767	\$12,018,793	\$23,528,442	\$276,529,193
<u>Updated Land Costs</u>	<u>\$3,953,467</u>	<u>\$7,289,221</u>	<u>\$607,478</u>	<u>\$1,034,234</u>	<u>\$12,884,400</u>
Updated Facility and Land Costs	\$79,216,658	\$173,007,988	\$12,626,271	\$24,562,676	\$289,413,593
Increase (Decrease) from Feb 2007	\$9,152,458	\$21,643,488	\$855,971	\$3,194,976	\$34,846,893
%	13%	14%	7%	15%	14%
Total Preliminary Work, Facilities and Land Costs					
Costs in ILA	\$63,067,000	\$138,584,300	\$12,929,800	\$19,550,900	\$234,132,000
Costs from Feb 2007 update (PAC07-08)	\$71,129,400	\$153,118,800	\$12,661,300	\$21,617,200	\$258,526,700
Updated Costs	\$80,699,058	\$175,449,388	\$13,866,271	\$24,909,876	\$294,924,593
Increase (Decrease) from Feb 2007	\$9,569,658	\$22,330,588	\$1,204,971	\$3,292,676	\$36,397,893
%	13%	15%	10%	15%	14%
Apex/Site 14 Water and Sewer Extension Policy	\$ 807,000	\$ 1,329,000	\$ 675,000	\$ 189,000	\$ 3,000,000
Total Costs	Apex	Cary	Holly Springs	Morrisville	Total
Total Costs from Feb 2007 update (PAC07-08)	\$71,936,400	\$154,447,800	\$13,336,300	\$21,806,200	\$261,526,700
Updated Total	\$81,506,058	\$176,778,388	\$14,541,271	\$25,098,876	\$297,924,593
Increase (Decrease) from Feb 2007	\$9,569,658	\$22,330,588	\$1,204,971	\$3,292,676	\$36,397,893
%	13%	14%	9%	15%	14%

Table 5

Western Wake Regional Wastewater Management Facilities Phase 1 Implementation
 Estimated Cash Flow by Fiscal Year for Each Project Partner

<i>Fiscal Year</i>	<i>Apex</i>	<i>Cary</i>	<i>Holly Springs</i>	<i>Morrisville</i>	<i>Total</i>	<i>Cary + Morrisville</i>
Through FY08	\$ 4,315,400	\$ 12,360,400	\$ 759,800	\$ 1,742,200	\$ 19,177,800	\$ 14,102,600
FY09	\$ 1,242,800	\$ 2,359,100	\$ 722,700	\$ 335,400	\$ 4,660,000	\$ 2,694,500
FY10	\$ 6,814,600	\$ 18,525,200	\$ 2,929,000	\$ 2,630,700	\$ 30,899,500	\$ 21,155,900
FY11	\$ 10,859,900	\$ 28,448,500	\$ 3,779,300	\$ 4,039,900	\$ 47,127,600	\$ 32,488,400
FY12	\$ 29,497,700	\$ 63,168,300	\$ 4,920,200	\$ 8,972,900	\$ 106,559,100	\$ 72,141,200
FY13	\$ 7,510,100	\$ 16,064,200	\$ 1,265,700	\$ 2,282,000	\$ 27,122,000	\$ 18,346,200
FY14	\$ 1,700,000	\$ 2,887,300	\$ 25,000	\$ 410,400	\$ 5,022,700	\$ 3,297,700
FY15	\$ 1,526,000	\$ 2,592,600	\$ 24,600	\$ 368,500	\$ 4,511,700	\$ 2,961,100
FY16	\$ 1,502,200	\$ 2,552,100	\$ 24,100	\$ 362,800	\$ 4,441,200	\$ 2,914,900
FY17	\$ 1,505,200	\$ 2,555,900	\$ 46,200	\$ 363,300	\$ 4,470,600	\$ 2,919,200
FY18	\$ 1,481,400	\$ 2,515,400	\$ 45,800	\$ 357,600	\$ 4,400,200	\$ 2,873,000
FY19	\$ 1,457,600	\$ 2,474,900	\$ 45,400	\$ 351,800	\$ 4,329,700	\$ 2,826,700
FY20	\$ 1,406,800	\$ 2,390,100	\$ 22,500	\$ 339,700	\$ 4,159,100	\$ 2,729,800
FY21	\$ 1,383,000	\$ 2,349,600	\$ 22,000	\$ 334,000	\$ 4,088,600	\$ 2,683,600
FY22	\$ 1,359,200	\$ 2,309,100	\$ 21,600	\$ 328,200	\$ 4,018,100	\$ 2,637,300
FY23	\$ 1,335,300	\$ 2,268,600	\$ 21,200	\$ 322,500	\$ 3,947,600	\$ 2,591,100
FY24	\$ 1,311,500	\$ 2,228,100	\$ 20,800	\$ 316,700	\$ 3,877,100	\$ 2,544,800
FY25	\$ 1,287,700	\$ 2,187,600	\$ 20,400	\$ 311,000	\$ 3,806,700	\$ 2,498,600
FY26	\$ 1,263,800	\$ 2,147,100	\$ 19,900	\$ 305,200	\$ 3,736,000	\$ 2,452,300
FY27	\$ 1,240,000	\$ 2,106,600	\$ 19,500	\$ 299,400	\$ 3,665,500	\$ 2,406,000
FY28	\$ 1,158,400	\$ 1,960,100	\$ -	\$ 278,600	\$ 3,397,100	\$ 2,238,700
FY29	\$ 1,135,800	\$ 1,921,900	\$ -	\$ 273,200	\$ 3,330,900	\$ 2,195,100
FY30	\$ 1,113,300	\$ 1,883,700	\$ -	\$ 267,700	\$ 3,264,700	\$ 2,151,400
FY31	\$ 1,090,700	\$ 1,845,600	\$ -	\$ 262,300	\$ 3,198,600	\$ 2,107,900
FY32	\$ 1,068,200	\$ 1,807,400	\$ -	\$ 256,900	\$ 3,132,500	\$ 2,064,300
FY33	\$ 1,045,600	\$ 1,769,200	\$ -	\$ 251,500	\$ 3,066,300	\$ 2,020,700
TOTAL	\$ 84,498,400	\$ 182,102,000	\$14,755,700	\$ 25,856,000	\$ 307,212,100	\$ 207,958,000

Notes:

1. Includes loan payments for Planning and \$60M WRF Construction
2. Includes O&M costs through FY10, up until startup
3. O&M costs for FY11 and later are not included

Table 6

Proposed FY09 Operating Budget

	Total Cost	Spent Thru 3/3/08 ¹	Estimated Spent Thru Remainder of FY08 ²	Proposed FY09 Operating Budget ²
Permitting	\$5,510,958	\$2,032,066	\$2,706,111	\$2,454,144
Organizational, Institutional, Financial	\$600,000	\$67,320	\$67,320	\$60,000
West Cary PS	\$14,726,111	\$5,267,878	\$5,307,857	\$20,786
West Cary Force Main	\$11,602,976	\$193,415	\$248,411	\$186,106
West Reedy Branch Gravity Sewer	\$11,357,175	\$285,008	\$343,175	\$130,124
Beaver Creek Gravity Sewer	\$1,811,890	\$2,867	\$4,969	\$22,051
Beaver Creek Trunk Sewer and Tunnel	\$4,675,000	\$0	\$0	\$19,650
Beaver Creek PS	\$18,035,950	\$254,513	\$886,007	\$27,904
Beaver Creek Force Main	\$26,668,987	\$319,397	\$394,286	\$266,739
Western Wake WRF	\$148,411,000	\$9,908,409	\$10,617,827	\$494,186
Effluent Pump Station	\$10,837,560	\$1,342,232	\$1,408,814	\$41,380
Effluent Pipeline and Outfall	\$39,149,080	\$404,386	\$484,343	\$489,179
Holly Springs Effluent Line on WRF Site	\$828,300	\$0	\$7,330	\$3,665
SCADA	\$1,250,007	\$174,972	\$282,476	\$53,752
Value Engineering	\$292,000	\$114,978	\$292,000	\$0
Apex/Site 14 Water / Sewer Extension Policy	\$3,000,000	\$0	\$0	\$37,739
<i>SUBTOTAL</i>	\$298,756,994	\$20,367,440	\$23,050,926	\$4,307,408
Operating Budget				
Project Management	NA	\$97,516	\$281,000	\$196,000
TOTAL	\$298,756,994	\$20,464,956	\$23,331,926	\$4,503,408

¹ Includes a total of \$3,958,770 that was reimbursed by SRF loan

² Includes loan payments beginning in November 2007