

WESTERN WAKE PARTNERS

Report to the Policy Advisory Committee (PAC10-03)

Date: March 29, 2010 (*revised April 6, 2010 to correct Table 6 column heading dates*)
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 FY11 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 dated February 15, 2007 presented several potential cost allocations for implementation of the Apex/Site 14 Water and Sewer Extension Policy; Option 1 was selected by the Policy Advisory Committee at that time and is used in this update.

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. A portion of the permitting cost has been reimbursed from a State Revolving Fund (SRF) loan, for which repayment has already begun. The permitting costs continue due to the regulatory process taking more time than anticipated; the projected cost is about a 5 percent increase over what was presented in March 2009 and includes some contingency. There is also about \$1 million in SRF loan funding available from the original \$5 million loan that we can apply for, and use for permitting and design costs, once the U.S. Army Corps of Engineers issues the Record of Decision for the Environmental Impact Statement.

We anticipate that some of the unspent funds budgeted for the organizational, institutional and financial development will be needed to finalize the service agreements between the Lead Agency and each partner; therefore, the budget for that item remains unchanged.

Land Acquisition, Design and Construction

Costs presented last year for FY10 were based on approximately 90 percent design levels for the facilities. Designs costs have not been updated since then; therefore, there has been no change in the total budgeted amounts. The designs will be finalized during the final permitting processes over the next 6-9 months, and the costs will be updated during that time.

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. There are some very slight changes shown in Table 4, due to minor shifts in the breakdown of total budgets in the Cary financial system between land, contracted services, and construction (which sometimes have different cost shares.) Detailed updates will be done when the construction costs are updated after final design.

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. Monitoring of the Cape Fear River as described below will be added in FY11.

In July 2010 the Town of Cary will become an associate member of the Middle Cape Fear River Basin Association (MCFRBA) at a cost of \$500 per year. When we receive an NPDES permit for the Western Wake WRF, the Towns of Cary (and possibly Apex) will become a party to the MCFRBA monitoring coalition, our dues will be pro-rated based on the permitted discharge flow, and the MCFRBA will add water quality monitoring as specified by NCDENR related to the Western Wake WRF permit. Holly Springs is

already a member of the MCFRBA; their dues will increase when they receive their new NPDES permit. NCDENR has already indicated they will add a site on the Cape Fear River about 4 miles downstream of our proposed new discharge location. In order to assess conditions before any new discharge, the Partners will begin monitoring at that site in July 2010 at a cost of about \$3,500 per year as part of Project Management.

FY10 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 shown in Table 5 incorporate the use and repayment of the SRF loan of about \$4 million received for planning and permitting (including some design). Table 6 shows the proposed FY10 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 FY10 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%	0%	0%
Beaver Creek Gravity Sewer Land	100.0%	0%	0%	0%
Beaver Creek Trunk Sewer and Tunnel	50.0%	43.8%	0%	6.2%
Beaver Creek Trunk Sewer and Tunnel Land	50.0%	43.8%	0%	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 March 2009 (PAC08-23)	\$5,700,000
Additional permitting costs for current tasks	\$183,050
<i>CDM/CH2M HILL (finalizing EIS tasks with USACE direction; additional permitting tasks)</i>	
<i>Brown and Caldwell (Permitting and community relations tasks)</i>	
<i>Poyner and Spruill (legal review)</i>	
<u>Recommended Contingency</u>	\$200,000
<i>Total costs for budget planning purposes</i>	\$6,083,050
<i>Amount spent that was reimbursed by SRF loan</i>	\$1,430,214
Total of SRF loan payments (11/01/2007 – 05/01/2027)	\$1,771,842
Total estimated costs not funded by SRF Loan	<u>\$4,652,836</u>
Total payments for budget planning purposes	\$6,424,678
Amount paid by Partners through 02/18/10 (including loan pmt)	\$3,224,821
Estimated additional FY10 payments	\$1,149,967
Remaining Budget Amount for FY11 and later	\$2,049,891
Organizational, Institutional, Financial (Cary Project SW1113)	\$600,000
<i>(Amount spent through 2/18/10)</i>	\$67,320
Total Preliminary Work budget (SW1109 and SW1113)	\$6,683,050

Table 3 Phase 1 Project Component Costs

Facility (design basis)	Total Updated Project Costs (either actual spent or 2009 \$)					Mar 2009 costs	Increase (Decrease)	
	Engineering Costs	Construction Costs	Land costs	Subtotal Eng & Const Costs (2009 \$)	Total Updated Costs			
West Cary PS Phase 0 (completed)	\$742,000	\$4,558,000	\$318,000	\$5,300,000	\$5,618,000	\$5,618,000	\$0	0%
West Cary PS (peak hourly)	\$530,225	\$10,594,886	\$0	\$11,125,111	\$11,125,111	\$11,125,111	\$0	0%
West Cary Force Main (peak hourly)	\$1,019,549	\$8,413,827	\$509,800	\$9,433,376	\$9,943,176	\$9,943,176	\$0	0%
West Reedy Branch Gravity Sewer (peak hourly)	\$1,092,126	\$10,951,648	\$260,401	\$12,043,774	\$12,304,175	\$12,304,175	\$0	0%
Beaver Creek Gravity Sewer	\$25,000	\$1,895,000	\$145,000	\$1,920,000	\$2,065,000	\$2,065,000	\$0	0%
Beaver Creek Trunk Sewer and Tunnel	\$120,500	\$4,609,500	\$70,000	\$4,730,000	\$4,800,000	\$4,800,000	\$0	0%
Beaver Creek PS (peak hourly)	\$1,164,827	\$18,402,023	\$400,000	\$19,566,850	\$19,966,850	\$19,966,850	\$0	0%
Beaver Creek Force Main (peak hourly)	\$1,342,112	\$25,406,175	\$743,700	\$26,748,287	\$27,491,987	\$27,491,987	\$0	0%
<i>subtotal raw ww conveyance</i>	\$6,036,339	\$84,831,059	\$2,446,901	\$90,867,398	\$93,314,299	\$93,314,299	\$0	0%
Western Wake WRF (maximum month)	\$12,613,100	\$140,369,900	\$7,585,000	\$152,983,000	\$160,568,000	\$160,568,000	\$0	0%
Effluent Pump Station (maximum month)	\$1,002,560	\$9,600,000	\$1,235,000	\$10,602,560	\$11,837,560	\$11,837,560	\$0	0%
Effluent Pipeline and Outfall (maximum month)	\$1,203,960	\$39,605,000	\$1,464,900	\$40,808,960	\$42,273,860	\$42,273,860	\$0	0%
Holly Springs Effluent Line on WRF site	\$83,300	\$852,000	\$0	\$935,300	\$935,300	\$935,300	\$0	0%
<i>subtotal effluent conveyance</i>	\$2,289,820	\$50,057,000	\$2,699,900	\$52,346,820	\$55,046,720	\$54,111,420	\$0	0%
SCADA ¹	\$1,100,000	\$0	\$0	\$1,100,000	\$1,100,000	\$1,100,000	\$0	0%
Value Engineering ¹	\$292,000	\$0	\$0	\$292,000	\$292,000	\$292,000	\$0	0%
SUBTOTAL	\$22,331,259	\$275,257,959	\$12,731,801	\$297,589,218	\$310,321,019	\$310,321,019	\$0	0%
Water and Sewer Extension Policy ²	\$270,600	\$2,706,000	\$250,000	\$2,976,600	\$3,226,600	\$3,226,600	\$0	0%
TOTAL	\$22,601,859	\$277,963,959	\$12,981,801	\$300,565,818	\$313,547,619	\$313,547,619	\$0	0%

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 Mar 2009 update (PAC09-28)	\$1,694,700	\$2,790,900	\$1,417,500	\$396,900	\$6,300,000
Updated Preliminary Work Costs	\$1,797,740	\$2,960,590	\$1,503,690	\$421,030	\$6,683,050
Increase (Decrease) from Mar 2009	\$103,040	\$169,690	\$86,190	\$24,130	\$383,050
%	6%	6%	6%	6%	6%
Facilities and Land					
Costs in ILA	\$62,363,000	\$137,425,000	\$12,341,000	\$19,386,000	\$231,515,000
Costs from Mar 2009 update (PAC09-28)	\$85,486,548	\$184,880,776	\$13,699,444	\$26,254,251	\$310,321,019
Updated Facility Costs (excluding land)	\$81,469,964	\$177,755,750	\$13,119,658	\$25,243,846	\$297,589,218
Updated Land Costs	<u>\$3,962,735</u>	<u>\$7,147,491</u>	<u>\$607,478</u>	<u>\$1,014,098</u>	<u>\$12,731,801</u>
Updated Facility and Land Costs	\$85,432,699	\$184,903,241	\$13,727,135	\$26,257,944	\$310,321,019
Increase (Decrease) from Mar 2009	-\$53,849	\$22,465	\$27,691	\$3,693	\$0
%	-0.1%	0.0%	0.2%	0.0%	0.0%
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 Mar 2009 update (PAC09-28)	\$87,181,248	\$187,671,676	\$15,116,944	\$26,651,151	\$316,621,019
Updated Costs	\$87,230,439	\$187,863,831	\$15,230,825	\$26,678,974	\$317,004,069
Increase (Decrease) from Mar 2009	\$49,191	\$192,155	\$113,881	\$27,823	\$383,050
%	0.1%	0.1%	0.8%	0.1%	0.1%
Apex/Site 14 Water and Sewer Extension Policy	\$ 867,955	\$ 1,429,384	\$ 725,985	\$ 203,276	\$ 3,226,600
Total Costs	Apex	Cary	Holly Springs	Morrisville	Total
Total Costs from Mar 2009 update (PAC09-28)	\$88,049,203	\$189,101,060	\$15,842,929	\$26,854,427	\$319,847,619
Updated Total	\$88,098,394	\$189,293,214	\$15,956,810	\$26,882,250	\$320,230,669
Increase (Decrease) from Mar 2009	\$49,191	\$192,155	\$113,881	\$27,823	\$383,050
%	0.1%	0.1%	0.7%	0.1%	0.1%

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 FY10	\$ 6,046,200	\$ 11,482,500	\$ 1,644,700	\$ 1,631,300	\$ 20,804,700	\$ 13,113,800
FY11	\$ 9,387,800	\$ 16,355,800	\$ 707,600	\$ 2,324,700	\$ 28,775,900	\$ 18,680,500
FY12	\$ 28,798,000	\$ 58,023,100	\$ 2,969,200	\$ 8,256,900	\$ 98,047,200	\$ 66,280,000
FY13	\$ 36,701,400	\$ 81,898,200	\$ 8,476,100	\$ 11,631,600	\$ 138,707,300	\$ 93,529,800
FY14	\$ 6,537,600	\$ 15,865,700	\$ 1,901,000	\$ 2,246,100	\$ 26,550,400	\$ 18,111,800
FY15	\$ 74,300	\$ 136,400	\$ 24,800	\$ 19,500	\$ 255,000	\$ 155,900
FY16	\$ 73,000	\$ 134,000	\$ 24,300	\$ 19,100	\$ 250,400	\$ 153,100
FY17	\$ 98,600	\$ 176,000	\$ 46,400	\$ 25,100	\$ 346,100	\$ 201,100
FY18	\$ 97,400	\$ 173,700	\$ 46,000	\$ 24,800	\$ 341,900	\$ 198,500
FY19	\$ 96,100	\$ 171,300	\$ 45,600	\$ 24,400	\$ 337,400	\$ 195,700
FY20	\$ 94,800	\$ 169,000	\$ 45,100	\$ 24,100	\$ 333,000	\$ 193,100
FY21	\$ 66,700	\$ 122,400	\$ 22,200	\$ 17,500	\$ 228,800	\$ 139,900
FY22	\$ 65,400	\$ 120,000	\$ 21,800	\$ 17,100	\$ 224,300	\$ 137,100
FY23	\$ 64,100	\$ 117,700	\$ 21,400	\$ 16,800	\$ 220,000	\$ 134,500
FY24	\$ 62,800	\$ 115,300	\$ 20,900	\$ 16,500	\$ 215,500	\$ 131,800
FY25	\$ 61,600	\$ 113,000	\$ 20,500	\$ 16,100	\$ 211,200	\$ 129,100
FY26	\$ 60,300	\$ 110,700	\$ 20,100	\$ 15,800	\$ 206,900	\$ 126,500
FY27	\$ 59,000	\$ 108,300	\$ 19,700	\$ 15,500	\$ 202,500	\$ 123,800
TOTAL	\$ 88,445,100	\$ 185,393,100	\$16,077,400	\$ 26,342,900	\$ 316,258,500	\$ 211,736,000

Notes:

1. Includes loan payments for \$3,958,770 Planning and Permitting SRF Loan
2. Includes O&M costs through FY13, up until startup
3. O&M costs for FY14 and later are not included

Table 6
Proposed FY11 Operating Budget

	Total Cost	Spent Thru 2/18/09 ¹	Estimated Spent Thru Remainder of FY09 ²	Proposed FY10 Operating Budget ²
Permitting	\$6,083,050	\$4,425,829	\$5,490,094	\$592,956
Organizational, Institutional, Financial	\$600,000	\$67,320	\$67,320	\$100,000
West Cary PS Phase 0	\$5,618,000	\$5,618,000	\$5,618,000	\$0
West Cary PS	\$11,125,111	\$215,434	\$231,173	\$47,991
West Cary Force Main	\$9,943,176	\$370,955	\$454,365	\$459,641
West Reedy Branch Gravity Sewer	\$12,304,175	\$458,084	\$515,826	\$284,451
Beaver Creek Gravity Sewer	\$2,065,000	\$24,248	\$38,786	\$101,613
Beaver Creek Trunk Sewer and Tunnel	\$4,800,000	\$0	\$13,025	\$67,075
Beaver Creek PS	\$19,966,850	\$879,898	\$914,145	\$104,830
Beaver Creek Force Main	\$27,491,987	\$546,556	\$660,704	\$645,916
Western Wake WRF	\$160,568,000	\$12,214,366	\$12,544,762	\$23,826,329
Effluent Pump Station	\$11,837,560	\$1,725,148	\$1,761,979	\$151,069
Effluent Pipeline and Outfall	\$42,273,860	\$653,919	\$827,911	\$1,117,364
Holly Springs Effluent Line on WRF Site	\$935,300	\$37,394	\$39,689	\$6,886
SCADA	\$1,100,000	\$284,734	\$325,497	\$122,290
Value Engineering	\$292,000	\$270,000	\$281,000	\$11,000
Apex/Site 14 Water / Sewer Extension Policy	\$3,226,600	\$0	\$13,530	\$290,590
SUBTOTAL	\$320,230,669	\$27,791,886	\$29,797,807	\$27,930,000
Operating Budget				
Project Management	NA	\$400,735	\$463,735	\$190,000
TOTAL	\$320,230,669	\$28,192,621	\$30,261,542	\$28,120,000

¹ Includes some funds reimbursed by SRF loan of \$3,958,770