

WESTERN WAKE PARTNERS

Report to the Policy Advisory Committee (PAC10-02)

Date: July 14, 2009
To: Policy Advisory Committee
From: Technical Advisory Committee
Prepared By: Leila Goodwin, P.E. – Town of Cary, Water Resources Manager
Subject: Stream and Wetland Mitigation Plan

Background

As part of the Draft Environmental Impact Statement (DEIS) and 404 Permit Application to the U.S. Army Corps of Engineers (Corps), the Partners have documented the stream and wetland impacts of the proposed project. During design of the multiple projects, impacts have been avoided where possible or minimized, but the remaining impacts must be mitigated. A draft conceptual mitigation plan is included in the DEIS, and the Partners' consultants, Brown and Caldwell, have been working to add more detail to the mitigation plan for inclusion in the Final EIS and 404 Permit, and the mitigation projects can be implemented without further permitting required.

Discussion

Depending on the quality of the resources being impacted by a project, and the type of mitigation project (preservation versus restoration), the Corps requires a certain amount of mitigation credits be created. Table 1 summarizes the credits needed for the projects that are listed in the DEIS ("DEIS Projects"), which include both the Western Wake Regional Wastewater Management Project facilities ("Western Wake Projects") and several related Partner projects.

Brown and Caldwell identified thirteen potential mitigation projects, three of which will create the credits required for the DEIS Projects. Most of the projects are on land owned by either the Town of Apex or the Town of Cary, but three of the thirteen projects are on Progress Energy land. Because there were not enough opportunities for wetlands mitigation to meet the needs of the DEIS Projects on Partner-owned land, one of the three projects required is on land owned by Progress Energy.

A cooperative project has been discussed with Progress Energy which will include restoration of Thomas Mill Pond, on Utley Creek downstream of the Holly Springs Wastewater Treatment Plant (WWTP). Progress Energy is pursuing the creation of a mitigation bank for the Utley Creek system, including Thomas Mill Pond and wetland credits from this bank would be available for use by the Partners. Progress Energy is also planning some future stream mitigation projects on land adjacent to the Partners' Site 14 land, and is interested in extending their future restoration projects upstream onto Site 14 land.

Table 1. Compensatory Mitigation Requirements by Project			
	Streams (feet)		Wetlands
	Intermittent	Perennial	(acres)
404 Permit Applicant - Western Wake Partners			
West Cary Pump Station	0	0	0
West Cary Force Main	0	36	0.53
West Reedy Branch Gravity Sewer	80	33	0.53
Beaver Creek Gravity Sewer	10	0	0.01
Beaver Creek Trunk Sewer and Tunnel	0	0	0
Beaver Creek Pump Station	0	0	0
Beaver Creek Force Main	27	240	0.107
Western Wake WRF	0	0	0
Effluent Pump Station	0	0	0
Effluent Pipeline and Outfall	95	200	0.09
Holly Springs Effluent Line on WRF Site	20	20	0.03
Total:	232	529	1.30
404 Permit Applicant - Town of Apex			
Apex Beaver Creek Gravity Sewer	28	180	6.9
404 Permit Applicant - Town of Cary			
Cary Green Level Force Main and Gravity Sewer	140	600	8.1
Cary Indian Creek Force Main and Gravity Sewer	100	0	0.3
Total:	240	600	8.4
404 Permit Applicant - Town of Holly Springs			
Holly Springs Effluent Force Main	0	0	0
Total Credits Needed:	500	1,309	16.6

Table 2 summarizes the credits created and the costs for the three initial projects proposed for implementation as part of the DEIS Projects, as well as the additional projects identified. Note that there are additional costs for finalizing the Mitigation Plan for the DEIS; this includes permitting the additional ten mitigation projects which will allow implementation of those projects in the future with no further permitting.

Table 2. DEIS Mitigation Plan Projects and Costs

	Owner	Project Area ¹ (acres)	Stream Credits Created		Wetland Credits Created ²	Estimated Total Cost
			Intermittent	Perennial		
Mitigation Project Sites for Immediate Implementation						
Site B - Wetlands Only	Town of Cary	9	0	0	1.8 (p)	\$15,000
Site E	Town of Cary	32	0	0	6.4 (p)	\$30,000
Utley Creek - Phase 1	Progress Energy	16	1,500	4,710	8.4 (r)	\$1,824,400
Subtotal:		57	1,500	4,710	16.6	\$1,869,400
Potential Budget for Finalizing Mitigation Plan including Projects for Future Implementation						\$200,000 ³
Total Cost to be Allocated to DEIS Projects						\$2,069,400

Mitigation Project Sites for Future Implementation						
Site 14	Western Wake Partners	38	3,058	5,735	1.26 (0.76p, 0.50r)	\$2,650,000
Utley Creek - Phase 2	Progress Energy	55	15,040	6,520	0	\$4,372,000
Utley Creek - Phase 3	Progress Energy	100	26,000	13,530	11.00 (r)	\$8,397,600
Site A	Town of Cary	28	0	2,089	3.56 (p)	\$958,000
Site B - Streams Only	Town of Cary	7	0	2,635	0	\$788,000
Site C	Town of Cary	3	0	0	0.57 (p)	\$15,000
Site F	Town of Cary	14	0	0	2.72 (p)	\$60,000
Site H	Town of Apex	37	0	4,586	3.71 (p)	\$1,394,000
Site R	Town of Apex	6	0	760	0	\$263,000
Site S	Town of Apex	13	0	2,635	0	\$788,000
Subtotal:		301	44,098	38,490	22.82	\$19,685,600

¹ Approximate area of the conservation easement; for streams, includes a 100 ft riparian buffer on both sides of creek.

² p = preservation; r = restoration

³ To be determined based on further discussions with Corps

The approximately \$2.1 million estimated total cost for the initial three projects, along with the permitting/planning costs for finalization of the Mitigation Plan, is already included in the budgeted capital costs for the DEIS projects, and will be allocated to those projects and billed to the Partners by the Lead Agency according to existing cost shares for the projects.

However, in addition to the design and construction costs, the ownership of the land must also be considered. The land required for the initial three projects is owned by either the Town of Cary or Progress Energy. Progress Energy owns the land along Utley Creek and the Thomas Mill Pond and is willing to work with the Partners to enable the development of mitigation credits for use by the Partners in advance of Progress' future potential need for mitigation credits from the Utley Creek system. Progress Energy will benefit from the planning and conceptual design work done by the Partners for the potential future projects on their land (Utley Creek Phases 2 and 3). Progress Energy has also indicated an interest in implementing stream restoration projects on Site 14 since those streams are upstream extensions of streams on adjacent Progress Energy land. This would allow uninterrupted restoration projects for those streams. Table 2 also shows that additional stream mitigation credits will be created with the Utley Creek Phase 1 project implemented by the Partners.

In consideration of these factors, the Technical Advisory Committee recommends the following approach:

1. In consideration of the land provided by the Town of Cary for the projects on Sites B and E, the Town of Cary will likely receive some of the stream credits that will be created in excess of what is needed for the DEIS projects.
2. The Lead Agency and Progress Energy will enter into an agreement (developed in consultation with the Technical Advisory Committee) for the implementation of the Utley Creek Phase 1 project. In consideration for the mitigation credits to be made available to the Partners by Progress Energy from the Utley Creek Phase 1 project:
 - a. The Partners will pay all design and construction costs for the Utley Creek Phase 1 project.
 - b. The Partners may include some or all of the preliminary engineering of the additional Utley Creek projects and the Site 14 project in the Mitigation Plan for approval by the Corps (this will depend on the level of engineering required by the Corps).
 - c. The Partners (via the Lead Agency) will work cooperatively on a future joint project with Progress Energy to restore streams that flow contiguously through Progress Energy land and Site 14, with the general understanding that Progress Energy will complete the design and construction for that project and receive the stream credits. Suitable consideration for the provision of land by the Partners will be agreed upon at the time of project implementation.
 - d. Other consideration, such as excess stream credits or additional in-kind services as may be appropriate, may be provided to Progress Energy depending on the level of effort required by the Corps for establishing the Progress Energy mitigation bank.

3. Any Partner may request additional implementation by the Lead Agency of the future mitigation projects at the same time the initial projects are being completed; this would be handled in an amendment to the Partners' agreement in the same way as other projects have been added.
4. Any Partner may implement the future mitigation projects on their land at their own cost at any time.

Requested Action: The Technical Advisory Committee recommends that the Policy Advisory Committee authorize the Lead Agency to proceed with implementation of the proposed Mitigation Plan using the approach described herein, including entering into a cooperative agreement with Progress Energy.