

## WESTERN WAKE PARTNERS

### **Policy Advisory Committee Recommendations**

Tuesday, June 27, 2006

Cary Town Hall, Administration Conference Room #22010

316 N. Academy Street, Cary, North Carolina

[www.westernwakepartners.org](http://www.westernwakepartners.org)

Cary Mayor Ernie McAlister called the meeting to order at 4:00 p.m. Committee members attending were Apex Mayor Keith Weatherly, Morrisville Mayor Jan Faulkner, Apex Town Manager Bruce Radford, Cary Town Manager Bill Coleman, and Morrisville Town Manager John Whitson. Committee members absent were Holly Springs Mayor Dick Sears and Holly Springs Town Manager Carl Dean. The meeting adjourned at 4:14 p.m.

**1. Approval of minutes of the Policy Advisory Committee held on December 13, 2005.**

Mayor Weatherly moved to approve the minutes, Mayor Faulkner provided the second and the committee unanimously approved the motion.

**2. Items for Discussion**

**a. Consultant Selection Recommendation for Western Wake Regional Influent Conveyance Facilities (PAC06-11)**

Mayor Faulkner moved to approve awarding the engineering services contract for the Western Wake Influent Conveyance Facilities to Hazen and Sawyer at a total design phase value of \$2,084,887.00 with an option for staff to authorize the construction phase services at a later date with a value up to \$1,838,013.00 as a contract amendment. The total authorized award amount consisting of both design phase and construction phase services would total \$3,922,900.00. Mayor Weatherly provided the second, and the committee unanimously approved the motion. (Attachment A)

**3. Other Business: N/A**

**4. Closed Session**

Mayor Weatherly moved for closed session for the following purpose; Mayor Faulkner provided the second; and committee granted unanimous approval.

Closed session was called pursuant to G.S. 143-318.11(a)(3) to consult with attorneys employed by and/or retained by the Town in order to preserve the attorney-client privilege between the attorneys and the Town. The Committee expects to receive information concerning the New Hill Community Association ET AL v. Town of Apex ET AL.

- 5. Next Meeting:** September 2006, 4:00 p.m. at Cary Town Hall. Meetings are tentatively set for the 4<sup>th</sup> Tuesday which would be September 26, 2006. Nancy Held will contact committee members to confirm the date.

## WESTERN WAKE PARTNERS

### Report to the Policy Advisory Committee (PAC06-11)

Date: June 27, 2006  
To: Policy Advisory Committee  
From: Steve Brown, P.E., – Associate Director of Engineering, Town of Cary  
Prepared by: Jamie Revels, P.E., - Senior Engineer, Town of Cary  
Subject: Contract Award – Engineering Services for the Western Wake Wastewater Infrastructure Project, Influent Conveyance Facilities

#### **Background:**

The Project Partners received proposals on May 31, 2006 for engineering services related to the design and construction of the Western Wake Influent Conveyance Facilities. The facilities proposed by this project will provide raw wastewater conveyance from Morrisville, Cary and Apex to the Western Wake Regional Water Reclamation Facility. Proposals were received from five prospective engineering firms: CDM, Hazen and Sawyer, Brown & Caldwell, HDR and the team of Black & Veatch and URS.

An eight member selection committee composed of senior staff from Apex, Cary and Morrisville was assembled to review the proposals. The selection committee reviewed each proposal for (a) relevant experience of the firm including its personnel assigned to this project and their sub-consultants, (b) project approach, (c) proposed schedule and (d) cost. The work consists of two main components: design phase services and construction phase services. Design and construction phase cost data are presented in Table 1. Construction phase services are further broken down into office construction administration services and field inspection services in Table 2.

Table 1: Professional Services Costs for the Influent Conveyance Facilities Project

Engineering Firm	Design, Labor Hours	Design Cost	Construction Labor Hours	Construction Cost	Total Cost
Hazen & Sawyer	19,540	\$2,084,887.00	22,750	\$1,838,013.00	\$3,922,900.00
HDR	17,045	\$2,501,000.00	17,400	\$1,546,356.00	\$4,047,356.00
CDM	15,259	\$2,182,900.00	12,888	\$1,373,000.00	\$3,555,900.00
Brown & Caldwell	17,655	\$2,635,300.00	19,278	\$2,258,100.00	\$4,893,400.00
Black & Veatch/ URS	19,294	\$2,714,468.00	12,369	\$1,409,374.00	\$4,123,842.00

After a thorough review of the proposals, which included short listing three firms and interviewing the project management staff, the selection committee unanimously recommends in favor of awarding the engineering services contract for the Western Wake Influent Conveyance Facilities to Hazen and Sawyer. Supporting information that was considered during the selection process has been outlined in the following sections.

#### **Working Knowledge of Project:**

The Hazen and Sawyer proposal, presentation and interview provided the best overall understanding of the pertinent engineering issues associated with the Western Wake Influent Conveyance Facilities. During the last two years, Hazen and Sawyer has been intimately involved in the planning and development of the environmental impact statement and the preliminary engineering report for the Western Wake Wastewater Infrastructure Projects, with an emphasis on the influent conveyance facilities. In their project approach, Hazen and Sawyer identified all of the relevant pipeline alternatives accompanied by the design challenges associated with each option. Hazen and Sawyer further utilized their in depth knowledge of the pipeline locations and surface elevations to determine pump and power requirements for the pump stations included in the influent conveyance facilities project. The selection committee noted that Hazen and Sawyer presented the Project Partners with the best opportunity to advance the overall influent conveyance facilities project quickly through the route evaluation and site selection process without having to reconsider pipeline route alternatives and pump station site locations that have already been proven to be impracticable.

**Coordination with Other Western Wake Wastewater Projects:**

The engineering firm, Hazen and Sawyer, was recently awarded the engineering services contract for the Effluent Pump Station and Pipeline project, which is in early design development. A major advantage of Hazen and Sawyer providing engineering services for all of the conveyance facilities will be their ability to consolidate project coordination issues. For example, Hazen and Sawyer has proposed implementing a standard prequalification procedure for prospective contractors interested in bidding the pipeline construction work for both influent and effluent conveyance facilities. As an additional benefit to the Project Partners, the contract specifications and drawings for all pipelines and pump stations provided under the conveyance facilities projects will be provided in a standardized format that will facilitate an orderly bidding process. This uniform approach benefits the prospective construction contractors by prequalifying only once and not having to repeat routine bid questions as the subsequent construction contracts are advertised and bid. The same uniform and consistent approach will be applied to public notifications and community participation workshops.

Another benefit of retaining Hazen and Sawyer for the conveyance projects will be their ability to combine all communications and partnering with the Water Reclamation Facility (WRF) design team. With the large scale size and scope of the conveyance facilities, design planning for the water reclamation facility site will present numerous challenges involving site coordination issues. Hazen and Sawyer has already initiated communications with the WRF design team and will be able to build upon those established lines of communication to partner with the WRF design team for siting the influent conveyance facilities.

**Local Team:**

The selection committee believes that local presence will be especially important for this project because of the substantial length of pipeline construction. With an estimated distance of approximately 10-miles of large diameter pipeline construction, there will be numerous coordination issues that will have to be resolved with local officials. The planning and coordination for the pipeline design will require extensive

communications with local municipalities, utility companies and regulatory authorities. The Hazen and Sawyer design team has demonstrated through their proposal, presentation and interview that they provide a local presence unmatched by any other firm proposing on this project. Hazen and Sawyer assigned task leaders for each of the five subprojects who will be available in conjunction with the overall project manager to facilitate discussions with local officials and manage the project schedule. With the large size and scale of the influent conveyance facilities project, the approach by Hazen and Sawyer provides the local personnel and management resources to concurrently advance each of the five subprojects as though they are separate and independent.

As an additional benefit of their local presence, Hazen and Sawyer provides expertise in all professional disciplines that will be necessary for this project including site design, surveying, architectural, mechanical, structural, electrical, instrumentation and controls and inspection services. The diversity of the Hazen and Sawyer staff will assure their ability to resolve any potential design problems from their local office quickly and efficiently without having to consult with out of state experts.

**Cost:**

The Town of Cary has exempted this project from the provisions of North Carolina General Statute 143-64.31 as it is in the best interest of its citizens to procure these services through a process of open competition. Therefore, cost proposals were considered in making the final selection.

The costs listed in Table 1 have separated design phase services from construction services. The design phase services listed in the table include all engineering services prior to construction, such as bid phase services, permitting, property mapping, land acquisition services and pre-qualifying contractors. In evaluating design phase costs, Hazen and Sawyer provided both the highest number of labor hours dedicated to design development and the lowest total design cost of \$2,084,887.00.

Construction services include all professional services initiated after construction begins such as construction phase office services, submittal reviews, and field inspection services during construction. The construction phase services have been further separated into construction office services and construction field inspection services as shown in Table 2.

**Table 2: Construction Phase Office Services and Field Inspection Services**

Engineering Firm	Construction Office (Hours)	Construction Office (Cost)	Construction Field Inspections (Hours)	Construction Field Inspections (Cost)	Total Construction Services (Cost)
Hazen & Sawyer	7,700	\$622,097.00	15,050	\$1,215,916.00	\$1,838,013.00
HDR	7,000	\$693,070.00	10,400	\$853,286.00	\$1,546,356.00
CDM	7,687	\$881,500.00	5,201	\$491,500.00	\$1,373,000.00
Brown & Caldwell	7,838	\$1,056,900.00	11,440	\$1,201,200.00	\$2,258,100.00
Black & Veatch/ URS	6,868	\$776,388.00	5,501	\$632,986.00	\$1,409,374.00

Table 2 demonstrates that the five engineering firms proposed significantly different levels of support during construction field inspections. Hazen and Sawyer proposed the highest level of labor hours dedicated to construction field inspection services which translated into a higher total cost for construction field services than some other firms. Upon further review, the cost per hour proposed by Hazen and Sawyer is actually the lowest of all firms for both the construction office and construction field inspection services.

Hazen and Sawyer presented their calculations of construction field services effort, which included 3 staff members dedicated to construction field services during construction. Hazen and Sawyer further clarified that their field inspections effort would provide flexibility to cover all necessary inspection services as the five subprojects would all eventually enter a period of concurrent construction. Hazen and Sawyer indicated that they were prepared to mobilize as many as five construction inspectors as necessary to fully support inspections during peak construction operations, which will likely include multiple construction crews working on each of the five subprojects. Hazen and Sawyer also demonstrated their local ability to provide design team support by mobilizing discipline specific personnel involved in the original design effort to support the construction effort. For example, the structural design engineer would be mobilized as required to provide structural certifications and guidance as requests for information are received from construction contractors.

As an additional measure of value provided by Hazen and Sawyer, their project approach provided subsurface utility locating and 3-D design of the Beaver Creek Pump Station as part of their base package of services provided for the project. Several other firms proposed these optional services at additional cost.

**Summary:**

In conclusion, the selection committee determined that Hazen and Sawyer would provide both the highest level of support and the best overall value to the Project Partners in executing engineering services for the Western Wake Influent Conveyance Facilities Project. Hazen and Sawyer has a proven record with the Project Partners of fully supporting their engineering projects and maintaining their projects on schedule and within budget constraints. Hazen and Sawyer affirmed their commitment to the Project Partners and their ability to assume this large and extensive project and provide the local support and coordination needed to address the numerous design challenges.

**Requested Action:** It is requested that the Policy Advisory Committee approve awarding the engineering services contract for the Western Wake Influent Conveyance Facilities to Hazen and Sawyer at a total design phase value of \$2,084,887.00 with an option for staff to authorize the construction phase services at a later date with a value up to \$1,838,013.00 as a contract amendment. The total authorized award amount consisting of both design phase and construction phase services would total \$3,922,900.00. This award represents a preliminary determination as to the qualifications of this consulting firm and no legally binding acceptance of this award will occur until the Lead Agency, the Town of Cary, has executed a legally binding agreement.

