

Services During Construction

The scope of services to be provided during the construction phase of this project will be as outlined in the original engineering services contract. The estimated level of effort on this project is based on taking reasonable steps to safeguard the City against defects and deficiencies in the construction work and to advise the City as to the acceptability of the work. Malcolm Pirnie will function as the day-to-day administrator of the construction work on behalf of the City and coordinate the construction activities between the City and the construction contractor. The duration of the construction phase services is estimated to be 12 months. One part-time resident project representative will be furnished throughout active construction periods. The resident project representative will share time between the Raw Water Intake Improvements project and the Sodium Hypochlorite Facility and is budgeted for 16 hours per week on the Raw Water Intake project. The scope of services during construction will include providing clarifications, issuing change orders, reviewing partial payment requests, reviewing and processing submittals, making periodic site visits, observing the progress and quality of the work, conducting inspections, conducting project meetings, and preparing record drawings. BBC&M will provide construction services associated with the low head dam and materials testing and inspection for both the dam and the intake. The scope of services for this work is attached. The schedule for the construction work on the dam is dependent on the status of the permit for the work. The work could potentially be performed in the summer of 2008. If this occurs, an additional 3.5% rate increase has been included for BBC&Ms services during construction.

Additional Services During Design

Final Design of Recommended Improvements to the Low Head Dam

The Basic Services for the design of the Raw Water Intake Improvements Project did not include final design services for the low head dam. BBC&M will perform final design services for the low head dam. Their scope of fee for these services is attached.

Additional Environmental Permitting Services

Storm Water Pollution Prevention Plan

The Basic Services for the design of the Raw Water Intake Improvements Project did not include construction of the low head dam improvements and therefore assumed that the disturbed area during construction would be less than one acre and would not require a stormwater pollution prevention plan. The work on the dam was added to the project and therefore the disturbed area exceeded one acre which required a permit. The additional environmental permitting effort for the permit was approximately \$10,000.

Individual 401/404 Permit

The work in the Scioto River was originally permitted with the U.S. Army Corps of Engineers using the Nationwide permit. This permit was granted based on allowing one-half of the width of the river being open at all times during construction. It was later determined that contractor access was not available from the south side of the river and therefore an access road would be required across the river. This change required a new

permit. The Nationwide permit program in Ohio has expired and has not yet been renewed. The schedule for renewal is uncertain and therefore the only permit currently available for this work is an individual 401/404 permit. In order to maintain the current construction schedule, this permit is necessary. The scope for this permit is as follows:

Task 1 - Clean Water Act Section 404 Permit

A Clean Water Act Section 404 Permit (404 Permit) from the U.S. Army Corp of Engineers (USACE) is necessary for all projects impacting jurisdictional waters of the U.S. (33 U.S.C. 1344). The City desires to pursue an Individual 404 Permit from the USACE due to the potential delays associated with the current Nationwide permits. It is assumed that the proposed upgrades to the raw water intake will be constructed under the existing Nationwide Permit received for the project. The following information describes the environmental permitting requirements for the proposed surface water impacts that will result from upgrades to the Dublin Road Water Plant low head dam.

The 404 permit application would include a description of the proposed impacts to the Scioto River, potential impacts to threatened and endangered species and floodplains as well as the proposed steps to be taken to avoid and minimize impacts to jurisdictional waters and environmental resources through project planning and construction. The Individual permit will require a public notice and potentially a public meeting if one is requested. The addresses of the adjacent property owners will be included in the permit application so that they will be notified of the project by the USACE.

Task 2 - Clean Water Act Section 401 Water Quality Certification

Under Section 401 of the Clean Water Act (33 U.S.C. 1341), any construction requiring an Individual Section 404 Permit must also obtain a Section 401 Water Quality Certification (401 Permit) from the Ohio EPA to certify that any construction discharge is in compliance with Ohio's Water Quality Standards. The Individual 401 Permit requires the same data collection and reporting of impacts as the 404 Permit, but also requires an Antidegradation Analysis that includes a Preferred Alternative, Minimal Degradation Alternative, and Non-Degradation Alternative.

The following alternatives must be discussed in detail in the Individual 401 Permit application:

Preferred Alternative: The project as it is proposed to be constructed.

Minimal Degradation Alternative: Less environmentally damaging or scaled-down version(s) of the project that would result in less damage to jurisdictional and isolated waters and still meet your project goals.

Non-Degradation Alternative: Less environmentally damaging, further scaled-down version(s) or revisions of the project that would result in no damage to jurisdictional or isolated waters (i.e., no material removed or placed below the ordinary high water mark).

If the project must be located entirely within water (i.e., water-dependant) to fulfill the basic project purpose, this alternative may be considered to be a no-build alternative. However, if the final project purpose requires a land base, this is not a water-dependent project, and an alternative other than a no-build alternative must be proposed.

Task 3 –Mitigation

If a 401 permit is required, mitigation will also be necessary. Stream mitigation would need to be proposed for both temporary and permanent impacts. Temporary impacts associated with the proposed construction access road can be partially mitigated through in-place restoration. Additional mitigation required for the extent of the proposed temporary impacts can be best mitigated through placing an approximate 450-foot portion of the Scioto River (preferably a City-owned stream within the Scioto River watershed) within an environmental covenant.

To locate an adequate stream corridor for preservation, Malcolm Pirnie will conduct a review of City property that could potentially be used for preservation. Upon completion of this analysis, the results will be presented to the City for discussion. Malcolm Pirnie will coordinate with the City to assist with the preparation of the covenant conditions for the selected property. The conceptual mitigation plan will be included as part of both the Section 404 and 401 permits for submittal to the USACE and Ohio EPA.

Optional Tasks

The following optional tasks would be defined as the project impacts and the agency specific requirements would be determined. However, at this time they are not included in this scope of work or cost estimate:

- Detailed mussel survey and/or relocation
- Floodplain impacts that require modeling or additional correspondence with the local floodplain administrator
- Addendum to Stormwater Permit