

**Albany Pool CSO LTCP – Part A
Quarterly Report #4
August 12, 2006 – October 20, 2006**

**Albany Water Board, City of Cohoes, Village of Green Island, City of Rensselaer, City of Troy,
City of Watervliet**

**Capital District Regional Planning Commission
Malcolm Pirnie, Inc. / Camp Dresser & McKee / Clough, Harbour & Associates**

Task 1 – Project Management and Coordination

■ ***Scope of Work Description:***

At the outset of the project, we will conduct a kick-off meeting with the CDRPC, at which time we will revisit the goals and objectives for each of the Part A tasks. Reporting requirements to monitor progress of each task will be identified during this task. We will participate in monthly progress meetings with the CDRPC, Albany pool communities, the New York State Department of Environmental Conservation (NYSDEC) and other participating consultants to jointly develop and implement any necessary work adjustments.

We anticipate a duration of up to six months for the Part A Contract. Our budget for this task assumes one kick-off meeting and six monthly progress meetings. It is assumed that meeting minutes will be prepared by CDRPC.

■ ***Previous Activities:***

A project kickoff meeting was held on October 3, 2005. The general approach for the project was reiterated with a special emphasis on the initial data collection phase.

Consultants' coordination meetings were held on February 20, 2006 and March 1, 2006 following the initial reviews of the data provided by the communities. An internal action items list is distributed periodically and bi-weekly coordination calls held on March 14, 2006 and March 28, 2006 to facilitate continued progress on the Project.

A Project Meeting with the CDRPC and the communities was held on March 23, 2006. At that meeting a project schedule was presented along with an update on the status of the Public Participation Plan, Data Inventory/Data Gap Analyses. Dates for the remainder of the progress meetings were tentatively scheduled for May 4, June 21, August 8, and September 28, 2006.

Biweekly coordination calls supplemented by as needed additional coordination were held by the project team throughout the progress period. Additional progress meetings were held for key project milestones including a Cost Allocation Workshop on May 4, 2006 the LTCP Draft submittal on June 21, 2006, and the LTCP Proposed Revisions on August 8, 2006.

■ ***Recent Activities:***

Biweekly consultant coordination calls supplemented by as-needed additional coordination were held by the project team throughout the progress period to support the progress meetings and meeting with NYSDEC within the progress period. Progress meetings were

held for key project milestones including Cost Allocation Workshop #2 on September 7, 2006, an informal presentation of the scope of work to NYSDEC on September 7, 2006, an LTCP Scope and Cost Allocation Wrap up workshop on September 28, 2006, and a formal river modeling meeting with NYSDEC on October 11, 2006.

■ ***Planned Activities:***

This activity is principally complete. Only project management issues related to addressing NYSDEC comments on the LTCP Scope submittal remain.

Task 2 – Data Collection and Assessment

■ ***Scope of Work Description:***

A good understanding of the physical system data available for each Albany pool community is important for preparing a detailed scope and budget for the CSO LTCP, as well as for developing the approach for cost allocation among the communities. As such, the data collection and review should be the first task conducted under Part A of the project. We have already developed an initial survey of information that describes the sewer system and available data within each of the Albany pool communities.

Under this task, we will work with the communities to review and verify information provided during the initial survey. This will allow us to identify any data gaps that will have to be addressed during Part B of the project.

We will also review the data provided by the communities to establish potential cost-allocation parameters for each Albany Pool community, which will be used for the cost allocation under Task 5.

Our budget for this task includes the following activities:

- A. Conduct one initial coordination meeting to review the initial survey results, discuss any additional items to be included in the data survey, and establish a list of parameters for each municipality, which may be used for the cost-allocation task. The coordination meeting will be incorporated as part of the project kick-off meeting.
- B. Develop a list of data requirements and distribute it to the Albany pool communities and sewer districts. We have assumed that each community/sewer district will provide the following data relative to their systems within four weeks after the receipt of the list of data requirements:
 - Overall sewer maps (plan views) showing sewer piping connectivity and boundaries of sewer shed catchments (if available) within each community for combined, separate sanitary and storm sewers.
 - Detailed plans and profiles for major combined and sanitary interceptors and trunk lines.
 - CSO regulator drawings.
 - Available in-system and CSO flow monitoring data (collected within past five years).
 - Zoning and land use maps.
 - Population data.
 - Real property tax valuation data.
 - WWTP DMR Reports for the last two years.

- Additional data as identified under sub-task 2.A.
- C. Review the data provided by the communities and identify data gaps; develop a data gap inventory for each community.
- D. Conduct up to a total of four follow-up meetings with engineering and/or sewer maintenance staff of Albany pool communities and sewer districts as necessary to review and discuss the provided data.
- E. Determine the general scope and required level of effort to address additional sewer system physical data collection requirements.
- F. Compile the data for up to 10 cost allocation parameters for the Albany pool communities to be used under the cost allocation task. Examples of cost allocation parameters include total, beneficial and impervious areas within each community, population and population density, and real property tax valuation.

■ ***Previous Activities:***

A project kickoff meeting was held on October 3, 2005. The general approach for the project was reiterated with a special emphasis on the initial data collection phase. A data requirements list was provided for the communities that identified items that would be required to support the development of a Combined Sewer System Modeling and Monitoring Plan (CSS Plan), the scope and costs for the LTCP, and the cost-allocation task. The data requirements list was distributed to the communities with a return date of November 4, 2005 targeted. Malcolm Pirnie, Inc. (Malcolm Pirnie) was designated as the project liaison for the Albany, Watervliet and Cohoes, Camp Dresser & McKee (CDM) was designated as the project liaison for Troy and Rensselaer, and Clough Harbour was designated as the project liaison for Green Island.

System data has been received from each community and is currently being evaluated. A data summary data has been developed that summarizes the data available and its quality. Data identification, acquisition, and development has continued to support the development of the CSS Plan, in the determination of cost allocation parameters, and for the development of the LTCP. Malcolm Pirnie met with representatives from the City of Albany, the Albany County Sewer District, City of Cohoes, and the City of Watervliet on several occasions to acquire additional sewer system data and for guidance in the development of sewershed mapping for the purpose of cost allocation. Each community was divided into areas served by combined sewers, separate sanitary sewers, and into areas that are not sewerred.

In addition to the sewershed mapping, Malcolm Pirnie has also acquired additional data and performed the following data development tasks to facilitate the development of the LTCP scope of work, the CSS plan, and for the cost allocation task.

- Updated electronic combined sewer overflow (CSO) point files to more accurately represent the actual location of outfall pipes and regulators for the cities of Albany and Watervliet. Malcolm Pirnie is currently involved in a separate (independent from the Part A activities) program with the City of Cohoes to assist them in surveying the location of their outfalls and diversion structures.

- The CDRPC has provided a file of impervious areas that will be used in conjunction with the combined sewershed areas during the cost allocation phase of this project.
- Developed an electronic file of the planned sewer modeling areas.
- Acquired and formatted existing electronic sewer system CAD files from the cities of Albany, Watervliet, and Cohoes to a GIS format for use in determining the areas that should be modeled and in defining the sewershed areas.
- Developed schematic drawings of the outfalls and regulators to illustrate their general layout and connectivity.

■ ***Recent Activities:***

On September 26, 2006 we were informed by the City of Cohoes that the requirements for the data needed to develop the sewershed maps may have been misunderstood by their staff and additional clarification was needed to refine the sewershed mapping. To address this, Malcolm Pirnie held additional meetings with Cohoes personnel. The map and sewershed areas were updated, approved by Cohoes and distributed to the project team on October 19, 2006.

■ ***Planned Activities:***

This task is complete. There are no planned activities for this task.

Task 3 – LTCP Scope Development

■ ***Scope of Work Description:***

Under this task we will prepare a scope of work, budget, and schedule for the development of the CSO LTCP (Part B), present the recommendations to the CDRPC and Pool Communities, and negotiate approval of the agreed-upon approach with the NYSDEC.

Our budget for this task includes the following activities:

3.1 Develop LTCP Scope of Work

Using the results of Task 2, the following activities will be performed:

- A. ***Sewer System Physical Data*** – Develop the scope of work required to collect the additional sewer system physical data identified under Task 2.
- B. ***Sewer System Hydraulic Analyses*** – Develop an approach and estimate the effort required for combined sewer system characterization to be performed under Part B. This general approach will be used to estimate the number of metering and sampling locations, program duration and costs. The detailed approach and protocols for these activities (such as exact metering and sampling locations) will be developed under Part B. Part A tasks include:
 - Perform initial sewershed delineation.
 - Determine the general scope and objectives of the LTCP sewer modeling task.
 - Develop the general scope and level of effort required for in-system and CSO flow monitoring and precipitation monitoring.
 - Determine the general scope and level of effort required for CSO sampling efforts under Part B.

- C. **Receiving Water Characterization** – Develop an approach and estimate the effort required for assessment of in-stream impacts of CSOs, particularly their contribution to impairment for specific water quality criteria and designated uses:
- Complete a preliminary assessment of river water quality data, water quality standards, and pollutants causing impairments and the relative impact of CSO discharges on in-stream water quality during wet weather.
 - Develop an approach and estimate the level of effort and cost required for receiving water characterization to be performed under Part B. The exact procedures and detailed approach will be developed under Part B.
 - Determine the general scope and level of effort in Part B for receiving water quality monitoring necessary to supplement existing water quality information and to evaluate the requirements for CSO reduction.
 - Evaluate the need, goals, and methodology for receiving water quality analyses to be performed under Part B.
- D. **LTCP Scope of Work** – Using the results of A through C above, prepare a draft scope and schedule for the LTCP report development. The scope will describe the work required to complete: (1) an analysis of CSO impacts, (2) an affordability analysis, (3) development and evaluation of control alternatives, (4) life-cycle cost estimates, (5) a plan for regulatory compliance for the Albany Pool communities’ combined sewer systems, (6) an implementation schedule, and (7) a financing plan. It is assumed that this scope of work will be submitted to the NYSDEC and will be sufficiently detailed to satisfy the requirements of a Combined Sewer System Characterization, Monitoring, and Modeling Plan as required by each community’s individual State Pollution Discharge Elimination Systems (SPDES) permit.
- E. **Cost Estimate** – Prepare a preliminary cost estimate for Part B by task.

3.2 Coordinate the Review and Approval of Part B LTCP Scope

Under this task we will:

- A. Conduct up to two meetings with the CDRPC and Albany pool communities to review and discuss the draft scope and schedule. These meetings will be conducted as part of the monthly progress meeting.
- B. Identify and define value of in-kind service opportunities for Albany pool communities.
- C. Coordinate and assemble the proposed budgets from the consultant team to prepare a draft LTCP budget.
- D. Conduct up to two meetings to review the draft budget with the CDRPC and Albany pool communities. These meeting will be conducted as part of the monthly progress meetings. Additional discussions, if necessary, will be conducted via conference calls.
- E. Conduct one meeting with the NYSDEC to review and discuss the LTCP scope and budget after a draft LTCP scope is developed to get NYSDEC’s concurrence and support. We have assumed that the NYSDEC will be familiar with the Albany Pool communities, their CSOs, receiving water condition and uses, local economic conditions and appropriate levels of detail and analyses for the communities through their participation in selected monthly progress meetings.

- F. Address one set of the NYSDEC's comments.
- G. Prepare revised scope and budget for CSO LTCP development under Part B of the project for submittal to and approval by NYSDEC. If additional review meetings and/or report revisions are required for NYSDEC approval of the LTCP plan, this work will be billed on an hourly basis in accordance with the attached rate schedule until NYSDEC approval is obtained.

■ ***Previous Tasks:***

This task was initiated at the March 1, 2006 consultant's coordination meeting. The initial development of data parameters required to support the CSS Plan and the LTCP were compiled.

A preliminary draft CSS Plan and LTCP Scope was developed and circulated among the consultant team members for review. After numerous technical reviews and coordination meetings addressing technical issues and cost estimates, the consultant team completed a draft CSS Plan and LTCP Scope (Plan). An overview of the Plan components was presented at the July 21, 2006 progress meeting and a Draft document was distributed at that time. Preliminary comments from the communities were addressed following the July 21, 2006 meeting and a follow-up meeting was held on August 8, 2006 to facilitate agreement among the CDRPC, the communities and the consultant team.

■ ***Recent Activities:***

Formal comments were received on the Draft document from the communities. The consultant team collectively discussed the comments and draft responses were formally prepared by Malcolm Pirnie. The Draft responses (dated September 28, 2006) were distributed and discussed at the September 28, 2006 progress meeting. Two meetings were held with NYSDEC staff to discuss the components of the LTCP Scope of Work. The first meeting was held on September 7, 2006 at the CDRPC offices and the second was held on October 11, 2006 at the NY DEC headquarters. A final Draft LTCP Scope of Work was provided to the CDRPC for distribution to the communities on October 13, 2006. A final LTCP Scope of Work was provided to the CDRPC for submittal to NYSDEC on October 18, 2006.

■ ***Planned Activities:***

Additional drafts of the LTCP scope may be required following NYSDEC's formal review.

Task 4 – Public Participation Plan

■ ***Scope of Work Description:***

The Public Participation Plan will be developed under a separate contract with Clough Harbor and Associates. Under Part A, the Malcolm Pirnie/CDM team will review and provide comment on the draft Public Participation Plan.

■ ***Previous Activities:***

A draft Public Participation Plan outline was received and reviewed. A project meeting was attended on February 14, 2006 to discuss the outline. A revised outline was received on March 14, 2006. Comments were prepared and delivered to the project team on March 16, 2006. An additional revision was received on March 30, 2006.

■ ***Recent Activities:***

The Planned number of meeting sites was reduced following the Communities' review of the Draft CSS and LTCP development scope. This change is within the parameters of the approved Public Participation Plan and no changes to the plan itself were made.

■ ***Planned Activities:***

This task is complete for Part A. Implementation of the plan will begin in January of 2007.

Task 5 – Cost Allocation Agreement and Financing Plan

■ ***Scope of Work Description:***

Under this task we will work with members of the Albany Pool, both collectively and individually, to define and gain agreement for a clear, mutually-acceptable formula for allocation of the costs. The task will involve developing understanding among the pool communities of the regulatory requirements that will drive the scopes of work for various LTCP tasks, as well as the planning metrics (e.g., population, population density, real property tax valuation, number of overflow locations, size of combined sewer drainage area, etc.) that will determine the proportional planning and engineering requirements for each community and, therefore, their share of the total costs. We will also define opportunities and requirements for In-Kind Services during Part B, as well as a methodology for assessing the value of such services with respect to the overall program cost and the share of each community. A plan to solicit outside funding to finance Part B and subsequent phases of the program will also be developed.

We propose to participate in a two-workshop approach to develop a shared, consistent understanding of scope and cost issues and building consensus on the cost sharing metrics and formula. To reduce travel costs, the workshops will be scheduled as part of the monthly progress meetings.

5.1 Workshop #1 – Technical Requirements and Planning Metrics

Discussion of Cost Allocation Approach:

- A. Elements and stages of cost (planning, design, construction, operations).

- B. Increasing amount of information = increasing understanding of costs and cost allocation (i.e., from planning to design stage).
- C. Planning task cost estimates (from Tasks 1-3).
- D. Typical planning metrics: measures of planning cost requirements (e.g., population, sewer area, average daily flow, number of CSOs, etc.).
- E. Discussion and agreement on metrics.
- F. Preliminary discussion of cost-sharing formula alternatives.
- G. Discuss opportunities, requirements and value of In-Kind Services.
- H. Methodology for definition and incorporation of In-Kind Services.

Using results of Workshop #1 and working with each community, we will participate in the effort to quantify the metrics for each Pool community using existing information available from existing maps, reports and other sources. This information for each agreed-upon metric will be input to the cost allocation formula, along with the cost estimates for the Scope of Work, to get a preliminary assessment of each community's percentage and total cost share in preparation for Workshop #2.

In general, a simple cost allocation formula based on clear metrics with readily available information is preferred for the planning stage of a project such as a long-term CSO control program.

5.2 Workshop #2 – Finalize Cost Allocation and Define In-Kind Services and Funding Plan

The goals of the second workshop will be to reach agreement on the cost allocation formula and resulting percentages and cost shares of each community. We will also discuss options for financing the local share of the costs, including provision of in-kind Services for various tasks. A preliminary agenda for the workshop is as follows:

- A. Discussion of Cost Estimates for Part B (from Tasks 1-3 above).
- B. Discussion of results of assessment of metrics for each community.
- C. Discussion of issues and draft cost sharing agreement.
- D. Preliminary Matrix In-Kind Services: Preliminary Matrix (what by whom, value, etc.).
- E. Identify Financing Options:
 - Loan options.
 - Grant options.
 - Other options.
 - State and federal sources.
 - Financing Strategy for Part B.

After Workshop #2, the cost sharing agreement will be finalized and executed based on the results of the workshops. Future modifications would be based on the better information and actual control requirements developed during completion of Part B.

■ ***Previous Activities:***

This task was initiated at the March 1, 2006 consultant's coordination meeting. The initial development of data parameters required to support the cost allocation process was compiled.

Substantial activities were completed under the data collection and assessment task to support this task. Workshop #1 – Technical Requirements and Planning Metrics was conducted with the communities on May 4, 2006. Based on data compiled under Task 2 (Data Collection and Assessment), Malcolm Pirnie developed preliminary mapping for Albany, Cohoes, and Watervliet that identified CSO service areas, separate sewer service areas connected directly to the interceptor, separate sewer service areas contributing to CSO areas, separate storm sewer areas contributing to CSO areas, and separate storm sewer areas not contributing to the interceptor or CSO areas.

■ ***Recent Activities:***

Preliminary sewer shed service area mapping for Albany, Cohoes, and Watervliet was developed by Malcolm Pirnie. Mapping for Troy and Rensselaer was developed by CDM. Mapping for Green Island was developed by Clough Harbour Associates. This mapping was presented at Cost Allocation Workshop #2 is held on September 7, 2006. Following their reviews, revised sewershed mapping was developed for the Albany, Cohoes, Green Island, Rensselaer, and Troy. A final cost allocation formula was agreed to at the Progress meeting held on September 28, 2006. The final cost allocation formula will be based on the impervious area of the CSO area and total community population.

■ ***Planned Activities:***

CDRPC and counsel will work with the communities to create an intermunicipal agreement for Part B based on the cost allocation formula and the NYSDEC-approved Scope of Work.