



Michael S. Kuenzi, P.E.  
Director

## MEMORANDUM

TO: Mike Kuenzi, Director  
FROM: Ted Kyle, Capacity Program Manager  
DATE: July 28, 2008  
SUBJECT: Capacity Management Program Status Report

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This report presents the status of the near-term capacity projects. For overall background on the program, please visit [www.riverhealth.org](http://www.riverhealth.org).

### Phase 1 Program Overview

Phase 1 of the Capacity Management Program (CMP) focuses almost exclusively on solving the near-term needs of Clackamas County Service District No. 1 (CCSD #1), which sends about 15 percent of its flow to the Tri-City Plant for treatment because its own Kellogg Creek Plant can't keep up with demand.

The Phase 1 improvements include those major capital replacement projects needed to keep Kellogg running for the next 8 to 10 years. The Board of County Commissioners authorized the sale of revenue obligations on July 7 to finance improvements such as:

- **Kellogg Plant:** These improvements will improve plant reliability and hydraulic capacity so treatment can be provided during severe storm events. The plant has in the past passed raw sewage to the Willamette River because it didn't have the capacity to carry high flow rates caused by rainstorms.
- **Tri-City Plant:** The expansion project allows the plant to handle an additional 20,000 EDUs (equivalent dwelling units). The increase will relieve Kellogg and replace the capacity currently being rented from the Tri-City Service District.
- **Interconnecting pipelines:** Construct new wastewater transmission system pipes to transfer flow from the CCSD #1 sewer system to Tri-City.

## **Program Status**

Design is underway on all elements of the near-term projects that are scheduled for early construction. Now that the Community Partners Task Force has completed its work, the routing study and design for the second major pipeline intertie can start. This second major intertie includes a pump station and pipeline to connect the CCSD #1 sewer system to the Tri-City Plant. A decision on the location, size, and route of this connection will be needed this fall so that design can proceed on schedule.

### **Kellogg Plant**

Design work has reached the 50% complete milestone. Major design decisions have been made. New high-efficiency blower technology was selected because it will save energy and can be installed within the existing building with minimum building modifications. The chemical system layouts have been established. The hydraulic improvements have also been sized and located on the plant grounds. Plans and specifications to construct these improvements will be ready for bidding in late October. Any seasonally sensitive construction work can easily be completed the next summer.

The overall concept for the Kellogg Plant Improvements was presented to the Milwaukie Community Development Department. The City has not determined if any of these improvements require land use approval. We will proceed with a formal pre-application conference, which will result in a determination.

#### What's Next

Call for Bids for the Kellogg upgrades will be advertised on October 31, 2008.

### **Phase 1 Treatment Plant Capacity**

The proposals for a Construction Management/General Contractor were received on July 1, as scheduled. The selection committee completed interviews with the three firms that proposed and selected Slayden Construction Group, Inc., of Stayton, Oregon as the highest-ranked proposer.

Design work continues with the 60% submittal due in mid-August. Acceptance of this submittal will freeze major design features. Details needed for construction will be added to the plans over the next three months.

#### What's Next:

The CM/GC agreement and bonds for the early work package will be submitted to the Board of Commissioners for approval on July 31. Work on the site will likely start just after Labor Day. The early work package includes mobilization, excavation, yard piping, foundations and piling construction. This package can be financed with the District's existing cash reserves.

## **Conveyance**

Construction is underway on the first segment of the Transmission System projects, which include the Clackamas Interceptor Connection and the Clackamas River/High Rocks Bridge projects. The pipeline construction is moving quickly and is scheduled for completion in August.

The bridge construction will start with demolition of the burned timbers, followed by bridge pier and beam placement. The bridge is expected to be completed in November 2008.

Four bids were received on the Pump Station modifications. Bids ranged from a low responsive bid of \$1,068,700 to a high of over \$1.58 million. The contract award will be considered by the Board of County Commissioners on July 31. These bids were below the forecast of \$2 million for this contract.

Proposals were received for the routing and design of Wastewater Intertie No. 2. This large pipeline will transport up to 10 MGD from the CCSD #1 system to the Tri-City Plant. This connection will bring flow to the Phase 1 plant expansion and could run from the Kellogg Plant to Tri-City, or it could connect to another point in the CCSD #1 system. The initial routing study will identify connection points and routes for this line.

### *What's next:*

The pump station contract is scheduled to be presented to the Board for award on July 31. Notice to proceed will be issued for the contract once the contractor submits signed contracts, bonds and insurance.

The Intertie No. 2 routing study and design agreement will be presented to the Board for Approval in early September.

## **Cost Forecast**

The following table lists each major project, the original estimate, an inflation-corrected estimate, and the current cost forecast. The cost forecast takes into account the current state of design, bidding results, and any updated cost estimates. This cost forecast is intended to gauge the amount of scope drift or change that normally occurs during design.

The forecast overall is holding near 2.5% of the original estimate when adjusted for inflation. The forecast variance dropped in part because the Clackamas Interceptor Connection Pump Stations contract bid was below the forecasted amount by about \$800,000.

<b>Project</b>	<b>Original Estimate</b> Jul 2007 (ENR CCI 7959)	<b>Inflated Cost to Jun 2008</b>	<b>Current Forecast</b>	<b>Variance</b>
Kellogg Critical Improvements	6.9	7.2	6.6	0.6
Clackamas Interceptor Connection	10.3	10.7	3.9	6.8
Intertie No. 2 Transmission Improvements	33.2	34.6	34.6	0.0
Treatment Plant Expansion *	66.4	69.2	79.6	(10.4)
<b>Total</b>	<b>116.8</b>	<b>121.7</b>	<b>124.7</b>	<b>(3.0)</b>

\*Note: Estimates include Tri-City Service District's share of the projects (\$8.5 million original estimate).

The forecast is updated whenever a contract or change is executed or when a more detailed estimate is received during the design process.

### **Schedule**

The following table shows the current milestone dates scheduled in 2008.

<b>Item</b>	<b>Milestone Date</b>	<b>Status</b>
Proposals due, CM/GC Plant Contractors	July 1, 2008	Complete
Bids due, Clackamas Diversion Pump Station	July 15, 2008	Complete
Proposals due, Intertie No. 2 Engineering	July 17, 2008	Complete
Selection of Plant Contractor CM/GC	July 14, 2008	Complete
Contract Signed for Plant CM/GC	July 31, 2008	Scheduled
Selection, Intertie No. 2 Engineering	Aug. 15, 2008	Planned
Agreement to BCC, Intertie No. 2 Engineering	Sept. 4, 2008	Planned
Call for Bids, Kellogg Critical Improvements	October 2008	Planned
Guaranteed Maximum Price set CM/GC	November 2008	Planned