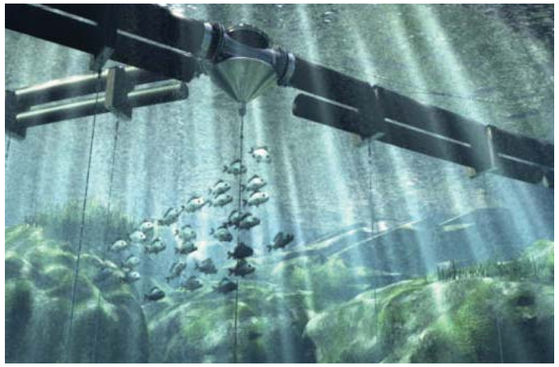
Stay Informed!

The Lake Oswego City Council has worked hard to make sure that every citizen had the opportunity to participate in the review of alternative project designs. Although every effort was made to develop a construction strategy that would have minimal impacts (including reducing the duration of lake draw down), a project of this size will inevitably impact many citizens.

The team of City staff leading construction of the *Lake Oswego Interceptor Sewer* (LOIS) is dedicated to:

- ***Providing timely and detailed information about the construction process***
- ***Listening to citizen concerns***
- ***Working with citizens to address their needs***
- ***Effectively organizing and managing the work of many consultants and contractors to ensure timely and economical project delivery***

1980s pipe maintenance near Alder Point.



LOIS concept rendering of buoyant, tethered pipe section.

General Information

To receive accurate and timely construction information check out these resources:

1. Hello LO: Monthly LOIS Construction Updates will appear in Hello LO beginning this year and continue through the life of the project.

2. Website (*www.lakeinterceptor.com***):** See project maps, read monthly construction updates, get up-to-the-minute details about road closures or other impacts and watch construction videos.

3. Project Office: (currently at the West End Building) (503) 699-7466. Staff will be available during business hours to discuss the project, answer questions and address concerns.

4. Join the LOIS email list: Updates and "breaking news" will be sent to anyone on the project email list. To join, send an email request to *lois@ci.oswego.or.us*.

Site Specific Information

At certain times throughout the project, site specific impacts will affect smaller groups of property owners more than the general public and in these instances, your LOIS project team will be contacting you directly in advance to explain these impacts and address concerns. The team may also hold individualized meetings to discuss the construction plans in detail.

Watch upcoming issues of *Hello L.O.* for project updates and open house dates.

City of Lake Oswego OREGON

For more information or to schedule a briefing for your group, please contact:
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LOIS Project Team
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LAKE · OSWEGO · INTERCEPTOR · SEWER

August 2008
In this issue:

The Lake Oswego Interceptor Sewer - Background and Update

Constructed in the early 1960's, the Lake Oswego Interceptor Sewer (LOIS) lies submerged 14 to 21 feet below the surface of Oswego Lake. Today, the LOIS system collects flows from a 4,500 acre service area serving over two-thirds of the City's residents and businesses. The existing interceptor is nearly 50 years old, undersized and structurally vulnerable in a moderate earthquake. The proposed new pipeline's larger size and improved support system will greatly reduce the risk of overflows and damage from the design earthquake, ensuring clean water in our lakes and streams.

At a July 10, 2007 public hearing, the City Council authorized design of an in-lake, buoyant, gravity sewer as the preferred alternative to replace the existing interceptor sewer. Over the past year, the LOIS project team has worked to complete project designs. The Council has identified the method of financing and signed a cooperative agreement with the Lake Oswego Corporation. The agreement granted easements for the new pipeline alignment and for maintenance and construction access to the lake. The City and the Lake Oswego Corporation also agreed to no summer draw down of the lake, limited construction hours to between 7 a.m. and 8 p.m., six days per week, and provided for future draw downs for pipeline maintenance and repairs.

The Year Ahead: *Tasks for the upcoming year in preparation for in-lake construction 2009.*

	Fall 2008	Winter 2009	Spring 2009	Summer 2009
Main Canal lateral inspections	■			
Secure lake acess sites for construction	■	■		
Permit, bid and construct Bryant Road pump station and Kelok/Maple Circle sewer line *(Learn more on page 2)*	■	■	■	■ Sept. 2010
Finalize design documents	■	■		
Competitive Bid process for construction contractor *(Lake-full work)*		■	■	
Purchase/store project materials		■	■	■
Foothills sewer system rehabilitation: *Design/bid/construct*			■	■
Inspect and clean waterfront collection sewer lines			■	■
Buoyant pipe anchor installation				■

Although many of the tasks listed above involve construction preparation, several smaller projects related to interceptor replacement will occur during the upcoming year. The construction of a pump station and new sewer line under Kelok Road is one example (read more on page two). The Foothills sewer line rehabilitation will upgrade and increase the life span of pipes and pumps which carry waste from the interceptor under Foothills Road to the Tryon Creek Wastewater Treatment facility. Waterfront collection lines require maintenance every 7-10 years. The City wants to make sure that lines running into the interceptor from neighboring properties are connected correctly and are free of debris and sediment so that they can work effectively.

In the upcoming months these activities will be explained in detail. You can expect regular progress updates and explanations of the work underway in the monthly editions of Hello LO and on the project web site at www.lakeinterceptor.com. You can also receive project updates by email. Make a request on the project website or by sending an email to *lois@ci.oswego.or.us*. If your neighborhood association or group would like the LOIS project team to speak at your next meeting, please call the project office at 503-699-7466. *(See page 4).*

The pages which follow provide information about the types of activities that will occur during the three main phases of construction on the Lake Oswego Interceptor Sewer (LOIS). Those phases include 1) construction preparation, 2) in-lake (lake- full) work and 3) the draw down period. In-lake construction work is anticipated to start in the spring of 2009 and continue through the summer of 2010. Additional details will be available as the start of construction nears.

Construction Preparation: Access Points/ Construction Staging Areas

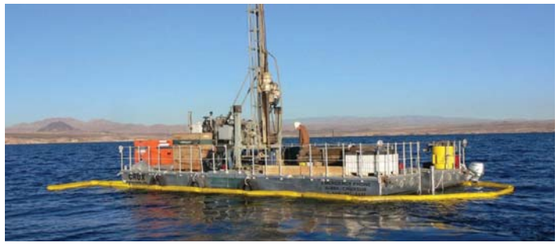
Access into the lake for construction is limited. Securing suitable access points was a key requirement of the agreement signed between the City and the Lake Corporation. There are nine proposed access points for construction. For the initial in-lake portion of construction, key access points include the Alder Point and Maple Circle easements. A third, as yet unidentified, site is required to provide the primary access for workers, machinery and supplies including large sections of pipe. Four access points to be used during draw down include Alder Point, Allen Road, the Lake Corporation marina and the North Shore bridge easement. The primary access point during draw down is proposed at the end of Allen Road.

A project of this size requires storage areas for materials, equipment and places for crew members to park. Since space around the lake is limited, two staging areas have been identified away from the lake: the West End Building, east parking lot and City owned property on Iron Mountain Blvd., near the Hunt Club.

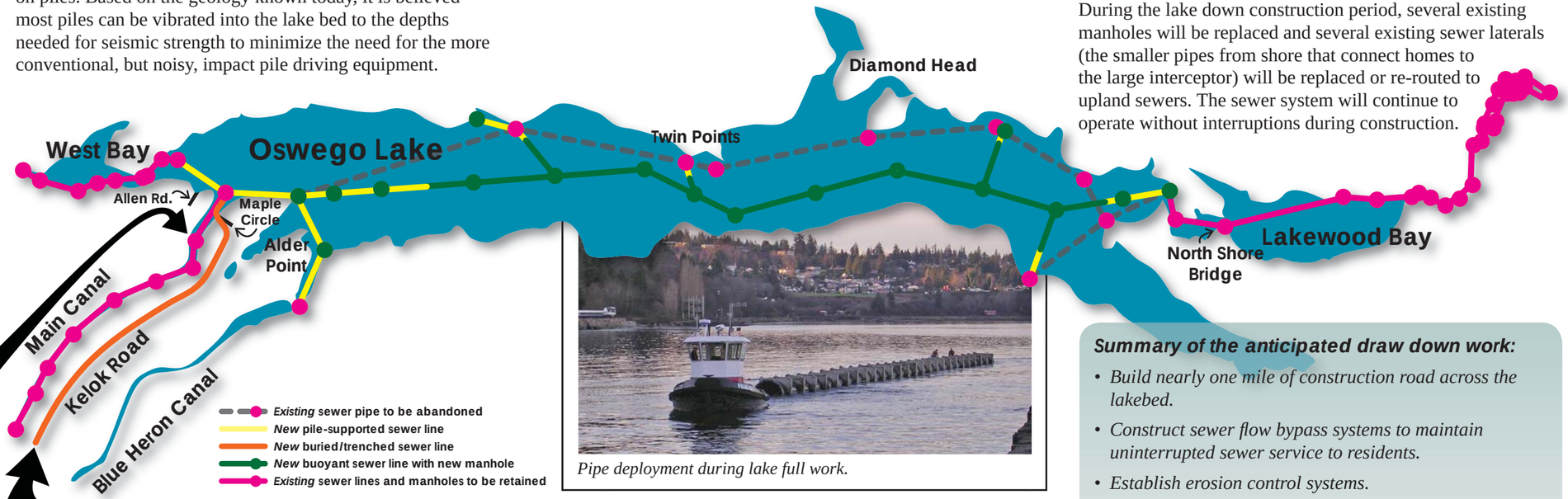
Lake Full Construction: Barges, Anchors, Tethers, Piles and Buoyant Pipe

March 2009 - September 2010

Piles - Most of the Interceptor Sewer has been designed as a gravity-flow, buoyant system held in place beneath the lake with anchors and tethers. However, some of the pipe will be buried and some will be supported by piles (similar to the existing interceptor sewer). The pile supported portions of the interceptor replacement are shown on the map below in yellow. The portions of the interceptor that will be pile supported are in shallower parts of the lake and where lakebed sediments are susceptible to liquefaction during an earthquake. After a comprehensive geologic exploration of the lakebed, bays and canals, it was determined that approximately 4,500 feet of the new pipe and connecting trunks will be supported on piles. Based on the geology known today, it is believed most piles can be vibrated into the lake bed to the depths needed for seismic strength to minimize the need for the more conventional, but noisy, impact pile driving equipment.



Example of the type of barge that will be used in the construction process.



South Shore Bridge Closure for Barge Assembly (March - April 2009)

Because assembled barges are too large to put into the lake from any location, smaller barge segments will be placed in the lake for assembly into larger barges. This will take place at two primary locations. Some barges will come into the lake from one of the three access points discussed earlier. Other barges will be put into the Lake by a crane set up on the Canal Bridge on South Shore Blvd. During barge assembly, the Canal Bridge will be closed to traffic for three to four weeks. A detour route will be established similar to the route used when the bridge was under construction in 2005. Signs will be posted to announce the closure and guide traffic to the detour. Information will be provided in Hello LO and to nearby residents prior to the closure.

Kelok Road Pump-Around (2009 - 2010)

Although initial designs called for the replacement of the buried sewer line inside the Main Canal, project designers found that pumping-around the Main Canal and building a new, underground pipeline in Kelok Road could reduce costs and cause less disruption to Main Canal property owners. The initial replacement concept required a draw down of the Main Canal for at least a year. Unlike pumping around the entire lake, pumping around the Main Canal provides a solution to a small, focused area that saves about $4 million in construction costs, and benefits surrounding property owners. The in-lake, buoyant, gravity option chosen for the bulk of the interceptor project is still the most economical and reliable option over the life time of the interceptor.

Staff initiated discussions with the Lake Corporation and with neighbors living along the Canal at a meeting in May. The result was broad support for the Kelok Pump-Around option. This option will require the construction of a pump station on Bryant Road near the Main Canal. Discussions have begun with property owners, neighbors and City Planning staff to design and acquire needed permits for the pump station. The new sewer line will run from this pump station up Kelok Road to Maple Circle where it will join the interceptor sewer inside the lake.

Anchors, Tethers and Pipeline - A major part of in-lake construction work involves installation of the anchors and tethers that will support the buoyancy pipe and the new interceptor sewer pipe. The buoyancy pipe is used to maintain the correct slope of the tethered sewer pipe so gravity flow can be maintained. The buoyant, tethered portions of the interceptor are shown on the map in green. The installation of these anchors (March/April 2009), tethers and buoyant pipe will occur from barges in the lake.

Lengths of pipeline will be fused together to form 1,000 foot lengths. The 1,000 foot lengths of sewer pipe will be stored near the shore until they are towed to their new home in the lake. There, the pipe will be "sunk" for installation either to tethers where it will be held under the lake surface, or to where it will be supported on piles. This work will occur while water is still in the lake.

Barges - Throughout the 16 months of in-lake work, barges will be working all around the lake installing piles, anchors, tethers and pipeline. There will be up to a dozen barges in the lake at any one time. Barges will remain in place overnight. They will be required to surround their work area with safety buoys and lights, per Coast Guard and Oregon Marine Board regulations. Smaller skiffs will transport workers and materials to the barges. Skiffs will be moored at either the primary access area or at the Alder Point dock. At times, barges that are designed to collect mud and material from drilling operations will come to shore to have those materials removed. This will occur at the Alder Point dock and the primary access point.

Pipe deployment during lake full work.

Barges come in a variety of sizes, but most will be 20 to 50 feet wide and up to 100 feet long. Starting in March 2009, barge locations will be mapped and provided a few weeks in advance on the project website at www.lakeinterceptor.com and will be available at the LOIS Office at the West End Building on Kruse Way. Lake navigation routes will be maintained, as well as access to personal boat houses during construction.

Lake Draw Down

September 2010 - June 2011

A great deal of attention has gone into identifying ways to minimize the draw down period and avoid a draw down during the summer months.

During the lake down construction period, several existing manholes will be replaced and several existing sewer laterals (the smaller pipes from shore that connect homes to the large interceptor) will be replaced or re-routed to upland sewers. The sewer system will continue to operate without interruptions during construction.

Summary of the anticipated draw down work:

- *Build nearly one mile of construction road across the lakebed.*
- *Construct sewer flow bypass systems to maintain uninterrupted sewer service to residents.*
- *Establish erosion control systems.*
- *Trap and relocate fish*
- *Prepare support-system for the pile-supported sewer pipeline.*
- *Assemble pipeline.*
- *Demolish and rebuild manholes (replacement manholes will be smaller diameter).*
- *Connect manholes to buoyant pipeline.*
- *Remove construction roadways.*
- *Begin lake refill by March 21, 2011*