



**City of Lake Oswego  
Lake Oswego Interceptor Sewer  
Lake Down Contract – Contractor Questions**

**Bypass Pumping Related Questions  
February 1, 2010**

TO: Planholders for Lake Oswego Interceptor Sewer – Lake Down Project

FROM: Brown and Caldwell – Pete Oveson and Mike Prett

SUBJECT: Bypass Pumping Related Questions

DATE: February 1, 2010

The following bypass pumping questions were received from prequalified contractors on the project. The design team's responses are provided in the table below. The questions and answers listed in the document will be posted to the Project Website within the coming days.

Additional questions have been received from prequalified contractors that are not included in this document. Additional questions will be answered in a timely manner and will be posted to the Project Website. Prequalified contractors will be notified at the time when additional questions and answers are posted to the Project Website.

Question #	Question	Response
1	1.02 C standby 100% redundancy or WHICH full pumping capacity - Lead or Lag?	100% redundancy shall be required for the largest pump at each pump station. Each pump station shall be able to handle the Project Peak Flow in the event that the largest pump (lead or lag) is out of service.  Addendum No.2 will address this issue.
2	Do they have to manifold so that the pump goes into all at the OLCC Pump station?	Please refer to Section 02550 2.01 E.

3	Assuming the bypass pumping contractor will be required to cross the new and existing interceptor to access the bypass manholes.	Yes. Please refer to Section 02762 3.02 F & G.
4	Where does the design team anticipate fusing temporary bypass pipe will take place?	Please refer to Section 01015, 1.02 J.
5	The specs indicate that a full time employee at each site? (Section 02550 1.02 L)	<p>This statement was intended to mean that at least one trained and qualified attendant shall be available for pump maintenance of all bypass pumping stations, project wide (e.g. each pump station site does not require it's own, individual attendant).</p> <p>Addendum No. 2 will address this issue.</p>
6	2550 1.02S — Flow Diversions. Each bypass diversion must have a flow meter. <u>Does Each temporary bypass need to be flow monitored?</u>	<p>The requirement for flow meters at each bypass diversion will be relaxed. No flow metering beyond what would be required to keep pumps operating correctly will be required.</p> <p>Addendum No 2 will address this issue.</p>
7	What are the diameters and frame and cover sizes for existing manholes 14, 15, 18 and 20? As-built drawings found in the reference documents did not have this information.	<p>MH 14, 15, 18, and 20 are all 5-foot inside diameter MH's. Cover openings for each is 23-inches in diameter. This information has been field verified.</p> <p>This information can also be found on the As-Built information provided on the project website, found at the following path:  <a href="http://www.lakeinterceptor.com/lake_down_reference.php">http://www.lakeinterceptor.com/lake_down_reference.php</a></p>
8	Can the 100-year flood rim elevation for bypass suction/discharge elevations be relaxed at existing manholes on the Lake where the manhole only needs to be raised 1 to 5 vertical feet?	<p>The 100-year flood rim elevation requirement will be relaxed to be at or above the lowest elevation of any existing MH on the lake that will be affected during construction. That elevation corresponds to 99.5-feet and will apply to existing and temporary sumps.</p> <p>Addendum No. 2 will address this issue.</p>

9	Is it acceptable to install new manholes or a suction pit structure on the existing sewer interceptor where insufficient space is available for the pumps on the proposed suction manholes?	Yes. Please refer to Section 02250 1.02 E and Section 01015 3.02 E.
10	Will a variance be allowed to alleviate the specification requirement on 01015-5.2.A limiting the bypass fusion allowable work hours at Alder Circle? A 6:00 AM to 6:00 PM allowable work window Monday-Friday would be advised due to the already small timeframe allowed.	No. Please refer to Section 01015 1.02 J.
11	Can Brown & Caldwell provide a copy of the CAD .dwg file to B&F Contracting to assist in the bypass submittal for pumpstations. We are looking for the Lake Overview drawing showing as seen in the LOIS handout that shows the buoyant, and supported pipe along with the manhole numbers.	Yes. Files will be posted to the Project Website in the coming days.  <a href="http://www.lakeinterceptor.com/lake_down_reference.php">http://www.lakeinterceptor.com/lake_down_reference.php</a>
12	Can Brown & Caldwell provide the Schedule Constrains and Work Sequence Figures 1, 2 & 3 (bypass pumping plan) in a CAD .dwg file to assist in the completion of the bypass submittal.	Yes. Files will be posted to the Project Website in the coming days.  <a href="http://www.lakeinterceptor.com/lake_down_reference.php">http://www.lakeinterceptor.com/lake_down_reference.php</a>
13	Is it expected that the bypass contractor utilize new HDPE pipe for the bypass due to contamination concerns in the lake?	Please refer to 15065 2.02 B.
14	Are there any testing requirements for using HDPE pipe that has been used on previous sewer bypass projects in order to allow its use in Lake Oswego as part of the temporary bypass?	Please refer to the answer to question 13 included in this document.  Previously used sewer bypass pipe shall be under the same requirements listed in Section 02550 3.05 A.  Addendum No. 2 will address this issue.

15	<p>The contract documents show bypass suction/discharge locations into newly built manholes with rim elevations significantly below the 100-year flood elevation of 103.5 (see manholes 11R, 21R &amp; 10R) . Per the specification 025502.F, “All sumps, including existing manholes and temporary sumps, used for bypass pumping suction and discharge lines shall have a rim elevation greater than the 100-year flood elevation of 103.5 MS” or shall be completely sealed to prevent lake water from entering the sewer system in the event of the 100-year storm”. How was it planned to allow the bypass to discharge at the 103.5 MSL elevation while allowing for the completion of the new manholes?</p>	<p>Please refer to the answer to question 8 included in this document.</p>
16	<p>What elevation does the lake have to be in order to place the 42” buoyant sewer back on grade? This may impact the bypass system at suction MH 11R as to how we keep access to the MH as the lake elevation rises above the MH rim elevation.</p>	<p>Please refer to Section 01015 1.02 I.</p> <p>Access could be provided through the use of the MH Caissons that will be provided as part of the Lake Full Project. Details can be found on Reference Drawing 000-D-006.</p>
17	<p>Specification section 025502.D states that sewage flows will not be allowed to discharge into the 42” buoyant sewer line until it is on design grade. When looking at bypass 13 where the suction manhole is 11R, the bypass will be ongoing until the lake is full allowing for the design grade to be achieved on the buoyant pipe thus permitting it to become a live sewer and receive flow. This does not allow for the general contractor to perform the scope of work required for the completion of MH 11R while the lake is down.</p>	<p>Please refer to the answer to question 16 included in this document.</p> <p>According to Section 01015 3.03, the sample work sequence, MH 11R could be built and connected with no bypass pumping required prior to bringing bypass pumping ID 13 on-line.</p> <p>It is recommended that Bypass Pumping Contractors work with General CONTRACTOR(s) to determine how the bypass pumping schedule works into the construction schedule.</p>

18	The reference materials on the LOIS website do not have any historical photos available for download. Please provide.	Photos are provided please refer to the web page found at the following path: <a href="http://www.lakeinterceptor.com/lake_down_reference.php">http://www.lakeinterceptor.com/lake_down_reference.php</a>
19	Please forward the manhole elevations for Existing Manhole #18. Bypass #1 calls out pumping from Manhole #18 and the elevations do not appear in the drawings.	As-built information is available on the project website, found at the following path: <a href="http://www.lakeinterceptor.com/lake_down_reference.php">http://www.lakeinterceptor.com/lake_down_reference.php</a>  MH 18 rim elevation according to as-built data is approximately 100.5 ft. MH 18 invert elevation according to as-built data is approximately 79.0 ft.
20	Are the Bypass Flows to be built to 125% of “5 Year Peak” or “Average Winter?” The documents currently call out 125% of “Project Peak Flow”.	Please refer to 1.0 <del>2</del> <sup>3</sup> , AVAILABLE FLOW DATA, B. The paragraph reads “The 5-year peak flow rate shall be used as the Project Peak Flow.”