**Oregon Health Authority, Drinking Water Services**

Plan Review requirements for **Storage Reservoirs** at public water systems.

The requirements apply to new **Storage Reservoirs** for existing or new Public water systems. Two sets of information are provided below, ‘short’ and ‘long’ instructions. The short instructions are abbreviated. If you are unfamiliar with the plan review process, it is strongly recommended you read the long instructions.

For assistance, call (971) 673-0405 or fax (971) 673-0694.

**SHORT INSTRUCTIONS:**

The following shall be submitted and approved by OHA **prior to construction** of a new **Storage Reservoir**:

1. Plans prepared by an Oregon-registered Professional Engineer (PE)
2. A Land Use Compatibility Statement (LUCS), or equivalent documentation, approved by the local planning authority
3. The appropriate plan review fee ($600 Community water system; $150 Non-Community water system)

For an upgrade or repair to an existing storage reservoir (e.g., re-coating interior, adding mixers or baffles, replacing the access hatch and/or interior ladder) fewer requirements may apply. Please contact DWS for more information.

**Specific Requirements**

A. **Prior to construction**, submit at a minimum:
   1. A project diagram showing the project location in relation to other elements of the water system (e.g., raw water source, pumping facilities, treatment facilities, other storage reservoirs, main transmission line(s), the first customer served by the new reservoir, and security fencing;
   2. Plans and Specifications;
   3. Geotechnical Report supporting foundation design; and
   4. Plan Review fee.

B. **After construction**, submit the following:
   1. Revised plans if different from the submitted plans (aka as-built plans);
   2. Written acknowledgement by the PE that the project was completed as planned, and if applicable that all conditions outlined in the Conditional Approval letter were met; and
   3. Proposal for post-construction tracer study - required only if the reservoir is used to achieve disinfection contact time.

**END SHORT INSTRUCTIONS**
LONG INSTRUCTIONS:

The responsibilities associated with this process include:

A. Water system actions Prior to Construction
B. Drinking Water Services response for Plan Review
C. Water system actions After Construction
D. Drinking Water Services grants Final Approval

These are addressed in detail as follows. Additional detail may exist in the Oregon Administrative Rules under OAR 333-061-0050 and 333-061-0060.

PRIOR TO CONSTRUCTION

A water system must submit the following, with some exceptions, prior to construction:

a) Project Diagram;
b) Construction Plans and Specifications;
c) Geotechnical Report;
d) Land Use Compatibility Statement (LUCS); and
e) Fee for Plan Review.

The submittal materials are sent to:

ATTN: PLAN REVIEW
OHA DRINKING WATER SERVICES
800 NE OREGON ST., STE 640
PORTLAND, OR 97232-2162

(Materials may be sent directly to the relevant regional engineer, though the fee payment should be sent to the address above with a letter or memo providing the water system’s identification and project description. Sending the fee to a regional engineer may slow processing time.)

a) PROJECT DIAGRAM

- A diagram showing where the proposed Storage Reservoir will be located in relation to the other elements of the public water system in proximity to the project, and may include:
  1. Water sources controlled by the water system;
  2. Pumping facilities;
  3. Treatment facilities;
  4. Main Transmission line(s);
  5. First customer served by the new reservoir (show distribution pipe run to that point if
Security fencing

The diagram should also include the following information:

1. Water system ID number
2. Water system name
3. Name, phone number, signature of the person who completed the diagram, and, if prepared by an Oregon-registered professional engineer, their stamp.
4. Name, phone number, and mailing address of the company who completed the diagram (if applicable).

b) Construction Plans and Specifications

Plans and specifications shall include:

1. Construction drawings with appropriate details (e.g., foundation, overlapping watertight access hatch and curb, screened vent(s), inlet/outlet piping, silt stop, internal ladder, isolation valves, daylighting drain/overflow pipe terminus with flap valve or screened protection, water level indicator, effluent flowmeter, etc);
2. Construction specifications pertinent to water storage; and
3. Internal coating specifications showing compliance with NSF Standard 61.

Note: Storage Reservoirs must meet the requirements set forth in OAR 333-061-0050(6) [Construction Standards for Finished Water Storage]

c) Geotechnical Report – Must be submitted for review/approval by DWS prior to construction of reservoir.

d) Land Use Compatibility Statement – Required unless plans are submitted by an entity with planning authority.

http://public.health.oregon.gov/HealthyEnvironments/DrinkingWater/PlanReview/Documents/LUCS.pdf or equivalent. A LUCS demonstrates that the proposed storage reservoir and any related construction project is compatible with every local government entity (e.g. city and/or county) having comprehensive planning authority over the site of the proposed project.

e) Plan Review Fee – Required in all cases involving the construction/installation of Storage Reservoirs

For Community water systems, a $600.00 plan review fee must be submitted. For Non-Community water systems, a $150.00 plan review fee must be submitted.
The fee check should be made payable to: OHA Drinking Water

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**PLAN REVIEW**

The Oregon Health Authority – Drinking Water Services (DWS) will:

a) Assign a plan review number (e.g., PR 1000-2011);
b) Review all submitted information
c) Based on the submitted information, the Program will send a letter to the water system and/or engineer indicating if the proposed reservoir meets state requirements (with or without conditions), or requesting additional information about the project. Correspondence may include:

- **Preliminary Approval** – indicating that the project adheres to OAR requirements and that construction can begin
- **Conditional Approval** – indicating that construction can begin, but specific conditions must be addressed for the project to meet OAR requirements
- **Request for Additional Information** – indicating that DWS plan review cannot proceed until the specified information is submitted

Note, **Final Approval** of the project is issued when the engineer has certified that construction was in accordance with approved plans and specifications, and all conditions were addressed (see below), and construction is complete.

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**AFTER CONSTRUCTION**

**UNTIL ‘FINAL APPROVAL’ OF THE PROJECT IS GRANTED BY DWS, THE NEW INFRASTRUCTURE SHOULD NOT BE USED TO SERVE WATER TO THE PUBLIC.**

Be sure to add the following identifying information on submitted materials:

a) Water system ID number (for example ‘OR4199999’);
b) Water system name;
c) Plan review number; and
d) Name, phone number, and mailing address of the person who can be contacted regarding this information.

As with pre-construction, mail to:

**ATTN: PLAN REVIEW**
OHA – DRINKING WATER SERVICES
800 NE OREGON ST., STE 640
PORTLAND, OR 97232-2162
Water systems may mail or email the materials directly to the appropriate DWS regional engineer. For assistance, you are welcome to call (971) 673-0405, or fax (971) 673-0694.

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**FINAL APPROVAL**

The Oregon Health Authority – Drinking Water Services will:

a) Review all submitted information;

b) Based on the submitted information, DWS may send a letter to the water system indicating if the Storage Reservoir has been granted Final Approval. Water system’s receipt of final approval concludes the plan review process for the project. If final approval cannot be granted, the letter will indicate what steps must be taken. Receipt of final approval of the plan review allows the water system to utilize the new infrastructure.

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**OAR referenced Design Standards:**

American Water Works Association Standards:

*D100-11 Welded Carbon Steel Tanks for Water Storage*

*D103-09 Factory-Coated Bolted Steel Tanks for Water Storage*

NSF Standard 61