Managed Aquifer Recharge in the Walla Walla Subbasin of Oregon: Navigating the rules

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January 24, 2017
Permitting Managed Aquifer Recharge

- Oregon has two permitting paths:
  - AR = Artificial Groundwater Recharge
  - ASR = Aquifer Storage and Recovery
- Both allow underground storage of water
- Both allow recovery and use of stored water

<table>
<thead>
<tr>
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<th>AR</th>
<th>ASR</th>
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<tbody>
<tr>
<td>ORS</td>
<td>537.135</td>
<td>537.531 to 537.534</td>
</tr>
<tr>
<td>OAR</td>
<td>690-350-110 to 690-350-130</td>
<td>690-350-010 to 690-350-030</td>
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</tbody>
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Managed Aquifer Recharge Methods

Only AR
- Spreading Basin
- Infiltration Zone
- Groundwater mixing zone
- Regional groundwater flow

AR or ASR
- Extraction Well
- Injection and Recovery Well
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<tbody>
<tr>
<td><strong>Water Use</strong></td>
<td>Primarily irrigation, stream flow enhancement</td>
<td>Primarily drinking water</td>
</tr>
<tr>
<td><strong>Recharge Method</strong></td>
<td>Seepage systems, Injection wells</td>
<td>Injection wells only</td>
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## AR vs. ASR

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<tr>
<td><strong>Water Quality</strong></td>
<td>Recharge water cannot impair or degrade ground-water quality</td>
<td>Recharge water must meet drinking-water standards</td>
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<tr>
<td><strong>Water Rights</strong></td>
<td>Separate Permits required to appropriate source water and to recover recharged water</td>
<td>Can use existing rights to store and recover the water</td>
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</table>
Permitting Managed Aquifer Recharge

• OWRD issues testing licenses and permits in consultation with ODEQ, OHA, ODFW
• Limited license available for 5 years of testing, renewable
• Permanent authorization available for the long term after project has grown into full rates and volumes
Managed Aquifer Recharge in the Walla Walla Subbasin: Water Availability and Basin Rule Issues
Basin Rules and Surface Water Availability

Surface Water Availability per Basin Rules 690-507-30

- Walla Walla and tributaries upstream of Little WW: Classified, includes municipal, AR, storage
- Dugger Creek: Withdrawn
- Mill Creek: Classified, includes AR
- Couse Creek: Classified, includes AR
- Pine Creek and tributaries: Classified, includes AR
- Walla Walla River, including Little Walla Walla Diversion: Withdrawn, AR not allowed
- WW Subbasin Surface Water: Classified, includes AR and a few other uses

Water stored under AR and recovered for supplemental irrigation can be used on lands with existing irrigation rights on June 24, 1988.
Basin Rules and Groundwater Availability

- No new groundwater appropriations
- ASR with existing rights not affected
- Transfers possible
Basin Rules and Recharge

• Basin rules do not affect ASR with existing rights

• Basin rules limit use of water stored by AR:
  – Irrigation duty with recovered water limited to 3.375 AF/AC
  – Supplemental irrigation only to rights prior to June 24, 1988
  – Municipal & industrial use need active water conservation program
  – Recharge allowed December 1 – May 15
Need More Information?

• Water Availability:
  http://apps.wrd.state.or.us/apps/wars/wars_display_wa_tables/search_for_WAB.aspx

• Funding for feasibility studies:

• AR/ASR information:
  http://www.oregon.gov/owrd/Pages/LAW/owsci_info.aspx

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County Line Water Improvement District
Artificial Groundwater Recharge