



Aquifer Storage and Recovery Projects and Drinking Water Wells

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Aquifer storage and recovery (ASR) and Managed aquifer recharge (MAR) are artificial processes or natural processes enhanced by humans that convey water underground. These processes replenish ground water stored in aquifers for beneficial purposes. Although ASR and MAR are often used interchangeably, they are separate processes with distinct objectives. MAR is used solely to replenish water in aquifers. ASR is used to store water, which is later recovered for use.

The objective of MAR is to replenish water in an aquifer. Injecting water into MAR wells can prevent saltwater intrusion into freshwater aquifers and control land subsidence. In contrast, ASR wells are used to store water in the ground and recover the stored water for drinking water supplies, irrigation, industrial needs, or ecosystem restoration projects. The stored water may be recovered from the same well used for injection or from nearby injection or recovery wells. In Washington State ASR and MAR can help increase the availability of water during the summer by capturing and storing water during wetter months when stream flows are high and water demands are low.

All ASR and MAR projects must comply with Department of Ecology regulations embodied in WAC 173-157. ASR and MAR projects that involve any drinking water wells or sources of supply must also comply with Department of Health (DOH) drinking water regulations embodied in WAC 246-290.

Only water from DOH-approved potable water sources may be injected into any drinking water source involved in an ASR or MAR project. This applies to any proposed or existing water source. No existing drinking water source may be augmented by an ASR or MAR project without explicit DOH authorization. Refer to section 130 source approval below.

WAC 246-290-130 Source Approval

(1) Every purveyor shall obtain drinking water from the highest quality source feasible. **Every purveyor shall, prior to using a source as a public water supply, obtain approval from the department for:**

- (a) All new sources.
- (b) Previously unapproved sources.
- (c) Modifications to existing sources.

(2) In no case may a purveyor maintain an intake or other connection between a public water system and a source of water not approved by the department.

In addition to the source approval requirements of WAC 246-290-130, drinking water projects must meet treatment, monitoring, operating, engineering, and planning requirements under state drinking water regulations WAC 246-290. Contact the regional offices listed below before initiating any ASR or MAR project.

For more information

Our publications are online at doh.wa.gov/drinkingwater.

Contact our nearest regional office from 8 AM to 5 PM, Monday through Friday. If you have an after-hours emergency, call 877-481-4901.

[Eastern Region](#), Spokane Valley 509-329-2100.

[Northwest Region](#), Kent 253-395-6750.

[Southwest Region](#), Tumwater 360-236-3030.



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