



ASR and AR PROJECTS -- LEGAL and POLICY ISSUES

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ASR Overview --

- Storage and Recovery
- Water from a Separate Source
- Meets Drinking Water Standards
- Not Primarily Intended for Aquifer Restoration

OAR 690-350-0010(1)(a)

Right to ASR is “inherent” in every water right --

- Existing water right can be used for aquifer storage
- No change of priority date
- No increase in rate or volume for injection
- Increased rate OK for recovery

OAR 690-350-0010(3)

Two-step authorization --

- Step 1 -- Limited License to test the process
- Step 2 -- ASR Permit for permanent/on-going ASR use

OAR 690-350-0010(4)

Permit for use of ASR water is different –

- Not a new “appropriation”
- Division 310 rules do not apply
- Different types of permit conditions

Permit Conditions

ASR Permit can be modified after issuance –

- changes in HD or DEQ water quality standards
- “needed technological changes” requested by HD or DEQ
- Upon request of permittee

ASR Permit can be revoked --

- To prevent/ mitigate substantial interference with other water rights -- including instream rights -- or aquifer water quality
- To address any other “unintended, injurious effects”

OAR 690-350-0010(4) & (5); OAR 690-350-0030(6)c

Water Quality Standards for ASR

- HD drinking water standards or EQC standards – whichever are *more stringent*
- “Minimize” concentrations of constituents not naturally present in the aquifer “to the extent technically feasible, practical and cost-effective”
- OWRD consults with DEQ and HD in reviewing/approving and setting conditions
- “Catch all” -- further restrictions to address “certain constituents” that will “interfere with or pose a threat to” water resources

OAR 690-350-0010(6) & (7)

Recovery of Injected Source Water

- Up to 100% may be recovered -- but OWRD usually requires a “tax” of 2% - 5% for
 - 1) injected source water lost through migration or
 - 2) ground water “irretrievably lost” due to ASR

OAR 690-350-0010(8)



Legal and Policy Issues for ASR

Extensive/expensive application process

- Application requires extensive technical information
- Extensive water quality information up front

Water Quality Conundrum

- Must treat to drinking water standards *and* minimize presence of constituents not naturally present -- is there a conflict?
- Are the Water Quality Standards too tough?

What's the Standard for Permit issuance/conditions?

- "...to the extent technically feasible, practical and cost-effective"
- "certain constituents" that will interfere with or pose a threat to the resource

What's the Standard for Permit modification or revocation?

- “...needed technological changes” as requested by HD or DEQ
- “substantial interference” with other water rights, or aquifer water quality; or
- “...any other unintended, injurious effects” of ASR



AQUIFER RECHARGE

AR Overview --

- Intentional “addition” of water
- Diverted from another source
- To a ground water reservoir

OAR 690-350-0110 (1)

Permit process --

- Separate permits to divert into recharge and withdraw from recharge
- Goes through regular water right process
- Requires a pre-application conference

OAR 690-350-0120(1)

Key Application Requirements

- Instream Water Right or “waiver” from ODFW
 - Proof of “financial capability” for requests over 5.0 cfs
 - Technical information
- OAR 690-350-0120(3)

Key Permit Conditions

- Monitoring “key wells” and “target levels”
- Determination of Stored Recharge Water
 - Negotiated: credit up to 85% of recharge; debit 100% of amount withdrawn
 - “Definitive Investigation” Option

OAR 690-350-0120(5)

Conditions continued....

- Storage Account: OWRD maintains the “account”
- Annual report – quantities of recharge
- Withdrawal from Storage Account requires secondary use permit

OAR 690-0250-0120(5(g))

Withdrawal “Zones” Monitored --

- Green zone: water levels at key wells above upper target level – full withdrawal
- Yellow zone: between upper and lower target levels -- up to 85% of recharge volume for preceding 12 months;
- Red zone: below target level -- no use of stored recharge

OAR 690-350-0130(4)(g)

Curtailment of Withdrawal

- If Director of OWRD has “reason to believe”
 - well is not drawing from recharged water, or
 - “other substantial groundwater concerns”

OAR 690-350-0130(4)(h)



Legal/Policy Issues with AR

Permit Application Process – Water Availability

- 50% exceedance
- ODFW “waiver”
- Peak flow protection

Secondary Withdrawal -

- Is a “secondary” permit required?
- AR for AR’s sake?

Standards for Enforcement/ Curtailment of Withdrawal

- “reason to believe” ?
- “substantial groundwater concerns” ?

Conclusions

- ASR and AR offer powerful tools for future water management
- Complex processes – not for the faint of heart
- May need greater program clarity to promote investment