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The rule's intent to authorize recovery of reclaimed water stored in a geologic reservoir (i.e., through aquifer storage and recovery [ASR]) is unclear. If the intent of the rule is to permit only the recovery of recharged water molecules (e.g., through chemical fingerprinting and "breakthrough curves"), most ASR projects that would incorporate reclaimed source water will be rendered economically nonviable due to simple commingling of recharged water and native groundwater. Further, using water quality to determine recoverable quantities would not allow recharge and recovery to occur at separate locations. Provisions for recoverable quantities should be based on water budget impacts and on impairment to existing rights, as is the case for other water rights permitting decisions. The draft rule should explicitly require that the water budget impact of a proposed project be evaluated from water levels and hydrogeologic modeling when the storage duration (recovery period) is determined, as described in sections 173-219-210(2)(v) and 173-219-270(7) of the draft rule. Water quality impacts should not be a consideration for determining recoverable quantities, since criteria are established in Chapters 172-200 and 172-219 WAC to preserve groundwater quality for the highest beneficial use, which apply regardless of whether any recharged water is ever recovered.

The Purple Book should be modified to clarify that the recoverable quantity will be based on analysis of water budget impacts. The draft language in Section 12.3 of the Purple Book currently states "Recovery of reclaimed water stored in an aquifer (aquifer recovery) is exactly that, recovery of the reclaimed water that has been stored in an aquifer". As written, this statement is ambiguous and could apply to either a recharged volume of water, or on a chemical fingerprint of recharged water. If the Department adopts the position that chemical fingerprinting (e.g., "breakthrough curves") will determine recoverable quantities, few ASR projects will ever come to fruition using reclaimed water.