

**WAC 173-157-120 What must I include in the hydrogeologic system description?** Your hydrogeologic system description must include a conceptual hydrogeologic model that describes:

(1) The aquifer targeted for storage, to include at a minimum estimates for:

(a) Lateral and vertical extent;

(b) Whether the aquifer is confined or unconfined;

(c) Permeability;

(d) Total storage volume available;

(e) Effective hydraulic conductivity;

(f) Transmissivity; and

(g) Potential for physio-chemical changes in the aquifer or vadose zone as a consequence of recharge.

(2) The estimated flow direction(s) and rate of movement.

(3) The anticipated changes to the groundwater system due to the proposed ASR project.

(4) The estimated area that could be affected by the project.

(5) The general geology in the vicinity of the proposed project, including stratigraphy and structure.

(6) The locations of existing documented natural hazards that could be affected or exacerbated by the project, such as landslide-prone areas or areas of subsidence along with a plan to mitigate such conditions or impacts.

(7) The locations of surface waters such as springs, creeks, streams or rivers that could be affected by the ASR project.

(8) The locations of all wells or other sources of groundwater of record within the area affected by the project.

(9) The chemical and physical composition of the source water(s) and their compatibility with the naturally occurring waters of the receiving aquifer.

[Statutory Authority: RCW 90.03.370 (2)(b) and 90.44.460. WSR 03-03-081 (Order 02-06), § 173-157-120, filed 1/15/03, effective 2/15/03.]