What is Infiltration?

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1. Reclaimed Water Treatment
   - Wastewater is treated at LOTT facilities to reclaimed water standards
   - Some reclaimed water is piped to infiltration basins

2. Infiltration Basin
   - Reclaimed water spreads into a flat basin lined with sand
   - Water soaks into soil from ground level

3. Unsaturated Soil (Vadose Zone)
   - Reclaimed water goes down through unsaturated soil until it reaches the shallow aquifer
   - Unsaturated soils are typically sands and gravels that percolate freely

4. Shallow (Unconfined) Aquifer
   - Reclaimed water mixes with naturally occurring groundwater
   - The mixed water moves in the natural flow direction of the groundwater system, both vertically and horizontally

5. Monitoring Wells
   - Groundwater is tested near infiltrations basins to ensure compliance with Washington State groundwater quality standards

6. Domestic Wells
   - Small domestic wells for homes and community water systems are typically in the shallow aquifer

7. Streams
   - In some locations the shallow groundwater aquifer provides base flows for streams

8. Deep (Confined) Aquifer
   - Some reclaimed water may move through confining layers (till) into deeper aquifers

9. Municipal Wells
   - Large wells used for municipal water supply are typically in the deeper aquifers

Nature at Work
Reclaimed water changes as it moves underground, as a result of these natural processes:

- **Biodegradation** – Microorganisms break down some residual chemicals that are present in reclaimed water, using them for food and energy.
- **Sorption** – Some residual chemicals attach to soil or rock particles, where they come into close contact with bacteria, increasing the likelihood of biodegradation.