

Deschutes Watershed Land Use Analysis

Work Group Meeting #4 Scenarios Results

Allison Osterberg

Charissa Waters

Thurston County Resource Stewardship



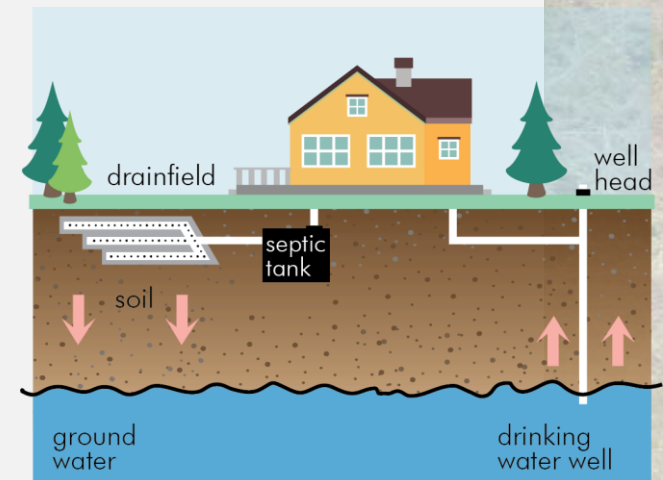
Scenarios

- Baseline
 - Current Regulations → Buildout
- Education & Outreach
 - ✓ Voluntary restoration program
 - ✓ More farm plans
 - ✓ Voluntary septic O&M program
 - ✓ Water conservation outreach
- Restoration & Conservation
 - ✓ Funded conservation/restoration programs
 - ✓ Stormwater retrofits
- Zoning → Downzone parcels
 - ✓ Nonporous soils near waterbodies
 - ✓ Steep slopes
 - ✓ Lake basins
- Regulations & Monitoring
 - ✓ Impervious surface limits, lake basins
 - ✓ Mandatory septic O&M program
 - ✓ Required water metering

Scenarios

Groundwater Quality

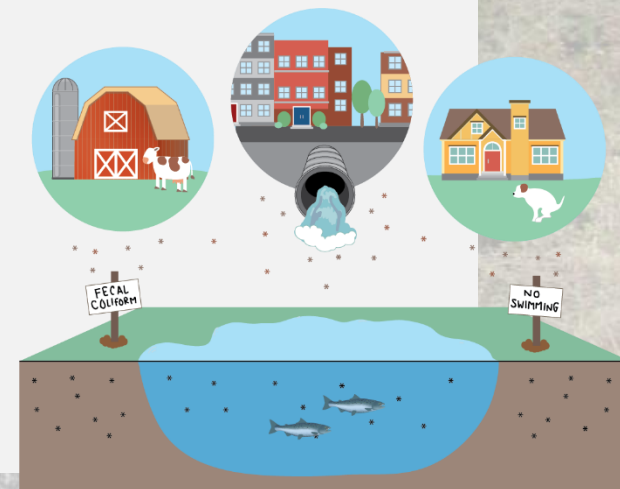
- Regulations & Monitoring scenario most effective
 - Mandatory septic monitoring
- Education & Outreach, some effect
 - Voluntary septic monitoring
- Restoration and Zoning have small effect



Scenarios

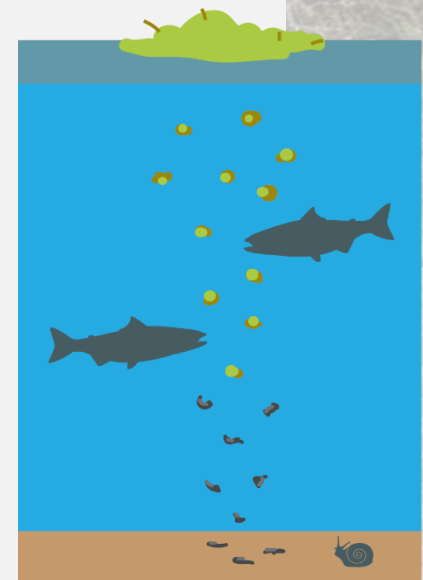
Bacteria & Pathogens

- Regulations & Monitoring scenario most effective for reducing septic
 - -46% failing septic systems; -16% near waterbodies
- Education & Outreach, some effect on both septics and agriculture sources
 - +41% failing septic systems (compared to +72%, baseline)
 - +119% near waterbodies (compared to +168%, baseline)
- Restoration and Zoning have small effect
 - Zoning = +65% failing septics



Nutrients & Algae Blooms

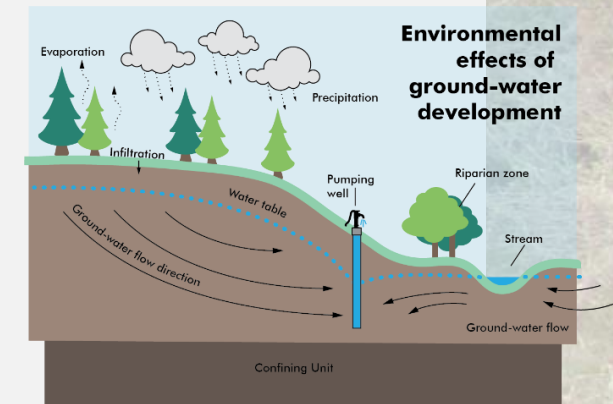
- Restoration scenario most effective
 - Increased vegetation along streams
 - Reduced nutrients from stormwater runoff
- Other scenarios, moderate effect
 - Regulations: Impervious surface limits & mandatory septic program
 - E&O: Voluntary restoration, education on fertilizer use
 - Zoning: Reduced number of homes



Scenarios

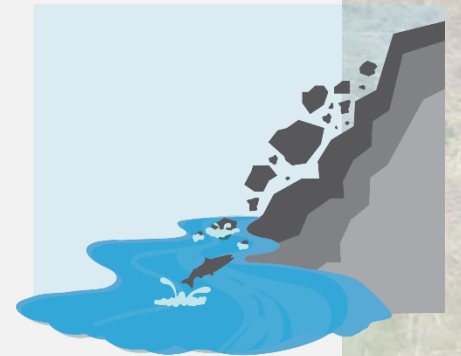
Water Levels

- Education & Outreach moderately effective
 - Education about water use
- Zoning, Regulations = limited effect
 - Zoning: Reduced number of new wells
 - Water metering might change some consumption



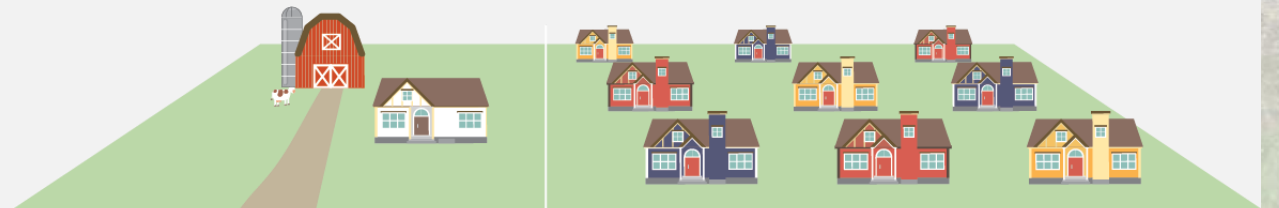
Sediment & Erosion

- Restoration scenario most effective
 - Stabilized streambanks
- Zoning, Education = limited effect
 - Zoning: Reduced number of new homes in sensitive areas
 - Voluntary restoration could revegetate some stream areas



Loss of Farmland

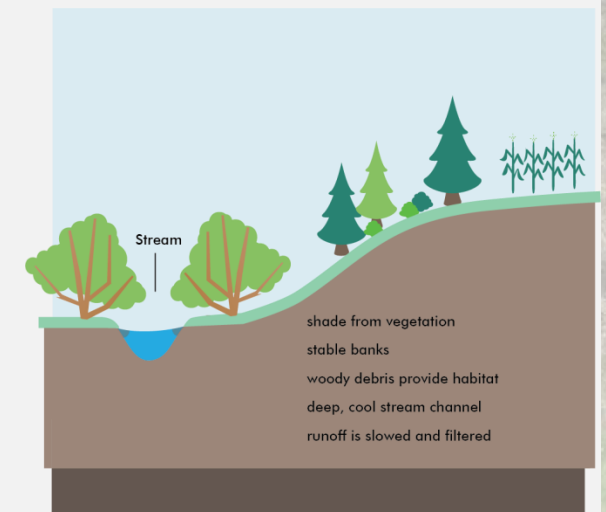
- Restoration/Conservation scenario limited effectiveness
 - Provides funding to conserve sensitive areas, which might also be farms



Scenarios

Stream Temperature

- Restoration/Conservation scenario most effective
 - Substantial improvement in replanting riparian areas
 - TMDL goals met in < 30 years
- Education & Outreach moderate effect
 - Voluntary restoration of stream areas
 - TMDL goals met in 40+ years



A photograph of a river flowing through a dense forest. The river is in the center, with white water rapids in the foreground. The banks are covered with green moss and surrounded by tall evergreen trees. The sky is overcast. The word "Questions?" is written in black text in the top right corner.

Questions?