McLane Basin

Planned Trend Scenario

Vision

McLane Basin develops fully under current zoning, development, and stormwater regulations

Population increases from 1,300 today to approximately 1,700 by 2035

Summary of Model Results

	Planned Trend	Future A	Future B
Hydrology	No change	No change	No change
Temperature	No change	No change	Large improvement
Fecal Coliform	No change	Local improvement	Improvement
Nitrate	No change	No change	Local improvement
Overall Benefit to Water Resources	**No change**	Local benefit	Moderate benefit

Conditions Improving ↕ Conditions Degrading

Land Use

- More forest and agricultural areas are converted to residential uses
  - The number of homes in the basin increases from approximately 570 to 900 (a 58% increase). This is the greatest increase among all the future scenarios
  - Up to 600 acres of Forest Lands could convert to other uses
- New development occurs in a similar style and density as current, subject to Thurston County's Critical Areas Ordinance and existing regulations
- No additional conservation requirements on agricultural lands
- No new or expanded recreational areas

Impervious Surfaces & Forest

- As development occurs, some forested areas are converted to a mixture of hard surfaces (roofs, roads, driveways, patios) and other cleared areas (lawns)
  - Total impervious area in the basin remains low, but increases from 3% to 4%
  - Forest covers 77% of the basin, down from 89% historically

Stormwater & Septics

- Rainwater runoff from small storms requires little stormwater treatment
- The number of septic systems in the basin increases
  - Number of septics at high risk for contributing bacterial pollution increases from 250 to 340 (36%)
  - Number of septics at high risk for contributing nitrogen pollution increases from 350 to 470 (34%)

Environmental Outcomes

Water flow

- Water flow increases slightly from current conditions, but not substantially

Water quality

- *Bacterial pollution:* McLane Creek continues to fail water quality standards for fecal coliform (Part 2)
- *Temperature:* Maximum temperatures in McLane Creek regularly exceed the threshold for core salmon habitat (18% of the time)
- *Nutrients:* Nitrate and phosphorus levels remain elevated in streams

Habitat & Wildlife

- Salmon populations could be impacted by warmer water temperatures and the lack of woody debris in streams
- Shellfish beds in Eld Inlet could be impacted by continued bacteria/pollution

Legend

- Potential Dwelling Unit(s)
  Estimates are based on parcel's zoning, existing development and critical areas. Estimates are for planning purposes only; actual numbers are determined by County permitting staff.
- Capitol Forest
- 2012 Aerial Images

Zoning

- Commercial
- Higher Density Rural Zoning (RL2/1; RL1/1; RL1/2)
- Medium Density Rural Zoning RRR 1/5
- Low Density Rural Zoning R 1/10, R 1/20
- Forestry
- Parks and Preserves

0 ¼ ½ 1 Miles

McLane Basin

Future Alternative A Scenario

Vision

McLane Basin remains a largely forested, rural area with expanded recreational opportunities

Summary of Model Results

	Planned Trend	Future A	Future B
Hydrology	No change	No change	No change
Temperature	No change	No change	Large improvement
Fecal Coliform	No change	Local improvement	Improvement
Nitrate	No change	No change	Local improvement
Overall Benefit to Water Resources	No change	**Local benefit**	Moderate benefit

Conditions Improving ↕ Conditions Degrading

Land Use

- Fewer forest and agricultural areas are converted to residential uses
  - The number of homes in the basin increases from approximately 570 to 740 (a 30% increase). This is less than the 900 homes predicted under the Planned Trend
  - Large, undeveloped parcels (40-80+ acres) are designated as Long-Term Forestry or have similar protections
- New development occurs at lower densities and with less impact to natural areas, with more trees retained on-site
- Larger parcels are preserved for farming, ranching, forestry, and open space
- More protective policies for properties along sensitive shorelines
- Expanded locations for low-impact recreation – hiking, fishing, mountain biking, etc.

Impervious Surfaces & Forest

- Less forested area is converted to cleared or hard surfaces when compared to Planned Trend
  - Total impervious area in the basin does not increase

Stormwater & Septics

- Rainwater runoff from small storms is dispersed and treated on site wherever feasible instead of flowing directly into streams or Eld Inlet
- There are fewer septic systems in the basin than under the Planned Trend
  - Number of septics at high risk for contributing bacterial pollution increases from 250 to 330 (32%)
  - Number of septics at high risk for contributing nitrogen pollution increases from 350 to 440 (26%)

Environmental Outcomes

Water flow

- Water flow does not change substantially from current conditions

Water quality

- *Bacterial pollution:* Reduced in some localized areas
- *Temperature:* Remains the same as Planned Trend
- *Nutrients:* Remains the same as Planned Trend

Habitat & Wildlife

- Larger parcels, less dense development retains habitat and travel corridors for wildlife

Legend

- Potential Dwelling Unit(s)
  Estimates are based on parcel's zoning, existing development and critical areas. Estimates are for planning purposes only; actual numbers are determined by County permitting staff.
- Capitol Forest
- 2012 Aerial Imagery

Possible Zoning Change

- to Residential 1/10
- to Residential 1/20
- to Residential 1/40 or Long-term Forestry

0 ¼ ½ 1 Miles

McLane Basin

Future Alternative B Scenario

Vision

McLane Basin is a rural area with wild spaces preserved and habitat restored

Summary of Model Results

	Planned Trend	Future A	Future B
Hydrology	No change	No change	No change
Temperature	No change	No change	Large improvement
Fecal Coliform	No change	Local improvement	Improvement
Nitrate	No change	No change	Local improvement
Overall Benefit to Water Resources	**No change**	Local benefit	**Moderate benefit**

Conditions Improving

Conditions Degrading

Land Use

- Fewer forest and agricultural areas are converted to residential uses
  - Undeveloped parcels in sensitive areas are preserved through voluntary incentive programs (transfer or purchase of development rights)
- Increased education and outreach to landowners to encourage best management practices for healthy streams

Impervious Surfaces & Forest

- Total impervious area in the basin does not increase
- Vegetation along streams is largely restored
  - Total impervious area in the basin does not increase

Stormwater & Septics

- Stormwater infrastructure in older neighborhoods is retrofitted to reduce runoff and provide more water quality treatment
- Septic systems in the basin receive regular maintenance, and polluting septics are identified and repaired more quickly than currently

Environmental Outcomes

Water flow

- Water flow does not change substantially from current conditions

Water quality

- Bacterial pollution: Water quality violations from fecal coliform are greatly reduced
- Temperature: Restoration of vegetation along stream corridors dramatically reduces stream temperatures
- Nutrients: Nitrate and phosphorus levels are reduced

Habitat & Wildlife

- Salmon populations benefit from shaded streams, restored channels and nearshore areas
- Shellfish beds in Eld Inlet remain open and healthy

Legend

- Existing Wetlands
- Potential Wetland and Riparian Restoration Areas
- Potential Stormwater Retrofit Areas
- Capitol Forest
- 2012 Aerial Images

0 ¼ ½ 1 Miles