

Abstract

The Washington State Department of Health used a Fecal Pollution Index (FPI) to describe the status of fecal pollution in shellfish growing areas of South Puget Sound in 2009. The FPI was also used to rank South Puget Sound shellfish growing areas according to fecal pollution impact, and show twelve-year (1998-2009) trends in ten growing areas. Six areas have extensive histories of remedial action (Burley Lagoon, Henderson Inlet, Nisqually Reach, Eld Inlet, Oakland Bay, and North Bay).

DOH uses criteria set by the National Shellfish Sanitation Program (NSSP) to classify shellfish growing areas:

Criterion 1: Concentrations of fecal coliform bacteria in water samples shall not exceed a geometric mean value of 14 organisms per 100ml of sample.

Criterion 2: The estimated 90th percentile of fecal coliform shall not exceed 43 MPN per 100ml.

- A minimum of 30 previously collected results are needed to calculate the criteria.
- Both criteria must be met.

DOH cannot approve a harvest area if significant pollution sources are present even if water quality is acceptable.

Figure 1. Fecal pollution impact in South Puget Sound shellfish growing areas in 2009.

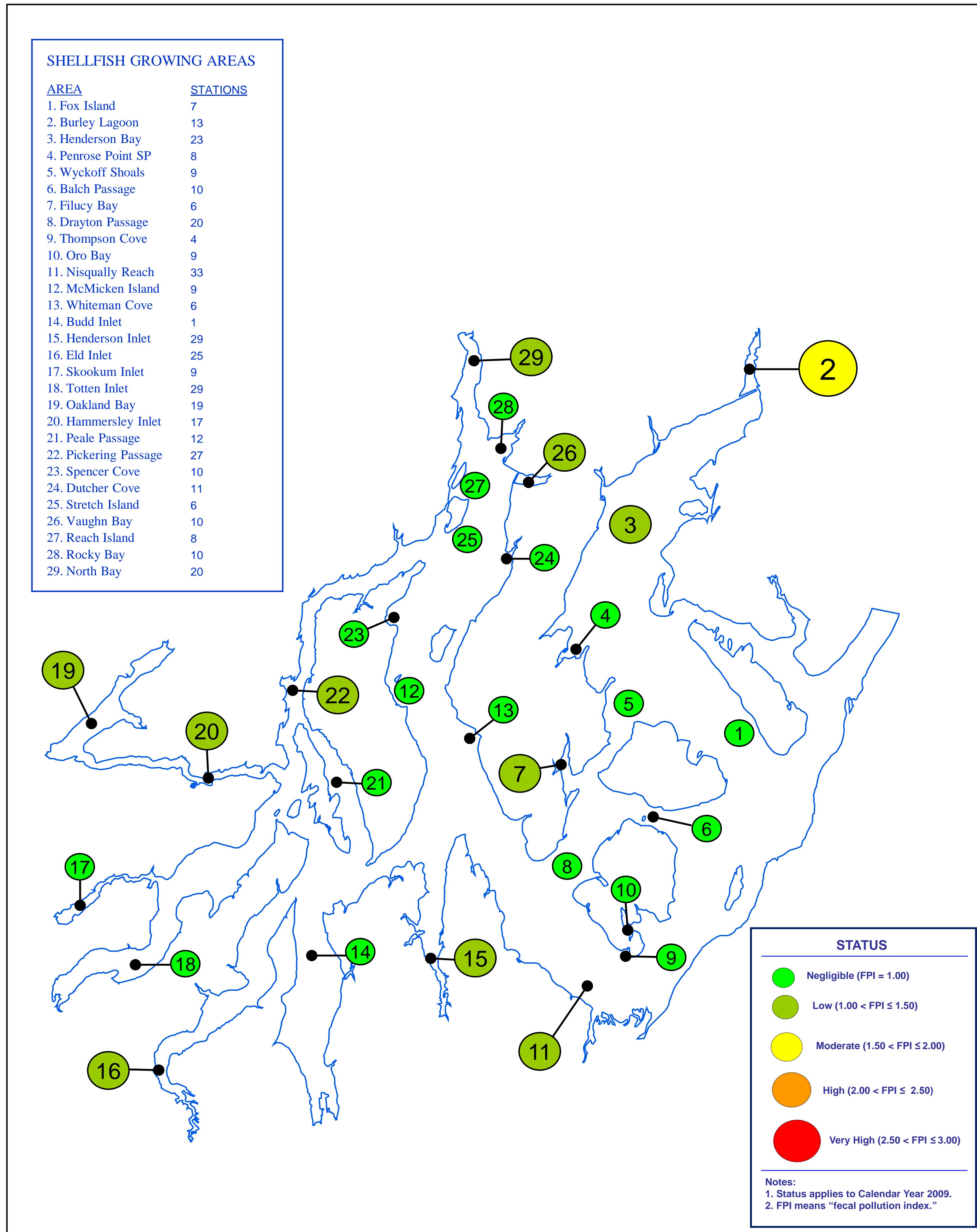
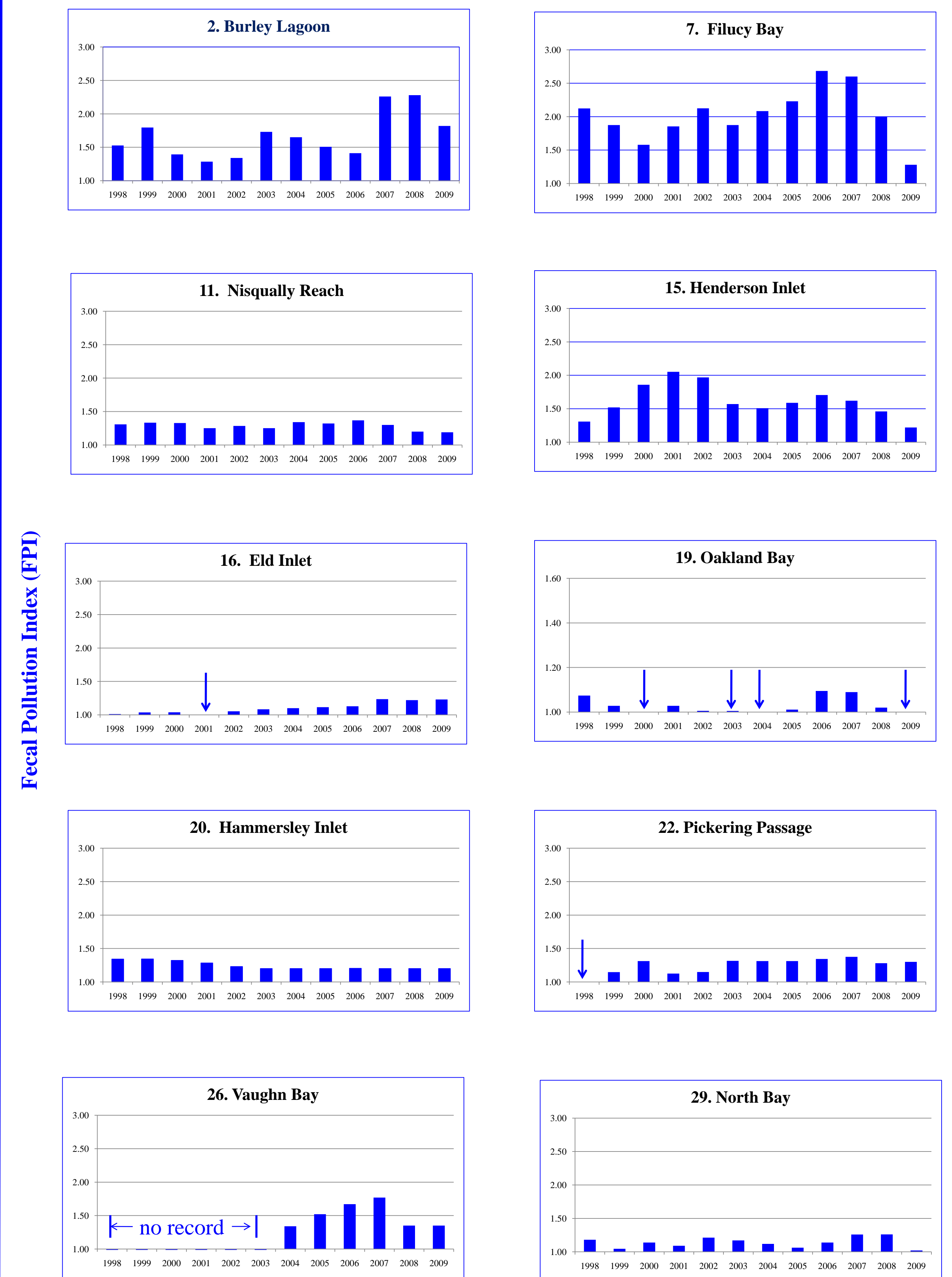


Figure 2. Twelve-year trend (1998-2009) in fecal pollution in selected shellfish growing areas of South Puget Sound with "Low" or greater fecal pollution (FPI greater than 1.00) during 2009. Graphs are numbered according to location in Figure 1. Arrows show years with negligible fecal pollution (FPI = 1.00).



- Filucy Bay, Nisqually Reach, Henderson Inlet, and Oakland Bay show reduced fecal pollution impact in recent years.
- Fecal pollution in Eld Inlet leveled off after steady increase since 1998.

Figure 3. Shellfish growing areas in South Puget Sound are ranked according to fecal pollution impact. Burley Lagoon ranked highest.

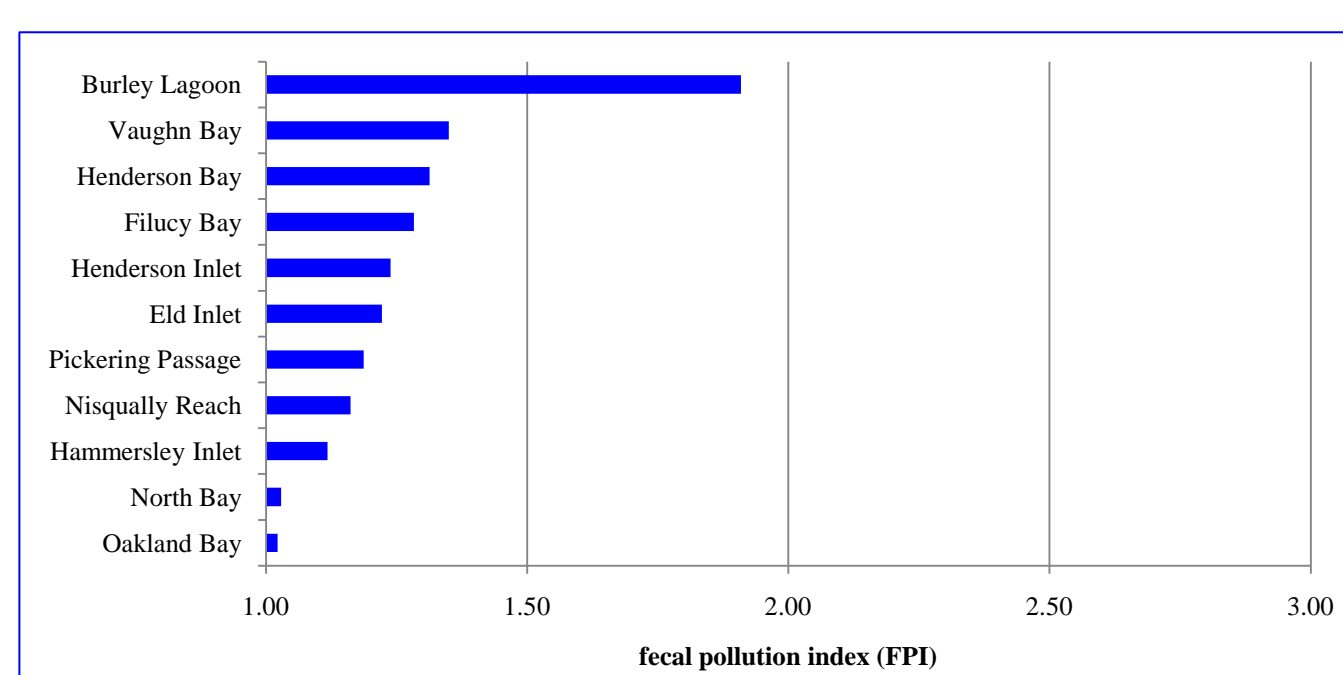


Figure 4. Twelve-year trend (1998-2009) in fecal pollution in all South Sound growing areas combined. The impact in 2009 was the lowest of the period.

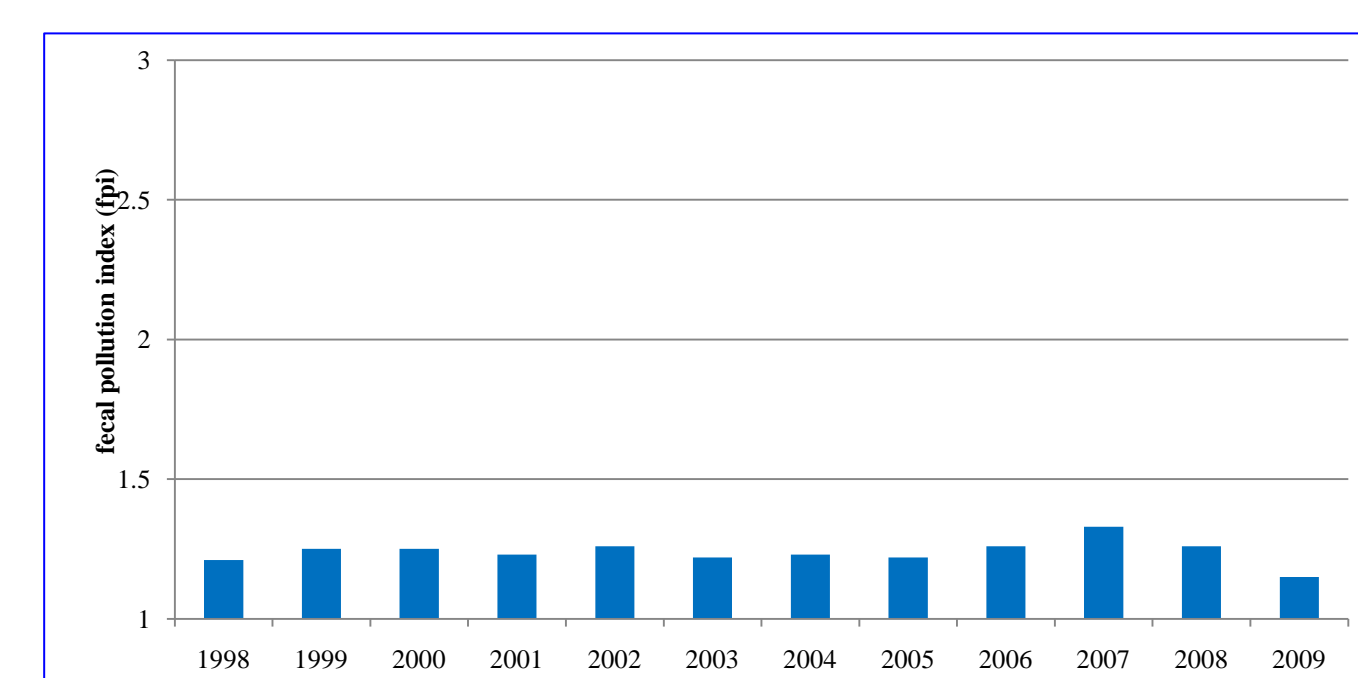


Figure 5. South Puget Sound is ranked with the other five major Puget Sound regions according to degree of fecal pollution impact in 2009.

