# Profiles of South Sound Inlets and Watersheds

The inlets in South Sound are unique to Puget Sound in several ways. They are vulnerable to nutrient pollution and low dissolved oxygen levels because the water in South Sound circulates poorly and can take months to flush out to sea. The inlets are also home to much of the state's commercial shellfish industry.

### OAKLAND BAY
(and Hammersley Inlet)

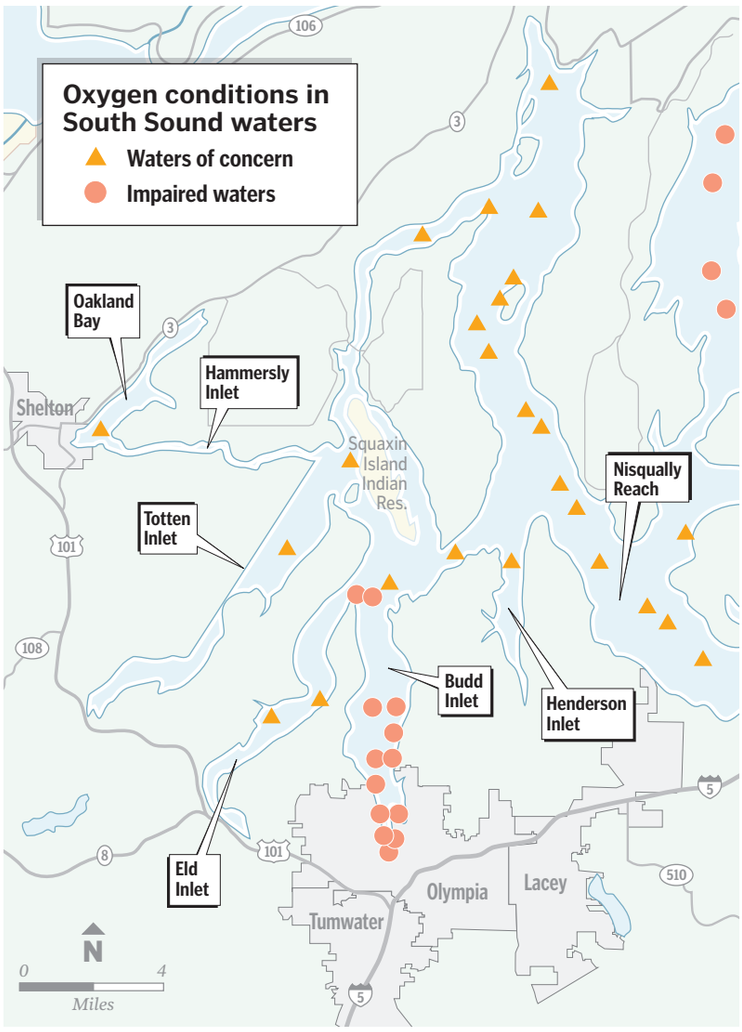
**Watershed**: 160 sq. miles
**Shoreline length**: 33 miles
**Population**: 25,100, growing population concentrated near inlet, moderate overall density
**Land cover**: Relatively low impervious cover and high forest cover, but much conversion in close proximity to Sound
**Armoring**: Moderate level of armoring (limited data)
**Water quality**: Problems in fresh and marine waters led by fecal coliform and temperature impairments
**Shellfish**: Hammersley mostly open and Oakland mostly 'conditionally' open (north end recently downgraded)
**Eutrophication**: Dead-end inlet sensitive to nutrient inputs

### TOTTEN INLET
(and Skookum Inlet)

**Watershed**: 71 sq. miles
**Shoreline length**: 42 miles
**Population**: 6,300, low population and low density
**Land cover**: Low level of impervious cover and high level of forest cover
**Armoring**: Low level of armoring (limited data for Mason County portion of watershed)
**Water quality**: Relatively low number of problems including freshwater fecal coliform and temperature
**Shellfish**: Open for shellfish harvesting except for unclassified area at the head of the bay
**Eutrophication**: Dead-end inlet sensitive to nutrient inputs

### ELD INLET

**Watershed**: 37 sq. miles
**Shoreline length**: 35 miles
**Population**: 9,100, relatively low population, moderate density
**Land cover**: Relatively low impervious cover and high forest cover, but much conversion in close proximity to Sound
**Armoring**: Significant armoring along many stretches, including Cooper Point and Squaxin Passage
**Water quality**: Relatively low number of problems led by freshwater fecal coliform
**Shellfish**: Open for shellfish harvesting except for unclassified area at the head of the bay
**Eutrophication**: Dead-end inlet sensitive to nutrient inputs




## Condition of South Puget Sound inlets and watersheds

Totten Inlet scores highest among all South Sound inlets overall while Budd Inlet scores the worst.

Good · Fair · Poor

| Inlet/ watershed | Population | Land cover | Armoring | Water quality | Shellfish | Eutrophication |
|---|---|---|---|---|---|---|
| Oakland/ Hammersly | Fair | Fair | Fair | Fair | Fair | Fair |
| Totten | Good | Good | Good | Good | Good | Fair |
| Eld | Fair | Fair | Poor | Good | Good | Fair |
| Budd | Poor | Poor | Poor | Poor | Poor | Poor |
| Henderson | Poor | Poor | Fair | Fair | Poor | Fair |
| Nisqually | Fair | Fair | Fair | Fair | Fair | Good |

## Land cover and impervious surface, 1991-2001

Henderson Watershed clearly has the highest percentage of impervious surface, while Eld contains the highest percentage of forest cover. However, none showed any improvement from 1991 figures.

| Basin | Percent Impervious 1991 | Percent Impervious 2001 | Percent change | Percent forest cover 1991 | Percent forest cover 2001 | Percent change |
|---|---|---|---|---|---|---|
| Oakland/ Hammersly | 1.9 | 2.2 | 15 | 59 | 52 | -13 |
| Totten | 1.2 | 1.3 | 14 | 68 | 65 | -4 |
| Eld | 2.2 | 2.7 | 16 | 70 | 64 | -8 |
| Budd | 5.7 | 6.4 | 11 | 54 | 49 | -10 |
| Henderson | 10.7 | 12.7 | 16 | 41 | 37 | -8 |
| Nisqually | 1.2 | 1.4 | 16 | 61 | 58 | -5 |

*Due to the need to apportion people by watershed, 2000 population numbers were used because more recent population trends are not available.

### BUDD INLET

**Watershed**: 159 sq. miles
**Shoreline legnth**: 24 miles
**Population**: 82,800, high total population but moderate density due to watershed size
**Land cover**: Moderate level of impervious cover but concentrated near Sound and Deschutes River
**Armoring**: High level of armoring from Deschutes estuary to Cooper Point, less on east shoreline
**Water quality**: Problems in fresh and marine waters involving dissolved oxygen, toxics, temperature and fecal coliform
**Shellfish**: Closed to shellfish harvesting
**Eutrophication**: Dead-end inlet very sensitive to nutrient inputs

### HENDERSON INLET

**Watershed**: 48 sq. miles
**Shoreline length**: 25 miles
**Population**: 54,300, highest population density at 1,100-plus people per square mile
**Land cover**: Relatively high level of impervious cover and low level of forest cover; steadily urbanizing watershed
**Armoring**: Moderate level of armoring, more on east than west shoreline
**Water quality**: Problems in both fresh and marine waters led by fecal coliform and temperature
**Shellfish**: Mix of harvest classifications (closed, conditional, approved), series of downgrades in recent years at head of bay
**Eutrophication**: Dead-end inlet sensitive to nutrient loading

### NISQUALLY

**Watershed**: 765 sq. miles
**Shoreline length**: 23 miles
**Population**: 69,900, low average density, significant growth in urban areas (e.g., Lacey, Yelm, Dupont)
**Land cover**: Relatively low impervious cover and high forest cover, but much conversion in close proximity to Sound
**Armoring**: Armoring along Nisqually reach and diking/ earth fill in Nisqually delta; estuary restoration underway
**Water quality**: Problems in both fresh and marine waters led by fecal coliform and temperature
**Shellfish**: Closed to harvest east of McAllister Creek; open to harvest along Nisqually Reach with upgrades in recent years
**Eutrophication**: Less vulnerable to effects of eutrophication

Sources: Puget Sound Action Team, state Department of Ecology

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