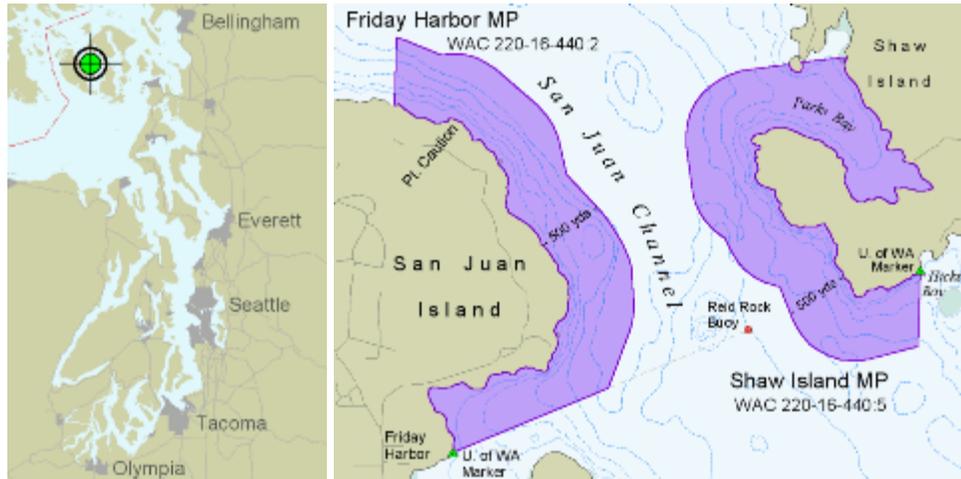


## Friday Harbor Marine Preserve

[WAC 220-16-440\(2\)](#): "Those tidelands and bedlands adjacent to San Juan Island within a line beginning on the shore 500 yards west of Point Caution, thence 500 yards offshore, thence south and east following the shoreline to the intersection with a line projected from a University of Washington marker located 100 feet north of the north entrance of the floating breakwater of the Port of Friday Harbor and projected towards Reid Rock Buoy, thence along said line to shore on San Juan Island." *Effective since 3/31/1990.*

CLICK IMAGE TO ENLARGE MAP



(Note: this is the same map as used for the Shaw Island MPA)

### Geographic Statistics

Area Type	Acres	Hectares
Intertidal	0.70	0.28
Subtidal	424.83	171.92
Total	425.53	172.21

### Links to other imagery about this site

- [Oblique aerial photos from the WA Dept. of Ecology](#). This link shows the index map, where Caution Point appears in the SE.
- [Satellite photos of the area from Terraserver at Microsoft](#)



The map at left, extracted from the southern section of the Friday Harbor MPA map, has the locations (A-C) of the photographer from

where the four images below were taken.

From position A, facing south:



From position C, facing west-southwest:

From position B, facing south-southeast:



From position C, facing east:

### Recreational Restrictions / Openings

Species	Status	Comments, notes...
Salmon	Open	
Trout	Open	
Bottomfish	Closed	
Shellfish	Closed	

Forage Fish	Limited	Fishing only for herring is allowed.
Unclassified	Open	

### Commercial Restrictions / Openings

Species	Status	Comments, notes...
Salmon	Open	
Bottomfish	Closed	
Shellfish	Closed	
Forage Fish	Limited	Fishing only for herring is allowed.
Unclassified	Closed	



## Introduction and Purpose

The Friday Harbor Marine Preserve is one of the five San Juan Marine Preserves created in 1990 in conjunction with the University of Washington's Friday Harbor Laboratories (FHL). WDFW created these partial-take reserves after FHL requested that the intertidal and subtidal waters adjacent to their upland biological preserves be protected from harvesting pressure for bottomfish and invertebrates.

The primary goals of this reserve are to foster stewardship of unique or important resources or habitats, provide research and education areas, and provide baseline areas or reference sites. Research and monitoring is actively conducted in this reserve by WDFW and UW scientists and students.

## Prominent and unique features

The Friday Harbor Marine Preserve is the second largest WDFW marine reserve in inland marine waters of Washington. The University of Washington and its Friday Harbor Laboratories (FHL) own almost all of the uplands. Most of the shore habitat consists of bedrock cliffs and ridges with sand or rocky grottos punctuating small headlands. The rocky shore habitat steeply descends as bedrock walls and boulder fields in the subtidal zone. Unconsolidated substrates meet the walls and boulder fields at various depths. Inside Friday Harbor, sand and mud substrates predominate and meet the rocky habitats at depths of 15 feet (mllw). However, in San Juan Channel, the rocky slopes may extend to depths greater than 100 feet before coarse unconsolidated sediments are found. The unconsolidated sediments likely dominate the offshore extensions of the reserve to depths of over 400 feet (mllw), and boulders and cobbles likely occur throughout the deeper habitat.

The nearshore subtidal habitats have a variety of marine vegetation. In the shallow sections inside Friday Harbor, patches of eelgrass (*Zostera marina*) persist. As the habitats become more rocky toward San Juan Channel, bladed kelps such as *Laminaria saccharina* and *Costaria costatum* and foliose red algae become abundant in the photic zone.

## Description of fish, bird, and mammal resources at the site

The rocky habitats support rockfishes, lingcod, and greenlings. The pelagic and schooling Puget Sound rockfish (*Sebastes emphaeus*) is the most abundant rockfish followed by the demersal copper rockfish (*S. caurinus*). Lingcod (*Ophiodon elongatus*) are very common in this reserve and use the rocky habitats for nesting to a high degree. Other large species present at the site include kelp greenling (*Hexagrammos decagrammus*), cabezon (*Scorpaenichthys marmoratus*), tiger rockfish (*S. nigrocinctus*), and black rockfish (*S. melanops*). Small fishes present inside the reserve include longfin sculpin (*Jordania zanope*), scalyhead sculpin (*Artedius harringtoni*), and blackeye goby (*Coryphopterus nicholsii*).

The Friday Harbor Marine Preserve contains a high diversity of marine invertebrates dominated by a rich community of encrusting organisms. Large macro-invertebrates that are common include Puget Sound king crab (*Lopholithodes foraminatus*), red sea urchin (*Strongylocentrotus franciscanus*), red sea cucumber (*Parastichopus californicus*), sunflower star (*Pycnopodia helianthoides*), and shrimp (*Pandalidae*).

Harbor seals (*Phoca vitulina*) and northern sea lions (*Eumetopias jubatus*) are observed within the reserve boundaries.

## Programs in place to manage the site

WDFW manages the site as partially-protected marine reserve for non-tribal citizens. WDFW regulations prohibit commercial and recreational fishing for bottomfish and classified shellfish. Recreational and commercial fishing may occur for the harvesting of salmon, trout, and forage fishes except that commercial fisheries for forage fishes are limited to Pacific herring (*Clupea harengus pallasii*). WDFW regulations allow the taking of unclassified fish and invertebrates by recreational fishers.

Most of the upland portions of the site is owned by the University of Washington through its Friday Harbor Laboratories (FHL), and this institution can be considered as co-managers. The preserve was created at the request of FHL as a place for researchers to study and access marine organisms in a natural condition. The university has posted many signs in the upland habitat declaring it a biological preserve and has an agreement with WDFW to provide shore-based signs declaring a restricted fishing zone.

The enforcement of the harvest restrictions is primarily relegated to the Enforcement Program of WDFW. Information on the site boundaries and restrictions is found in WDFW's Sport Fishing Pamphlet and formal regulations are published at the State of Washington's Administrative Code available on the state's web site. WDFW is developing specific pamphlets describing each of its marine reserves.

WDFW scientists actively study the response of marine fish to the marine reserves at this site and have engaged in survey activity since the early 1990's. The site is visited during the winter when special surveys are conducted to assess lingcod abundance and nesting activity. Another series of springtime surveys is conducted on a periodic basis to assess the species composition, density, and size of bottomfishes inside the reserve.

#### Issues of concern

The allowance of recreational fishing for salmon and the subsequent unintentional harvest of other species may limit the ability of fish populations to increase to natural levels. Bottomfishing gear is often encountered in the reserve.

Anchoring by recreational boaters and researchers may cause damage to the substrate and the habitat for bottomfish and invertebrates. The remote location of the San Juan Marine Preserves makes enforcement difficult.

The research activities conducted by FHL potentially could alter the functioning of fish, invertebrate and algae communities by the collection activities by the researchers or by the release of study organisms collected from other areas into the reserve.

The reserve is located in a heavy use area by recreational and commercial passenger vessels. A potential threat exists from vessel collisions or groundings and subsequent oil discharge into the reserve.

#### Performance measures

- The continued presence of a diverse fish community.
- Increasing or sustained abundances of copper rockfish and lingcod.
- Increasing and sustained large individual sizes of copper rockfish and lingcod.
- The increasing or sustained high nesting activity by lingcod.