

## SR 520 BRIDGE REPLACEMENT AND HOV PROGRAM

STATE ROUTE  
**520**

# Union Bay Natural Area transforms a former landfill site into a wetland

## Project overview

The Union Bay Natural Area (UBNA) Mitigation Project is a collaborative effort by the University of Washington and the Washington State Department of Transportation (WSDOT), in consultation with the Center for Urban Horticulture and many others. This project added and enhanced about 22 acres of wetlands and buffer areas. The project included the creation of two new wetlands totaling about 1.25 acres. One wetland at a former parking lot was created by tearing out the lot, removing old-landfill material and laying down a clay liner to ensure that hazardous materials from the landfill do not leach into the wetland.

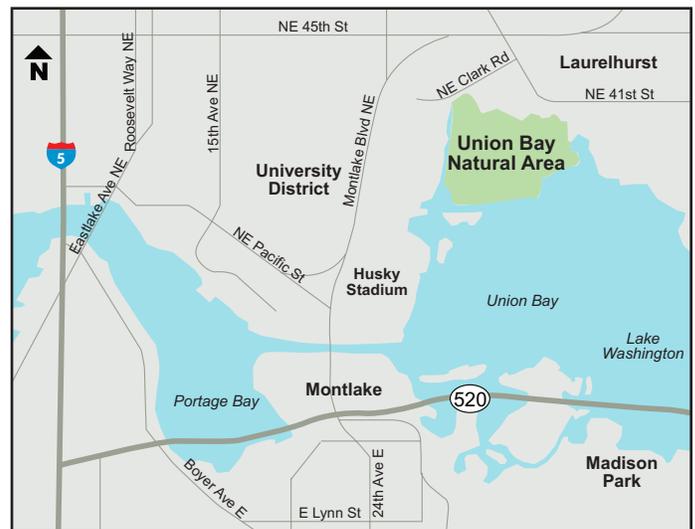
Around the outside of the wetlands, crews added new buffer areas and enhanced existing ones. The buffer areas help prevent erosion, filter runoff and provide wildlife habitat.

## Phase one: invasive tree and vegetation removal

One of the first steps of the project was to remove invasive plants such as blackberry, purple loosestrife, yellow garden loosestrife, and reed canary grass on 19.5 acres throughout the site. White poplars, an invasive tree species, were removed from the area near the north end of Douglas Road. Meanwhile, WSDOT and the UW coordinated to protect rare, mature trees around the site, including pine trees, madronas, and a dawn redwood.

## New landscaping includes 70,000 native plants

Logs and plants were brought in to renew the UBNA site. Dead logs already on site and new logs brought in were used to create wildlife habitat and add nutrients to the soil. More than 70,000 native shrubs, emergent wetland plants and other vegetation were planted to replace the invasive species that crews removed. About 2,700 native trees were planted on site, including 100 along Douglas Road. Tree species



Union Bay Natural Area mitigation site vicinity map.



70,000 native plants replaced invasive species.

that were planted include Oregon ash, Sitka spruce, shore pine, Pacific willow and western red cedar. The picture above shows a few of the plants that were added, as well recently installed signage.

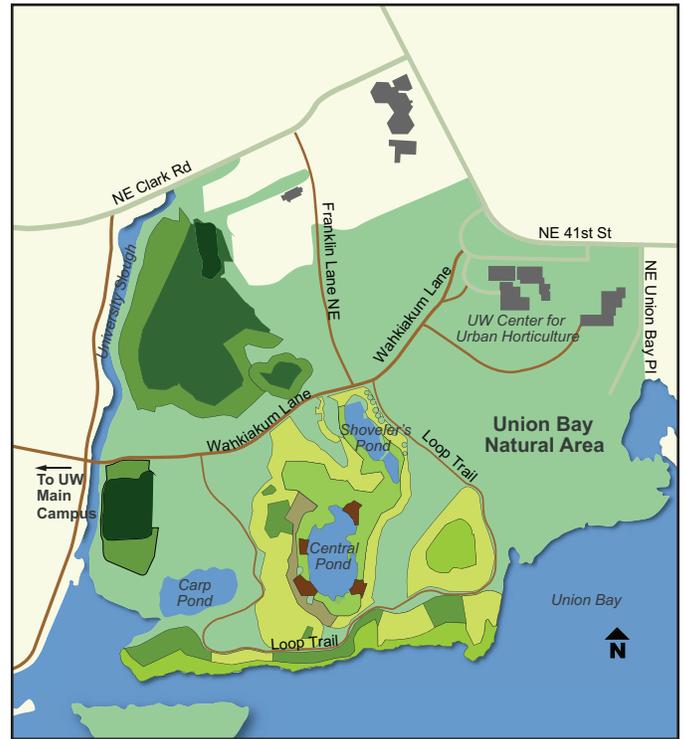
## Shorebird habitat improvements and protection for nesting birds

During the design of the UBNA mitigation project, WSDOT received input on the plan from several groups, including the University of Washington, the birding community and regulatory agencies. Based on the discussions, WSDOT changed the design of the wetland mitigation plan to preserve more habitat for migrating shorebirds by decreasing shrub planting density, maintaining offsets at trail edges and along Wahkiakum Lane, and removing Scouler's willow from the plans. We also added woody shrub plantings along the west side of a pond to allow for a wider area of grassy and herbaceous plants.



A killdeer stands along the shoreline of Lake Washington.

During construction, WSDOT worked to protect nesting birds at the site, including a nesting pair of ospreys that made the site their home. As a result, construction activities such as excavation were prohibited from March 1 through July 31 to protect the birds. Crews also placed a 150-foot buffer around the nest to give the birds more space.



- Created wetlands
- Enhanced wetlands
- Wetland buffers
- Enhanced wetlands with native sedges and rushes with 25% shrubs in clusters
- Wetland buffers with low growing native shrubs planted in clusters with grassy space between
- Modified wetland buffer with grasses and herbaceous plants only
- Existing shorebird habitat

Design plan for the UBNA mitigation site.

## Project completed in 2018

With site-restoration completed in 2018, the project is now in the monitoring and maintenance phase. As constructed wetlands and planted vegetation mature, the site's native species and wildlife habitat should continue to improve for decades to come.

### For more information

**Phone:** (206) 770-3554

**Email:** [SR520Bridge@wsdot.wa.gov](mailto:SR520Bridge@wsdot.wa.gov)

**SR 520 Program Website:**  
[wsdot.wa.gov/projects/SR520Bridge](http://wsdot.wa.gov/projects/SR520Bridge)



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