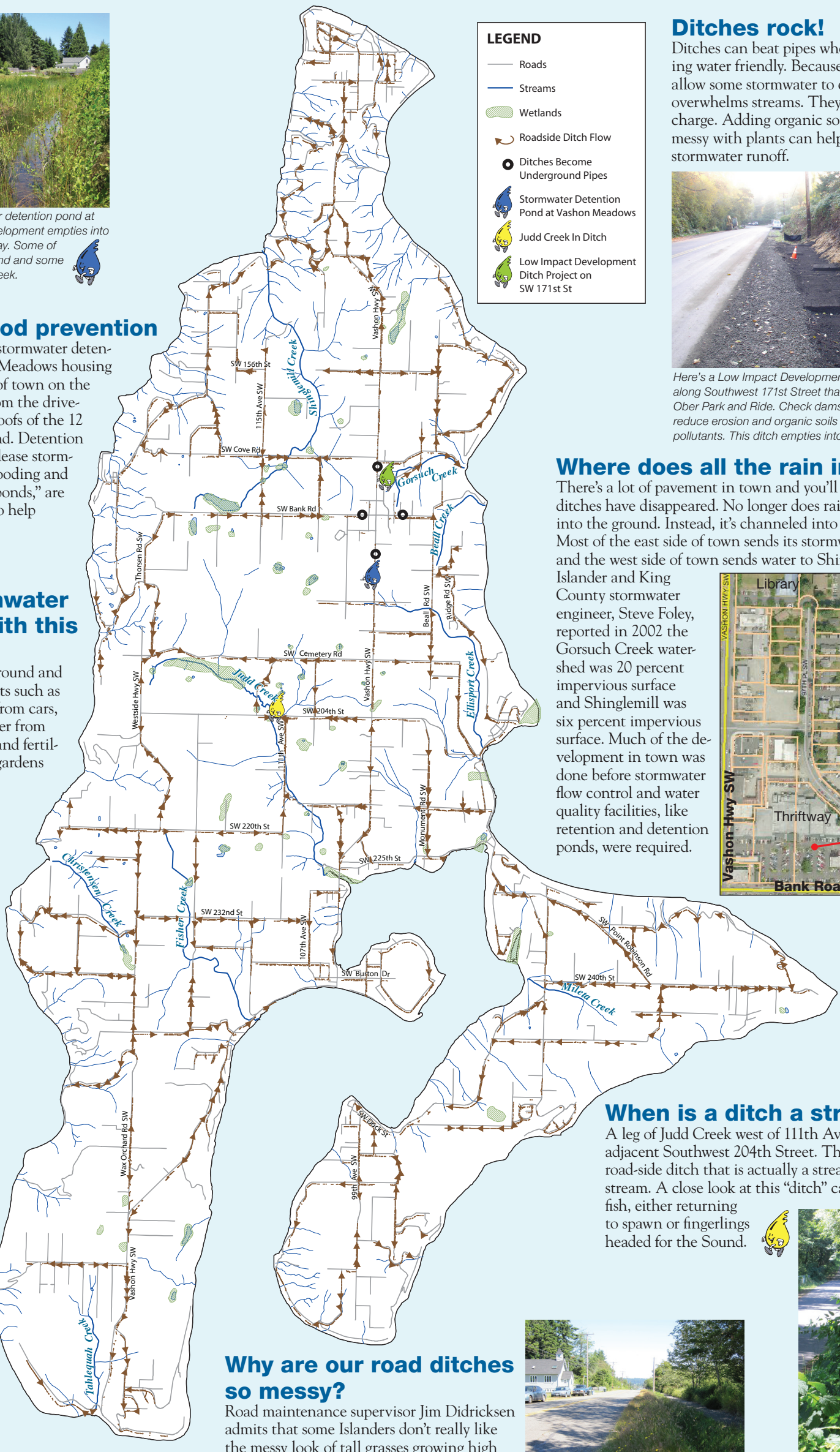
Watch Out for that Ditch!

Most of us have gotten to know the Island from behind a windshield. There are about 150 miles of county-maintained roads on the Island and many of those roads have ditches on both sides. These ditches are work horses, having to manage all the rain that runs off the roads as well as other hard surfaces, like our driveways, that feed into them. Have you ever wondered what the ditches do with all the water they carry?

Map Orientation, Don't get lost

The map below is a road map of Vashon-Maury Island. Roads are how most of us know where we are. Notice the arrows → adjacent to some of the roads. These show which way the stormwater flows in the road-side ditches. The black circles ● around town show where the ditches disappear underground. Look for icons on the map and discover what they mean in the text boxes sporting the same symbol.

The outfall from this stormwater detention pond at Vashon Meadows housing development empties into the ditch along the main highway. Some of the water will sink into the ground and some will make its way to Ellisport Creek.



Ditches rock!

Ditches can beat pipes when it comes to being water friendly. Because they are open, they allow some stormwater to evaporate before it overwhelms streams. They allow groundwater recharge. Adding organic soils and keeping ditches messy with plants can help clean-up pollutants in stormwater runoff.

Here's a Low Impact Development project to improve the ditch along Southwest 171st Street that receives stormwater from Ober Park and Ride. Check dams help slow the water to reduce erosion and organic soils help take out pollutants. This ditch empties into Gorsuch Creek.

Ponds and flood prevention

One of the most visible stormwater detention ponds is at Vashon Meadows housing development just south of town on the main highway. Water from the driveway, parking areas and roofs of the 12 homes collect in the pond. Detention ponds are designed to release stormwater slowly to reduce flooding and some, called "retention ponds," are designed to hold water to help recharge groundwater.

Where does all the rain in town go?

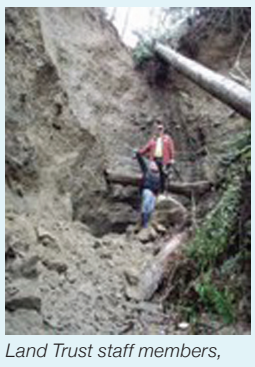
There's a lot of pavement in town and you'll notice that the road ditches have disappeared. No longer does rainwater get to percolate into the ground. Instead, it's channeled into pipes and is shipped off. Most of the east side of town sends its stormwater to Gorsuch Creek and the west side of town sends water to Shinglemill Creek. Former Islander and King County stormwater engineer, Steve Foley, reported in 2002 the Gorsuch Creek watershed was 20 percent impervious surface and Shinglemill was six percent impervious surface. Much of the development in town was done before stormwater flow control and water quality facilities, were required.

Life in the gutter

The red line in this aerial photo depicts the route a raindrop that falls on the Thriftway parking lot would take through stormwater pipes to Gorsuch Creek and eventually to Puget Sound.

What is stormwater running off with this time?

Rain, when it hits the ground and travels, collects pollutants such as oil and grease dripping from cars, zinc from tires and copper from worn brakes. Pesticides and fertilizers used in lawns and gardens can be washed into the road-side ditches.



Land Trust staff members, Tom Dean and Beth Bordner, stand in an erosion gully on a tributary to Shinglemill Creek. Dean thinks this gully was formed by increased runoff due to land clearing and by drainage tiles funneling water and releasing it in one spot. Shinglemill Creek also receives stormwater from the west side of Vashon town.

When is a ditch a stream?

A leg of Judd Creek west of 111th Avenue Southwest runs adjacent Southwest 204th Street. This is an example of a road-side ditch that is actually a stream. Judd is a salmon stream. A close look at this "ditch" can provide a glimpse of fish, either returning to spawn or fingerlings headed for the Sound.

The thick vegetation along Southwest 204th Street conceals the east fork of Judd Creek which runs adjacent the road.

Why are our road ditches so messy?

Road maintenance supervisor Jim Didricksen admits that some Islanders don't really like the messy look of tall grasses growing high along our roadsides. Plants in the ditches slow the flow of water, easing erosion and giving the water more time to sink into the ground. Plants take up nutrients and some heavy metals, helping cleanse the water that reaches our streams or recharges groundwater.

Typical grassy road-side ditch in Dockton.