



EARTH SANCTUARY®
MAP

1. DOLMEN
2. LABYRINTH & PRAYER STONE
3. COTTONWOOD STONE CIRCLE
4. MEDICINE WHEEL #1
5. FEN VIEWING SPOTS
6. FEN STONE CIRCLE
7. HEARTSTONE SEATING AREA
8. MEDICINE WHEEL #2
9. VIEW OF PUGET SOUND & MT. RAINIER
10. STUPA
11. UW ROADSIDE ECOLOGICAL RESTORATION PROJECT



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Self-Guided Naturalist Tour

This map and attached self-guided tour may be used for free while at Earth Sanctuary.

If you would like to keep it, please deposit \$1.00 in the Registration box.

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To take the self-guided naturalist tour, use this map in conjunction with the 4x4 posts that have letters on top (e.g., A, B, etc.). Note: the naturalist tour starts from the Newman Road Parking Lot.

Window A – Parking lot by the trail to the Dolmen. Welcome to Earth Sanctuary. You are about to explore a beautiful jewel of a wooded wetland system that is home to many breeding and wintering ducks and waterfowl as well as many songbirds, frogs, salamanders, beavers, muskrats, river otters, deer and other animals. It is such important habitat that it has been designated a “habitat of local importance” by Island County and by the Audubon Society. Pause a moment to take a few deep breaths and be present in spirit before you set out on your exploration. While you’re getting ready here are a few facts about this land that you are about to explore.

Seventy-two acre Earth Sanctuary centers around three ponds (known locally as the Newman Ponds). The first two ponds (the West and Middle ponds) that we’re going to explore were created in 1957 and later almost became a fishing and hunting club: Fin and Feather. Prior to this, the area was low-lying wetland, pasture and forest. The third pond where this guided tour will finish is the Fen, a spring-fed peatland. This raised bog has been in existence since the retreat of the glaciers about 13,000 years old.

What all three ponds have in common is that they are surrounded by forest. Wooded wetlands are extremely important habitat for many types of birds and animals and are increasingly rare. Many types of ducks (e.g. wood ducks, hooded mergansers) require cavities in dead trees or snags near water in which to build their nests. Thus - no forest – no nests – no breeding – no baby ducks.

The forested areas of Earth Sanctuary have been logged several times. The original old growth forest was probably logged in the late 1800s and early 1900s (you can see large cedar and Douglas fir stumps as you walk through the forest) and second growth forest has been cut several times since then. As a result of the logging, large areas of invasive Himalayan blackberry abound. One of the goals of Earth Sanctuary’s 500-year plan is to restore the forest and land to its original state. We have removed

many acres of invasive species such as Himalayan blackberries and replanted the with native vegetation. Over 15,000 individual plants of over 80 species and over 3,000 trees have been planted to date in this effort.

Now let’s begin our exploration of Earth Sanctuary by heading down the trail to the Dolmen. We’re going to be looking through a series of windows or snapshots into the processes of life that are happening here. Look for Window B where the trail levels out beyond the bell.

Window B – A window into water and watersheds.. At this spot we are standing over the weir (water control structure between the two ponds) that connects the West and Middle ponds. A large watershed feeds Earth Sanctuary. Water flows down through streams on the hillsides and also along the hardpan layer left by the glacier (about 2 feet below the topsoil). In fact, parts of the hillside forest are so wet they fall into the category of wetlands as well! The Middle pond (to the left of the trail) drains into the West pond (to the right of the trail) through the weir you are standing on. The West pond drains out to the west with the water eventually finding its way into the big wetland area behind Useless Bay and out into Useless Bay itself. As you think about water flow ask yourself some questions. What are the impacts of land use practices by property owners above these forests? Think about your own property.... Do you know where your water comes from? Where it goes? What are the impacts of your land use management practices?

When the West pond was built in 1957 it was landscaped with the beautiful weeping willows and rhododendrons that you see today. These are non-native trees, but lovely to look at. You might also see muskrats, deer, beaver or river otter. You may well hear the bullfrogs (loud, booming croak) in the summer months. The bullfrogs are an invasive species that can eat native fish, frogs, turtles and even ducklings!

Now return to the parking lot and turn right and head down the trail to the labyrinth. As you start down the path, look on your right for the bat house mounted on a tall pole. Once you get to the Labyrinth, look for Window C on the right side.

Window C A window into magic. We've stopped on the shady side of the Labyrinth so as not to disturb the breeding ducks and their babies. As you look out into the Middle pond you may see an amazing array of insect and bird life. The snags, stumps and logs in this pond are an incredible asset for the ducks and their babies to get out of the water to sun, rest and preen. The wooded vegetation that surrounds the ponds lets the ducks escape from predators and also rest in the shade (as well as feed on the vegetation close to the shore). As you look out watch for mama and juvenile wood ducks, hooded mergansers (both found only on wooded wetlands), mallards, gadwalls, and teals. Watch swallows and other birds catching insects that are in great abundance. You might see one or two great blue herons standing silently waiting for a fish to dart by or an osprey fly overhead or perch on a snag. Occasionally an eagle will visit looking for lunch or dinner. Our 2003 & 2004 breeding bird surveys of Earth Sanctuary showed a good survival rate of baby ducklings, which is terrific. We have documented over 80 species of birds breeding at Earth Sanctuary!

In the bushes and trees that surround the Labyrinth you might hear or see song sparrows, chickadees, warblers, towhees, Swainson's thrushes, robins, cedar waxwings, finches and many other small birds. How do you suppose you could figure out which of these many species are visitors and which ones breed and raise young here?

The magic of this pond is captivating. When you're ready to tear yourself away turn around and go back up the trail and take a right turn onto the Wetland trail into the forest that goes around the Middle pond to the Cottonwood Stone Circle. Look for Window D along the trail in the alder forest.

Window D - A window into forest succession. As you look around this forest you see primarily red alder. This forest was most recently logged in the early 1960s (in fact the trail you are walking on is the old logging road!). The main tree that has come back is the red alder which is often the first to sprout after severe disturbance and thrives in moist environments. Originally this was probably an old growth cedar, fir and hemlock forest. This alder forest is mature, nearing the end of its life span (about 50-80 years). The trees will be falling and thus make room for the

conifers to come in. Alder decays quickly as well as fixing nitrogen in the soil as it grows and thus replenishes the forest floor. In the understory you see native sword fern and salmonberry. The salmonberry is one of the first native shrubs to bloom in the spring (late March) and the return of the rufous hummingbirds from their winter down south coincides with the salmonberry blooms. Notice the wood duck nest box in the big leaf maple tree on the pond side of the trail. This is one of over 45 nest boxes for various species of birds that have been put up by Earth Sanctuary.

Continue on the trail to the little stream which will be Window E

Window E – Another window into watersheds. This year-round stream comes from springs just up the hill a short ways. This stream is one of two feeding the Middle pond and feeds the ponds, along with underground water that you can't see. Spend a moment and observe this watershed above you. You'll see the very large leaves of the swamp lantern or skunk cabbage just by the trail here before you get to the stream – it's the first wetland plant to bloom in early March and has a spectacular yellow flower.

Continue on the wetland trail to the hemlock growing out of the "nurse stump" which will be Window F.

Window F – A window into forest succession through nurturing. What you see here is a classic example of a "nurse stump." Notice the hemlock tree growing on top of an old growth Douglas fir stump. The old fir stump provided a suitable home for the hemlock seed to sprout, sending its roots initially into the rotting wood and eventually down into the soil. This is also a good place to notice all the nettles in the forest. While we might object to their stinging properties, nettles are a very important food source for the caterpillars of many of the butterflies we enjoy seeing in the Pacific Northwest, e.g. red admiral.

Continue on the trail to the woodpecker snag, which will be Window G. The forest you are walking through is a mixture of young cedar, Douglas fir, hemlock and alder. Notice the cedar that fell over and has converted its branches into trunks along the left side of the trail. One tree has become many!

Window G – A window into the importance of snags. Snags are a very important part of an ecosystem. Before you is an old alder snag full of woodpecker holes. The large rectangular holes were made by pileated woodpeckers – a magnificent large woodpecker with a flaming red crest that requires large woodland territories. Insects in the decaying wood provide food for woodpeckers and other birds and the holes made by woodpeckers become nesting sites for small cavity nesting birds such as chickadees and nuthatches. How might you create or enhance snags on your own property? (Answer at end)

Continue now to the Cottonwood Stone Circle which is located in the place of a former blackberry thicket of giant proportions. Follow the trail around the circle and, being careful to not step on the plants, walk up behind the stone circle onto the berm that overlooks the Fen pond which will be Window H. Notice the extensive plantings of new native plants all around you!

Window H – A window into the Fen. This is a window onto a very old and undisturbed fen or bog. The Fen is distinguished by a large island of peat in the center which formed over time in a depression left after the last glaciation. The vegetation on the island is unique and has not been disturbed despite all of the logging in the surrounding forests. Unique plants that exist here include Labrador tea, bog cranberry, sundew, cotton grass, etc. It's great habitat for red winged blackbirds and nesting ducks. Water flows into the Fen from the hillside behind it and out on the eastern end, eventually to Useless Bay. Many fens or peat bogs are "mined" for a variety of uses – including peat moss for use in gardens. This destroys the bogs. Could something else be used instead? (Answer at end).

If you were to continue on the Wetland trail that leads out of the Cottonwood Stone Circle you will first pass one of the

beaver lodges on the right side of the trail and then will pass under the osprey nest. c

For the best view of the Fen, continue on the Wetland Trail to the Fen Viewing Spot - #5.

This is the end of our nature trail. Please enjoy the other trails at Earth Sanctuary and place this booklet back in the box as you leave today. You may purchase a paper copy of this booklet for \$1.00. Leave payment in the registration box.

Answers to questions asked:

Window C –Breeding birds. One of the main ways to tell whether birds are breeding or just visiting is to look for breeding activity during April – June. These behaviors include courtship and pairing behavior, males singing to establish territories, nest building activity, parents taking food to the nest and, of course, the presence of baby birds.

Window G – Snags. One of the easiest ways to create snags is to leave trees standing when they die (providing they are not a hazard). If a tree does need to be taken down it can be cut 12-15 feet above ground and it will readily turn into a snag. A great resource for enhancing wildlife habitat on your property is *Landscaping for Wildlife in the Pacific Northwest* by Russell Link.

Window H – Peat moss. Peat is not as valuable as we think for our garden soils since it is acidic and sterile. The reason peat is used is to add organic matter to the soil. Most types of organic matter will do the job even better than peat and good compost is a great choice.

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