

An Ecological Survey of Deer Ridge

Ecological Setting:

1. Size and Location:

- From 851 Quince Orchard Blvd. to 843 Quince Orchard Blvd.
- From 301 Rabbit Road to Diamond Dr. (dead end)
- From 301 Rabbit Road to 12 Marquis Dr.
- From 301 Rabbit Road to 17460 Longdraft Rd.
- From 843 Quince Orchard Blvd. to 17443 Longdraft Rd.
- From 17212 Longdraft Rd. to 17460 Longdraft Rd.
- From 4 Hartley Place to 17460 Longdraft Rd.
- Recognizable Nearby Landmarks: Brown Station Elementary School, Diamond Farms City Park, Diamond Farms Condominiums, Potomac Oaks Condominiums, City of Gaithersburg Public Works Building, Youth Center, Diamond Farms Shopping Center, Clopper Lake and Seneca Creek State Park.
- It takes about a mile or so walk--- to walk from Quince Orchard Blvd. to Longdraft Road on impervious trails.
- Land-long and narrow.

2. Habitats, Biodiversity and Ecosystem Types:

- Habitats: 3 streams (one of them Longdraft), 3 stream valleys, wetlands, interior hardwood forests, uplands, bottomland forests, vernal pools, rocky outcrops, coniferous forests, floodplains, meadows, edges and one biological corridor. Reptile and amphibian breeding habitat, fish spawning habitat, neotropical and native songbird nesting habitat, raptor nesting habitat, waterfowl and shorebird feeding habitat, bat habitat, deer habitat, and native bee habitat.
- Ecosystem Types: Three Creeks, one vernal pool, a very large riparian forest, a marshy area, two entire mature climax upland hardwood interior forests, some serpentine geology, two pine stands, one cedar stand and two wildflower meadows.
- Biodiversity: Supports four species of breeding frogs, some old-growth trees, large tree and plant species count, unusual presence of primitive plants such as ferns and mosses, used by neo-tropical songbirds for migration and nesting, also Great Horned Owl, wood duck and Eastern bluebird nesting habitat, unusually high bird count, unusually high rare bird count, unusually high native count, unusually low non-native count, used by bats, bees, and other declining species, moderate structural forest diversity such as nursing logs and dead trees for cavity nesting

birds, also used by dragonflies and damselflies, turtles and snakes, some native butterflies, an entire heard of white tailed deer, possible rainbow trout stream and possible stand of American elms.

3. History, Historical Features and Ownership:

- History: I hypothesize based on my extensive exploration of this land, learning about Seneca Creek State Park, the Piedmont Plateau bioregion, Montgomery County history and local historical research that Deer Ridge was once used as a “hunting and fishing” as well as a “farming and gathering” camp by transient Seneca First Nations. They might have also had a temporary settlement and religious shrine there too. I also hypothesize that a Pioneer Trail and Carriage Road went through here too. I also hypothesize that this was once farmland- possibly part of Quince’s Orchard. I even hypothesize that the Underground Railroad might have gone through here too. Also that Deer Ridge might stand along an extinct property line for two adjacent farms. Also that one area in Deer Ridge might have been an extinct driving range or motor cycle racing area. Also this area I hypothesize might have also been used or at-least considered as a nuclear bomb shelter during the Cold War, as well as a local garbage dump.
- Historical Features: The posts and barb wires of fences from farms; unexplained greenish maroon contraptions which look military; unexplained shrine which someone is secretly maintaining to honor a death, some other tragic event or a pet cemetery; a grove and a remnant of an alley of centuries old English Oaks- possibly from an old carriage road and rest stop from the turn of the 20th century; possible foundations of the ruins of an old mill; tracts of a possible extinct driving range or motorcycling course; possible Seneca mound.
- Ownership: Determining ownership was complex. Based on my best available information---a small part of Deer Ridge near Longdraft Rd. belongs to Seneca Creek State Park, the part near Quince Orchard Rd. and Rabbit Rd. belongs to Diamond Farms Park and the Youth Center (City of Gaithersburg). The City of Gaithersburg Zoning Maps zones this area for “low density residential.” The City of Gaithersburg Master Plan has Deer Ridge “earmarked” as “open space.” “Open spaces” according to the City of Gaithersburg are areas which are allowed to remain in their natural state, are open to local residents and the public, but are not developed into a developed city park with amenities. Different areas of the stream valley appear within the “hundred year floodplain” and “fifty year floodplain.” I contend that Deer Ridge is a genuine “commons” or “borderland” because it “slips thought the cracks” and is “not as closely watched” by established jurisdictions such as the City of Gaithersburg, Maryland Department of Natural Resources, Montgomery County Public Schools System, or by local private property holders, associations and businesses.

4. Current Human Benefits and Negative Anthropogenic Costs:

- Current Human Benefits: “community resource.” Deer Ridge provides everyone in the local community with “open space,” “green space,” “wild space” and a place to go walking, hiking, mountain bicycling, birdwatching and fishing. Deer Ridge also has some potentially pleasant picnic spots. Deer Ridge provides space for quiet contemplation and reflection for spiritual and religious peoples or anyone who just wants time to think or “cool off” from a relationship conflict or a hard day at work. Deer Ridge provides an aesthetically pleasing “short-cut” to Seneca Creek State Park for local residents and neighbors who live and work off Quince Orchard Blvd. and want to approach the state park on mountain bicycle or on foot easily. Children come to Deer Ridge to play in the stream and build forts. Youth come to Deer Ridge with their dates, as a pleasant “short-cut” to the youth center, athletic fields or “coming home” from school. Families bring their children to Deer Ridge to teach them about the Natural World. Dog walkers and runners use the Deer Ridge trail on a regular basis. I have seen locals at Deer Ridge do everything from fly fishing to boxing to photography. Also Deer Ridge provides excellent shade during the hotter summer months and most likely serves as a “heat sink,” “ozone sink,” “carbon sink,” “light pollution buffer” and “noise pollution buffer.” Deer Ridge also serves as a “traffic buffer” and a “privacy buffer.” Deer Ridge is a beautiful community resource which most likely positively impacts the property value of this area, especially attracting people searching to live and raise a family in a low-density residential area. Deer Ridge is a great local resource for families. I relocated from downtown Silver Spring to live in a less dense area and to be closer to wild Nature. Deer Ridge gives you the feel of being in a much wilder, more remote, rural area than you really are. Deer Ridge provides a great opportunity to see wildlife and wild Nature “close to home.” Deer Ridge is also an excellent place for scientific study for children and youth and learning basic scientific concepts and ecological literacy for college students and adults. For example, Deer Ridge would make an excellent field trip destination for a high school level “environmental science” course or a college-level “ecology for non-majors” course. Deer Ridge is also a good place to do laboratory work for an entry level science course for Deer Ridge illustrates basic “principles and processes” in a variety of scientific fields.
- Negative Anthropogenic Costs: “being used as garbage dump.” I surmise that a number of decades ago Deer Ridge was being used by locals as an unofficial “garbage dump.” Also I surmise that local teenagers go into Deer Ridge for underage drinking and smoking and they leave their alcohol bottles and cigarette butts behind. I also surmise that some children and youth leave behind their soda bottles and other trash when they go through Deer Ridge. Also balls from basketballs to golf balls from nearby athletic fields can also end-up in Deer

Ridge. Also there also seen to be the remains from failed public works projects from decades ago too. Also occasionally fishermen leave behind their trash and even fishing lines. All of this litter is a treat to the region's water quality, ecosystem health and native wildlife.

5. Connection to Local Watershed and Biological Corridor:

- Connection to Local Watershed: All three streams including Longdraft flow directly into Clopper Lake, Great Seneca Creek, the Potomac River, and the Chesapeake Bay and eventually into the Atlantic Ocean. So the water quality of these three local streams has a direct bearing on the water quality of Clopper Lake, the Potomac River and the Chesapeake Bay, even the Atlantic Ocean. Especially since all three streams have water in them year-round and flow fairly rapidly, especially after major rainstorms and snow melt. I have personally witnessed litter being carried downstream before my very eyes.
- Biological Corridor: Deer Ridge is definitely part of the Greater Seneca Creek Valley ecosystem. A biological corridor going all the way from the Patuxent River to the Potomac River via Great Seneca Creek, surrounding tributaries, the Greenway Trail and protected parklands. Protected by Seneca Creek State Park, Chesapeake and Ohio National Historic Park, the Isaac Walton League, as well as various county and city parks and state wildlife management areas. A very ecologically important biological corridor with much biodiversity and natural beauty. Deer Ridge is directly connected to this vital biological corridor through Long Draft (which flows directly into Clopper Lake) and a virtual unbroken riparian-interior forest ecosystem. Separated by only a relatively small secondary road (Longdraft Road-a two lane thoroughway) where "as the crow flies" is an unbroken forest. And mammals such as white tailed deer and red foxes can easily cross. While fish, frogs and reptiles can easily swim under the Long Draft Bridge. In fact, this last spring of 2012 a family of Eastern Phoebe's nested under the Longdraft Road Bridge. A bird which is both a native and a Neotropical songbird. Also Clopper Lake wildlife also occasionally come into Long Draft Creek including bluegills, water snakes, Great Blue Herons, Canada Geese, Mallard Ducks and Wood Ducks. I even have seen Solitary Sandpipers and Least Bitterns come into Deer Ridge via Longdraft. Also a Great Horned Owl nests in Deer Ridge too.

6. Water Quality:

- Found mayfly, cattishly and Minge larvae in Longdraft. Minge larvae decreasing as water quality is improving.
- Marked improvement in water visibility and water temperature after picking up litter in the stream and surrounding areas for a prolonged period of time. Water visibility went from being a somewhat murky, hydria invested, suburban

waterway to being more like a clear mountain stream in West Virginia which is “bright as crystal” and where you can see the stream’s stony streambed. I can even use my binoculars to watch fish on many days---especially when there has been a prolonged period without rain. Water temperature has gone from lukewarm on a sublime February winter day (Winter 2012) to frigid on a hot June day (Summer 2012) since I started cleaning-up the stream. With stream water measuring 70 degrees (F) in riffles and 68 degrees (F) in deep pools on an 85-degree (F) full-sun day in August, 2012. Meaning that the water temperature is 15-degrees cooler than the air temperature on an 85-degree, sunny August summer day. Meaning that my clean-up effort is lowering the water temperature-“clearing the way” for more pollution sensitive aquatic life such as trout and frogs.

- The streams at Deer Ridge were always above average clear and clean as far as outer suburban streams in this bioregion and part of the county go and pollution tolerant fish always inhabited the streams. But my clean-up effort has been so successful that these streams are now trout, shad, bass and bluegill streams. So much so-Deer Ridge is now becoming a local fishing hotspot used by local humans and great blue herons alike. Also seeing more water striders, water beetles and frog species in stream too.
- One of the worst pollutants in the streams were these rusting iron rods which I found at the bottom of one area of the stream from a much earlier public works project leaching iron rust directly into the stream. Once I removed these rusting iron rods from the streambed and moved them onto the nearby stream bank-along with continuing to remove litter from the stream and surrounding areas-the algae and hydria blooms that began to die-off and the stream became clearer again. So these iron rods along with the litter were definitely creating very real water pollution problems which were having very real impacts on underwater biodiversity.
- I also found that once I did a major clean-up round on a given day, I would begin to see ecological healing within the next few days, mainly after a major rainstorm or snowstorm. I also noticed the greatest amount of ecological healing in the winter, spring and early summer.

7. My Work There and Attitude Changes:

- Since I started cleaning-up litter at Deer Ridge, not only have I noticed many ecological improvements in the health of the ecosystem, I even have noticed attitude change in the surrounding human community, mainly they are slowly shifting their attitude from seeing Deer Ridge as a “garbage dump” to seeing Deer Ridge as a “community resource.”
- I am seeing less and less new garbage, although the youth center area, especially resistant and insular.

- I am seeing more and more locals going to Deer Ridge for passive Nature activities such as walking dogs, playing in the stream or even taking photographs.
- A mysterious hand-made sign saying “Deer Ridge” mysteriously and anonymously surfaced.

8. Human Values and Human Potential:

- Aesthetic Values: Deer Ridge is a beautiful wild place year-round for a whole host of Nature-related, outdoor activities or just simply relaxing and enjoying the place.
- Recreational Values: Deer Ridge is an excellent place for hiking, walking, mountain biking, dog walking, birdwatching, wildflowers, playing, fishing and picnicking.
- Spiritual Values: Deer Ridge is an excellent place to pray and meditate, for a private day retreat, as well as reading and study, and creative inspiration for local artists.

9. Preservation and Promise:

- Deer Ridge is already protected as “open space” by the City of Gaithersburg.
- What Deer Ridge needs is to be promoted to a Gaithersburg City Park.
- It needs more oversight, management and supervision.
- It needs a permeate solution to the litter problem, such as putting up “no-littering” signs and increased police presence at night-patrolling for underage drinking.
- It needs increased police enforcement of fishing licenses for this area.
- It needs a sign telling the locals and visitors about this place and its ecological and historical importance.
- Possibly with brochures and a trail map.
- Possibly with a Guided Nature Trail brochure.
- Possibly with a bird list and a wildflower list.
- Special provisions need to be made to protect the American Elms, Rainbow Trout, amphibians and old-growth trees living there, as well as any other threatened, watch-list or endangered plant species discovered on the property.
- Also, “no stone throwing” signs need to be put-up near the Long Draft Bridge, for this is sensitive amphibian breeding habitat.
- Also, an annual community hike into Deer Ridge would not hurt either, to make locals and visitors aware of this resource and its importance.

10. American Elms, Rainbow Trout and First Nation Arrowheads:

- I have also identified using a Field Guide, at least two small stands of the highly endangered American Elm trees at Deer Ridge which have been largely spared from the blight and have some size and age to them. If this is the case, this not only would be a significant scientific find in the fields of botany and conservation biology, helping to preserve the American Elm from becoming extinct. These American Elm trees can serve as case studies of how a particular stand of elms has survived the blight of the 1960s, but also these American elms would benefit from any new treatments for fighting the blight developed by plant immunologists (e.g., fungous-side treatments) for protecting the genetic bloodlines of this magnificent, yet highly fragile native plant species from extinction. Regardless-these stands of American Elms need to be positively identified, registered with and protected by the appropriate non-profit organization or government agency in-charge of the stewardship and preservation of remaining American Elms. These precious American Elms need to be protected from deer and other wildlife, lightening, infestations and by human vandalism. While local neighbors and environmental officials need to be aware of their existence, exact location and ecological importance to monitor their health and safety. A couple of trees are particularly at-risk for they were damaged during a storm, but are still alive. All of these trees are almost completely disease-free, but are still blight positive, indicated by some leaf damage, but still have reasonably thick trunks and fresh leaves for this year's (2012) growing season. Coupled with some structural, trunk and canopy damage. Yet-very much still alive! Also, supports a unique ecosystem of more Northern/Mountainous plants, not found elsewhere in this bioregion.
- I have identified several Rainbow Trout nurseries in this last growing season (2012) since I started cleaning-up the stream and surrounding floodplains, using a field guide and stream quality testing techniques, e.g., sensing water temperature and finding mayfly and cattishly larvae in Longdraft. Also, since the stream water quality has improved and I am seeing more local fisherman (human and nonhuman) venture from Clopper Lake into Long Draft and Deer Ridge. Nonhuman, for one of the fisherman is a Great Blue Heron who has started to occasionally venture into Longdraft, to go fishing. Most tall-telling of them all is that there are in-fact rainbow trout in this stream, is that one day when I visited Deer Ridge, I saw two men fly-fishing in Longdraft. The trout and other species of fish need to be positively identified, a management plan for protecting the fisheries of Deer Ridge needs to be developed, educational kiosks, brochures and modules need to be distributed to local neighbors, and law enforcement needs to step-up their inspection of fishing licenses and enforcement of State of Maryland fishing regulations. I contend that the trout and many other fish species have come in through Clopper Lake and Great Seneca Creek, part of a protected, semi-rural, biological corridor which stretches from the Patuxent River to the Potomac River.

- I even discovered a Madison Paleolithic triangle arrowhead which could date back as much as 1100 B.C., which predates Seneca activity in this area. Deer Ridge would also benefit from a professional archeological survey-to both unearth potential archeological resources and document the human history of Deer Ridge from an archeological-historical perspective. Any archeologically and historically important sites discovered will need to be identified, documented and protected. Also the archeological history of Deer Ridge will also need to be included in the educational modules. And, if any major archeologically or historical significant structure is discovered, historical preservation will need to be employed, to both preserve the structure and interpret the structure to visitors. If any burial mound is discovered during an archeological or historical survey---belonging to the extent Seneca tribe, they will need to be notified, kept in the loop and be consulted about options for preservation.

11. Species Lists:

Trees:

- American Hornbeam * = %
- American Elm * = %
- River Birch * = %
- Silver Maple * = %
- Red Maple * = %
- Post Oak * = %
- Chestnut Oak * = %
- English Oak %
- White Oak * = %
- Willow Oak * = %
- Shingle Oak * % =
- Black Walnut * % =
- Tulip Popular * = %
- Flowering Dogwood * = %
- Sassafras * = %
- Sycamore * = %
- Black Torpedo * = %
- White Mulberry %
- Silk tree
- Pear Hawthorn * = %
- Green Hawthorn * = %

- Common Persimmon * = %
- Shortleaf Pine * = %
- Atlantic White Cedar * = %
- White Pine * = %

Shrubs:

- Swamp Honeysuckle * = %
- Mountain Laurel * = %
- Poison Sumac * = %
- Smooth Sumac * =
- Spicebush * = %
- Possomshaw * = %

Vines:

- Virginia Creeper * = %
- Greenbrier * = %
- Poison Ivy * = %

Wildflowers:

- Mayapples * =
- Jack-in-the-Pulpits * =
- Spring Beauties * =
- Wintergreen * =
- Tea Berries * =
- Bedstraw * =
- Yellow Flag * %
- Swamp Milkweed * = %
- Common Milkweed * = %
- Common Cattail * = %
- Watercress * = %
- Cardinal Flower * = %
- Duckweed * = %
- Dogbane * = %
- Arrow Arum * %
- Smartweed * %
- Squirrel Corn * =
- Skunk Cabbage * = %
- Wild Ginger * = %
- Yarrow * = %

- Daisy * = %
- Shasta Daisy * = %
- Queen Anne's Lace * = %
- Goldenrod * = %
- Pokeberry * = %
- Cow Vetch * % =
- Garlic Mustard %
- Bamboo
- False Nettle * =
- Bur Reed * %
- Wool Grass * % =
- Red Currents * % =
- Wineberry * % =
- Water Hemlock
- Swamp Candles * =
- Jewelweed * =
- Wild Indigo * % =
- Heal-all % =

Primitive Plants:

- New York Fern * =
- Cinnamon Fern * =
- Christmas Fern *
- Bracken Fern * =
- Sensitive Fern * =
- Royal Fern * =
- Eastern Polypody Fern * =
- Hair Cap Moss *
- Pin Cushion Moss * =
- Spike Moss * =

Other Kingdoms:

- Green Algae * %
- Hydrias
- Jack-on-Lantern Fungous * = %
- White Jack-on-Lantern Fungous * = %
- Turkey Tail Fungous *% =
- Jelly Fungous * % =
- Slime Mold*% =
- Cumberland Rocksheid Lichen *% =

- Multiple species of wild mushrooms * % =

Birds:

- Great Blue Heron * % =
- Least Bittern * % =
- Canada Geese *
- Mallard Ducks *
- Wood Ducks * + % =
- Solitary Sandpiper * % =
- Great Horned Owl * + % =
- Red Tailed Hawk * + % =
- Belted Kingfisher * % =
- Eastern Phoebe * + % =
- Eastern Wood Pewee * + % =
- Great-crested Flycatcher * + % =
- Red-Eyed Vireo * + % =
- Wood Thrush * + % =
- Verry * % =
- American Robin * + % =
- Eastern Bluebird * + % =
- Magnolia Warbler * + % =
- Promontory Warbler * % =
- Cerulean Warbler * % =
- Waterthrush * % =
- Baltimore Oriole * % =
- Scarlet Tanager * + % =
- Carolina Wren * +
- House Wren * + % =
- Marsh Wren * + % =
- Winter Wren * % =
- Pileated Woodpecker * + % =
- Red Bellied Woodpecker * +
- Downy Woodpecker * +
- Hairy Woodpecker * =
- White Breasted Nuthatch * +
- Brown Headed Nuthatch * % =
- Red Breasted Nuthatch * + % =
- Brown Creeper * % =
- Carolina Chickadee * +
- Tufted Titmouse * +

- Ruby Crowned Kinglet * % =
- Golden Crowned Kinglet * % =
- Blue Jay * +
- Northern Cardinal * +
- Catbird * +
- Dark-Eyed Junco *
- White Throated Sparrow * % =
- White Crowned Sparrow * % =
- Chirping Sparrow * + % =
- Swamp Sparrow * % =
- Vesper Sparrow * % =
- Fox Sparrow * % =
- American Goldfinch * +
- Horned Lark * % =
- Rufus Sided Towhee * + % =
- Common Grackle * +
- European Starling
- American Crow * + % =
- Fish Crow *
- Black Vulture
- White Collared Turtle Dove

Amphibians/Reptiles:

- Bullfrog *+ % =
- Wood Frogs * % =
- Spring Peepers * + % =
- Northern Cricket Frog * + % =
- American Toad * + % =
- Snapping Turtle * =
- Eastern Ribbon Snake * =

Fish:

- Rainbow Trout * + % =
- Striped Bass *+ % =
- Largemouth Bass * + % =
- Golden Shiner *+ =
- American Shad *+ % =
- Bluegill * + % =

Invertebrates:

- May Fly * + % =
- Batten's Silverstreak Caddisfly Larvae * + % =
- Crane Fly * + %
- Comstock's Net-winged Midge * +
- Streaked Wing Red Swimmer Dragonfly * % =
- Swift Long-Winged Skimmer Dragonfly * % =
- Twelve Spot Skimmer Dragonfly * % =
- Elisa Skimmer Dragonfly * % =
- Short Stalked Damselfly * % =
- Fireflies * + % =
- Common Water Strider * % =
- Water Leaf Beatle * % =
- Dogbane Beatle * + % =
- Golden Ants * =
- Red Ants * =
- Rocky Spotted Ants Colony * % =
- Pill Bugs *
- Golden Weaver Spiders *
- Six-spotted Fishing Spiders * % =
- Daddy Long Legs *
- Crayfish * % =
- Maryland Checkered Spot Butterfly * % =
- Monarch Butterfly * + % =

Mammals:

- Bats * % =
- Red Fox * % =
- White Tailed Deer * +
- Grey Squirrels *
- Water Shrew * + % =

Birds Seen Near Deer Ridge:**A) Potomac Oaks Property**

- American Goldfinch * + %
- Purple Finches * + % =
- House Finches * + %
- Evening Grosbeak * % =
- White-winged Crossbill * % =

- Mourning Doves * +
- Carolina Wrens * + %
- Catbirds * + %
- Common Grackle * + %
- Fish Crows * +
- American Crows * =
- Carolina Chickadees * %+
- Tufted Titmice * %+
- Downy Woodpeckers * %
- Red Breasted Nuthatch * % =
- Tennessee Warbler * % =
- American Robins * + % =
- Northern Cardinals * +
- Cedar Waxwings * % =
- Blue Jays * +
- Broad Winged Hawk * % =
- Mockingbirds * % =
- Golden Crowned Kinglet * % =

B) Deer Ridge-Seneca Creek State Park

- Bald Eagle * % =
- Horned Grebe * % =

*Native

+Known Breeder

% Good for native wildlife

= Good for ecosystem health