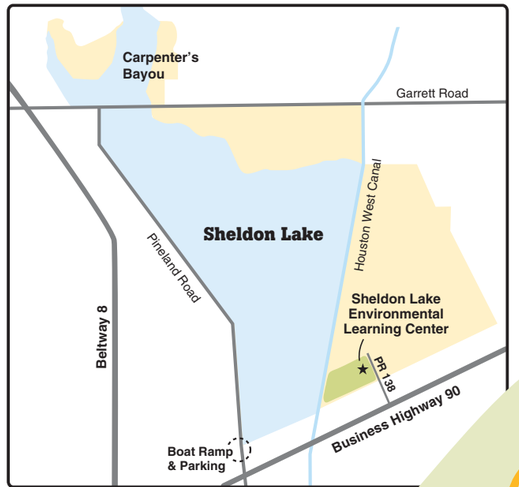
Sheldon Lake
Environmental Learning Center



Please Note:

- You are responsible for knowing and obeying park rules and regulations.
- For your safety, read a copy of "Alligator Etiquette" available at the park headquarters.
- **DO NOT FEED OR ANNOY ALLIGATORS!**
- Please stay on gravel trail.

Sheldon Lake Environmental Learning Center is open 8 a.m. to 5 p.m., Tuesday through Sunday

Trail Information

	Distance	Walking Time
Pond Loop Trail	.5 mile loop	30-60 minutes
Bridge	.1 mile from Plaza	5 minutes
Bent Pine Trail	.2 mile loop	10 minutes
Swamp Rabbit Trail	.4 miles one way	15 minutes
Kinglet Trail	.1 miles one way	5 minutes
Armadillo Trail	.1 miles one way	5 minutes

Outdoor Access Route

Grade is between 8% and 12.5%

The trails at Sheldon Lake Environmental Learning Center meet ADA Accessible Trail guidelines.

User Groups
Trail length varies
Elevation change 6 feet

Grade
Average 2%
Maximum 12.5% for 10 feet

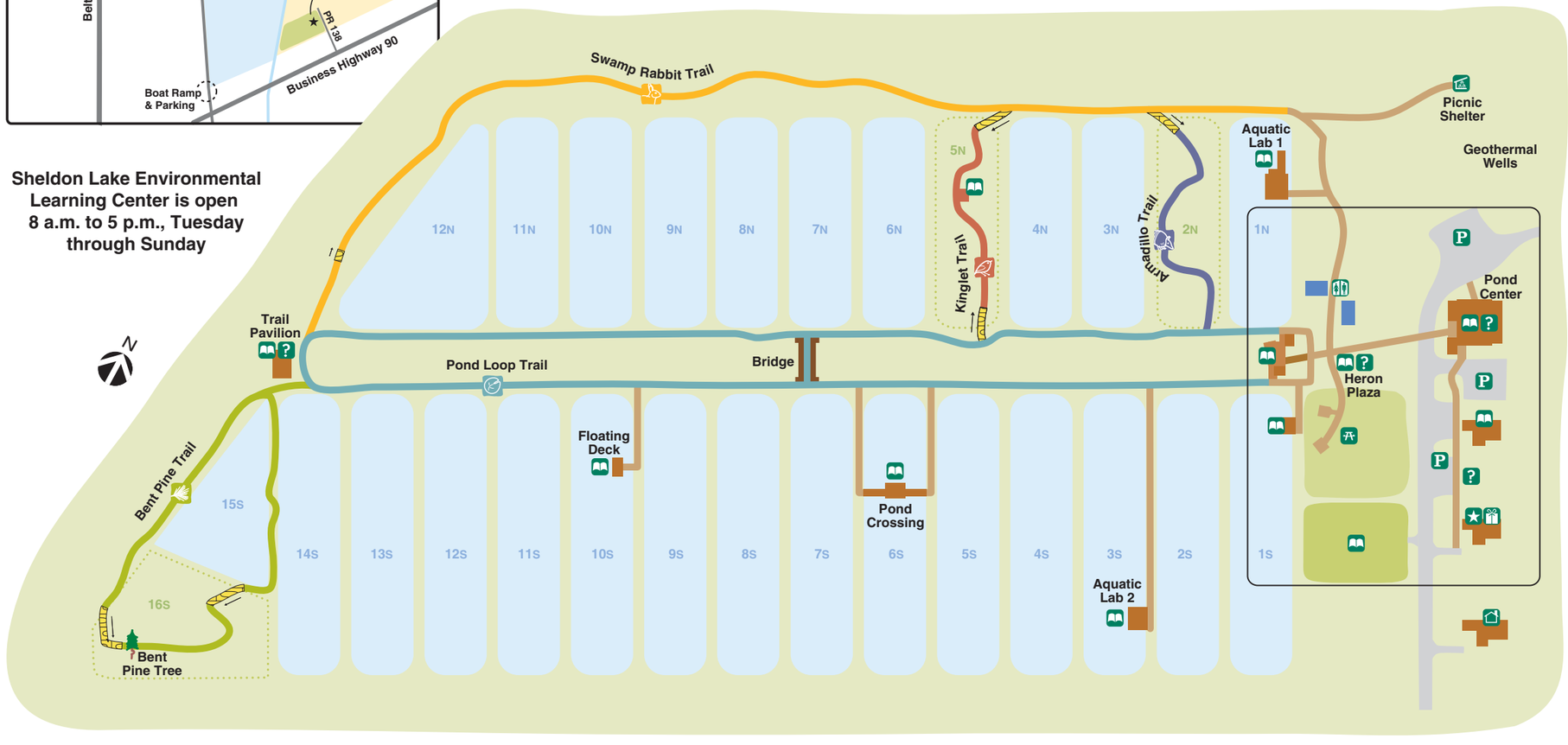
Cross-Slope
Average 2%
Maximum 5% for 50 feet

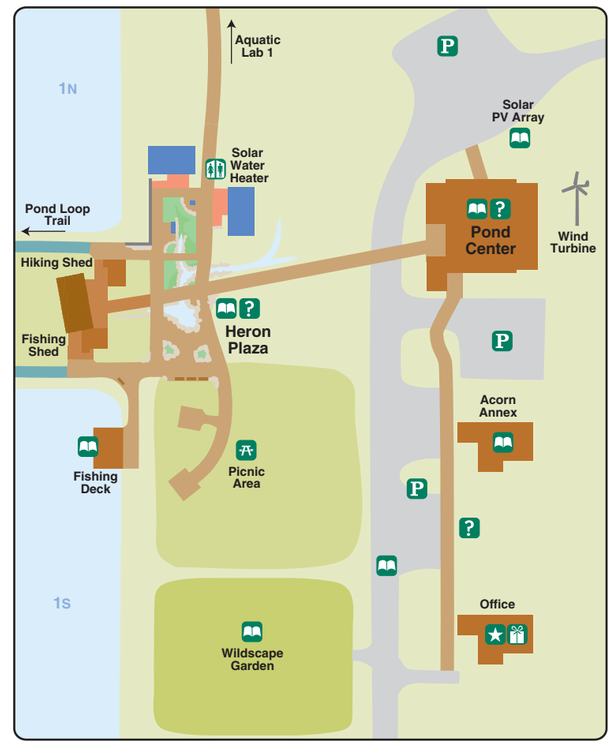
Width
Minimum 5 feet

Surface
Crushed Granite
Concrete
Boardwalk

Legend:

- Headquarters
- State Parks Store
- Accessible Rest Rooms
- Parking
- Park Residence
- Learning Station
- Information
- Picnic Area
- Picnic Shelter





SheldonLake Environmental Learning Center

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SHELDON LAKE ENVIRONMENTAL LEARNING CENTER

ALTERNATIVE ENERGY SYSTEMS

Conservation is a key message at Sheldon Lake Environmental Learning Center (SLELC) and is a vital part of the missions of the Texas Parks and Wildlife Department (TPWD) and the State Energy Conservation Office (SECO), which has given the Sheldon project a grant to install five alternative energy demonstration systems. These systems will communicate two messages that are important for current and future generations: one, that it is possible to significantly reduce the demand for electrical power from fossil fuels by "green design" and two, illustration of how a grid-tied, alternative energy system works.

AQUATIC LAB 1

Hands-on learning is offered at four outdoor classrooms. Aquatic Lab 1 is a covered outdoor classroom and offers access for all students on a wheelchair-accessible ramp into the pond. The ramp enables safe rubber boot entry into the pond for collection of water samples to facilitate visual identification of aquatic life and microscopic study. TEKS-aligned aquatic lesson plans include macro animal study, micro animal study, wetland ecology, water testing and water quality study.

AQUATIC LAB 2

Similar in purpose to Aquatic Lab 1, this open outdoor classroom also offers pond access for students, enabling safe rubber boot entry into the pond for collection of water samples to facilitate visual identification of aquatic life. TEKS-aligned aquatic lesson plans include wetland ecology and macro animal study.

BRIDGE

Access between the north and south ponds is achieved through a covered accessible bridge that spans the old fish hatchery runnel (main drain system).

FISHING DECK

Focal point for student fishing activities, the renovated fishing deck gives opportunities for learning and applying fishing skills in one of the ponds.

FLOATING DECK

Opportunities for wildlife observation and a chance to be on the pond are provided for school children at this open, floating deck. Low proximity to the water allows easy access to the pond. TEKS-aligned aquatic lesson plans include animal study, hiking, wetland exploration and water testing.

GEOTHERMAL LOOP

A geothermal heating/cooling system will provide 100% of the heating and air conditioning for the Pond Center. This system, a series of nine "wells" drilled down to 250 feet and connected by a water line loop, takes heat (or cool temperatures) from the earth, replacing the traditional AC condensers. A great cost savings is realized in terms of monthly energy bills *vis-a-vis* reduced electrical usage.

HERON PLAZA

Gateway to the student learning and discovery experience, the Heron Plaza provides a place for orientation to the diverse plant and animal life in the 28 ponds which are remnants of a 1950s fish hatchery. Outdoor exhibits, an observation deck and overlook, rest rooms and a miniature wetland are part of the visitors' initial educational experience.

POND CENTER

Student orientation takes place at the Pond Center, a reused former fish hatchery building commissioned in 1956. The existing building expansion includes visitor orientation and exhibit space, a covered pavilion for student gatherings, indoor classroom, lab space and rest rooms.

POND CROSSING

School children get a chance to walk over a pond (via a boardwalk) to an outdoor covered classroom in the middle of the water. Here students can observe pond wildlife in the domain of the fish, birds, reptiles, amphibians and mammals living there. TEKS-aligned aquatic lesson plans include wetland ecology, water sampling and animal study.

RESTORED WETLANDS

SLELC is located in an area that once was coastal prairie dotted with seasonal wetlands. Prior to the park's existence and over the last century the wetlands were eliminated so that the land could be cultivated and farmed. Several wetlands at the park have been recreated to show students what the environment was like in its original natural state. The wetlands also provide habitat to area wildlife and allow migratory birds to stop, feed and rest. Wetland plants are indigenous to the area.

TRAIL PAVILION

A respite from study and hiking is offered to students and teachers at this covered pavilion, located in the woods at the half-way point along the Pond Loop Trail.

TRAILS

The main trail (Pond Loop Trail) is nine feet wide and offers access to all outdoor classrooms in the pond area. Other trails (Bent Pine Trail, Swamp Rabbit Trail, Kinglet Trail and Armadillo Trail) are five feet in width and offer hiking and learning opportunities for students and visitors. All trail surfaces are decomposed granite and conform to the new ADA Guidelines for outdoor developed areas, allowing wheelchair access to the pond area. Interpretive information and exhibits will augment "teachable moments" in the natural environment.

SOLAR HOT WATER

Solar hot water for Heron Plaza rest rooms will provide warm water for hand washing throughout the year. Remote solar collectors will heat the water which will be stored in an insulated tank and circulated to the rest rooms.

SOLAR PV ARRAY

Two photovoltaic arrays (one solar tracking and one fixed) have been installed for solar electric power to the Pond Center, providing up to two kilowatts of power at peak capacity.

SUSTAINABLE FEATURES

All facilities at SLELC incorporate "green design" in efforts to be sensitive to the environment and reduce impact on limited resources. Sustainable features include recycled brick and concrete, fly ash concrete, Forest Stewardship Certified (FSC) lumber, solar hot water, recycled oilfield pipe, rainwater collection, geothermal cooling and heating, and natural daylighting.

WASTEWATER WETLAND

Instead of traditional high-energy use wastewater treatment, SLELC has built a wastewater wetland to treat all wastewater generated on-site. Indigenous plant life will filter and clean the effluent, producing excellent (tertiary) quality water and capturing CO_2 in the organic material rather than releasing it into the atmosphere.

WIND TURBINE

A wind turbine providing 1.5 kilowatt of electrical power to the Pond Center provides another demonstration of alternative energy for school children. The turbine is a three-bladed 6.5-foot diameter low speed wind turbine, mounted on an 80-foot tower.