Orion Oaks Master Plan

Oakland County Parks, Michigan

"It therefore results that the enjoyment of scenery employs the mind without fatigue and yet exercises it; tranquillizes it and yet enlivens it; and thus, through the influence of the mind over the body, gives the effect of refreshing rest and reinvigoration to the whole system."

Frederick Law Olmsted

Introduction

Oakland County as a whole, including the areas immediately surrounding Orion Oaks County Park, has seen tremendous growth in population and development in the past decade. Due to this growth, the Oakland County Parks and Recreation Commission was desirous of updating the previous outdated master plan for Orion Oaks prepared in 1988. In the fall of 2000, the Parks and Recreation Commission retained a design team to guide the County during the master planning process. An ad-hoc steering committee made up of representatives of various citizens, interest groups, recreational organizations, and municipalities located throughout Oakland County was convened to provide input and offer advice throughout the planning process to the consultants and county staff. Two public design charettes were offered to County citizens, which yielded seven preliminary concept plans and many spirited discussions. Additional input was received on the concept plans through e-mails and letters. Seven preliminary concept plans were synthesized into two concept plans representing a range of development from limited development to significant improvements. Working with county staff, the consultants and commissioners prepared a final concept plan that was somewhat in the middle of the two extremes. The final plan respects the natural environment of the park, while providing minimal facilities to make the park more accessible to all segments of Oakland County residents.

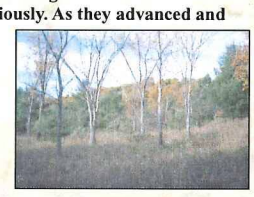
Context - Orion Oaks park is located in Orion Township, Oakland County in close proximity to I-75, approximately equal distance (30 miles) between the Cities of Detroit and Flint. The City of Pontiac is located within five miles to the south. The park is bounded by Clarkston Road to the north, Baldwin Road to the west, Joslyn Road to the east, and Keatington Road to the south.

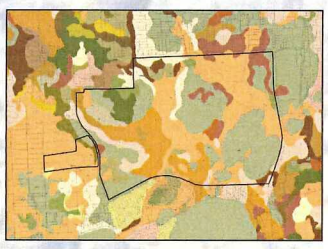
An existing single family subdivision and condominiums are located to the south. Orion Oaks elementary school is located to the east, across Joslyn Road. Single family lots are located to the north along Clarkston Road. Lake Orion Community Schools opened a nature center (Moose Tree Nature Center) in 2000 next to Webber Elementary School on the northwest corner of the park. The 30 acre site contains 5,400 sq. ft. of exhibit area, including a laboratory, and outdoor nature trails, butterfly & bee garden, and other natural exhibits. New single family subdivisions are springing up along Baldwin Road.

Existing Conditions- The 927 acre park, includes a 91 acre lake (Lake Sixteen) and a 38.06 acre out parcel located on the west side of Baldwin Road. The park is accessible via four entrances: Baldwin Road, Clarkston Road, and two entrances from Joslyn Road (Bark Park and Fishing Pier). A wood chip distribution site is located at the Clarkston Road entrance. Several trails of various width crisscross through the park. Hikers are guided by 34 reference points and trail markers. The park's development is limited to gravel parking lots, crushed limestone trails, limited board walks, four docks, trail signage, picnic tables, grills, and benches. A seven acre fenced Bark Park, located in the northeast corner of the park, contains open fields, wooded wetlands, and a trail that leads to a dock on Lake Sixteen.

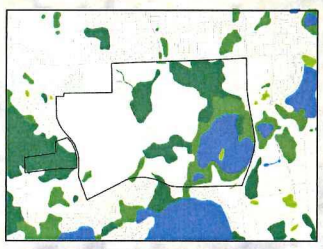
Historically, the site was used for agricultural purposes and includes many stone foundations and stone walls from previous homesteads and farm buildings located in the western half of the park.

Natural Features - Orion Oaks is part of a diverse geological and biological region of Michigan's southeastern lower peninsula. Michigan's topography was shaped by glaciers more than 16,000 years previously. As they advanced and retreated over the region, the action of the ice and meltwaters created a number of distinctive landforms. These glacial deposits, representative in the park, are called moraines, kames, kettles, and outwash plains. They are the precursor for many of the unique ecosystems found in the park. For thousands of years prior to European settlement, native Americans utilized these oak hardwood forests, beech-sugar maple forests, open meadows, lakes and streams, and alkaline fens to provide hunting and lodging sites. Many of the plant species found in the park were used by Native Americans and early settlers for food, medicine and in the preparation of dyes.

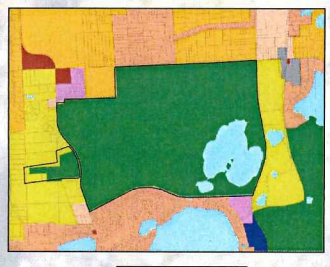




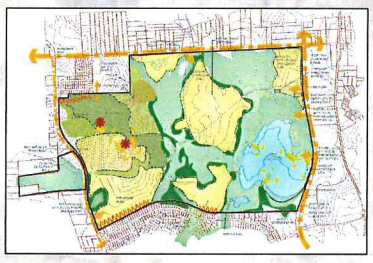
Soils Map



Hydrology Map



Land Use Map



Site Analysis

The park's existing topography ranges from flat to gently rolling, with small portions of steeper terrain in excess of 15% slope. The northwest portion of the park rises approximately 90 feet and offers an excellent viewing area in three directions. Low areas are flat and poorly drained swamps with somewhat dense to fairly dense wetlands and woodlands. Gently rolling areas have been previously cleared for agricultural purposes and remain as open meadows

with some successional growth occurring. Many wild-flowers, including trillium, Jack-in-the-pulpit, mayapple, and dog toothed violet can be viewed in the spring.

The many ecosystems in the park also provide natural habitats for many species of birds, amphibians, and mammals including, but not limited to: salamanders; newts; chorus frogs, wood frogs, and spring peepers; woodpeckers; chickadees; titmice; wrens; owls; raccoons; squirrels; opossums; rabbits; and deer.

Lake Sixteen has good aesthetic qualities and offers excellent viewing opportunities. The lake is fed from the north through a muck area by Sashabaw Creek. Outflow is directly to the south into Voorheis Lake. One third of the shallow lake is less than five feet deep. The lake bottom is comprised of marl and sand deposits. The eastern shore has a limited sandy beach. Water quality is good and support a variety of fish.

The Master Plan - The master plan that has grown out of this process has been guided by a few key principals. The single element of greatest influence has been the native habitat and the existing conditions of the site. The design works with these natural features in a way that will allow access and enjoyment for the residents throughout the county, while enhancing the native habitat and encouraging non-native areas to return to a more indigenous state.

This will be done through a policy of sensitive site selection, construction using native materials and low impact construction techniques. An example of this will be the use of minimum road widths and no curb and gutter on the edge of the road. Water will drain into open natural swales and then to collection basins in natural low areas that will be planted with native grasses and wetland vegetation that will maintain a rolling natural appearance.

The access paths through the site will be carefully located to minimize their visual impact on the landscape and to maximize the users experience of the native beauty. A system of boardwalks will be used to minimize the impact near the lake edge and wetland areas while allowing access around the lake. A major portion of the site circulation will be left as it is with rolling trails and pathways.

Buildings will be nestled into the woodland edges and constructed of stone and wood in a rustic style reminiscent of the public works era of the great depression. The area around these sites will be revegetated with native plant material. Finally, the plan will delicately balance the natural elements of the park with the need to provide accessible facilities to all age groups.

Clarkston Road Entrance - The main public entrance to the park will be from the north in the same proximity as the existing Clarkston Road Entrance. An entry monument will be constructed of indigenous materials and will be scaled appropriate for a regional park of this size. The main entrance will include a contact station and office for park attendants. The existing wooded wetlands to the east and west will be undisturbed and protected as a natural preserve area. The great meadow to the south will be preserved and restored to its natural state. A parking lot will be nestled into the natural landscape and a rustic pavilion with stone fireplace will be constructed. The park's maintenance facility and yard will be tucked behind the tree line to the west of the entrance.

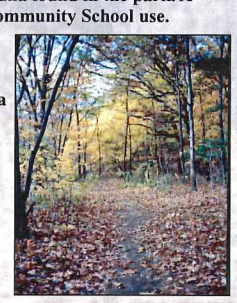
The Great Meadow - The Meadow area will be preserved and will be a dominant feature of the central portion of the park. A 22 ft. wide asphalt road with soft shoulders will circumvent the meadows on the northeastern portion only. The northern and southern portions of the meadow will contain future (Phase II) picnic areas, multi-purpose fields, tot-lots, restrooms, and unobtrusive parking. A paved non-motorized path will be a connecting artery around the edges of the meadow.

The Lower Meadow - A natural footpath and boardwalk will wind its way around the lower meadow and provide connections to other portions of the park.

Bark Park - The existing entrance to the Bark Park from Joslyn Road will be closed and abandoned. A non-motorized trail and roadway will be constructed linking the dog runs to the Great Meadow area and the main entrance to the park. The Bark Park will be extended with an increased dog run area, restroom, picnic area and shelter, and larger parking area. Two dog run areas will be provided to the public on a rotating basis. The main trail to the lake will be improved and maintained. Water fountains will be added for dogs and humans. The area to the northeast of the bark park will be reserved for future and temporary uses.

Day/Youth Outdoor Education Area - A day/youth area will be constructed just east of the existing Moose Tree Nature Preserve. The day camp area can be accessed via a trail from the main entrance of the park. A council ring and small amphitheater will be provided for environmental lectures and group discussions. Interpretive signage will be installed in this area along the trail describing the various ecosystems and animals and fauna found in the park. A limited access trail to the Moose Tree Nature Preserve will be provided for Lake Orion Community School use.

Fossil Hill - The Fossil Hill area will be developed into a first class mountain bike and hike area. By using path separation and limited control points, this area will be able to be experienced by bikers and hikers alike. Dramatic views can be seen in three directions via an observation tower and overlook at one of the high points, just south of Fossil Hill.



Nature Preserves - Trees and woodlands protect the public health: through the absorption of air pollution and contamination, by conserving water quality, by the reduction of noise, provide additional cooling effects in the summer; prevent erosion, siltation and flooding; provide wildlife habitats; and promote the general welfare by maintaining the natural beauty, recreation and education opportunities. Thus, large nature preserves will be maintained throughout the park.

Rustic Theme - Throughout the park there will be soft naturalistic signage, seating areas, and respite stations. Many of the proposed facility improvements will be constructed out of indigenous materials, reminiscent of the park improvements of the 1930's Civilian Conservation Corps (CCC) under the Public Works Administration (PWA).

Native Habitat Restoration /Environmentally Sensitive Storm Water Management - The existence of wildlife in a specific area depends on a number of factors. Wildlife habitat is not just trees, shrubs, grass, weeds or even crops. It is a complex mixture of plant communities and cover types. Existing ecosystems within the park will be further enhanced by careful planting of native materials and good management practices.

The Great Meadow area will be preserved and will be a dominant feature of the central portion of the park. Native landscape restoration will be a consistent theme throughout. Wooded wetlands will become conservation areas. An 100 foot wide wildlife corridor will be introduced along the parks southern boundary adjacent to existing single family homes in areas of the park currently open. Creative solutions will be utilized for the storm water management to minimize and enhance the effect of storm water treatment.

Lake Sixteen - This 91 acre lake has been divided into several usable areas, accessible from various trails throughout the park. Access to the boat launch and accesible fishing pier will continue from the existing Joslyn Road entrance. A dog swimming area, canoe launch, and fishing pier can all be reached from the Bark Park parking lot. Barrier-free access to the western side of the lake can be obtained from the Great Meadow's bike path. An extensive network of boardwalks, covered overlooks, and fishing piers may be provided along the western and southern shore line, if use and demand predicates.

A large portion of the lake is surrounded by wetlands. Wetlands improve water quality by naturally filtering pollutants before they reach a stream, river, or lake. Wetlands also provide critical habitat for fish and wildlife. Most species of freshwater fish are dependent on wetlands as a source of food, as cover from predators, and as a habitat for breeding. Wetland vegetation such as grasses, wild flowers and shrubs should be planted along the banks to filter pollutants in storm water and create cover for wildlife.

Baldwin Nature Preserve - Located outside the main park on the west side of Baldwin Road, this 38.06 acre wooded preserve will be left undeveloped as a wildlife corridor and nature preserve.

12/4/01

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