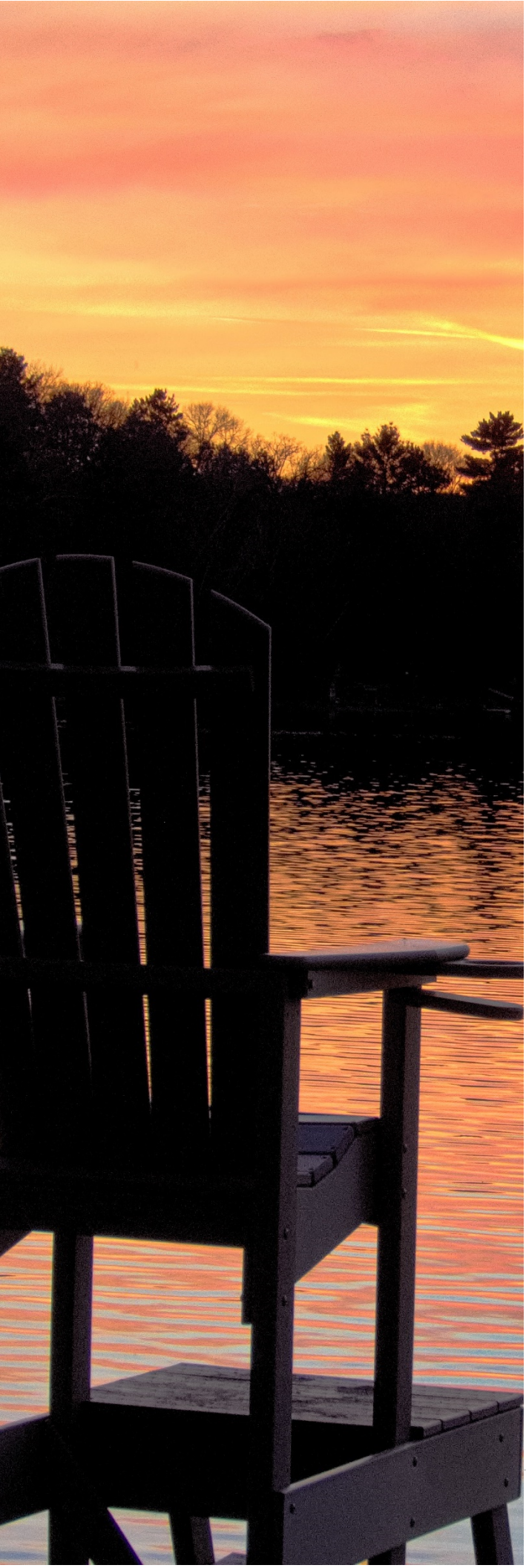

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Appendix I

Park Historical Mapping

Washington County

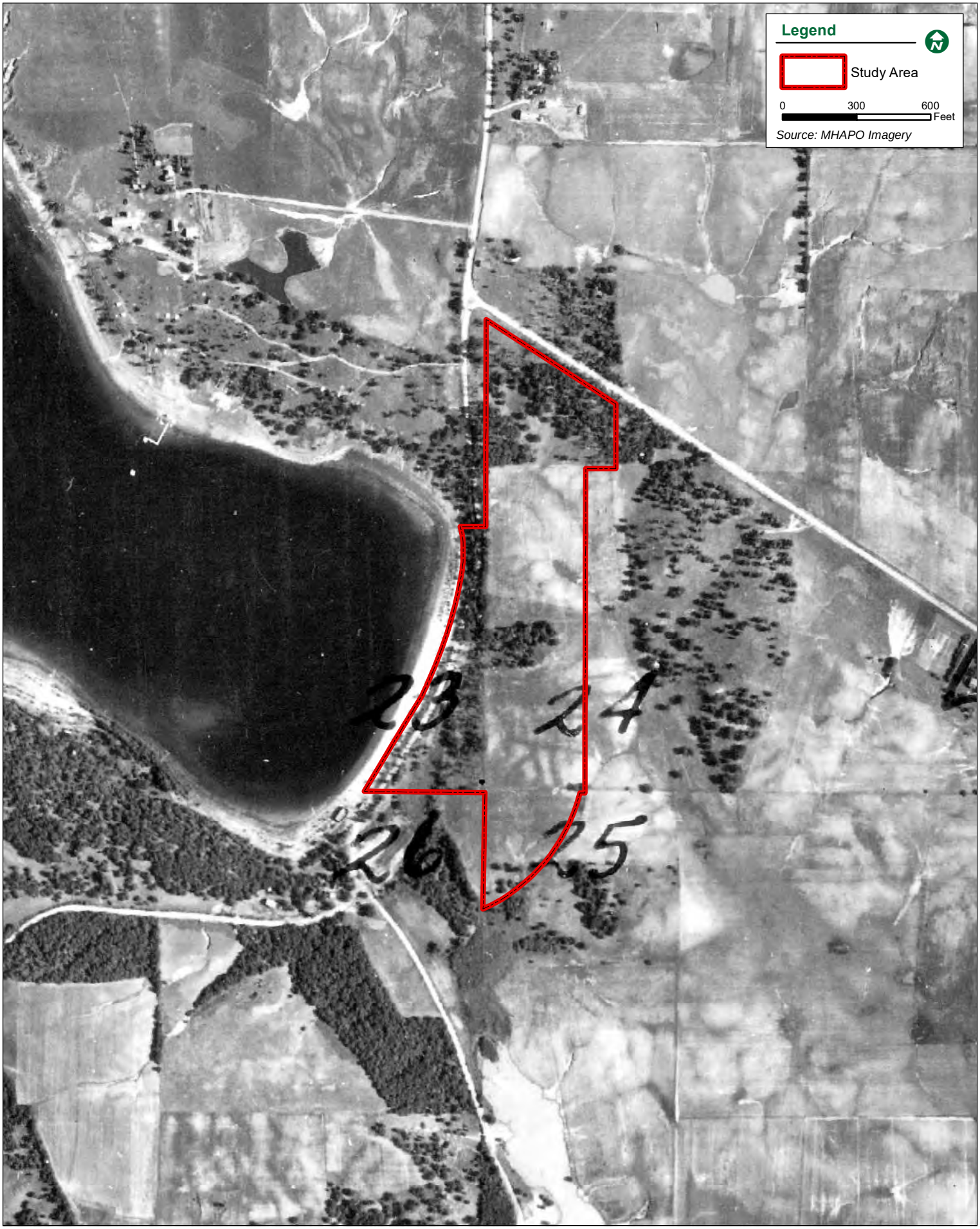
Square Lake Park

May Twp, Washington County, MN

1938 Historical Aerial Map

June 2020

BOLTON & MENK
Real People. Real Solutions.



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Washington County

Square Lake Park

May Twp, Washington County, MN

1957 Historical Aerial Map

June 2020

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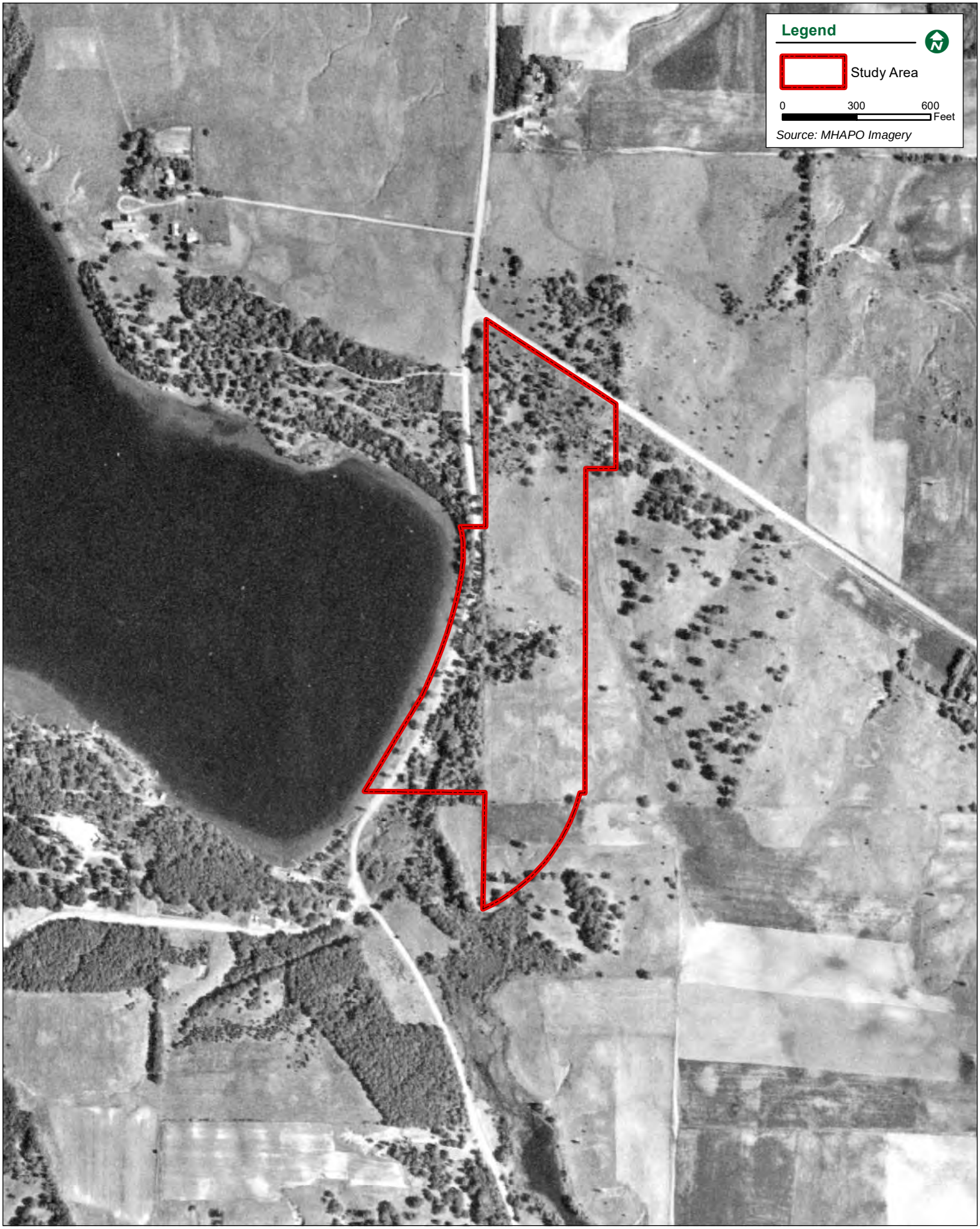

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Washington County

Square Lake Park

May Twp, Washington County, MN

1964 Historical Aerial Map

June 2020

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Washington County

Square Lake Park

May Twp, Washington County, MN

1981 Historical Aerial Map

June 2020

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Washington County

Square Lake Park

May Twp, Washington County, MN

1990 Historical Aerial Map

June 2020

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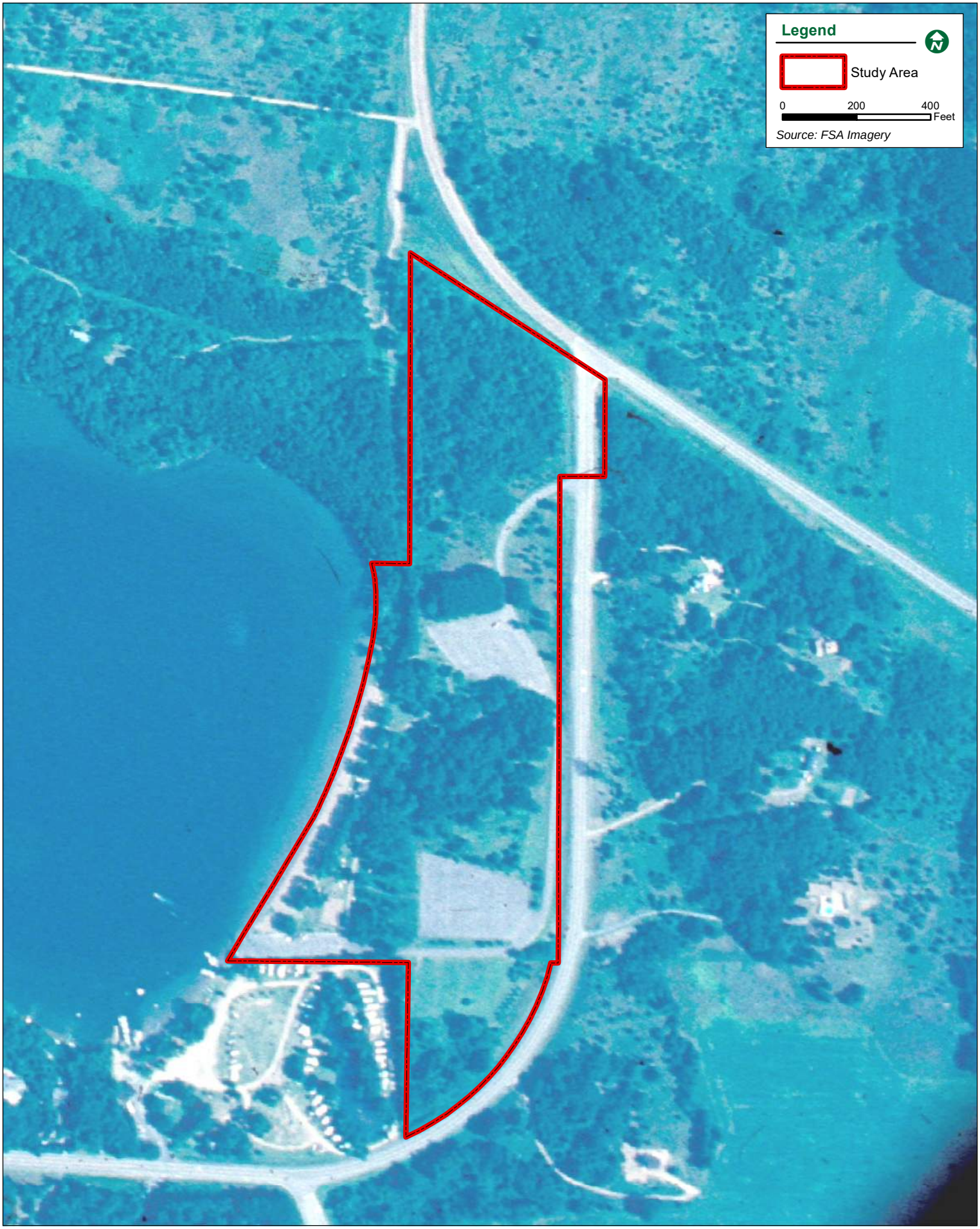

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Washington County

Square Lake Park

May Twp, Washington County, MN

2003 Historical Aerial Map

June 2020

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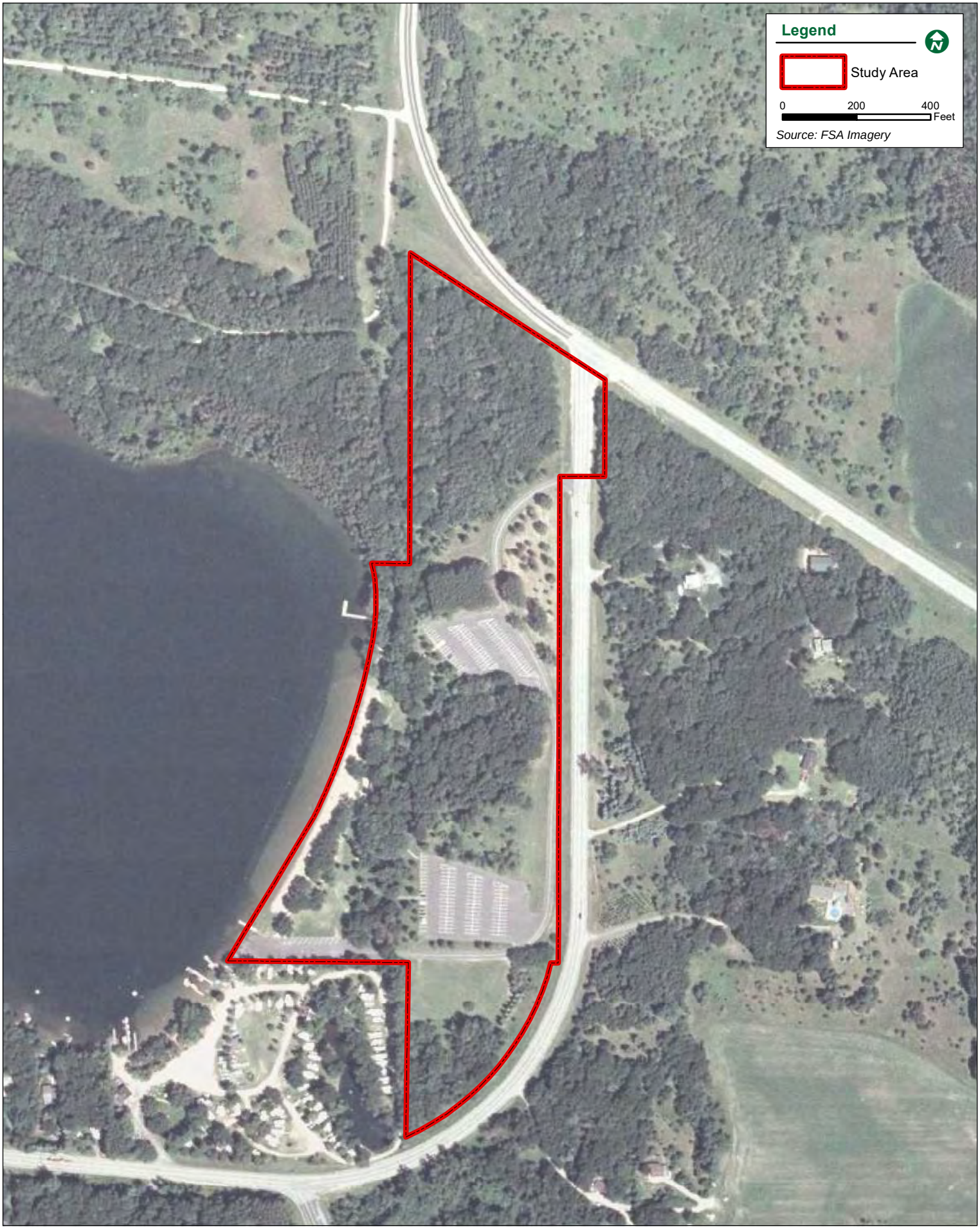

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Washington County

Square Lake Park

May Twp, Washington County, MN

2018 Historical Aerial Map

June 2020

BOLTON & MENK
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Appendix II

Guidance Documents

Square Lake Park Cultural Resource & History Review

History Overview

- A general overview of the prehistory/history of Washington County is provided below.

The precontact period in Minnesota began approximately 13,500 years before present (BP [present defined as 1950]), with the Paleoindian Tradition, which is known primarily through isolated finds of projectile points.[1] This period is associated with the hunting of large game, including the now extinct wooly mammoth, though no occurrence of mammoth skeletal parts in secure association with cultural materials is known in the State.[2] Following the Paleoindian Tradition is the Archaic Tradition, beginning approximately 9,500 BP and lasting until around 2,500 BP. While this is the longest precontact tradition in Minnesota, it is generally defined by what it lacks: the diagnostic point types of the Paleoindian Tradition and the ceramics associated with the subsequent Woodland Tradition. The Archaic Tradition takes place during a time of dramatic environmental and climatic change. Technological changes during this period include the use of ground stone and copper tools and the use of the atl atl, as well as early horticulture of plants such as cucurbits (squash). Following the Archaic Tradition is the Woodland Tradition, a period which marks the advent of pottery and more diversified chipped stone tool types, and an increase in population size and density of the landscape. Exotic materials brought to the region through interaction spheres include obsidian, galena, and shark teeth. Maize horticulture and an increased intensity of wild rice harvesting took place throughout the State based upon environmental and geographic settings.

Prior to European contact in the 1600's the Dakota people lived in the area around Lake Superior; a largely forested region where they lived by hunting, fishing and gathering wild rice[3]. They also participated in limited agriculture, growing corn to the extent possible being at the edges of its growing area. Within this region they were often in conflict with the Chippewa people who also fought to control this region; having been pushed west by the Iroquois when European settlers arrived on the East Coast. The Dakota were driven west into Minnesota once the Chippewa obtained guns from French trappers in the early 1700's. As they migrated west, the Dakota split into three bands: the Dakota, Nakota and the Lakota. The Dakota settled around the Minnesota River basin and continued a way of life similar to their migratory ancestors; while expanding their traditions to encompass a land abundant with fauna and flora; and less competition from warring tribes.

The first intensive presence of non-native North Americans on the landscape began with the French and British fur trades generally, with the French presence in Minnesota beginning in the early 1600s.[4] While the United States' political presence in the territory that would become Minnesota began in 1803, it more appropriately began with the first permanent US military presence: the founding of Fort Snelling in 1819.

In land cession treaties, Native Americans were removed from the territory in which their familial, economic, political and spiritual connections originated. Major land cessations began in 1837 between the US government and the two major indigenous groups in the area: the Dakota and the Ojibwe.[5] By 1851 the Dakota had ceded all of their land in Minnesota in the Treaty of Traverse des Sioux.[6] The Dakota were assured a swath of land, 10 miles wide, on either side of the Minnesota River following the cessations. In 1858, the same year that Minnesota was granted Statehood, an additional treaty allowed for Euro-American settlers to occupy the land on the north side of the Minnesota River. Annuities to the Lower Sioux Agency were delayed in 1862, and a portion of the starving, mistreated, and frustrated Dakota retaliated, leading to the start of the US-Dakota War. Following the war, only a small number of Dakota remained in Minnesota. For all intents and purposes, by 1863 due to the government abrogating all Dakota treaties, it was illegal to be Dakota in the state of Minnesota.[5]

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[1] 2011. *Investigating the Earliest Occupation of Minnesota: A Multidisciplinary Approach to Modeling Landform Suitability & Site Distribution Probability for the State's Early Paleoindian Resources*. Austin A. Buhta, Jack L Hofman, Eric C. Grimm, Rolfe D. Mandel, and L. Adrien Hannus. Archeological Contract Series 248. Prepared by Archeology Laboratory, Augustana College. Prepared for The Minnesota Historical Society.
[2] 1988. *The Prehistoric People of Minnesota*. Elden Johnson. Minnesota Prehistoric Archaeology Series, Minnesota Historical Society, St. Paul, Minnesota.
[3] History of the Dakota Tribes, Thayer Watkins, https://www.sjsu.edu/faculty/watkins/watkins.htm
[4] 1988. *Outline of Historic Contexts for the Prehistoric Period*. Clark Dobbs. Institute for Minnesota Archaeology, Minneapolis.
[5] 1994. *Historic Context: Indian Communities and Reservations 1837-1945*. Scott Anfinson. Available at Minnesota Historical Society.
[6] 1998. *Minnesota: A History*. William Lass. W.W. Norton, New York.

Washington County was part of the Minnesota Territory, as organized in 1849, which predates the Statehood of Minnesota (1858). A Treaty signed in 1837 with the Dakota and a separate Treaty in the same year with the Ojibwe includes the area that is now Washington County.[7]

The history of Washington County generally is tied to the lumber industry, which spurred settlement along the west bank of the St. Croix River valley. The river served as an important way to move both people and goods. Logs were sent downstream from more heavily forested areas and milled at sites such as Marine Mills (Marine on St. Croix) and Stillwater Lumber Company (Stillwater).

Archaeology

- The nearest recorded archaeological sites to Square Lake Park are located to the east and are approximately 1.5 miles away at the nearest point.
- There are approximately 19 sites, including one unconfirmed (alpha) site within a 3-mile radius of the park areas. Sites to the east and generally bordering the St. Croix River are of a variety of types, including sites with recorded earthworks (mounds), sites yielding precontact artifact scatters, and historic sites associated with the historic lumber milling in the area. The historic Marine Mill site is located in Marine on St. Croix.

Washington County Historic Properties

- A review request was made to the State Historic Preservation Office (SHPO) for historic properties that have been inventoried and/or are eligible to or listed on the National Register of Historic Places (NRHP). The response recorded one property listed within approximately one mile of the park areas: Second Congregational Church Monument (WA-MYT-003). The results indicate that there are very few inventoried historic properties/standing structures that exist near the park area.

Swimming Beach History in Minnesota/Washington County

- Swimming beaches and public baths (pools) have a long history in Minnesota. Even before mechanized transportation systems (railroads) in the 1860s and 1870s, Twin Cities residents were traveling to areas such as Lake Minnetonka to engage in recreational activities.[8] An one point in time, electric rail lines (trolley lines) brought riders to destinations well outside the metro area to frequent the amusements constructed by these rail line companies, such as Big Island Amusement Park on Lake Minnetonka.[9]
- The availability of public transportation to reach swimming areas and beaches was a limiting factor for visitorship. Later, those wealthy enough to afford an automobile were the primary users, and/or the locals that resided in close proximity to such areas. As some of the more remote locations of the State were only accessible by car, this served to limit the use of these areas along the lines of economic status.
- In the southern United States, public beaches, municipal pools, and other swimming opportunities were barred to African American individuals historically.[10] In the North, segregation of pools ended in the 1940s to 1950s, but some white users left the municipal pools in favor of private clubs in suburbs.[11] As stated in an article in *American Trails* "Up until very recently in our country the majority of African Americans were not allowed to access National Parks, local parks, pools, campground, beaches, trails, or many other places the same way white Americans have always been able to."[10]

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[7] 2020. Indian Land Cessions in Minnesota. Electronic resource: https://www.arcgis.com/apps/MapSeries/index.html?appid=7f4115b3efa24ed7a0ecc03884695712&fbclid=IwAR2bE99qcG68I7hSwfYUJNNCUEj1C_QKJMLCn9mx6D4rn_mOQMFsOPsBtgo, accessed October 2020.
[8] *Historic Context: Minnesota Tourism and Recreation in the Lake Regions 1870-1945*. Available at the Minnesota State Historic Preservation Office.
[9] 2001. *Picturing Lake Minnetonka*. Minnesota History Magazine article Vol. 57 No. 5. James Ogland.
[10] *Historical Perspectives on Racism in the Outdoors and Looking Forward*. American Trails article June 8, 2020. Electronic resource: https://www.americantrails.org/resources/the-arch-of-history-is-long-but-it-bends-towards-justice, accessed November 2020.
[11] *Why don't black Americans swim?* BBC News article September 3, 2010. Finlo Rohrer. Electronic resource: https://www.bbc.com/news/world-us-canada-11172054, accessed November 2020.

- Swimming beach on St. Croix River, Bayport, Washington County – 7/7/1925[12]

- Swimming beach on St. Croix River, Bayport, Washington County – 7/7/1925[13]

Boy Scout Camp at Square Lake

- A boy scout camp was present at Square Lake from 1918 to 1937.[14] Oak Point Camp on Square Lake represents the first property purchased by the St. Paul Council. Until this time, scouting councils did not acquire permanent property but rather set up temporary camps adventitiously on undeveloped lands. Oak

[12] MnHS Collections Online. *Swimming beach on the St. Croix River, Bayport*. Dated 07/07/1925. Electronic resource: http://collections.mnhs.org/cms/display?irn=10682322&return=q%3Dswimming%2520beaches, accessed October 2020.
[13] MnHS Collections Online. *Swimming beach on the St. Croix River, Bayport*. Dated 07/07/1925. Electronic resource: http://collections.mnhs.org/cms/largerimage?irn=10078122&catirn=10682317&return=q%3Dswimming%2520beaches, accessed October 2020.
[14] Northern Star Council website on Wikiwand. Electronic resource: https://www.wikiwand.com/en/Northern_Star_Council#:~:text=Oak%20Point%20(Square%20Lake)&text=Paul%20Council%20was%20on%20Oak,Lake%20Camp%22%20by%20the%20campers., accessed October 2020.

Point Camp, referred to as Square Lake Camp by the scouts, was established in 1918 but proved to be too small a space, and when severely damaged by a storm in 1937, the camp was officially closed.[14]

- Boy Scouts at Square Lake Camp, Approximately 1930[15]

- Boy Scout troop going to Square Lake Camp in horse-drawn wagon, 1918[16]

- Ramsey County Boy Scouts building a signal tower at Oak Point Camp on Square Lake, 1924-1927[17]

[15] MnHS Collections Online. *Boy Scouts at Square Lake Camp*. Dated Approximately 1930. Electronic resource: http://collections.mnhs.org/cms/display?irn=10696626&return=q%3Dsquare%2520lake, accessed October 2020.
[16] Hathi Trust Digital Library. *Boy Scout troop going to Square Lake Camp in horse-drawn wagon*. Dated 1918. Electronic resource: https://catalog.hathitrust.org/Record/011376420, accessed October 2020.
[17] Hathi Trust Digital Library. *Ramsey County Boy Scouts building a signal tower at Oak Point Camp on Square Lake*. Dated 1924-1927. Electronic resource: https://catalog.hathitrust.org/Record/011376492, accessed October 2020.

- Tents at Square Lake Boy Scout Camp, 1918[18]

- Flag drill at Square Lake Boy Scout camp, 1918[19]

[18] Hathi Trust Digital Library. *Tents at Square Lake Boy Scout Camp*. Dated 1918. Electronic resource: https://catalog.hathitrust.org/Record/011376422, accessed October 2020.
[19] Hathi Trust Digital Library. *Flag drill at Square Lake Boy Scout camp*. Dated 1918. Electronic resource: https://catalog.hathitrust.org/Record/011376421, accessed October 2020.

Geology and Landscape

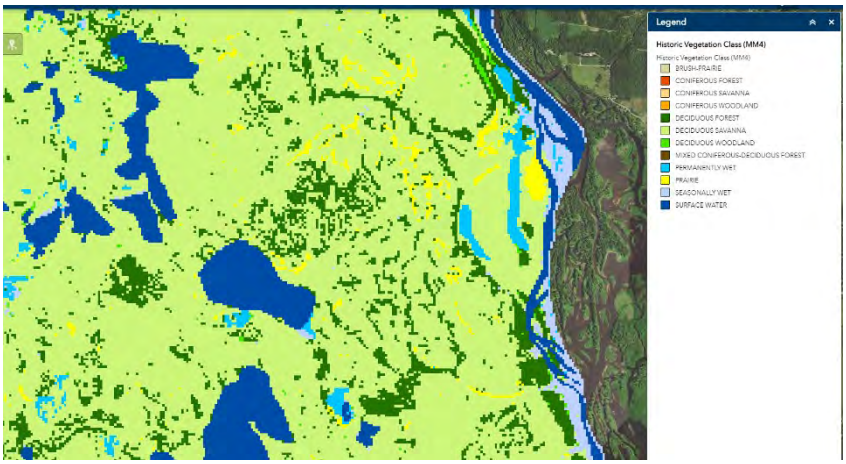
- The St. Croix river region's geology represents millions of years of geologic and hydrogeologic activity. Approximately 500 million years ago the area that now holds Square Lake in Washington County was covered by a shallow sea that deposited sand when coupled with extreme compression formed the sandstone of the region.[20] More recent glacial presence, pressure, and receding, approximately 33,000 to 14,000 years ago, shaped the river valley. The subsequent flow of water over thousands of years also served to carve out the St. Croix River valley seen today.
- Bedrock geology in this part of Washington County is comprised of Upper Cambrian materials.[21] The entirety of the Square Lake are is underlain by sandstone to siltstone, with the Tunnel City group in the eastern portion of the general lake area, and Jordan Sandstone to the St. Lawrence Formation in the western portion. Bedrock is generally deeply buried by sediments associated with Late Pleistocene Superior lobe deposits, generally sand to gravels that are over 100 feet in thickness.[21] The area immediately surrounding the lake has a more recent surficial geological history, dating to the Holocene period, and is comprised of sand, clay, and silt.[21]
- The landform of the Square Lake area is a Plain within a landscape of a Collapsed Outwash Plain.[22]
- An early Government Land Office (GLO) map of the area from 1848 shows that there used to be wet areas, presumably wetlands, south of the lake and that a stream and associated slough/wet area was located at the southeastern corner of the lake.[23] The lake and surrounding landscape would have provided aquatic resources to past inhabitants.

[20] 2012. *Time and water: A lesson in St. Croix River geology*. Article in St. Croix 360 dated November 29, 2012. Electronic resource available at: https://www.stcroix360.com/2012/11/time-and-water-a-lesson-in-st-croix-river-geology/, accessed October 2020.
[21] 2016. *C-39, Geologic Atlas of Washington County, Minnesota*. University of Minnesota & Minnesota Geological Survey. Electronic resource available at: https://conservancy.umn.edu/handle/11299/178852, accessed October 2020.
[22] 2019. *MnModel Phase 4: Project Summary and Statewide Results*. Elizabeth Hobbs. Electronic resource available at: http://www.dot.state.mn.us/mnmodel/phase4-report/predictivemodelsmmp4.pdf, accessed October 2020.
[23] 1848. Government Land Office Map of Township 31N, Range 20W. Electronic resource available from MnGEO: https://resources.gisdata.mn.gov//pub/data/basemaps/glo/Washington/LowResolution/t031r20w4fi01.pdf, accessed October 2020.

1848 GLO Map

Ecology and Natural Resources

- The St. Croix River is a Minnesota State Water Trail.[24]
- Past animal resources in this region (SHPO region 4e – Central Lake Deciduous East) would have included white-tailed deer, bear, beaver, and moose. Given the plentiful lakes, fish and waterfowl would have been abundant. Wild rice is plentiful throughout the region, and acorns would also have been available.[25]
- At the time of European encroachment into the area, the landscape would have been one of Deciduous Savanna, interspersed with Deciduous Forest and small concentrations of Prairie, as mapped by Francis J. Marschner.



[24] 2020. *St. Croix River State Water Trail*. MnDNR Website. Electronic resource: https://www.dnr.state.mn.us/watertrails/stcroixriver/index.html, accessed October 2020.
[25] 2002. MnModel Chapter 3: Minnesota's Environment and Native American Culture History. Guy Gibbon, Craig Johnson, and Elizabeth Hobbs. Electronic resource: https://www.dot.state.mn.us/mnmodel/P3FinalReport/chapter3.html#ch344, accessed October 2020.

Historic Aerial Imagery Reveals Landscape History

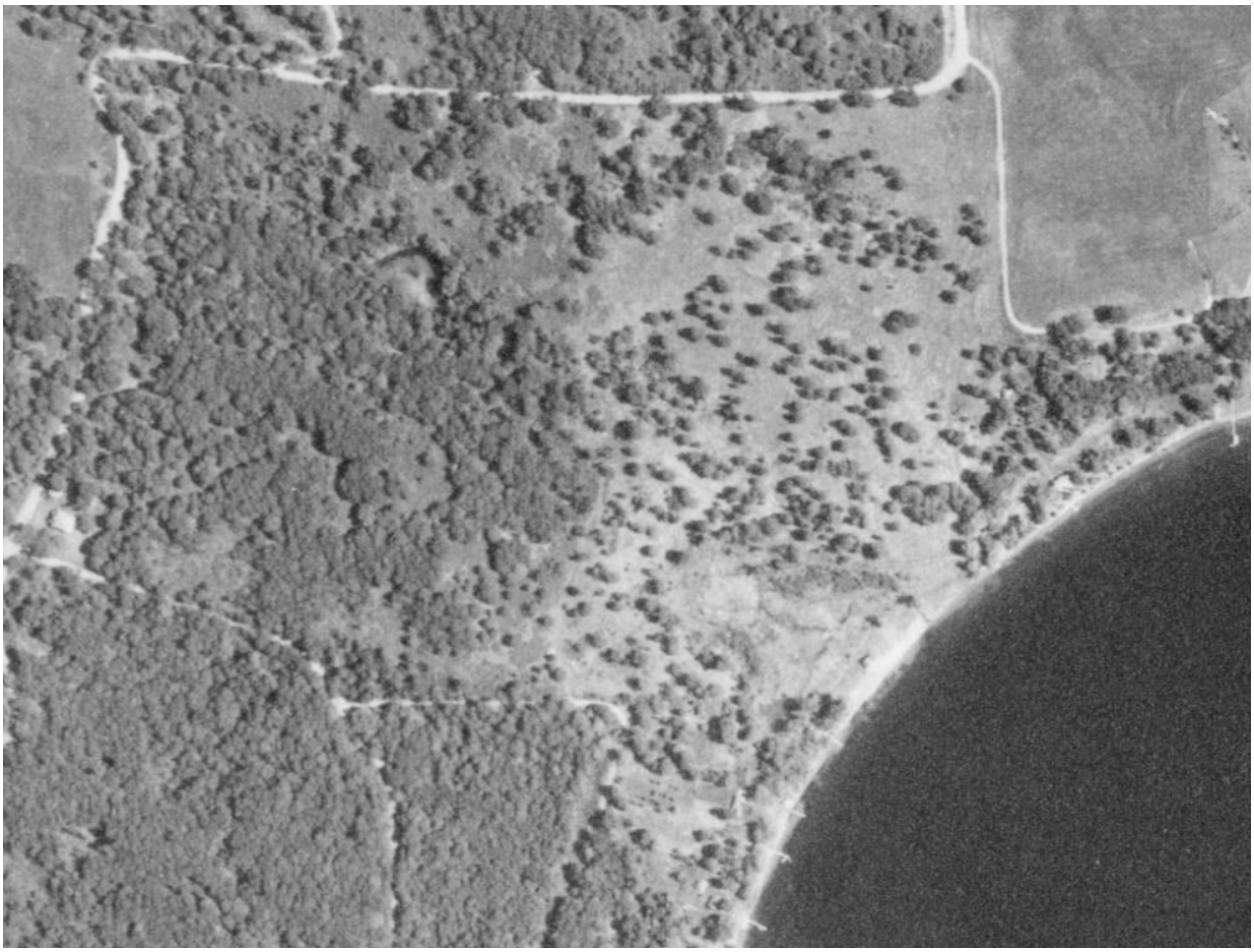
1938 Aerial Imagery

1938 - 25 acre parcel SE

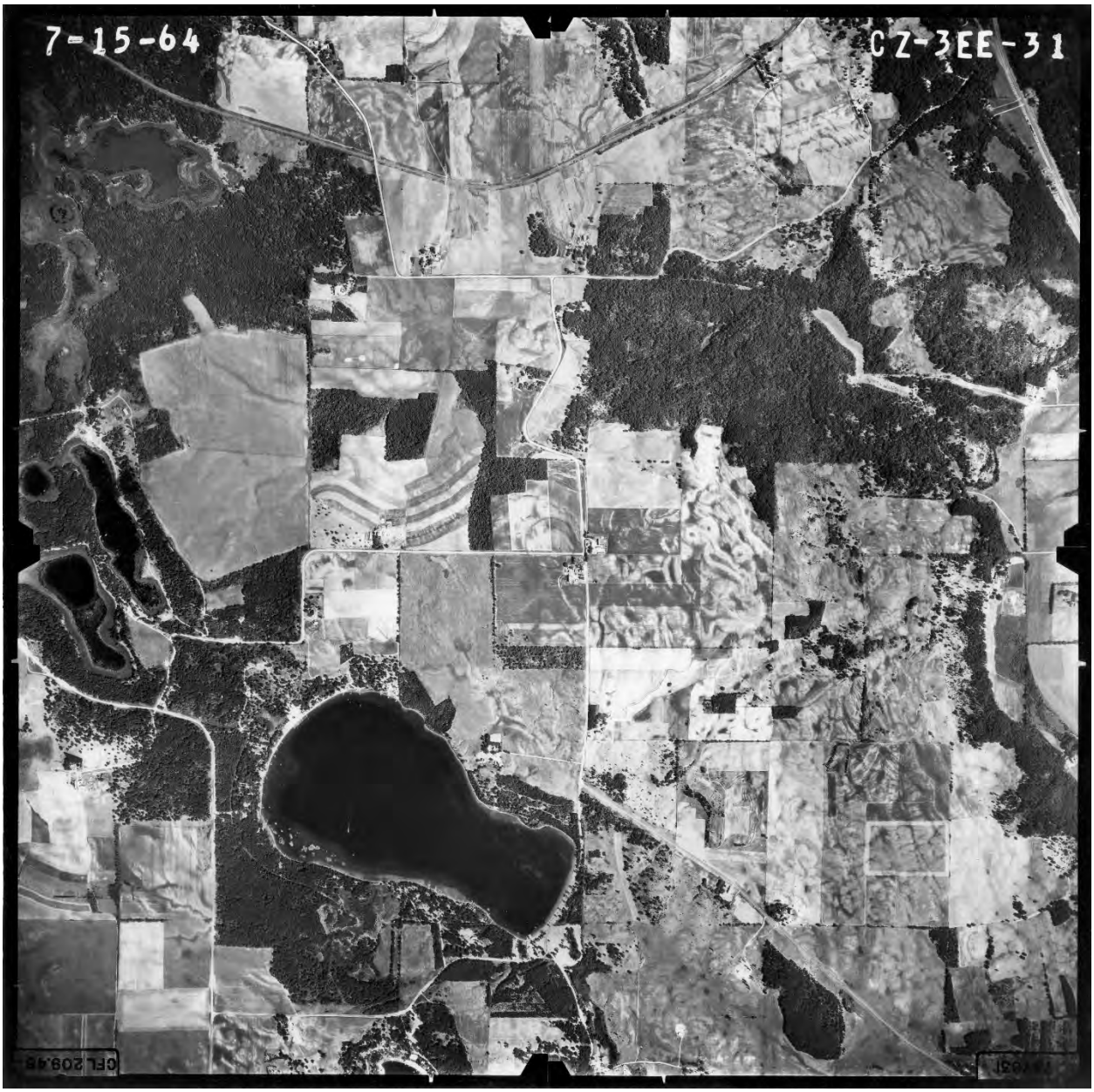
1938 - 55 acre parcel NW

1957 Aerial Imagery

1957 – 25 acre parcel SE



1957 – 55 acre parcel NW



1964 Aerial Imagery

1964 – 25 acre parcel SE

1964 – 55 acre parcel NW

SQUARE LAKE PARK

BEACH BUILDING AND CONCEPTUAL SITE PLANS

A Summary Of The Square Lake Park Planning Advisory Committee Findings.

WASHINGTON COUNTY

SQUARE LAKE PARK

PLANNING ADVISORY COMMITTEE:

Rod Hale, Park and Open Space Commission

Paul Haugen, Resident, May Township

Ron Holt, Resident, May Township

Jan Krentz, Resident, May Township

Kathy LaBonne, Resident, May Township

Rich Leistico, Park and Open Space Commission

Jim Seidl, Supervisor, May Township

COMPLETED AND PRESENTED
TO THE WASHINGTON COUNTY
BOARD OF COMMISSIONERS
BY THE DIVISION OF PARKS
DEPARTMENT OF PUBLIC WORKS
APRIL 2, 1990

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LIST OF FIGURES

INTRODUCTION

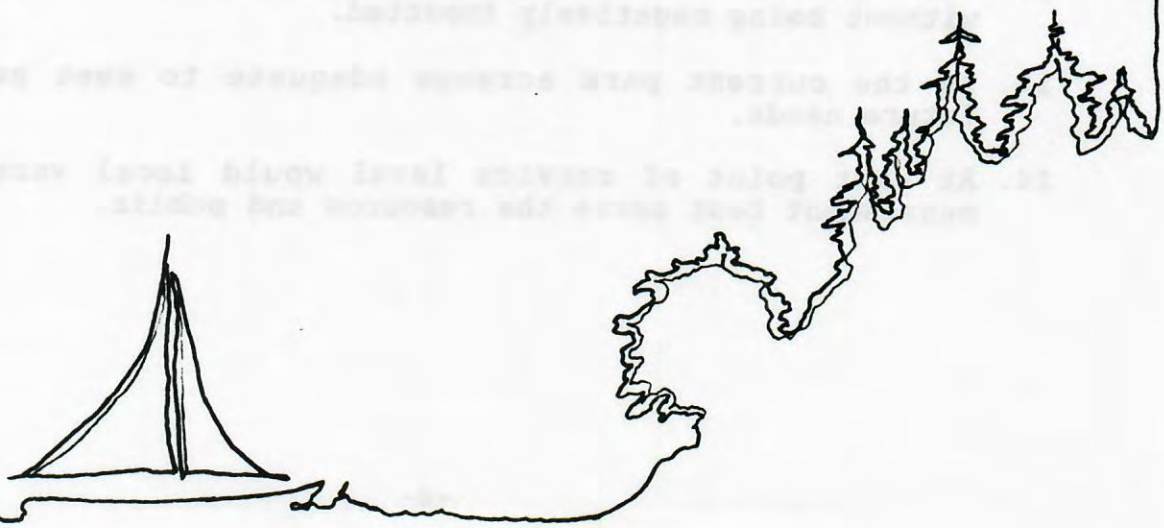
Square Lake Park is well-known for its public beach, picnicking areas and boat launch, not only locally but countywide as well as regionally. For more than 20 years, the park has served the public providing access to one of the finest lakes in the metropolitan area. Countless numbers of people have swam, picnicked and fished at the park benefiting from its excellent natural resources.

In an effort to preserve the unique resource and provide for a continued unrivalled experience, the Washington County Board of Commissioners authorized the Parks Division to prepare a site plan for a new beach building at Square Lake Park. The project was to include review of the existing site, establishment of plan concepts and specifically, to recommend a location for the proposed new beach building.

The scope of the project program includes determination for the location of the proposed beach building, support and complementary activities, and review of the adjacent Golden Acres Resort as a potential addition to the park because of its possible impact on the beach building location.

The goal is to ensure that the park continues to serve the needs of future generations by replacing the existing beach building and modifying current park use to accommodate present and future needs.

Planning Process



PURPOSE

This plan documents the analysis of the park, including visitor needs, the current condition of the park, its facilities and potential user capacity; this synopsis makes recommendations for improvements in these areas.

A number of issues were raised that must be addressed if the park is to continue to meet local and county needs in a safe and expeditious manner:

1. Beach building is seriously deteriorated and the septic system odors are unacceptable.

2. Family picnic opportunities limited to nonexistent.

3. Facilities for small group picnics are not available (50 to 100 users).

4. Limited space for public activity between the beach building and shoreline.

5. Power boats launched from the current boat launch presents a potentially dangerous conflict to scuba divers and swimming beach users.

6. Support activities are severely limited, such as play structures, volleyball, etc.

7. Accessibility for the handicap needs to be improved.

8. Public accessibility from the parking lots to the beach area needs improvement.

9. Parking is inadequate in location and number available.

10. All development must totally protect against any negative change in water quality to the lake.

11. Enforcement of water surface regulations is inadequate.

12. What activities and numbers of people can the park handle without being negatively impacted.

13. Is the current park acreage adequate to meet present and future needs.

14. At what point of service level would local versus county management best serve the resource and public.

CITIZEN PARTICIPATION

The Square Lake Planning Advisory Committee was a citizen advisory group who played an important role in development of the conceptual site plan and proposed beach building location.

Public discussion, input and comments were necessary to establish needs, refine issues and attain a general consensus. While various interests were expressed during the planning process, the plan did emphasize the general good and welfare of the county and local area.

The committee was composed of representatives from the local unit of government, Washington County Parks & Open Space Commission, Square Lake Association and local citizenry.

Meetings were held to discuss site resources, develop concepts and solicit comments from the Advisory Committee.

To encourage and solicit public comment on the Square Lake Park Planning Advisory Committee findings draft, a public meeting was held on February 21, 1990, 6:00 p.m. at the Public Works building. Prior to the meeting, a news release was sent to all Washington County news agencies announcing the date, time and location of the meeting.

At the meeting, copies of the Square Lake Park Planning Advisory Committee findings draft were distributed and staff discussed the planning process, goals and objectives and design alternatives. The public participated in a question and answer session with several of the comments being incorporated into the final document.

PLANNING PROCESS

The intent of the Square Lake Park Site Plan planning process was to determine the future location of the proposed beach building and to secondly, create through planning and public participation a conceptual plan for the park which reflects the relative importance of specific goals, park elements, and park activities.

The Square Lake Park planning process followed a basic outline for a Work Plan which illustrated the various steps that need to be completed to arrive at an acceptable solution.

The two documents produced herein, as a result of this process were the conceptual site plan showing the proposed beach building location and secondly, the advisory committee's findings.

GOALS & OBJECTIVES

One of the tasks of the planning process was to develop goals and objectives which would assist in the design process. These goals and objectives are driven by site needs/issues. These goals and objectives recognize the need to improve existing facilities, provide support activities and reduce maintenance where there are conflicts with the natural setting; they establish guidelines for the implementation of these improvements.

1. GOAL - Adopt a design philosophy which will create a park atmosphere which reinforces and retains the unique character, and natural resources of Square Lake Park.

2. GOAL - Provide adequate support facilities.

   Objectives

   a. Provide play structure for children that is accessible to both beach and picnic areas.

   b. Provide horseshoe pits

   c. Provide a concession

   d. Provide volleyball pit

   e. Provide open field area

3. GOAL - Construct beach building facility.

   Objectives

   a. Provide a modern up to date structure similar to the existing beach building at Lake Elmo Park Reserve.

   b. Develop a site design that locates the proposed beach building in an unobtrusive manner, and preserves the current character of the site.

   c. The location of the beach building should complement the beach and should be readily accessible to all users.

4. GOAL - Improve beach area

   Objectives

   a. Widen beach where possible.

   b. Define beach from mowed areas with a maintenance free walkway.

5. GOAL - Provide play structure

Objectives

a. Locate so that it does not conflict with beach use but rather complements it.

b. Locate within easy walking distance of beach, picnic and bathroom facilities.

c. Do not locate adjacent to parking, as it is not to compete with the primary park focus (water use) but rather complement it.

6. GOAL - Create a more functional picnicking system.

Objectives

a. Provide for a facility that will accommodate various size groups of from 50 to 100.

b. Provide easily accessible and usable picnic sites.
c. Provide activities and space within the picnic area to enhance the experience.

7. GOAL - Improve and expand where possible on active use, without sacrificing park character and aesthetics.

Objectives

a. Develop a land use of lakeshore that takes full advantage of what the lake has to offer.

b. Improve and expand on existing facilities and programs in the beach area.

c. Develop land area for pedestrian space at lakeshore.

d. Protect on lake quality by working with water quality boards (state, metro) to review plans.

e. Provide circulation links between major focal points.

8. GOAL - Provide Adequate Parking.

9. GOAL - Improve handicap accessibility.

Objectives

a. Locate parking near activity areas

b. Provide hard surface pathways from parking to focal points.

10. GOAL - Provide a diversity of activities for park users.

Objectives

1. Provide accessibility for handicapped, over and above code.

2. Enhance scuba diving opportunities

3. Provide for the following activities:

Beach Activities
Sitting
Concessions
Sunbathing

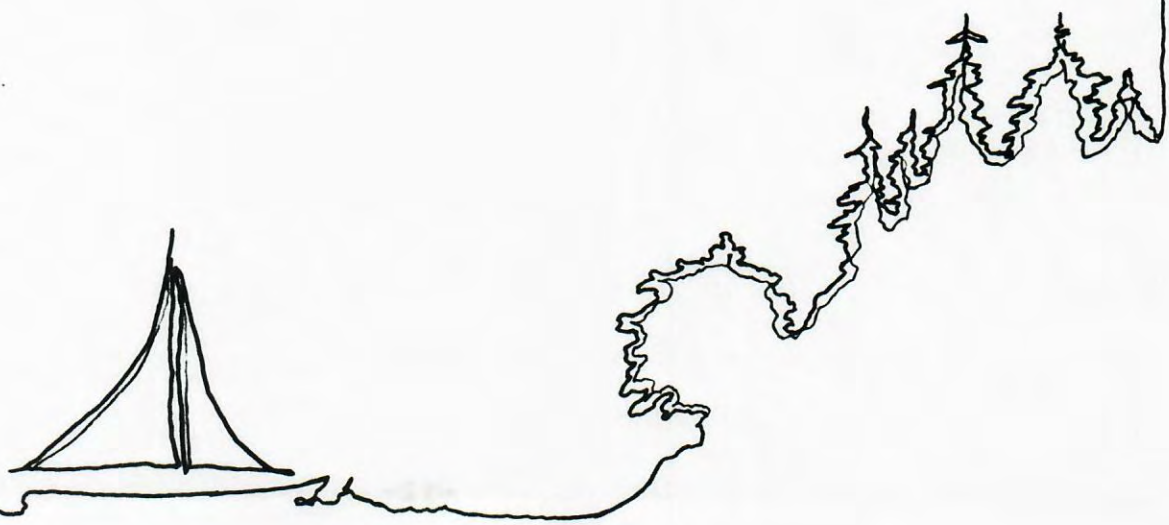
Lake Oriented Activities
Swimming
Viewing
Scuba Diving
Pier Fishing
Wind Surfing
Boat Launch

Picnic Activities
Small Group
Family
Blanket
Play structure
Volleyball
Horseshoes
Hiking/Walking
Unorganized Open Space

Winter Activities
Ice Fishing
Scuba Diving
* Ice Skating

* Should the park provide winterized toilets or a warming house to accommodate potential winter activities?

Analysis



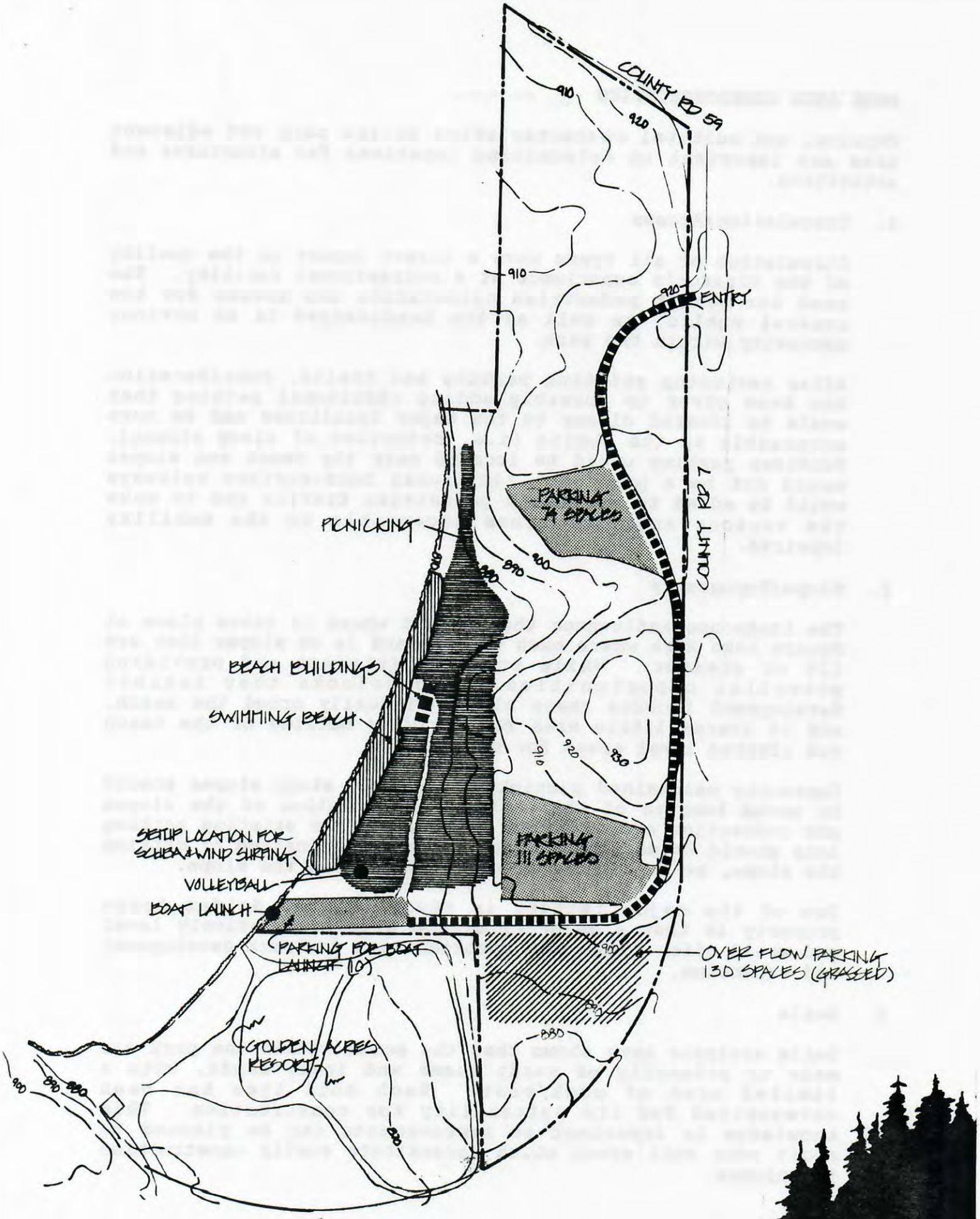
VISITOR NEEDS AND DEMANDS

Square Lake Park being situated on an excellent resource, draws large numbers of people from outside Washington County. The popularity of the park stems in part from the fact that other quality lakes of this type do not occur in the metropolitan area.

A user survey conducted by the Washington County Park staff in 1987 and 1989 found that 60 percent of Square Lake users come from outside of Washington County. The close proximity to population centers and the special nature of the facility all make it an attractive recreation area for local, county and regional residents.

While the park is adjacent to a pristine lake and heavily wooded, it provides a limited number of parking spaces and very few support activities, e.g. picnicking is very limited.

The existing beach building is substandard and much effort is devoted to the maintenance of the building. The building receives exceptionally heavy use, and based upon deteriorating building conditions, unacceptable sanitary sewer system, a new beach building should be constructed.



SQUARE LAKE PARK **Existing Use** **FIGURE 1**

PARK AREA CHARACTERISTICS

Physical and cultural characteristics of the park and adjacent area are important in determining locations for structures and activities.

1. Circulation/Access

Circulation of all types have a direct impact on the quality of the visitor's experience at a recreational facility. The need for better pedestrian circulation and access for the general public, as well as the handicapped is an obvious necessity within the park.

After reviewing existing parking and trails, consideration has been given to possibly adding additional parking that would be located closer to the major facilities and be more accessible to the public (i.e. reduction of sleep slopes). Handicap parking would be located near the beach and slopes would not be a problem. Additional hard-surface walkways would be added to delineate pedestrian traffic and to make the various activity areas accessible to the mobility impaired.

2. Slope/Topography

The landscape influences the use and where it takes place at Square Lake Park where much of the land is on slopes that are 12% or greater. While creating interest and providing potential opportunities for overlooks they inhibit development because these slopes virtually crowd the beach, and it leaves little area for activity outside of the beach and limited level areas for picnicking.

Currently maintained picnicking areas on steep slopes should be moved because of the obvious deterioration of the slopes and compaction around trees. Walkways from existing parking lots should be more carefully designed and instead of cutting the slope, be re-sighted to move parallel to the slope.

One of the major factors in reviewing the Golden Acres property is that a majority of the site is relatively level and would offer tremendous opportunities for park development and expansion.

3. Soils

Soils analysis have shown that the soils within the park are made up primarily of sandy loams and loamy sands, with a limited area of muck/peat. Each soil type has been categorized for its suitability for construction. This knowledge is important so improvements can be planned to avoid poor soil areas which necessitate costly construction techniques.

The seven different soil types found in Square Lake Park have been rated to determine whether there are slight, moderate, or severe limitations for specific development. In this case, "Development means either building or road construction".

The area of soils that are not suitable for construction occur primarily in the level areas adjacent to Square Lake.

4. **Vegetation**

The park is heavily wooded over fifty percent of its area with forty percent of that cover having dense undergrowth. The tree cover consists predominately of bur and red oaks with birch, ash and aspen also being present. Several red pine plantations occur adjacent to the existing parking lots.

Pine plantations on adjacent private land are equally important in creating the unique setting and atmosphere of the park and every effort should be made to see that they are not changed.

Plant material introduced into the open areas and near the park entrance are eastern red cedar and scotch pine.

Consideration should be given to rejuvenation of trees in the existing picnic areas where age and wear are starting to have a negative effect on trees. This can be accomplished by reducing or eliminating use in heavily impacted areas and by introducing species that will accept heavy use.

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Square Lake, reputed to be one of the highest quality lakes in the metropolitan area, is the most dominant feature in or adjacent to the park and provides the focus for the park.

High water does not seem to be a factor for development as there is an outlet control structure that drains the lake. Being spring fed with no major surface recharge sources other than localized sheet drainage, low water in an extended drought period could be a problem.

According to recent water quality tests, the lake water quality has in fact improved from 1987 to 1989. As the park is improved, concern should be given that the septic drain field be located away from the lake as much as possible and that hard surface run-off not be directed to the lake without some filtering process for settling out pollutants.

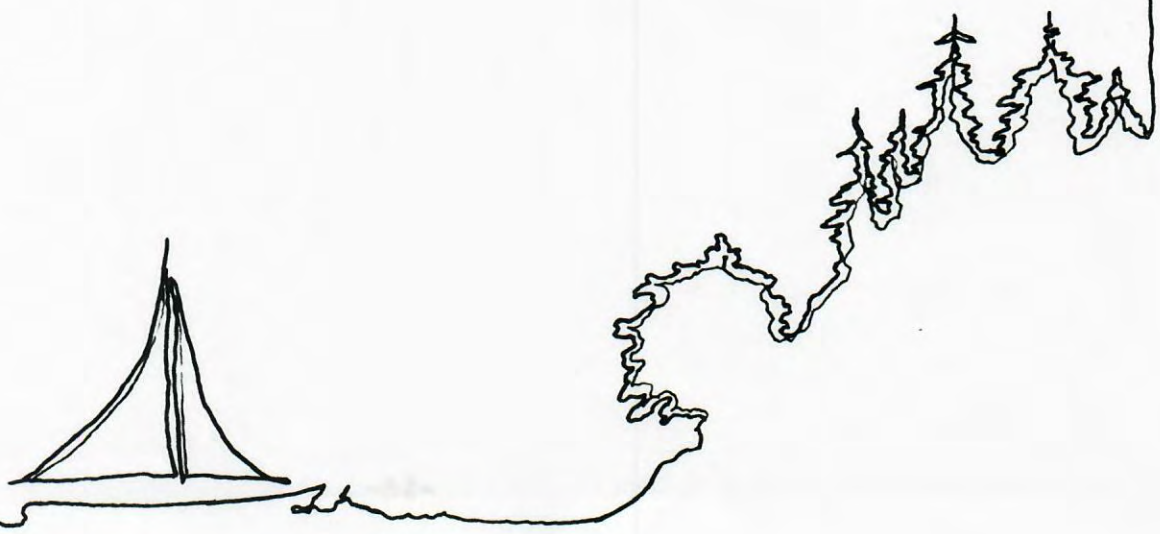
Drainage of the park is primarily sheet, although there is one large ravine that virtually bisects the park. In the past the ravine has been subject to erosion problems. Consideration should be given to eliminate use in this area so as not to create a potential problem.

6. Use and Existing Development

Use within the existing park focuses primarily on the approximately 775 linear feet of beach, with an additional two acres of picnic area of which approximately 40 percent is on steep slopes. There is one volleyball area, but no other structured activities and there is a boat launch with ten parking spaces to service it. Two large paved parking lots with 185 parking spaces are located on the high ground east of the beach, there is also a mowed overflow area which services another 70-80 cars.

Adjacent land use varies from commercial to agricultural preserve. The commercial property is Golden Acres and consists of a permanent residence that also functions as a refreshment stand; individual campsites with hookups, rental boats and a boat launch.

Concepts

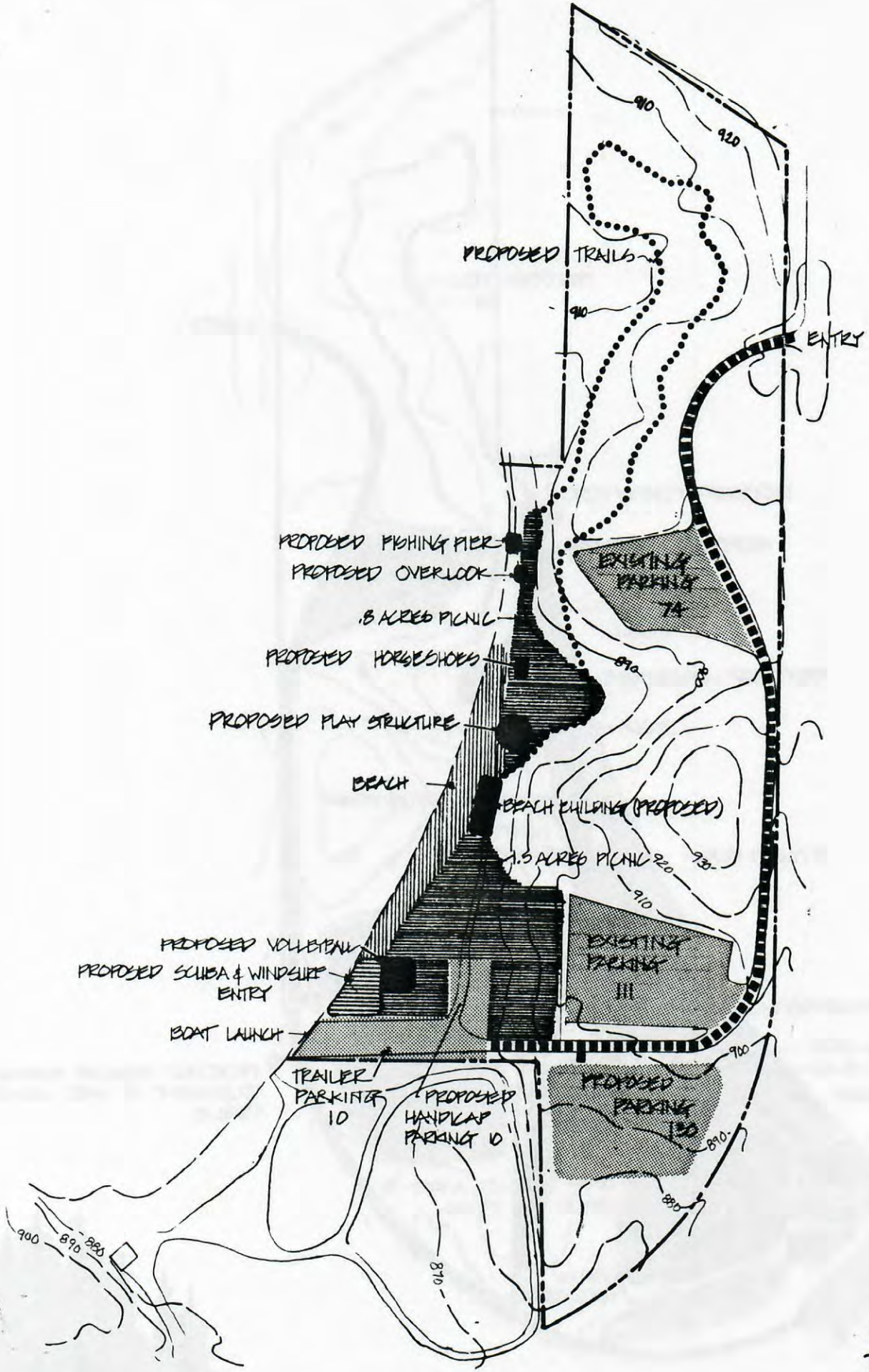


CONCEPTS

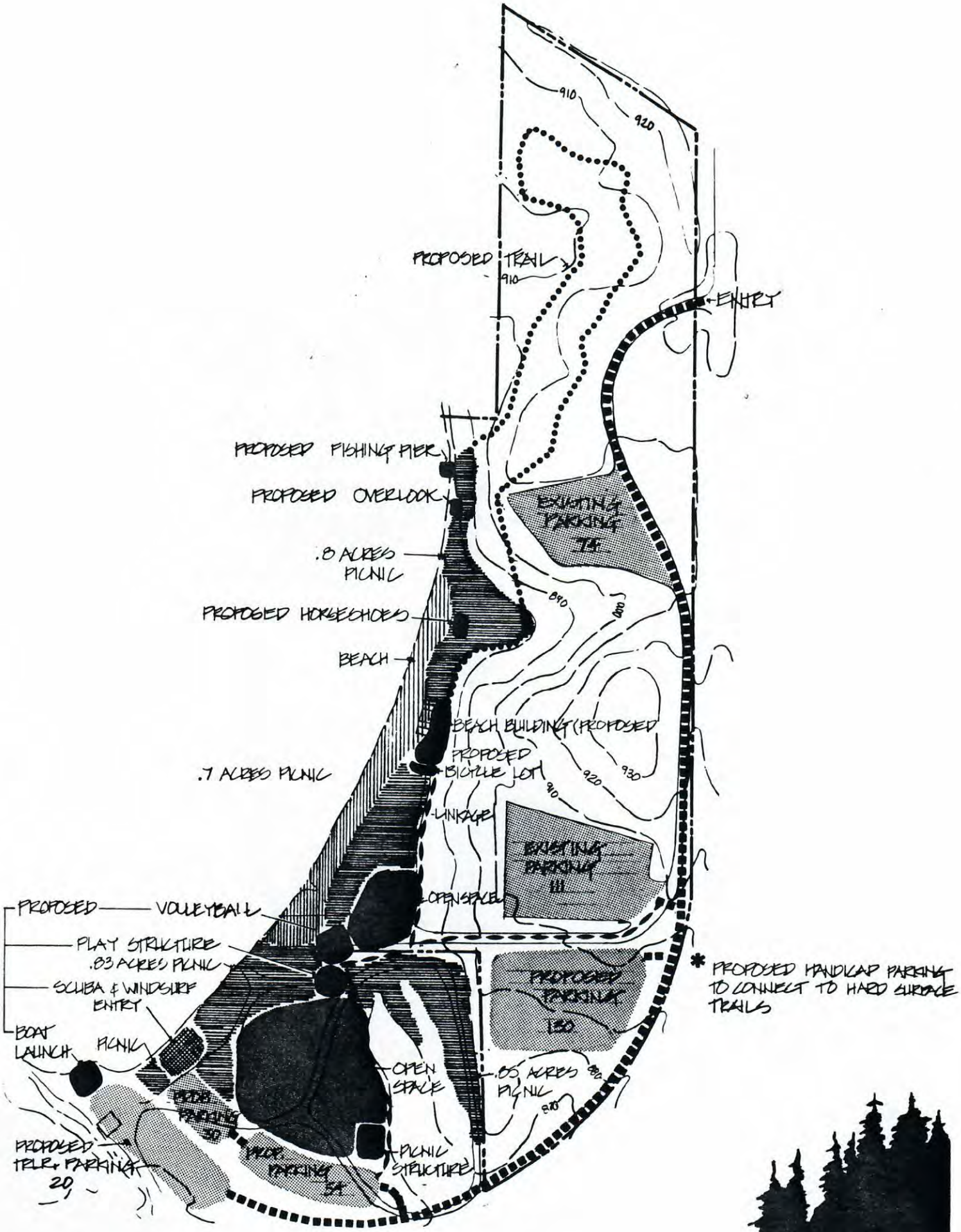
The primary task was to select a location for the new beach building within the existing park boundary; secondly, to select a location for a new beach building if the Golden Acres property was included within the park.

In order to establish a location for the beach building, the committee and staff were given the opportunity to develop several alternatives. Based on previous information, these alternatives not only showed the potential building location but also other facilities and activities which could possibly be part of a final site plan.

Upon review of the various committee as well as staff conceptual plans the present beach building location met with common support. Whether the design was based upon the current park boundary or included the Golden Acres Resort property, the favored location was the same general location of the existing beach building.

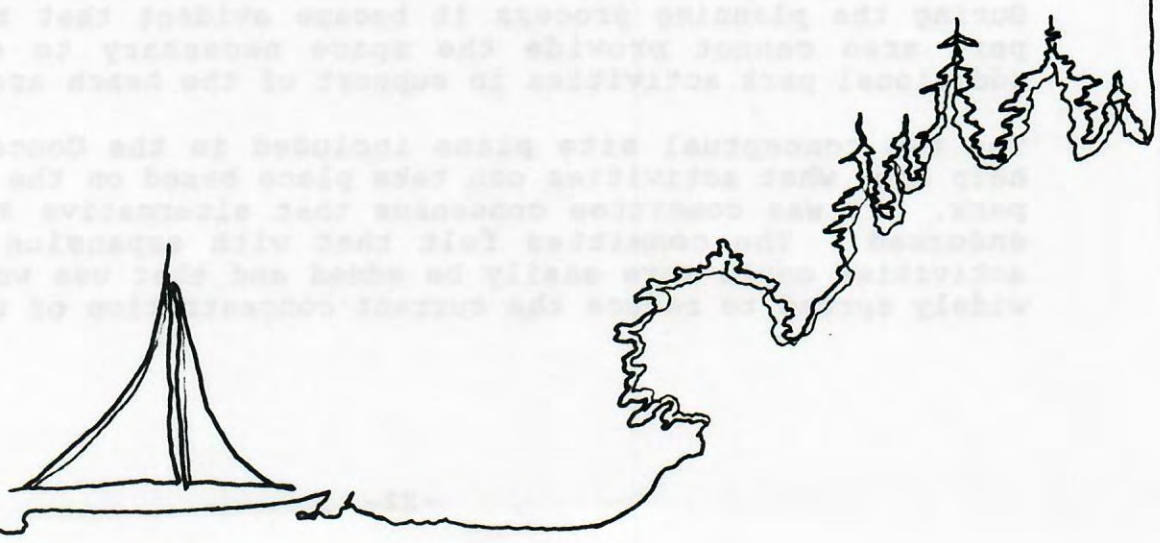


SQUARE LAKE PARK **Alternative 1** **FIGURE 2**



SQUARE LAKE PARK **Alternative 2** **FIGURE 3**

Summary



SUMMARY

The primary purpose of this planning process was to determine the future location of the proposed beach building and secondly to consider additional activities which would add to the users experience at Square Lake Park. Part of this process was to determine that if the Golden Acres Resort property was owned by the County would it impact the location of the beach building.

At the present time the Metropolitan Council identifies Square Lake Park as regionally significant. Yet, for Square Lake Park to become a regional park would require a minimum of 100 to 150 acres. As a regional park, Square Lake Park would be eligible for funding for acquisition and development through the Metropolitan Council. All policies, rules and regulations governing park use would continue under the control of Washington County.

As the committee progressed through the planning process they addressed issues that are impacting the park i.e., beach building is seriously deteriorated and the septic system odors are unacceptable. Several issues that kept surfacing during the planning process but were not pertinent to the location of the building were:

1. Water surface regulations and water quality.

2. County park designation versus local or regional.

3. Land use adjacent to the lake.

4. Establishing a theme for the park that would then drive how the park would be developed and used.

5. Protection of the pine plantations and the north shore line from potential development.

These issues were briefly discussed but not resolved.

The committee gained a consensus on what additional activities should be considered in an overall site plan whether it was for the existing park area or included the Golden Acres Resort. During the planning process it became evident that the existing park area cannot provide the space necessary to develop the additional park activities in support of the beach area.

The two conceptual site plans included in the Concepts Section help show what activities can take place based on the size of the park. It was committee consensus that alternative #2 should be endorsed. The committee felt that with expansion additional activities could more easily be added and that use would be more widely spread to reduce the current concentration of uses.

Reviewing the issues, activities and various other factors the committee was asked to assist in developing goals and objectives (see page 7). These goals and objectives recognize the need to replace existing facilities, provide efficient support facilities and upgrade the current beach area.

Committee and staff agreed that the new beach building should be located as far back from the water's edge as the slope will allow to reduce visual impact.

The committee did not gain a consensus on additional parking as shown in the alternatives. The additional parking as shown in alternatives 1 and 2 would replace the existing overflow grassed area with hard surface organized parking. Alternative #2 includes an additional 84 spaces, if land is acquired.

The information gathered during this planning process will be utilized to assist staff in working with Schwarz/Weber Architects in the design and placement of the beach building.

RECOMMENDATIONS

The following summarized recommendations are based on the analysis of existing conditions, goals and objectives as set forth by the Planning Advisory Committee and County staff:

1. Based on research and analysis the most appropriate site for the proposed beach building is approximately its present location.

2. That additional activities which would complement the primary function of the park (swimming/beach) be added or increased, and emphasis be placed on constructing a play structure for children in the near future.

3. That the park be made more accessible to the public by maximizing existing parking through hard surfacing and providing handicapped parking within walking distance of the beach and picnic area.

4. That the County authorize a Master Plan Study for Square Lake Park so that a full examination of the issues may be completed. Specifically to address the regional versus County designation, the adjacent land use and potential park expansion.

SQUARE LAKE PARK

A Summary Of The Square Lake Park
Planning Advisory Committee Findings

DRAFT

WASHINGTON COUNTY February 1990

INTRODUCTION

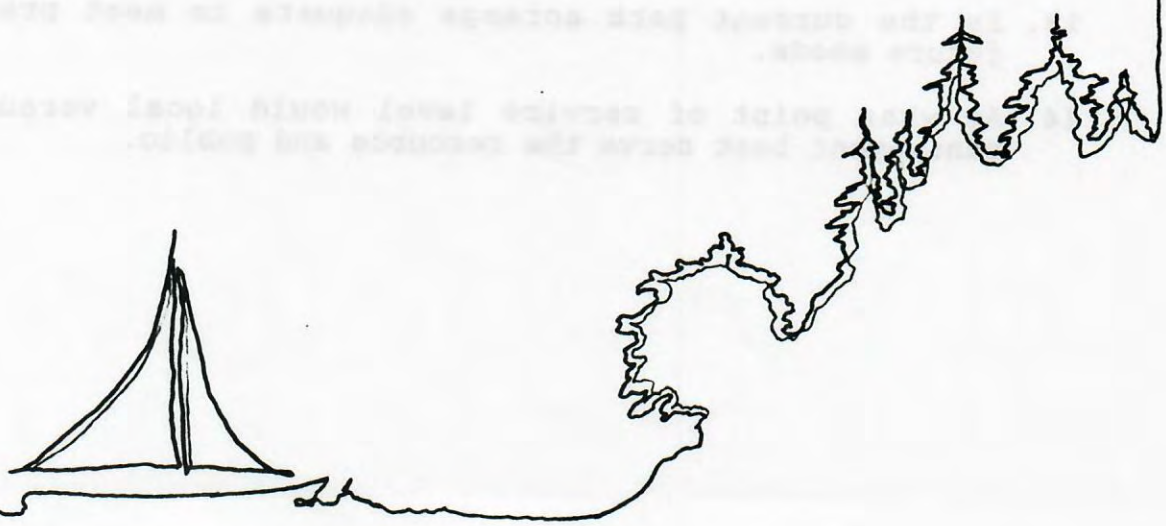
Square Lake Park is well-known for its public beach, picnicking areas and boat launch, not only locally but county wide as well as regionally. For more than 20 years, the park has served the public providing access to one of the finest lakes in the metropolitan area. Countless numbers of people have swam, picnicked and fished at the park benefiting from its excellent natural resources.

In an effort to preserve the unique resource and provide for a continued unrivalled experience, the Washington County Board of Commissioners authorized the Parks Division to prepare a site plan for a new beach building at Square Lake Park. The project was to include review of the existing site, establishment of plan concepts and specifically, to recommend a location for the proposed new beach building.

The scope of the project program includes determination for the location of the proposed beach building, support and complementary activities, and review of the adjacent Golden Acres Resort as a potential addition to the park because of its possible impact on the beach building location.

The goal is to ensure that the park continues to serve the needs of future generations by replacing the existing beach building and modifying current park use to accommodate present and future needs.

Planning Process



PURPOSE

This plan documents the analysis of the park, including visitor needs, the current condition of the park, its facilities and potential user capacity; this synopsis makes recommendations for improvements in these areas.

A number of issues were raised that must be addressed if the park is to continue to meet local and county needs in a safe and expeditious manner:

1. Beach building is seriously deteriorated and the septic system odors are unacceptable.

2. Family picnic opportunities limited to nonexistent.

3. Facilities for small group picnics (50 to 100 users).

4. Limited space for public activity between the beach building and shoreline.

5. The boat launch presents a potentially dangerous conflict with the swimming beach and to scuba divers.

6. Support activities are severely limited, such as play structures, volleyball, etc.

7. Accessibility for the handicap needs to be improved.

8. Public accessibility from the parking lots to the beach area needs improvement.

9. Parking is inadequate.

10. All development must totally protect against any negative change in water quality to the lake.

11. Enforcement of water surface regulations is inadequate.

12. What activities and numbers of people can the park handle without being negatively impacted.

13. Is the current park acreage adequate to meet present and future needs.

14. At what point of service level would local versus county management best serve the resource and public.

CITIZEN PARTICIPATION

The Square Lake Planning Advisory Committee was a citizen advisory group who played an important role in development of the conceptual site plan and proposed beach building location.

Public discussion, input and comments were necessary to establish needs, refine issues and attain a general consensus. While various interests were expressed during the planning process, the plan did emphasize the general good and welfare of the county and local area.

The committee was composed of representatives from the local unit of government, Washington County Parks & Open Space Commission, Square Lake Association and local citizenry.

Meetings were held to discuss site resources, develop concepts and solicit comments from the Advisory Committee.

PLANNING PROCESS

The intent of the Square Lake Park Site Plan planning process was to determine the future location of the proposed beach building and to secondly, create through planning and public participation, a plan for the park which reflects the relative importance of specific goals, park elements, and park activities.

The Square Lake Park planning process followed a basic outline for a Work Plan which illustrated the various steps that need to be completed to arrive at an acceptable solution.

The two documents produced herein, as a result of this process were the conceptual site plan showing the proposed beach building location and secondly, the advisory committee's findings.

GOALS & OBJECTIVES

One of the tasks of the planning process was to develop goals and objectives which would assist in the design process. These goals and objectives are driven by site needs/issues. These goals and objectives recognize the need to improve existing facilities, provide support activities and reduce maintenance where there are conflicts with the natural setting; they establish guidelines for the implementation of these improvements.

1. GOAL - Adopt a design philosophy which will create a park atmosphere which reinforces and retains the unique character, and natural resources of Square Lake Park.

2. GOAL - Provide adequate support facilities.

   Objectives

   a. Provide play structure that is accessible to both beach and picnic areas.

   b. Provide horseshoe pits

   c. Provide a concession

   d. Provide volleyball pit

   e. Provide open field area

3. GOAL - Construct beach building facility.

   Objectives

   a. Provide a modern up to date structure similar to the existing beach building at Lake Elmo Park Reserve.

   b. Develop a site design that locates the proposed beach building in an unobtrusive manner, and preserves the current character of the site.

   c. The location of the beach building should complement the beach and should be readily accessible to all users.

4. GOAL - Improve beach area

   Objectives

   a. Widen beach where possible.

   b. Define beach from mowed areas with a maintenance free walkway.

5. GOAL - Provide play structure

Objectives

a. Locate so that it does not conflict with beach use but rather complements it.

b. Locate within easy walking distance of beach, picnic and bathroom facilities.

c. Do not locate adjacent to parking, as it is not to compete with the primary park focus (water use) but rather complement it.

6. GOAL - Create a more functional picnicking system.

Objectives

a. Provide for a facility that will accommodate various size groups of from 50 to 100.

b. Provide easily accessible and usable picnic sites.
c. Provide activities and space within the picnic area to enhance the experience.

7. GOAL - Improve and expand where possible on active use, without sacrificing park character and aesthetics.

Objectives

a. Develop a land use of lakeshore that takes full advantage of what the lake has to offer.

b. Improve and expand on existing facilities and programs in the beach area.

c. Develop land area for pedestrian space at lakeshore.

d. Protect on lake quality by working with water quality boards (state, metro) to review plans.

e. Provide circulation links between major focal points.

8. GOAL - Provide Adequate Parking.

9. GOAL - Improve handicap accessibility.

Objectives

a. Locate parking near activity areas

b. Provide hard surface pathways from parking to focal points.

10. GOAL - Provide a diversity of activities for park users.

Objectives

1. Provide accessibility for handicapped, over and above code.

2. Enhance scuba diving opportunities

3. Provide for the following activities:

Beach Activities
Sitting
Concessions
Sunbathing

Lake Oriented Activities
Swimming
Viewing
Scuba Diving
Pier Fishing
Wind Surfing
Boat Launch

Picnic Activities
Small Group
Family
Blanket
Play structure
Volleyball
Horseshoes
Hiking/Walking
Unorganized Open Space

Winter Activities
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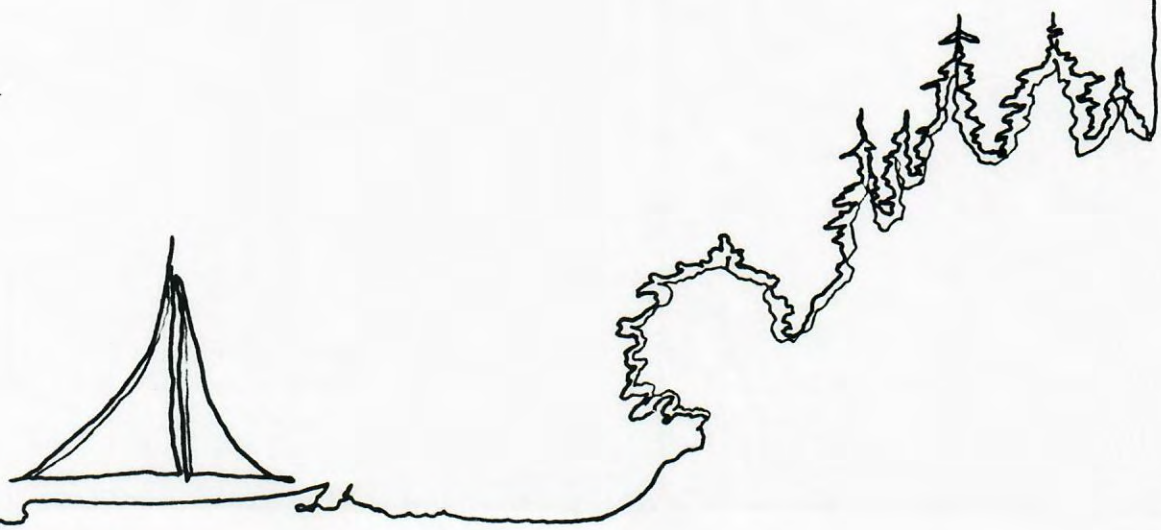

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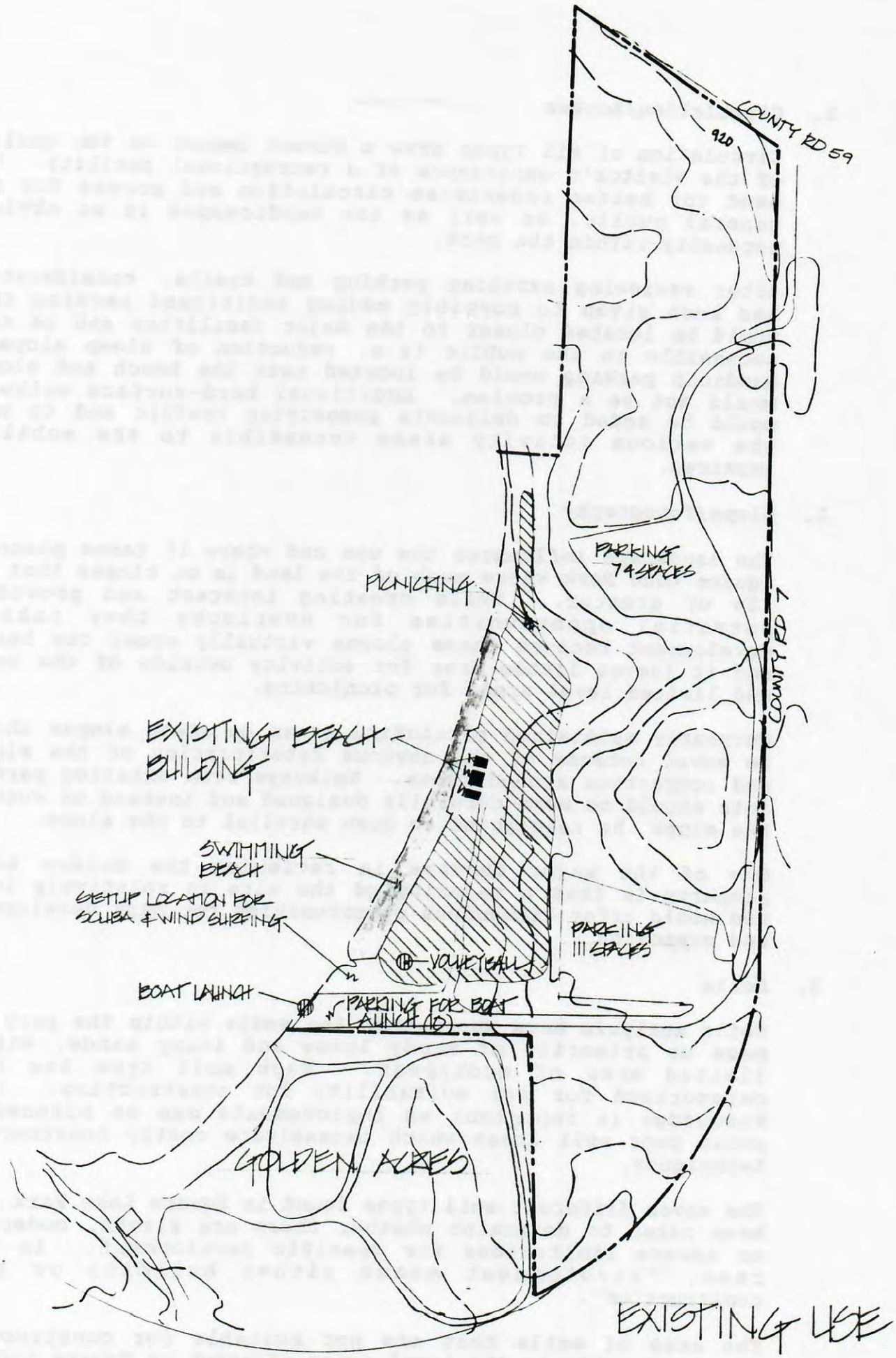

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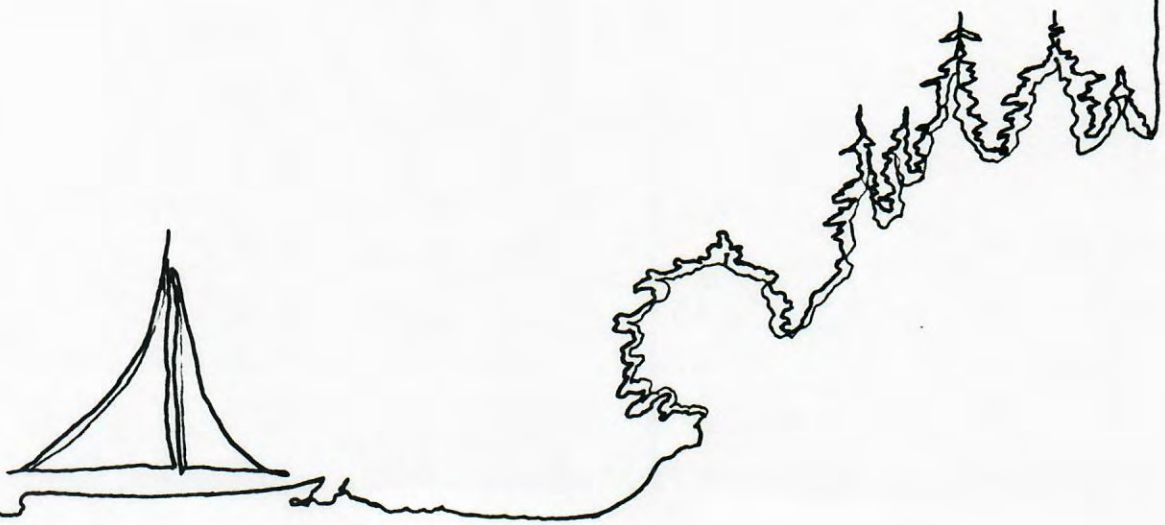

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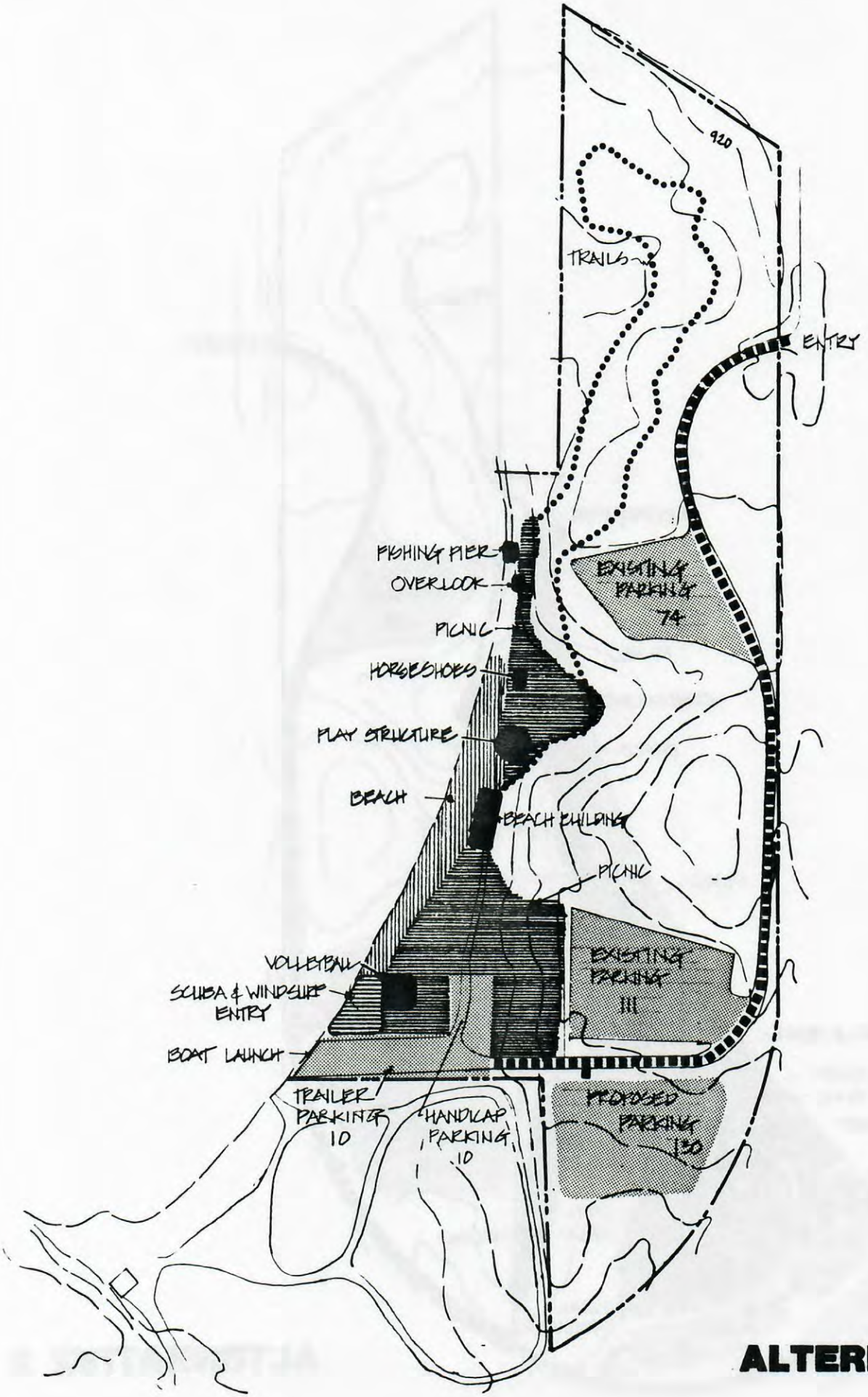
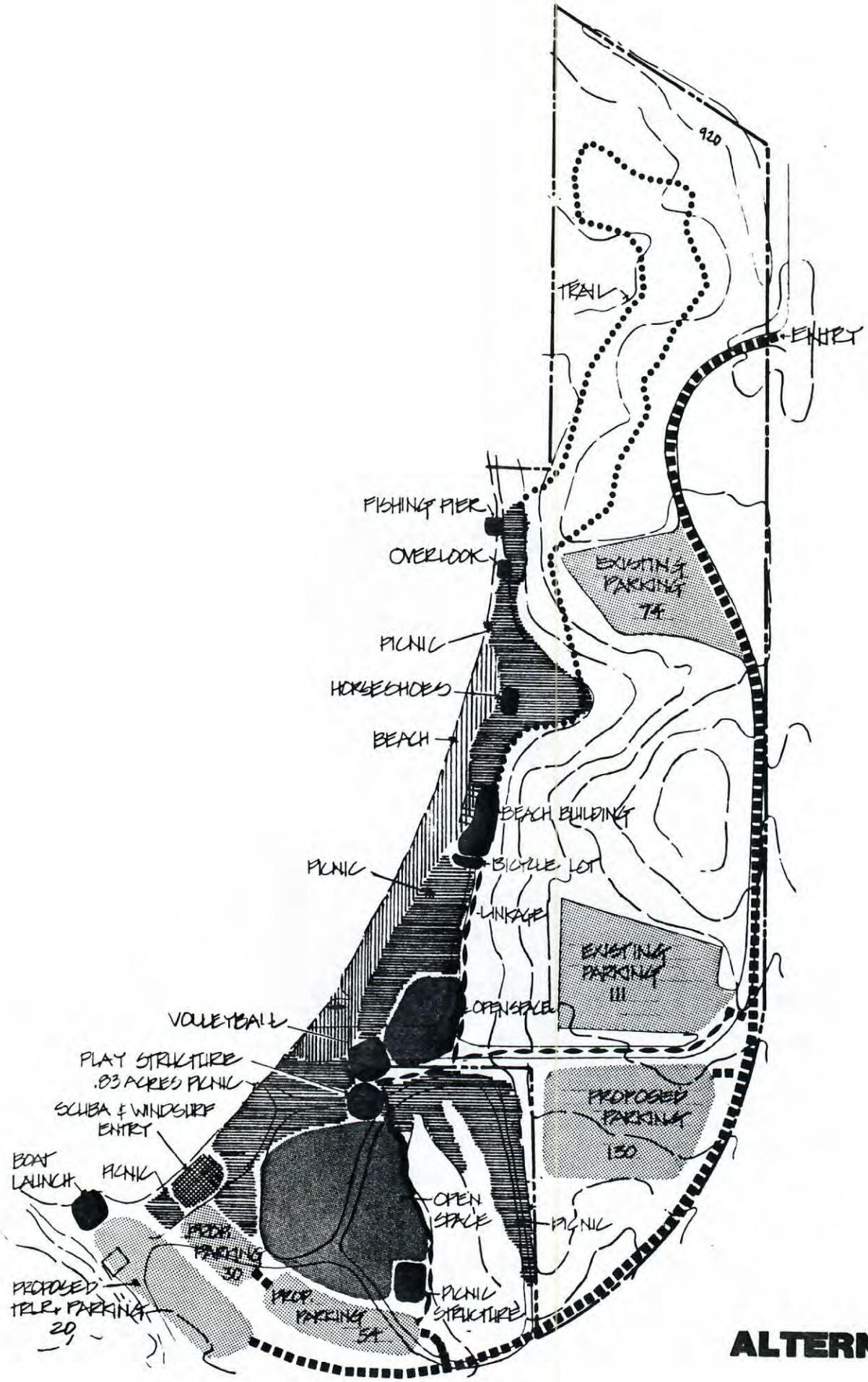
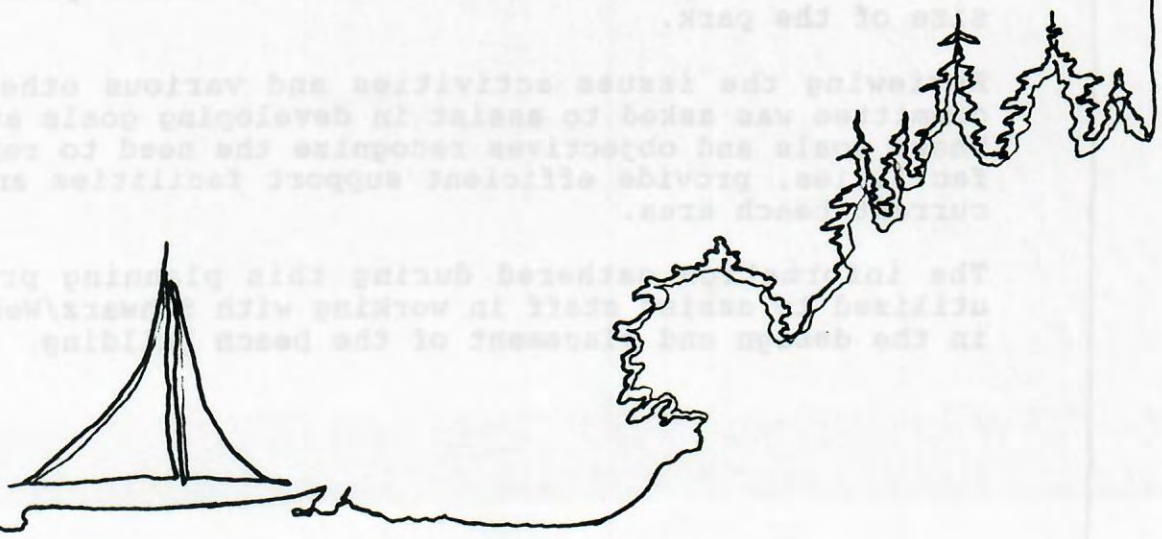


ALTERNATIVE 1



ALTERNATIVE 2

Summary



SUMMARY

The original purpose of this planning process was to determine the future location of the proposed beach building and secondly to consider additional activities which would add to the users experience at Square Lake Park. Part of this process was to determine that if the Golden Acres Resort property was owned by the County would it impact the location of the beach building.

At the present time the Metropolitan Council identifies Square Lake Park as regionally significant. Yet, for Square Lake Park to become a regional park would require a minimum of 100 to 150 acres. As a regional park, Square Lake Park would be eligible

RECOMMENDATIONS

That based on research and analysis the most appropriate site for the proposed beach building is approximately where it stands now.

That additional activities which would complement the primary function of the park (swimming/beach) be added or increased.

That the park be made more accessible to the public by adding additional hard surface parking and providing handicapped parking within walking distance of the beach and picnic area.

That at some future date, the County authorize a Master Plan Study for Square Lake Park so that a full examination of the issues may be completed.

LRC

LEGAL RESEARCH CENTER

MEMO TO: Vicki Gifford
Joe Hudak
John Keller
Tom Loucks
Jim Luger
Jack Perkovich
Cyd Young

FROM: Jim Seidl

CC: Rick Markwardt

RE: Square Lake Association Survey

DATE: April 23, 1990

I have enclosed a draft Questionnaire which the Executive Board of the Square Lake Association has prepared for distribution in early May. We intend to mail the Questionnaire, and the memorandum submitted to you a number of months ago discussing Lake issues, to surrounding Square Lake landowners in order to chart the course of our Association in the months ahead.

We would appreciate your assistance in reviewing the survey and providing any comments to me by May 1. I can be reached at 332-4950 or 439-8158. If you don't have any comments, that's fine; no need to respond. Or if you prefer to submit your comments in writing, feel free to do so.

I thank you in advance for your assistance.

430 LUMBER EXCHANGE BUILDING • 10 SOUTH FIFTH STREET • MINNEAPOLIS, MN 55402
TELEPHONE: (612) 332-4950 • FACSIMILE: (612) 332-7454 • TOLL FREE: 1-800-776-9377

SQUARE LAKE ASSOCIATION

Spring 1990

Membership Questionnaire

This survey is intended to gather opinions from people around Square Lake to provide direction for the Association. Please have all adult members of the household indicate their opinions and then return to _____ by _____.

	Household Members		
	#1	#2	#3
I. The Executive Board would like some guidance in determining what the nature of the Association should be. Listed below are four options with brief descriptions. Do you think it should be:			
A. An informal organization 1. Functioning as it does now 2. Requires little time and effort 3. Little real influence or control	___	___	___
B. A registered organization 1. Gives legal identity for communication to and from the group 2. Easy to create 3. Has no real authority 4. Requires records, officers, etc.	___	___	___
C. A non-profit organization 1. Gives identity 2. Makes fund raising easier thus making more activities possible 3. Very limited authority 4. Requires money and expertise to set up 5. Ongoing obligation in reporting and record keeping	___	___	___
D. A Lake Improvement District (LID) 1. Has legal authority for lake governance 2. Is funded by the county 3. Establishment is difficult: a. Petition by 28% of residents b. Public hearings c. Need to persuade county and DNR that governance is better handled at local level 4. Involves officers, budgets, records, reports, etc.	___	___	___
If we become more of a formal organization, but not an LID, we will no doubt need to have dues. What do you consider to be a realistic level for dues?	___	___	___

II. Listed below are the various topics that the Executive Committee has been studying, plus space to include other topics that you think should be studied. Please indicate your evaluation of the priority these topics should have by numbering them from #1 (highest priority) through as many as you think should have attention. It would be helpful to review the enclosed memo re: informational presentation before answering these and the following questions.

	#1	#2	#3
A. Lake Governance	___	___	___
B. Surface Rules	___	___	___
C. Eurasian Milfoil	___	___	___
D. Fish Management	___	___	___
E. Lake Monitoring/water quality	___	___	___
F. Copper Sulfate	___	___	___
G. Regional/County Park	___	___	___
H. Access/docking rules	___	___	___
I. Land-use planning	___	___	___
_____	___	___	___
_____	___	___	___

III. Taking these same topics, please rate them individually on a scale of 1-5, 1 being less important and 5 being most important.

A. Lake Governance	___	___	___
B. Surface Rulse	___	___	___
C. Eurasian Milfoil	___	___	___
D. Fish Management	___	___	___
E. Lake Monitoring/water quality	___	___	___
F. Copper Sulfate	___	___	___
G. Regional/County Park	___	___	___
H. Access/docking rules	___	___	___
I. Land-use planning	___	___	___
_____	___	___	___

IV. Listed below are some questions that have come up in our discussions of the topics listed in II and III. Please circle your answer; second responder can use check marks. Feel free to write in any comments or additional questions regarding each topic.

A. Lake Governance

1.	Should May Township be more involved?	Yes	No	Unsure
2.	Should our Association be involved in governance of Square Lake?	Yes	No	Unsure

B. Surface Rules

1.	How satisfactory is current enforcement?	Very	Some	Non
2.	Should the Association be involved in enforcement of surface rules?	None	Some	Much
3.	Do you think surface use rules should be further studied by the Association? If so, what suggestions do you have regarding these rules? (Use back of page)	Yes	No	Unsure
4.	Are you satisfied with current multiple use of lake?	Yes	No	Unsure
5.	Do you think we need to make changes in existing rules?	Yes	No	Unsure
6.	Do you favor an approach that allows multiple uses or selects specific uses for the lake?	Yes	No	Unsure
7.	Would you support restricting motor size? If so, what size?	Yes	No	Unsure
8.	Would you support restricting lake usage to non-power boats such as canoes, sailboats, etc.?	Yes	No	Unsure
9.	Would you support a ban on jet skis on the lake?	Yes	No	Unsure
10.	Would you support paying for additional surface rule enforcement (i.e. a private patrol person on weekends)?	Yes	No	Unsure
11.	Would you be willing to give some time to enforcing rules?	Yes	No	Unsure

C. Eurasian Milfoil

1.	How much effort should our Association put into an attempt to keep Eurasian Milfoil out of Square Lake?	None	Some	Much

2. Would you be in favor of the Association investing in a power washer for boats entering the lake? Approximate cost would be $750.00 — Yes No Unsure

3. Would you be willing to donate time or money to protect the lake from Eurasian Milfoil? — Time Money Neither

D. Fish Management

1. If you or your family fish, which species do you fish?

Panfish ___
Northern Pike ___
Trout ___
Other ___

2. Are you in favor of the special regulations recently imposed on trout fishing on the lake (need for trout stamp, reduced season, limit of 2)? — Yes No Unsure

3. Are you satisfied with the fish management on Square Lake? — Yes No Unsure

E. Lake Monitoring/water quality

1. Are you satisfied with present level of lake monitoring (water quality, water chemistry, etc.) — Yes No Unsure

F. Copper Sulfate

1. Should its use be allowed in Square Lake? — Yes No Unsure

G. Regional/County Park

1. Should Square Lake Park:
   A. Remain a County Park
   B. Become a Regional Park
   C. Undecided

2. Do you support park expansion to include Golden Acres? — Yes No Unsure

H. Access/docking rules

1. Would you be in favor of restricting access points for boat launching to guard against Eurasian Milfoil? — Yes No Unsure

2. Would you be in favor of limiting the number of boats permitted to access the lake? — Yes No Unsure

3. Would you be in favor of restricting the number of boats which can be launched at any location, public or private? Yes No Unsure

I. Land-use Planning

1. Are you comfortable with land/use planning around Square Lake? Very Some No

V. What activities do you and your family currently participate in, involving Square Lake?

A. Viewing
B. Sunbathing
C. Swimming
D. Scuba Diving
E. Snorkeling
F. Boat Fishing
G. Pier Fishing
H. Ice Fishing
I. Wind Surfing
J. Waterskiing
K. Ice Skating
L. Cross Country Skiing
M. Type of Boating:
   1. Canoeing
   2. Sailing
   3. Speed boat
   4. Pontoon
   5. Row Boat
   6. Number of boats at your dock ____

VI. To update our mailing list, please answer the following:

Name_____

Lake address_____

Permanent address_____

Phone_____

Are You:

1. Year-round resident

2. Seasonal resident

3. Renter

Thank you for your patience and effort in helping us with this survey!!!

WASHINGTON COUNTY

PUBLIC WORKS DEPARTMENT

11660 MYERON ROAD NORTH • STILLWATER, MINNESOTA 55082-9573
612-439-6058 Facsimile Machine 612-430-0472

Donald C. Wisniewski, P.E.
Director Public Works/County Engineer

Mark L. Mattson,
Assistant Director Public Works

Richard D. Herold,
Design/Construction Engineer

John P. Perkovich,
Parks Director

Lawrence W. Bousquet,
Traffic and Maintenance Engineer

Lyle C. Doerr,
Facility Manager

February 13, 1990

Ms. Cyd Young
Clerk-May Township
12328 May Avenue No.
Stillwater, MN 55082

Dear Ms. Young:

A meeting of the Square Lake Advisory Committee is scheduled for Wednesday, February 21, 1990, 6:00 p.m. at the Public Works building.

This meeting will involve discussing the draft copy of the Planning Advisory Committee findings for Square Lake Park, a copy has been enclosed for your review.

News releases have been sent out informing the general public of the meeting.

If you should have any questions prior to the meeting, please call me at 439-6058.

Sincerely,

James Luger, RLA
Park Planner

SUMMARY OF THE
SQUARE LAKE PARK SITE PLAN
PLANNING COMMITTEE

January 24, 1990

MEMBERS PRESENT: Hale, Haugen, Holt, Krentz, Leistico, Seidl

MEMBERS ABSENT: Labonne

STAFF PRESENT: Jack Perkovich, Jim Luger

Committee members were asked to comment on a list of issues relating to the park that were established at the December 20, 1989 meeting, to see if there were any additions or deletions. After a short discussion of the issues, it was determined that none would be added or deleted.

The committee members were also provided with a list of goals and objectives and asked to review them to determine whether or not they addressed the issues previously discussed. Members were asked for additions or deletions, there were none, and Rich Leistico stated that the goals and objectives seemed to be on track.

The activity list was also reviewed, no changes were made.

CONCEPT REVIEW:

The committee was divided into two equal groups which then discussed the pros and cons of each of the individuals concept designs. The two groups were then combined and a discussion followed in which major issues were examined i.e. the boat launch presents a potentially dangerous conflict with the swimming beach and to scuba divers, could a series of guide buoys and lowered speeds reduce the conflict.

After reviewing individual concepts, staff presented two alternative concepts for review which were then compared to the committee members concepts. It was determined through the committee review that the beach building should be placed in virtually the same location.

The committee as a whole preferred alternative #2 which included the Golden Acres property. The committee felt with the addition of the 9+ acres that the programmed activities were better sited and more evenly distributed.

The mission of the planning committee has been completed with the decision being reached that the existing area of the Beach Building represents the best location whether or not land is acquired in the future.

FURTHER DISCUSSION:

At the next meeting the draft of the design report will be discussed. This document will be sent to all committee members prior to the next meeting for review.

The next meeting is scheduled for Wednesday, February 21, 1990, 6:00 p.m. at the Public Works building.

Jim Luger
Park Planner

WASHINGTON COUNTY

PUBLIC WORKS DEPARTMENT

11660 MYERON ROAD NORTH • STILLWATER, MINNESOTA 55082-9573
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Donald C. Wisniewski, P.E.
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Richard D. Herold,
Design/Construction Engineer

John P. Perkovich,
Parks Director

Lawrence W. Bousquet,
Traffic and Maintenance Engineer

Lyle C. Doerr,
Facility Manager

April 10, 1990

May Town Board
c/o Cyd Young, Clerk
12328 May Avenue North
Stillwater, MN 55082

Dear Township Supervisors:

Enclosed are four (4) copies of the Square Lake Park Beach Building and Conceptual Site Plan report for distribution to Town Board members and a copy for Township files.

Present plans call for the construction of a new beach building starting sometime in September. The new beach building will be set back from the beach approximately 40 feet farther than the existing building. If the slopes prevent a 100 foot setback, the County will request a variance. Hopefully, the variance will not be necessary.

If you have questions, please call.

Sincerely,

John P. Perkovich
Parks Director

JPP/pw

Enclosure

cc: Dennis Hegberg, District 1 Commissioner

TOWN OF MAY

WASHINGTON COUNTY, MINNESOTA

CLERK
Cynthia (Cyd) Young
12328 May Ave. No.
Stillwater, MN 55082
439-4691

TREASURER
Cheryl D. Bennett
16624 N. Square Lake Trail
Stillwater, MN 55082
439-8599

CHAIRMAN
G. Joseph Hudak
14470 Racine Avenue North
Marine on St. Croix, MN 55047
433-3804

PLANNING CHAIRMAN
Patrick Kearney
12875 150th St. No.
Marine on St. Croix, MN 55047
433-3265

SUPERVISOR
John D. Keller
11829 Square Lake Trail No.
Stillwater, MN 55082
439-1348

ZONING ADMINISTRATOR
Tom Loucks & Associates, Inc.
8401 73rd Ave. No.
Brooklyn Park, MN 55428
535-8937

SUPERVISOR
James R. Seidl
14785 Ostlund Trail No.
Marine on St. Croix, MN 55047
439-8158

BUILDING INSPECTOR
Peter Kluegel
5475 Township Drive
White Bear Lake, MN 55110
426-5116

October 11, 1990

Washington County Administration
Attention: Pat
14900 61st Street North
Stillwater, MN 55082

Dear Pat:

I have received a request from Rick Markwardt of the Square Lake Association to be placed on the Washington County mailing list for public hearings, agendas and other meeting notices. Mr. Markwardt is particularly interested in receiving notices concerning the Square Lake area.

I would appreciate it if you would place Mr. Markwardt on you meeting notice list. His address is Mr. Rick Markwardt, Square Lake Association, 14775 Ostlund Trail North, Marine on St. Croix, MN 55047.

If you have any questions, please contact me.

Sincerely,

Cynthia J. Young

Cynthia J. (Cyd) Young, Clerk
Town of May

cy

14775 Ostlund Trail N.
Marine on St. Croix, Mn. 55047
September 26, 1990

Ms. Cyd Young, Clerk
Board of Supervisors
May Township
12328 May Ave. N.
Stillwater, Mn. 55082

Dear Ms. Young:

This is a request that the Square Lake Association be given official notification by Washington County of hearings and proposed actions that would pertain to Square Lake itself and the surrounding shoreland, as defined by DNR regulations. Such notification can be sent to me, as current president, at the above address.

Thank you for your assistance in this matter.

Yours truly,

Rick Markwardt

Pat
Jim [redacted] 644-1289
Rick Markwardt
[redacted]
439-9664

TOWN OF MAY

WASHINGTON COUNTY, MINNESOTA

CHAIRMAN
G. Joseph Hudak
14470 Racine Avenue North
Marine on St. Croix, MN 55047
433-3804

SUPERVISOR
John D. Keller
11829 Square Lake Trail No.
Stillwater, MN 55082
439-1348

SUPERVISOR
James R. Seidl
14785 Ostlund Trail No.
Marine on St. Croix, MN 55047
439-8158

CLERK
Cynthia (Cyd) Young
12328 May Ave. No.
Stillwater, MN 55082
439-4691

TREASURER
Cheryl D. Bennett
16624 N. Square Lake Trail
Stillwater, MN 55082
439-8599

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12875 150th St. No.
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433-3265

ZONING ADMINISTRATOR
Tom Loucks & Associates, Inc.
8401 73rd Ave. No.
Brooklyn Park, MN 55428
535-8937

BUILDING INSPECTOR
Peter Kluegel
5475 Township Drive
White Bear Lake, MN 55110
426-5116

September 18, 1990

Mr. John P. Perkovich
Parks Director
Washington County
Public Works Department
11660 Myeron Road North
Stillwater, MN 55082-9573

Dear Jack:

I was disappointed to learn that the Washington County Board had a meeting last week and had voted on an issue involving Square Lake, without notifying me on behalf of May Township and Rick Markwardt on behalf of the Square Lake Association that the regional park issue was up for discussion. What can we do Jack that we haven't already done to ensure an open line of communication between your office and ours?

May Township and the Square Lake Association should have been represented at the Board meeting and provided an opportunity to address the issues. I have experienced significant embarrassment in not knowing about the meeting and vote until reading about it in the paper and receiving a myriad of phone calls from concerned citizens of May Township.

Would you please advise me on what can be done to improve your notification procedures?

Finally, I had expected that you would have been in contact with the May Township Board by now to present your plans for the Square Lake Park building project. When are you planning to present your building plans?

Thank you.

Very truly yours,

James Seidl

James Seidl
May Township
Supervisor

cc: Mr. Don Scheel, Washington County Board Chairman
Ms. Cynthia (Cyd) Young, Clerk, Town of May
Mr. Rick Markwardt, Square Lake Association

WASHINGTON COUNTY
REQUEST FOR BOARD ACTION

TIME REQ. cc

October 16, 1990
BOARD MEETING DATE

AGENDA ITEM NO. 2N

Public Works - Parks
ORIGINATING DEPARTMENT/SERVICE

REQUESTOR'S SIGNATURE/DATE

REVIEWED BY /DATE DW 10/8/90

BOARD ACTION REQUESTED

That the Washington County Board of Commissioners rescind award of contract to Parkos Construction for the construction of the Square Lake Beach Building and adjacent site work.

BACKGROUND/JUSTIFICATION

Based upon the County Attorney's opinion, the addendum removing the Square Lake Beach Building septic system from the specifications during the bidding process was a substantial deviation in the bid specifications. In the County Attorney's opinion, if the contract was awarded it could be an illegal contract.

Affirmative action by the County Board will place the construction of the beach building in the fall of 1991. The existing beach building will be used during the 1991 swimming season.

PREVIOUS ACTION ON REQUEST/OTHER PARTIES ADVISED

Awarded contract 9-18-90/County Attorney, Administration

DATE/TIME RECEIVED BY COUNTY ADMINISTRATOR OCT 9 1990	COUNTY ATTORNEY REVIEW/DATE R. Holden 10-10-90	FINANCIAL IMPLICATIONS: $ ----
COUNTY ADMINISTRATOR/DATE C Swanson 10/10/90	ADMINISTRATIVE RECOMMENDATION ☒ APPOVAL ☐ DENIAL ☐ NO RECOMMENDATION	SERVICE: _____ OBJECT: _____ BUDGETED: _____ YES _____ NO FUNDING: _____ LEVY _____ OTHER
COMMENTS		COMMENTS

REVISED 5/89

American with Disabilities Act Guidelines

Washington County has committed to providing full and equal access to its services and programs. In its ADA Transition Plan (2015), the County accepts, as standard, the Proposed Right of Way Accessibility Guidelines (PROWAG) adopted by the Minnesota Department of Transportation.[1] PROWAG represent the most recent iteration of the ADA accessibility guidelines as published by the US Access Board, an independent federal agency responsible for developing accessibility guidelines for the construction and alteration of facilities covered by ADA.[2] The accessibility guidelines represent the current agreement and understanding between the US Department of Justice and Department of Transportation; the agencies tasked with carrying out the ADA for public rights-of-way accommodation.

ADA law requires that new construction must be accessible and usable by persons regardless of needs and abilities, and that alterations to existing facilities, within the scope or limits of a project, must provide usability to the maximum extent feasible. ADA law also requires that existing facilities that have not been altered shall not deny access to persons with different needs and abilities.

Some ADA standards deal specifically with the usability of pedestrian access routes (PARs) or Outdoor Recreational Access Routes (ORARs). These pertain to many of the access issues in Square Lake Park.

- General running slope of PARs (up to 5%, may run 200 feet between landings)
- Cross slope of PARs (must not exceed 2%)
- Minimum width (4 feet – PAR, 3 feet – ORAR)
- Minimum passing width (5 feet – PAR/ORAR)
- Ramps 5% - 8.33% (may run for up to 50 feet before required level landing areas)
- Ramps 8.33% - 10% (may run for up to 30 feet before required level landing areas)
- Curb ramp and crosswalk specifications
- Paths/trails must provide stable, firm surfaces
- Elevation differences within the pedestrian path
- Guidance on trailhead design/development
- Guidance on grates/openings/horizonal gaps

The ADA covers other areas pertaining to Square Lake Park in addition to the general accessibility of pedestrian routes. These include access to designated parking spaces, boat docks, fishing piers, benches, picnic areas, grills, trash and recycling receptacles, swimming beaches and beach access routes, public restrooms, drinking fountains, and play areas. Some of these are governed by standards outlined in the Architectural Barriers Act of 1968 (ABA), as well as the access guidelines as defined by the US Access Board.

Guidelines for outdoor recreation sites include conditional exceptions when meeting standards is determined to be infeasible. ABA Standards recognize the existence of constraints and limitations in the outdoor environment and allow for exceptions from specific provisions in the technical requirements where certain circumstances, referred to as “conditions for exceptions,” apply. When an entity

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[1] https://www.co.washington.mn.us/DocumentCenter/View/8044/Public-Rights-of-Way-Accessibility-Guidelines?bidId=

[2] https://www.access-board.gov/

determines that any of the conditions for exceptions do not permit full compliance with a specific provision in the technical requirements, compliance with that provision is required to the extent practicable. The phrase "to the extent practicable" means reasonably doable under the circumstances. Conditions for exceptions should be used only after all other design options have been thoroughly explored. Where a condition for exception applies to only a portion of a trail, a beach access route, or an outdoor recreation access route, the rest of the trail or route must comply with the technical requirements for the trail or route.[3]

The four conditions for exceptions include:

1) Not practicable due to terrain
2) Cannot be accomplished with the prevailing construction practices
3) Compliance would fundamentally alter the function or purpose of the facility or the setting
4) Compliance is limited or precluded by any of the following laws, decisions or opinions issued, or agreements executed pursuant to any of the following laws:
    a. Endangered Species Act
    b. National Environmental Policy Act
    c. National Historic Preservation Act
    d. Wilderness Act
    e. Other federal, state or local laws whose purpose is to preserve threatened or endangered species, the environmental, or archaeological, cultural, historic, or other significant natural features

When using exceptions, the local agency should document, in writing, why it could not comply with a specific technical requirement. Documentation should be preserved with project records and should include the date a decision was made and the names and positions of those making the decision.

There may be situations in which meeting ADA/ABA standards may be considered impractical. There is a procedure in these instances for exempting entire access routes, and a formal process for notifying the US Access Board of this determination.

[3] US Access Board. 2014. P.4, "Outdoor Developed Areas." May 2014. Accessed 11/30/20 at *https://www.access-board.gov/files/aba/guides/outdoor/outdoor-guide.pdf*.

IMPLEMENTATION PLAN

Objectives

The objective of this implementation plan is to recommend implementation activities to meet the resource water quality goal of improving long term Secchi transparency to an average of 7 meters (23 feet). The implementation plan is a combination of activities identified as a part of this study and activities from the 2002 Diagnostic Feasibility Study and Implementation Plan ("2002 Implementation Plan"). Based on the findings from the Diagnostic Study (Section 1), the following priority management areas have been identified for implementation and will be referred to throughout this implementation plan:

Primary: In-Lake Food Web Interactions

In-lake food web interactions were predicted to have the strongest effect on improving water quality and are the primary focus of this implementation plan.

Secondary: Groundwater

Phosphorus loads from groundwater account for 70% of the total phosphorus load to Square Lake and are a secondary focus of this implementation plan.

Secondary: Surface Water Runoff

Phosphorus loads from surface water runoff account for 18% of the total phosphorus load to Square Lake and are a secondary focus of this implementation plan. No changes were made to the 2002 estimated surface watershed load (30 lb P per year) to Square Lake as a result of this update to the watershed assessment. However, an additional 12.6 and 13.7 acres of land were developed within subwatersheds SW-2 and SW-4, respectively, since the 2002 diagnostic study. Implementation of best management practices in response to these watershed changes can reduce phosphorus loading to Square Lake.

Table 12 summarizes all implementation activities that were assessed in the 2002 Implementation Plan and as a part of this study. The numbering system used in the original 2002 Implementation Plan is used in this study. In order to distinguish between original and new projects, completed and priority projects, the implementation activities have been categorized with the following symbols:

- ***Completed*** (✓): Implementation activities from the 2002 Implementation Plan that have been completed, or partially completed, at the time this report was finished.
- ***New*** (NEW): New implementation activities recommended as a part of this study.
- ***Updated*** (Ⓘ): Updates to implementation activities originally recommended in the 2002 Implementation Plan.
- ***Priority*** (★ or ★★)**:** Implementation activities that address primary or secondary management areas. Recommendations with one star (★) address a secondary management area and are a priority; recommendations with two stars (★★) address a primary management area and are a high priority.

Ultimately, the priority implementation activities follow two main to meet the transparency goal:

1. Increase *Daphnia pulicaria* densities through either decreasing predation pressure and/or improving habitat.
2. Maintain or decrease existing watershed phosphorus loads to buffer the lake against potential eutrophication.

Table 1. Summary table of implementation plan activities from the 2002 Implementation Plan and this study, as well as updates and prioritization recommendations

Implementation Plan Activities	Completed	New	Priority	Updated (See report page)
1. Water Quality—Groundwater				
a. Informational kiosk at the Washington County Square Lake Park	✓			
b. In-lake groundwater monitoring				ⓘ (32-35)
c. Groundwater monitoring network				
d. Distribution of septic management materials to homeowners in Square Lake Watershed	✓		★	
e. Septic pumping program	✓		★	
f. Septic system upgrades			★	ⓘ
2. Water Quality—Surface Water				
a. Informational kiosk at the Washington County Square Lake Park	✓			
b. Distribute home lawn care information	✓			
c. Stormwater runoff regulations to provide no net increase in phosphorus			★	
d. Soil testing program				
e. In-lake bio-monitoring				ⓘ (47-58)
f. In-lake water quality monitoring			★★	ⓘ (37-44)
g. Wilder road stabilization				
h. Gully erosion control project				ⓘ
i. Maywood stormwater pond retrofit/enhancement				ⓘ
~~j. Wilder wetland rehabilitation~~ ‡				
k. Landowner education programs		NEW	★	
3. Fisheries Management Plan				
a. Evaluate predation of Daphnia	✓			ⓘ (47-58)
b. Suspend trout stocking		NEW	★★	
4. Aquatic Vegetation				
a. Develop and distribute information to encourage riparian landowners to protect and/or restore aquatic vegetation	✓			
b. Distribute MN DNR rules to riparian landowners	✓			
c. Aquatic plant survey				ⓘ (44-46)

Implementation Plan Activities	Completed	New	Priority	Updated (See report page)
d. Develop an aquatic plant management plan				
5. Wildlife				
a. Work with landowners to place remaining undeveloped shoreline into conservation easement(s)			★	ⓘ
6. Exotic Species				
a. Conduct boat inspections for Eurasian milfoil and zebra mussels	✓			
b. Conduct aquatic plant survey				
7. Land Use/Zoning				
a. Distribute current shore land zoning regulations	✓		★	
b. Develop regulations regarding the alteration of ice/beach ridges			★	
c. Stormwater runoff regulations to provide no net increase in phosphorus			★	
d. Work with landowners to place remaining undeveloped shoreline into conservation easement(s)			★	ⓘ
8. Surface Water Use				
a. Distribute Square Lake boating regulations at boat launches	✓			
b. Conduct a study to determine appropriate peak and off-peak surface water use				
9. Public Water Access				
a. Distribute Square Lake boating regulations at boat launches	✓			
b. Develop an access policy consistent with surface water use study				
c. Work with private campground/marina (Golden Acres) to distribute educational materials and provide exotics inspections concurrent with efforts at public (Square Lake Washington County Park) boat launch				

‡ Removed based on findings from this study, see Section 4.3

Implementation Activity Alternatives and Analysis

The following discussion is organized by priority management area and describes new, updated, and priority implementation activities (refer to Table 12). Activities from Table 12 that are already described in *Section 3: Diagnostic Study* or are unchanged from the original 2002 Plan are not discussed here. Table 12 includes reference page numbers for items previously discussed in Section 3 of this report. Information on priority recommendations carried over from the 2002 Implementation Plan was based on text taken directly from the 2002 Implementation Plan and appears in quotation marks; minor revisions to this text are underlined.

In-Lake Food Web Interactions

★★ NEW **Suspend trout stocking**

The CMSCWD is in discussions with the Minnesota Department of Natural Resources (MDNR) regarding a three-year suspension of trout stocking in Square Lake, beginning in the fall of 2012, to evaluate whether stocking suspension results in significant changes to *Daphnia pulicaria* densities and water clarity of the lake. During this period, the effects of the stocking suspension will be evaluated with respect to whether or not it leads to an increase in the abundance of *D. pulicaria* in Square Lake and to an increase in the lake's water clarity.

The overall goal of this project is to evaluate the impact of the three-year temporary suspension of trout stocking on zooplankton abundance and water quality in Square Lake. The outcomes are the following:

1. Zooplankton species abundance data;
2. Water quality (nutrients, chlorophyll, transparency, dissolved oxygen, and temperature) data during the same time period;
3. Evaluation of the impact of the three-year suspension of rainbow trout stocking on the water quality of Square Lake; and
4. A recommendation of whether or not to permanently extend the trout stocking suspension for the benefit of the water quality in Square Lake.

Monitoring data collected during the stocking suspension period will be evaluated with respect to monitoring data taken during the years when trout were stocked in the lake. See Section 4.5: Implementation Monitoring and Evaluation and Appendix C for monitoring plan details.

★★ **In-lake water quality monitoring**

"In-lake monitoring conducted by the Metropolitan Council and Minnesota Pollution Control volunteers to look at Secchi disk transparency, temperature and dissolved oxygen depth profile, surface chlorophyll *a*, surface total phosphorus, and lake elevation, as well as qualitative characteristics such as recreational suitability, should continue 14 times per

year (April through October) at the deepest location in Square Lake (Station 201). This data will give the data necessary to ensure that Square Lake is maintaining its goal Secchi disk transparency of 22.9 ft (7 m) and give early warning signs of trends in decreased water quality. This program will continue to be funded through the Watershed District and would cost approximately $2,100 per year."

Groundwater

★ Distribution of septic management materials to homeowners

"The Square Lake Association and/or Washington County could distribute septic management materials to residents in the Square Lake watershed on even years starting in 2016. Septic systems, when properly designed, installed, operated, and maintained, will treat sewage cost-effectively to protect the family, community, and water supply from contamination and diseases for many years. A number of publications are available from the Minnesota Pollution Control Agency and the University of Minnesota Extension Service, including a prepared information packet from the Extension Service entitled, "A Septic System Owner's Guide". This document includes a worksheet for determining cleaning frequency based on specific septic system designs and on the amount of usage of the system, as well as information on how to minimize water use in the household. These publications may cost $100 per distribution and could be funded by the Square Lake Association and/or Washington County."

★ Septic pumping program

"Washington County Individual Sewage Treatment System Regulations (Ordinance 128) states: "The owner of an individual sewage treatment system or the owner's agent shall regularly, but in no case less frequently than every three years, have the tank or tanks pumped. As an alternative, the owner may inspect and measure the accumulations of scum, which includes grease and other floating materials at the top of each septic tank and compartment along with the sludge, which includes the solids denser than water." A septic system that fails to treat sewage can also allow excess nutrients to reach nearby lakes and streams promoting algae and weed growth."

"Washington County is currently working in conjunction with the Metropolitan Council on the Washington County Septic Tank Maintenance and Tracking Program. Notification is sent out every three years to remind homeowners to have their septic tanks pumped. The septic pumper sends in verification to the county once the septic has been pumped. If the county does not receive notification from the pumper, a follow-up letter is sent to the homeowner. The Square Lake Association could publish articles in the newsletter to remind homeowners to pump their septic systems. This program could begin in 2016 and would be on-going. It would be funded by individual homeowners."

★ **Septic system upgrades**

"A septic system that fails to treat sewage can allow excess nutrients to reach nearby lakes and streams promoting algae and weed growth. Even systems that appear to be working well or that are in compliance with local design and installation codes may allow nutrients or bacteria to reach the ground or surface water."

"The design and installation of a septic system is controlled by local and state rules through the permit process. There are still households on Square Lake that do not have permitted septic systems. The permit takes into consideration all specific site characteristics including the type of soil, size of house, and wastewater-contributing fixtures and appliances. The system must be installed by licensed contractors and inspected by qualified officials to ensure proper installation. Inspections should be conducted by Washington County in 2016-2018 to reveal poorly functioning septic systems or systems that do not meet current standards. These inspections should include septic lines and drain fields as well. At that time, Washington County may recommend septic system upgrades. The cost of the upgrade will depend on the individual septic system. The septic system upgrades would be paid by the individual landowner, but the landowner may seek funding assistance from the Washington SWCD, Washington County, and/or the MPCA."

ⓘ A 2004 study by the MPCA estimated that approximately 11.4% of septic systems are failing (nonconforming) in the St. Croix Basin of Minnesota where Square Lake is located (MPCA 2004). Upgrading all failing septic systems (~7) to conforming systems in the Square Lake watershed would reduce the groundwater phosphorus load by 7 lb per year, or 4% of the total phosphorus load to Square Lake.

★ **Work with landowners to place remaining undeveloped shoreline into conservation easement(s)**

"The Minnesota Land Trust will provide resources to individuals and communities to help them permanently protect their properties and guide growth in a manner that respects these landscapes. May Township could work with lakeshore landowners, the Square Lake Association, Washington County, MN DNR, and Minnesota Land Trust to place remaining undeveloped shoreline into conservation easements, a legally recorded agreement by which landowners may voluntarily restrict the use of their land. The landowner retains title to the property, the right to sell it, the right to restrict public access, and the right to deed it to whomever they choose. However, most or all of the rights to develop are restricted or eliminated. The terms of a conservation easement are individually tailored to reflect each landowner's particular needs, situation and property. Although the duration of a conservation easement can vary depending on the desires of the landowner, tax benefits generally are available only for perpetual easements. The Minnesota Land Trust will only accept perpetual easements, since they provide permanent protection by subjecting all future landowners to the same restrictions. The cost of the program depends on the value of the property being placed into a conservation easement. May Township, MN Land Trust, Washington County, MN DNR, the Square

Lake Association could work annually, beginning in 2013, with individual landowners to place undeveloped shoreline into conservation easements."

ⓘ The northern shoreline of Square Lake remains largely undeveloped. If this land were subdivided into ten lots with permanent shoreline residences, approximately 11 lb P per year (or 6.5%) could be added to the total phosphorus load to Square Lake. Working with landowners to place the remaining undeveloped shoreline into conservation easement(s) would prevent future increases in septic system phosphorus loading to Square Lake.

Surface Water Runoff

★ NEW **Landowner education programs**

Landowner education programs are vital for increasing awareness of how human activities in the Square Lake watershed contribute to watershed phosphorus loading and affect lake water quality. Typical lake homeowner education programs include the benefits and installation of shoreline buffers and rain gardens, and proper management of lawns:

1. Shoreline buffers provide native vegetation with deep roots along lakeshores to reduce phosphorus loads through reduced runoff velocities, increased settling of particles, enhanced infiltration of water into the soil, and vegetative adsorption of phosphorus in runoff. Buffers should be at least 15 feet wide and on average 25 feet wide. In addition to phosphorus load reductions, shoreline buffers provide many additional benefits, including: filtering out other pollutants (besides nutrients) and sediments from runoff, protecting shoreline from erosion, providing food and habitat for wildlife, protecting property values, and providing aesthetic value.
2. Rain gardens are small, vegetated depressions that store and infiltrate runoff to reduce phosphorus loads through reduced runoff velocities, increased settling of particles, enhanced infiltration of water into the soil, and vegetative adsorption of phosphorus in runoff.
3. Proper management of lawns involves maintaining a healthy dense stand of turfgrass to reduce transport of phosphorus to lakes through erosion of bare soils and physical transport of grass and leaves. Proper lawn management recommendations include: leaving grass clippings on the lawn as fertilizer, mowing at a slightly higher height (2 ½ to 3 ½ inches) to shade out weeds, mowing often and not cutting off more than one-third of the grass blade so clippings will filter into grass and quickly decompose, and keeping stockpiles of yard waste (leaves and clippings) out of contact with watershed runoff.

These education programs could be funded through the Watershed District and would cost approximately $1,500 per workshop with 20 attending landowners. Two workshops could be held every even year beginning in 2016.

★ **Distribute current shore land zoning regulations**

"The Square Lake Association and/or May Township could distribute current shoreland zoning regulations to residents in the Square Lake watershed annually beginning in 2013. Educating landowners of shoreland zoning regulations could decrease the amount of sediment, fertilizers, or pesticides from surface runoff. It may also positively affect the shoreline habitat for wildlife. These regulation packets, which would include information from the MN DNR, Washington County, and May Township, may cost $100 per distribution and could be funded by the Square Lake Association and/or May Township."

★ **Develop regulations regarding the alteration of ice/beach ridges**

"May Township, with cooperation from Washington County, MN DNR, and the Square Lake Association, could develop regulations regarding the alteration of ice/beach ridges. These ice/beach ridges provide areas of natural surface runoff infiltration and lower the potential phosphorus loading into the lake. This regulation could be developed concurrent with other zoning changes and may cost $400."

★ **Stormwater runoff regulations to provide no net increase in phosphorus**

"May Township, with cooperation from Washington County, MPCA, and Washington SWCD, could develop stormwater runoff regulations that provide no net increase in phosphorus loading into Square Lake. This regulation could be developed concurrent with other zoning changes and may cost $1,000."

Gully erosion control project

"Two existing gullies in the Square Lake watershed have recently received treatment by Washington SWCD. In 1999, a gully erosion control project was completed on the north side of the lake in SW-12. While there are several other gullies on this property, they appeared stable at the time of this study and no further action is required other than periodic monitoring for future problems. Another active gully was treated on the south side of the lake in SW-2. This gully received drainage from CR 7 and was causing sediment to accumulate into the wetland complex within SW-2. No other active gullies exist within the watershed at this time, however, land use changes and alterations can change conditions which may cause stable drainage ways to begin to actively erode. Washington SWCD could work with individual landowners to abate gully erosion as necessary. This program could begin whenever necessary and could cost up to $20,000 with funding from Washington SWCD and individual landowners."

ⓘ The 2002 Implementation Plan discussed a gully erosion control project on the south end of the lake that receives drainage from County Road 7 and discharges to the large wetland complex adjacent to Square Lake in subwatershed SW-2. The project is located at the upstream end of the gully and provides energy dissipation to drainage from County Road 7. The project site is stable and operating properly. Energy dissipation is important for reducing soil erosion and transport of soil bound phosphorus. However, the gully

remains channelized and devoid of vegetation in the main channel so there is likely insufficient control of watershed runoff volume. The focus of this implementation plan is to reduce watershed phosphorus loads and not watershed runoff volume. Therefore, enhancements to this project to achieve volume control are not priority at this time.

Maywood stormwater pond retrofit/enhancement

"Although the Maywood South stormwater pond contributes only 5.4% of the total surface inflow phosphorus load and only 1% of the total phosphorus load to Square Lake, it is still an opportunity to remove approximately 1.6 lbs of phosphorus per year from Square Lake. May Township could work with the MPCA, Marine WMO, and Washington SWCD to retrofit or enhance the Maywood South Stormwater Pond and surrounding subwatershed so that there is no net increase in phosphorus to Square Lake from this subwatershed. A feasibility study needs to be conducted that would determine the best way to accomplish this objective. The determined practices would all work towards reducing storm flows and therefore total phosphorous loading to Square Lake. This project, which could begin in 2001, could cost approximately $10,000 with funding supplied from MPCA grants and matched with contributions from May Township, Marine WMO, and Washington SWCD."

The 2002 Implementation Plan recommended that the Maywood South stormwater pond and surrounding subwatershed may be retrofit or enhanced so that there is no net increase in phosphorus to Square Lake from this subwatershed. Updated information from this study indicates that the Maywood stormwater pond has significant storage capacity for its drainage area, but there is currently no skimmer on this stormwater pond to remove floatables. This pond, located in SW-4, discharges along a wide, gently sloped swale prior to discharging to Square Lake. A future enhancement to this stormwater pond could be the addition of a skimmer at the pond outlet to remove floatables and debris. However, enhancements to this project are not priority at this time.

Implementation Activity Selection and Justification

Priority implementation activities were selected based on their relevance to the priority management areas. The highest priority implementation activities are to suspend trout stocking because in-lake food web interactions were predicted to have the strongest effect on improving water quality in Square Lake, and to continue in-lake water quality monitoring. Other priority implementation activities were chosen to reduce phosphorus loading from groundwater and surface runoff through education and regulation.

No watershed structural best management practices (BMPs) were identified for this implementation plan due to the small contribution of watershed runoff to the total phosphorus load.

One activity was removed from the 2002 Implementation Plan based on results from this study. The 2002 Implementation Plan recommended an evaluation of the effects or benefits to restoring or rehabilitating the Wilder Forest wetland. Updated information from this study indicates that the phosphorus load from the Wilder wetland may not be as big a component of the overall phosphorus budget to Square Lake as previously thought, and phosphorus loads have likely not increased in recent years. The estimated load from the Wilder wetland to Square Lake in the 2002 diagnostic study (6.2 kg, based on 1999 data) was 1.7 to 7.9 times higher than the 2010 estimated phosphorus load (0.7-2.3 kg) in 2010. Combining the Wilder wetland runoff and load estimates from the 2010 data with the loads estimated in the 2002 diagnostic study, the load from the Wilder wetland represents approximately 24% of the surface water runoff load to Square Lake (compared to 46% estimated in the 2002 diagnostic study), and approximately 4% of the total load to Square Lake (compared to 8% estimated in the 2002 diagnostic study), which includes the high contribution from groundwater.

Implementation Monitoring and Evaluation

In-lake monitoring will be undertaken to track the progress of implementation. During the time that Square Lake is not stocked with rainbow trout, the effects of the stocking suspension on zooplankton abundance and community composition, surface water algal biomass (chlorophyll-*a*), and water clarity will be evaluated with respect to whether or not the suspension leads to an increase in the abundance of *Daphnia pulicaria* in Square Lake and an increase in the lake's water clarity. Trout suspension monitoring and evaluation, schedule, and budget can be found in a copy of the Memorandum of Understanding and Square Lake Monitoring Plan submitted by the CMSCWD to the MDNR in Appendix C. In addition, on-going monitoring of lake water quality will be conducted as an implementation activity to ensure that Square Lake is maintaining its goal Secchi disk transparency of 22.9 ft (7m) and give early warning signs of trends in decreased water quality.

Roles and Responsibilities of Project Participants

A list of project participants and their individual roles and responsibilities for each priority implementation activity, organized by priority management area, is included in Table 13 below.

Table 2. Project participants, and roles and responsibilities for priority implementation activities

Priority Implementation Activity		Project Participants	Roles and Responsibilities
In-lake Food Web	Suspend trout stocking	CMSCWD	Oversee monitoring and submit annual summary memos and final report to MDNR
		MDNR	Suspend all stocking of rainbow trout in Square Lake for the remainder of 2012 through the end of 2015.
		Consultants	Collect and evaluate monitoring data during stocking suspension.
	In-lake water quality monitoring	CMSCWD	Oversee and fund annual in-lake monitoring
		Washington CD	Collect monitoring data 14 times per year
		Volunteers	
Groundwater	Distribution of septic management materials to homeowners	Washington County	Distribute septic management materials to residents in the Square Lake watershed
		Square Lake Assoc.	
	Septic pumping program	Washington County	Notify homeowners to pump their septic systems and keep track of completions
		Metropolitan Council	
		Square Lake Assoc.	Publish reminder articles in newsletter
		Homeowners	Schedule and fund septic system pumping
	Septic system upgrades	Washington County	Inspect septic systems
		CMSCWD	Support homeowners seeking funding assistance
		Homeowners	Schedule and partially fund septic system upgrades
	Work with landowners to place remaining undeveloped shoreline into conservation easement(s)	May Township	Coordinate with lakeshore landowners, the Square Lake Association, Washington County, MDNR, and Minnesota Land Trust to place undeveloped shoreline into conservation easements
Surface Water Runoff	Landowner education programs	CMSCWD	Coordinate, advertise, and fund education programs for landowners
		Square Lake Assoc.	
		EMWREP	The East Metro Water Resource Education Program (EMWREP) is a collaborative group of multiple watershed organizations, municipalities, WCD, and Washington County, which conducts education to support implementation efforts
	Distribute current shore land zoning regulations	Square Lake Assoc.	Compile and distribute packets to residents in the Square Lake watershed
		May Township	
	Develop regulations regarding the alteration of ice/beach ridges	May Township	Develop regulations concurrent with other zoning changes
		Washington County	
		MDNR	
		Square Lake Assoc.	
	Stormwater runoff regulations to provide no net increase in phosphorus	May Township	Develop regulations concurrent with other zoning changes
		Washington County	
		MDNR	
		Square Lake Assoc.	

Information and Education Program

The District participates in the East Metro Water Resource Education Program (EMWREP). EMWREP is a collaborative group of multiple watershed organizations, municipalities, WCD, and Washington County, which conducts education to support implementation efforts, for example, to promote participation in cost-share programs. EMWREP activities include Blue Thumb workshops, articles in the media, and Stormwater U trainings.

Outreach has already been initiated as a part of this project in coordination with EMWREP through stakeholder meetings. Future outreach will include homeowner education programs on the benefits and installation of shoreline buffers and rain gardens, and proper management of lawns.

Permits Required

Permitting does not appear to be a feasibility constraint for any of the priority implementation activities identified in this implementation plan.

Implementation Program Elements, Milestone Schedule, and Budget

A 10-year (2013-2022) implementation schedule and budget for priority implementation activities in Square Lake and its watershed, organized by priority management area, are summarized in Table 14 and Table 15 below. Implementation activities are recommended to begin with trout stocking suspension and monitoring, resulting in a final recommendation in 2016 on whether to permanently extend the trout stocking suspension by the MDNR in Square Lake. To keep watershed conditions during the three-year stocking suspension similar to current conditions, other priority implementation activities that could result in the reduction of TP loading are recommended for implementation only after the initial three-year stocking suspension is complete at the end of 2015. These include distributing septic management materials to homeowners, the septic pumping program, and septic system upgrades. Priority implementation activities that work to maintain existing TP loading can be implemented beginning in 2013, including: working with landowners to place remaining undeveloped shoreline into conservation easement(s), distributing current shore land zoning regulations, developing regulations regarding the alteration of ice/beach ridges, and stormwater runoff regulations to provide no net increase in phosphorus.

Table 3. 10-year schedule (2013-2022) for priority implementation activities in Square Lake.

Priority Implementation Activity		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
In-lake Food Web	Suspend trout stocking	■	■	■	■	■						
	In-lake water quality monitoring		■	■	■	■	■	■	■	■	■	■
Groundwater	Distribution of septic management materials to homeowners					■		■		■		■
	Septic pumping program					■	■	■	■	■	■	■
	Septic system upgrades					■	■	■				
	Work with landowners to place remaining undeveloped shoreline into conservation easement(s)		■	■	■	■	■	■	■	■	■	■
Surface Water Runoff	Landowner education programs					■		■		■		■
	Distribute current shore land zoning regulations		■	■	■	■	■	■	■	■	■	■
	Develop regulations regarding the alteration of ice/beach ridges		■									
	Stormwater runoff regulations to provide no net increase in phosphorus		■									

Table 4. Estimated costs for priority implementation activities in Square Lake.

Priority Implementation Activity		Annual project costs ($)									
		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
In-lake Food Web	Suspend trout stocking	14,005	14,005	14,005							
	In-lake water quality monitoring				2,092	2,092	2,092	2,092	2,092	2,092	2,092
Groundwater	Distribution of septic management materials to homeowners				100		100		100		100
	Septic pumping program				a	a	a	a	a	a	a
	Septic system upgrades				v	v	v				
	Work with landowners to place remaining undeveloped shoreline into conservation easement(s)	v	v	v	v	v	v	v	v	v	v
Surface Water Runoff	Landowner education programs				3,000		3,000		3,000		3,000
	Distribute current shore land zoning regulations	100	100	100	100	100	100	100	100	100	100
	Develop regulations regarding the alteration of ice/beach ridges		400								
	Stormwater runoff regulations to provide no net increase in phosphorus		1,000								
Total		**14,105**	**15,505**	**14,105**	**5,292**	**2,192**	**5,292**	**2,192**	**5,292**	**2,192**	**5,292**

a – Already funded; v – Variable; funded by landowner

Conclusions

To meet the resource water quality goal of improving long term Secchi transparency in Square Lake to an average of 7 meters (23 feet), the following strategies will be used:

1. Increase *Daphnia pulicaria* densities through either decreasing predation pressure and/or improving habitat.
2. Maintain or decrease existing phosphorus loads to buffer the lake against potential eutrophication.

The highest priority implementation activities identified in this implementation plan are a three-year stocking suspension of rainbow trout in Square Lake to evaluate whether stocking suspension results in an increase in *Daphnia pulicaria* density and water clarity of the lake, and continued in-lake water quality monitoring. Additional priority implementation activities that maintain or decrease the total phosphorus load to Square Lake include septic system pumping and upgrades to reduce phosphorus loading from groundwater; and shoreline buffers, rain gardens, and lawn management activities to reduce phosphorus loading from surface water runoff. Implementation of priority activities should begin immediately with a three-year trout stocking suspension. During this time, only activities which maintain existing phosphorus loads to the lake through regulation and education should be implemented. Following the trout stocking suspension, all remaining activities should be implemented according to the schedule from Table 14 in Section 4.6 of this report.

Appendix III

Park User Analysis

Square Lake Park, Park Use Vehicle Counts

	1-May		2-May		3-May		4-May		5-May		6-May	
PARK	**Vehicles**	**People**	**Vehicles**	**People**	**Vehicles**	**People**	**Vehicles**	**People**	**Vehicles**	**People**	**Vehicles**	**People**
BMPR	86	221.88	227	585.66	239	616.62	95	245.1	114	294.12	147	379.26
CGR		0		0		0		0	225	580.5	297	766.26
LEPR	310	799.8	738	1904.04	717	1849.86	362	933.96	295	761.1	337	869.46
PD	287	740.46	672	1733.76	605	1560.9	272	701.76	252	650.16	322	830.76
SCB	175	451.5	643	1658.94	492	1269.36	188	485.04	170	438.6	206	531.48
SQL	108	278.64	302	779.16	302	779.16	134	345.72	94	242.52	177	456.66
ALL	966	2492.28	2582	6661.56	2355	6075.9	1051	2711.58	1150	2967	1486	3833.88

*Traffic Counter at CGR was not collecting data on 5/1-5/4

Avg persons/vehicle: 2.58

Square Lake Park, Park Use Vehicle Counts

7-May		8-May		9-May		10-May		11-May		12-May		13-May	
Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People
128	330.24	83	214.14	145	374.1	93	239.94	102	263.16	159	410.22	66	170.28
227	585.66	231	595.98	280	722.4	221	570.18	265	683.7	268	691.44	177	456.66
279	719.82	242	624.36	271	699.18	202	521.16	220	567.6	282	727.56	110	283.8
319	823.02	238	614.04	306	789.48	288	743.04	291	750.78	269	694.02	161	415.38
183	472.14	140	361.2	266	686.28	180	464.4	138	356.04	246	634.68	111	286.38
146	376.68	127	327.66	90	232.2	92	237.36	81	208.98	90	232.2	54	139.32
1282	3307.56	1061	2737.38	1358	3503.64	1076	2776.08	1097	2830.26	1314	3390.12	679	1751.82

Square Lake Park, Park Use Vehicle Counts

14-May		15-May		16-May		17-May		18-May		19-May		20-May	
Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People
144	371.52	245	632.1	142	366.36	47	121.26	91	234.78	162	417.96	216	557.28
307	792.06	324	835.92	300	774	84	216.72	213	549.54	317	817.86	275	709.5
265	683.7	326	841.08	248	639.84	67	172.86	183	472.14	234	603.72	294	758.52
334	861.72	454	1171.32	340	877.2	158	407.64	214	552.12	314	810.12	428	1104.24
218	562.44	334	861.72	290	748.2	58	149.64	138	356.04	246	634.68	291	750.78
87	224.46	143	368.94	133	343.14	31	79.98	50	129	103	265.74	203	523.74
1355	3495.9	1826	4711.08	1453	3748.74	445	1148.1	889	2293.62	1376	3550.08	1707	4404.06

Square Lake Park, Park Use Vehicle Counts

21-May		22-May		23-May		24-May		TOTAL	
Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People	Vehicles	People
169	436.02	169	436.02	152	392.16	225	580.5	3446	8890.68
275	709.5	233	601.14	271	699.18	299	771.42	5089	13129.62
206	531.48	239	616.62	218	562.44	265	683.7	6910	17827.8
267	688.86	282	727.56	375	967.5	506	1305.48	7954	20521.32
209	539.22	228	588.24	238	614.04	357	921.06	5745	14822.1
87	224.46	105	270.9	115	296.7	195	503.1	3049	7866.42
1213	3129.54	1256	3240.48	1369	3532.02	1847	4765.26	32193	83057.94

Liz Roten and Darcie Vandegrift

Square Lake StreetLight Research

Preliminary results

2020-06-26

Connor Schaefer – Washington County Parks

METROPOLITAN COUNCIL

Agenda

- Overview
- StreetLight estimated visitor count
- StreetLight inferred visitor demographics
- Activity within Square Lake Park
- Discussion

METROPOLITAN COUNCIL

StreetLight estimated visitor count

METROPOLITAN COUNCIL

Square Lake Trail N
Square Lake Trail N
Square Lake Trail N
Map
Satellite

Square Lake Trail N
Square Lake Trail N
Paul Ave N
Square Lake Park
Bathhouse

StreetLight vehicle and visitor count for Summer 2019, excluding holidays

Zone name	Day Type	Day Part	Average Daily Zone Volume	Estimated total vehicles for entire summer	Estimated total visitors for entire summer
Square Lake Entrance Eastbound	0: All Days (M-Su)	1: Operating Hours (6am-10pm)	377	36,192	93,375
Square Lake Entrance Eastbound	1: Weekday (M-F)	1: Operating Hours (6am-10pm)	318	20,670	53,329
Square Lake Entrance Eastbound	2: Weekend Day (Sa-Su)	1: Operating Hours (6am-10pm)	517	14,476	37,348

2019 Use Estimate: 73,745 visits

StreetLight Weekday + Weekend = 90,676 visits

METROPOLITAN COUNCIL

StreetLight vehicle and visitor count for Summer 2019 – holidays only

Zone name	Day Type	Day Part	Average Daily Zone Volume	Estimated total vehicles all holidays	Estimated total visitors for entire summer
Square Lake Entrance Eastbound	0: All Days (M-Su)	1: Operating Hours (6am-10pm)	592	1,776	4,582
Square Lake Entrance Eastbound	1: Weekday (M-F)	1: Operating Hours (6am-10pm)	592	1,776	4,582

2019 Use Estimate: 73,745 visits

METROPOLITAN COUNCIL

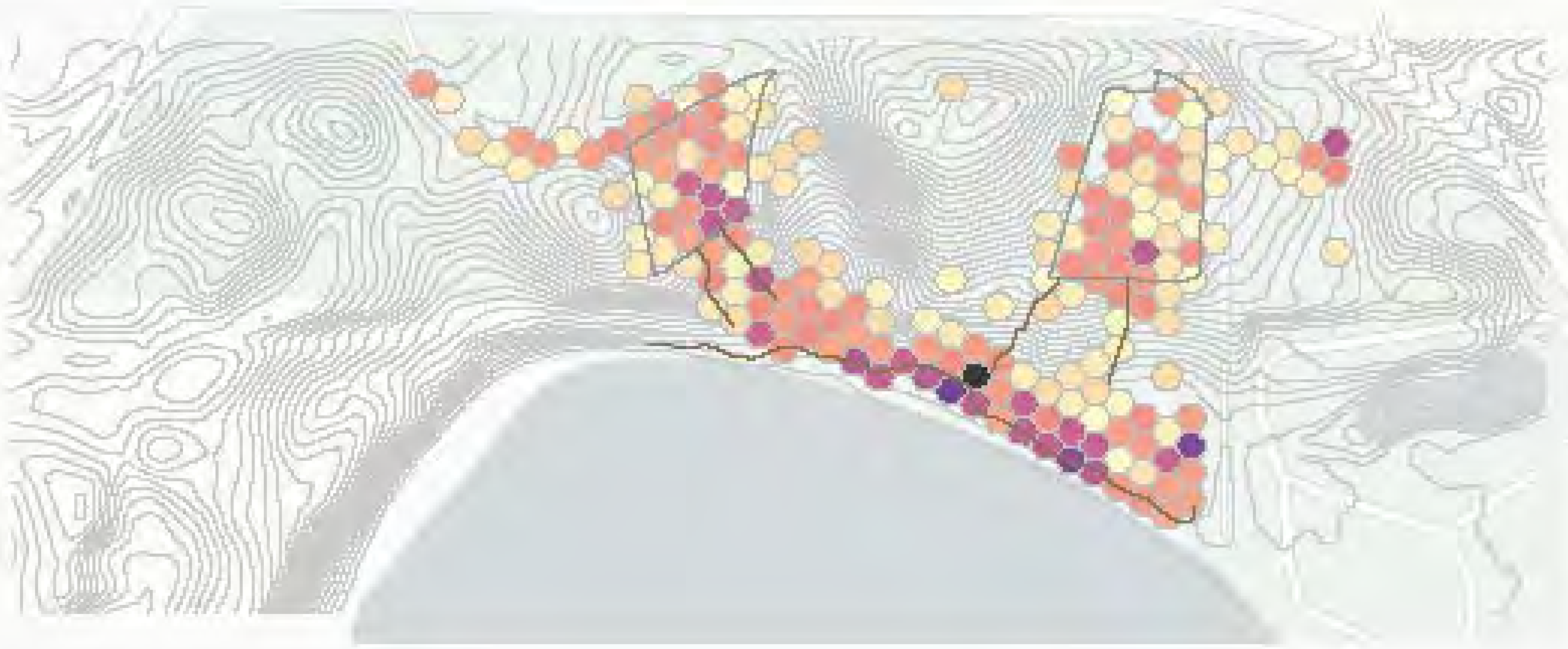
Activity within Square Lake Park

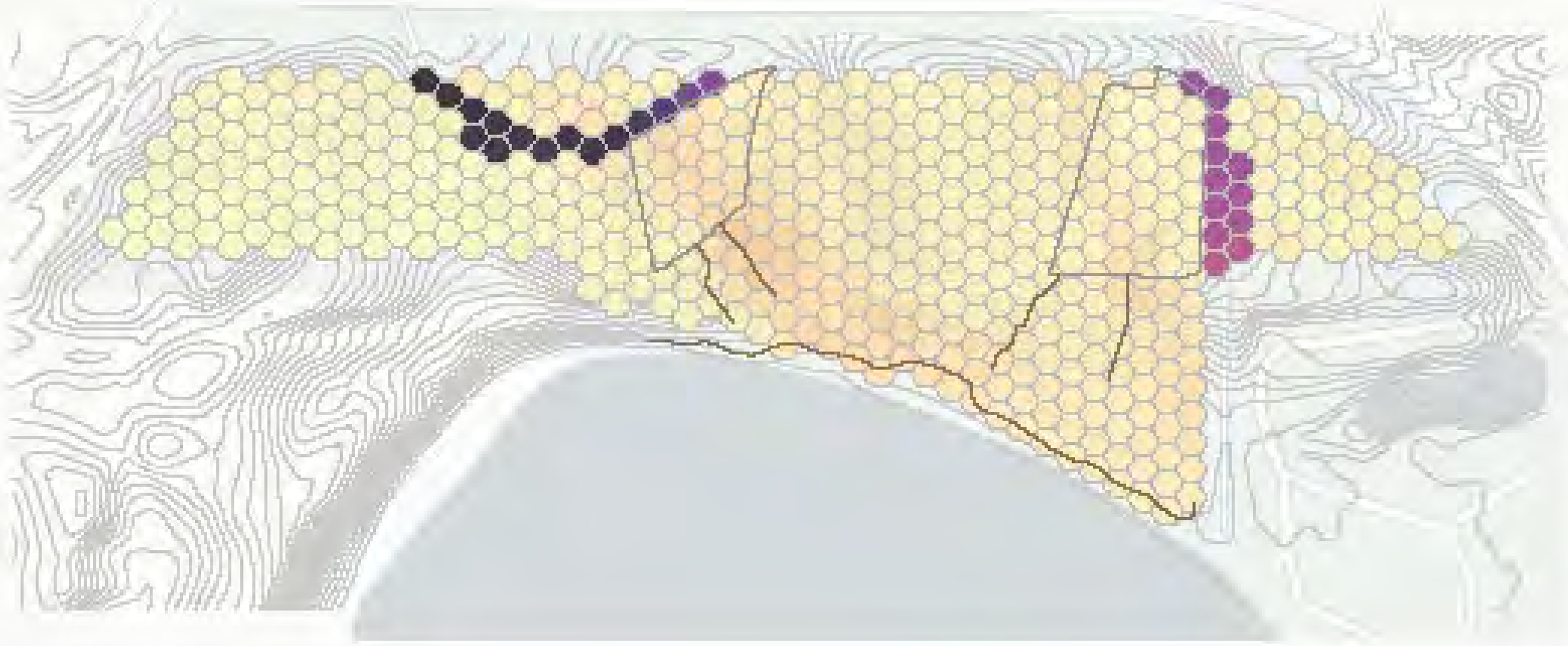
METROPOLITAN COUNCIL

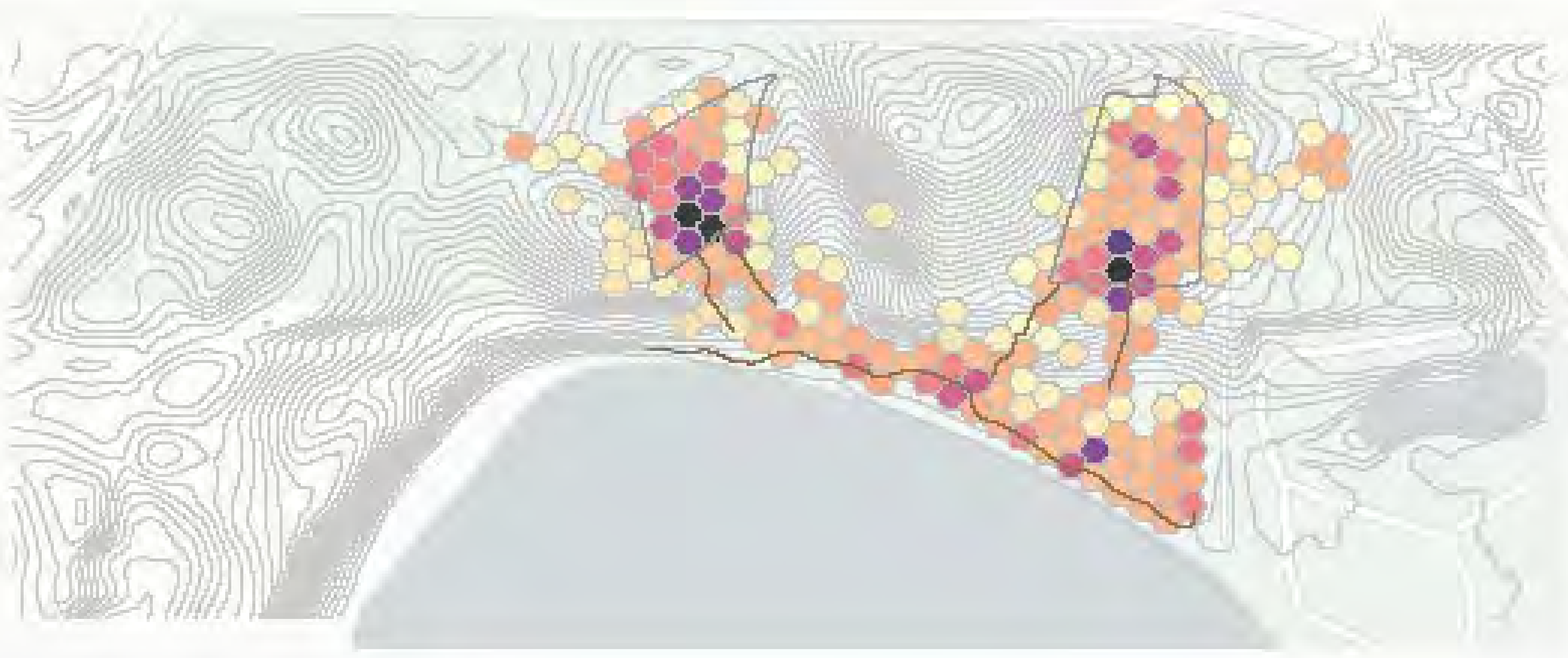
Activity within Square Lake Park: Research Method

1. Generate hexagon grid over Square Lake Park. Each hex is 150 meters^2 (about 1,600^2 feet)
2. Upload zone set as pass-through and trip start/trip end.
3. Run analyses for each season in 2019 for trip start/trip end
    1. Run pass-through analysis for summer only
4. Review and plot data for Summer 2019, operating hours, all days.

METROPOLITAN COUNCIL







Activity within Square Lake Park - Summer 2019

What is a trip?

A trip starts when a device begins moving and ends when a device does not move more than 16 feet in 5 minutes. A trip must also be at least 3 minutes and about 1/3 mile in length.

Trip End

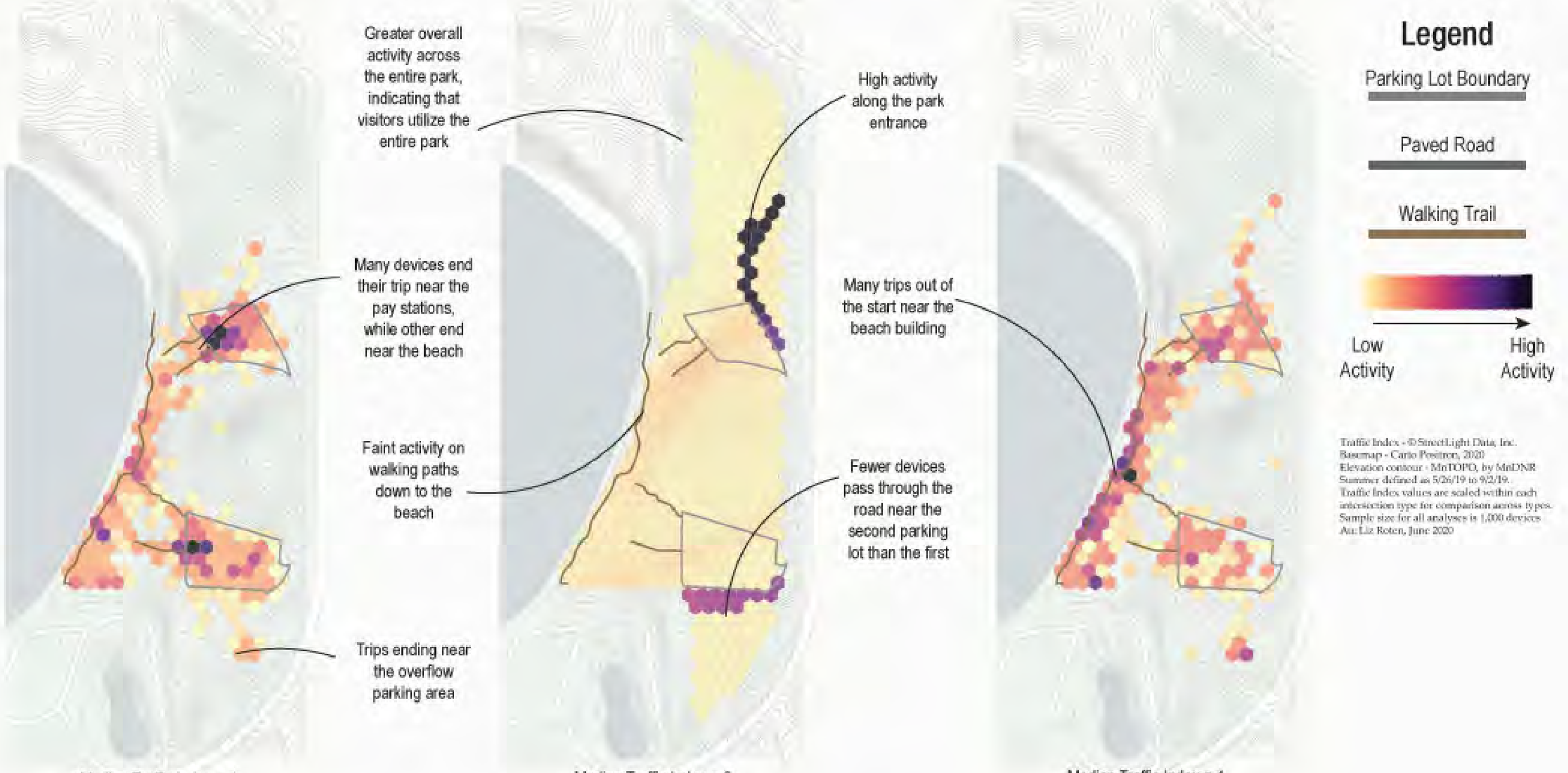
Detects only trips that start outside a given hexagon, and end in a given hexagon

Trip Pass-Through

Detects only trips that passed through the given hexagon without stopping

Trip Start

Detects only trips that starts in a given hexagon and ends somewhere else



Median Traffic Index = 1
Mean Traffic Index = 1.2

Median Traffic Index = 6
Mean Traffic Index = 15.9

Median Traffic Index = 1
Mean Traffic Index = 0.86

Legend

Parking Lot Boundary

Paved Road

Walking Trail

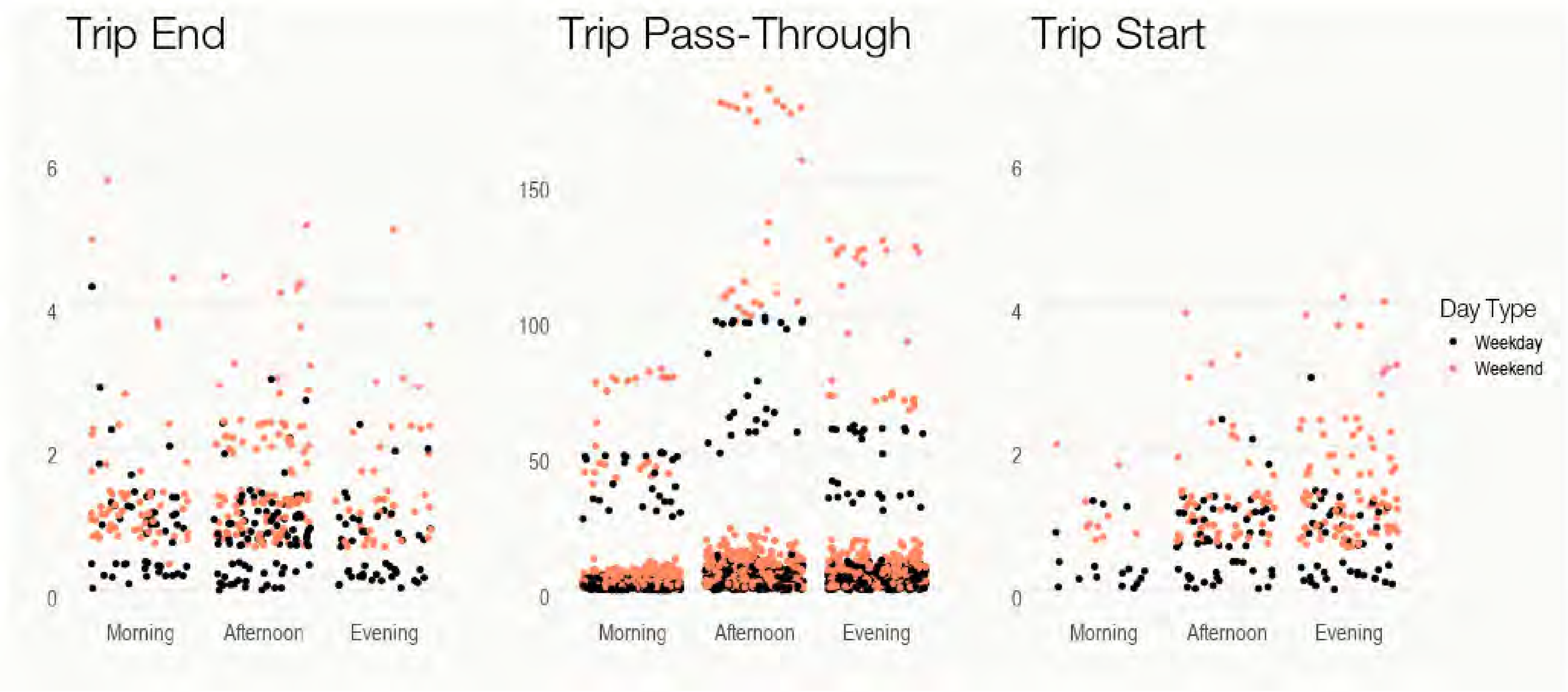
Low Activity — High Activity

Traffic Index - © StreetLight Data, Inc.
Basemap - Carto Positron, 2020
Elevation contour - MnTOPO, by MnDNR
Summer defined as 5/26/19 to 9/2/19.
Traffic Index values are scaled within each intersection type for comparison across types.
Sample size for all analyses is 1,000 devices
Au: Liz Roten, June 2020

Aggregated location data from individual devices reveal high-activity areas and paths.

These maps visualize the activity within Square Lake Park on an average day during operating hours (6am - 10pm) in Summer 2019. Each map shows a grid of hexagons covering Square Lake Park. The hexagons are colored such that darker shades indicate greater activity, and lighter shades indicate lower activity. Each trip intersection type highlights the ways in which visitors enjoy the park. However, activity on the Square Lake, such as paddling, boating, or using the fishing pier, is not detected.

Hex Traffic Distribution by Day Type and Day Part – Summer 2019



For more exploration

- Interactive data and maps: https://metrotransitmn.shinyapps.io/square_lake_preliminary_results/

METROPOLITAN COUNCIL

NRPA Facility Market Report: Community Profile

Analysis of:
Square Lake Park
15450 Square Lake Trail N
Stillwater, MN 55082

Park and recreation agencies offer a diverse set of offerings and program activities to meet the needs of their communities. But the offerings that work well for one agency, or even one part of an agency's service area, may not be the best fit elsewhere. As a result, park and recreation professionals seek information and insights that empower them to make decisions on the optimal program and service offerings for their communities.

In your hands is the **NRPA Facility Market Report** for the Square Lake Park. This report offers an array of data that provides your agency with a greater understanding of the residents served by the facility, with a particular focus on their habits and interests.

Key Findings About the Square Lake Park:

228,330

Number of residents living within a 30-minute drive of the facility per Census 2010

40.2

Median age of residents living within a 30-minute drive of the facility per Census 2010

19.8%

Percentage of adult population living within a 30-minute drive of the facility that exercise at least seven hours per week

Figure 1: Map of Ten, Twenty and Thirty Minute Drives from the Facility

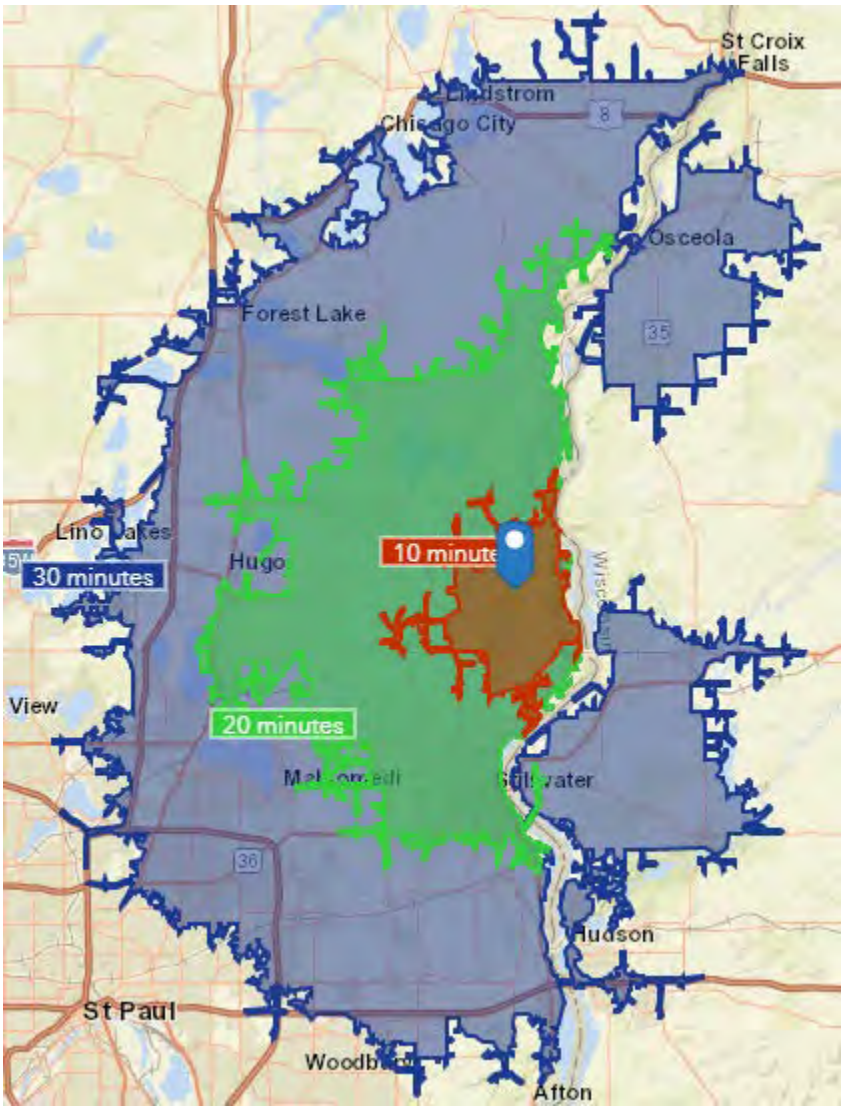


Figure 1 illustrates the physical accessibility, in terms of driving times, of Square Lake Park. The highlighted areas show the driving times of the facility, broken down into ten (brown), twenty (green) and thirty (blue) minute estimated drive time intervals. Although usage and constituent population will vary by the facility type, the 30-minute drive time area is presented as a *general* guideline on the size of the population most likely to visit the facility. That is, those residing within the area shaded blue may represent the most likely users of common facilities such as recreation and community centers, athletic fields, playgrounds, tennis courts, senior centers and aquatic facilities.

About the Residents Who Live Within a 30-Minute Drive of the Facility

Figure 2: 2010 Census Data and 2020 & 2025 Forecast Data of People Residing Within a 30-Minute Drive of the Facility

Summary	Census 2010	2020 Forecast	2025 Forecast
Population	228,330	248,966	261,566
Households	87,951	96,257	101,054
Families	61,797	66,986	70,199
Average Household Size	2.54	2.54	2.54
Owner Occupied Homes	70,118	77,286	81,654
Renter Occupied Homes	17,833	18,971	19,400
Median Age	40.2	41.4	42.1
Median Household Income		$85,845	$92,416

Race and Ethnicity	Census 2010		2020 Forecast		2025 Forecast	
	Number	Percent	Number	Percent	Number	Percent
White Alone	205,948	90.2%	215,306	86.5%	220,201	84.2%
Black Alone	6,441	2.8%	9,630	3.9%	11,850	4.5%
American Indian Alone	1,088	0.5%	1,232	0.5%	1,342	0.5%
Asian Alone	8,446	3.7%	13,336	5.4%	16,650	6.4%
Pacific Islander Alone	82	0.0%	159	0.1%	203	0.1%
Some Other Race Alone	1,887	0.8%	2,702	1.1%	3,257	1.2%
Two or More Races	4,438	1.9%	6,601	2.7%	8,063	3.1%
Hispanic Origin (Any Race)	6,419	2.8%	9,154	3.7%	11,125	4.3%

Figure 2 summarizes Census data of the residents living within a 30-minute drive of the facility, including population, household formation and home ownership status. The 2010 data represents actual United States Census data, while the 2020 and 2025 figures are projections developed by Esri. The projections are based on forecasts for births, deaths, international and domestic migration and other factors that influence population shifts. These projections, which naturally are subject to revision, assist your agency in its planning of future programming at the facility over the coming years.

Figure 3: Forecasted Age Trends of People Residing Within a 30-Minute Drive of the Facility

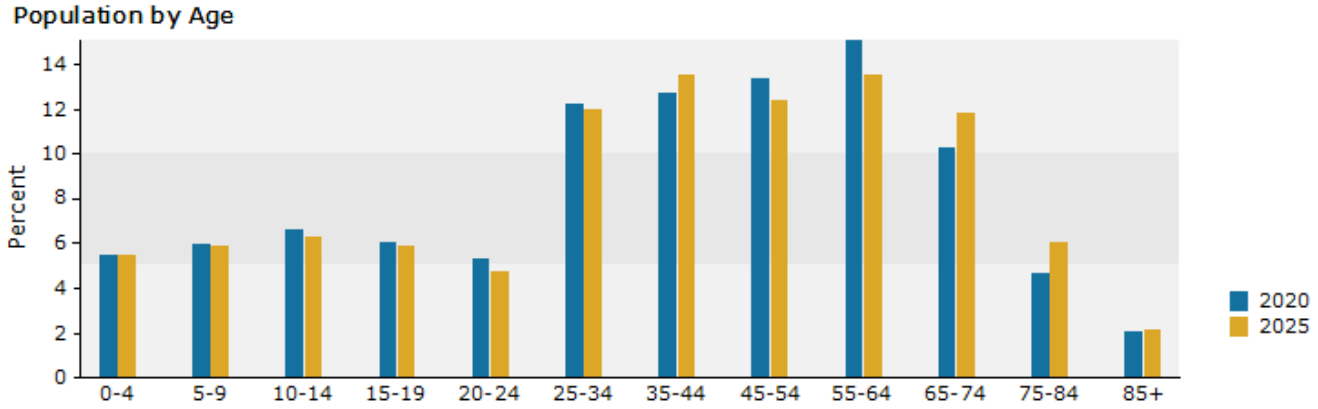


Figure 4: Census 2010 Data and Forecasted Age Trends of People Residing Within a 30-Minute Drive of the Facility

	Census 2010		2020 Forecast		2025 Forecast	
Population by Age	Number	Percent	Number	Percent	Number	Percent
0 - 4	13,682	6.0%	13,605	5.5%	14,310	5.5%
5 - 9	15,430	6.8%	14,880	6.0%	15,315	5.9%
10 - 14	16,486	7.2%	16,378	6.6%	16,474	6.3%
15 - 19	15,743	6.9%	15,183	6.1%	15,458	5.9%
20 - 24	11,922	5.2%	13,136	5.3%	12,509	4.8%
25 - 34	26,571	11.6%	30,516	12.3%	31,261	12.0%
35 - 44	29,985	13.1%	31,567	12.7%	35,675	13.6%
45 - 54	39,551	17.3%	33,483	13.4%	32,309	12.4%
55 - 64	29,986	13.1%	37,638	15.1%	35,651	13.6%
65 - 74	15,579	6.8%	25,696	10.3%	30,960	11.8%
75 - 84	9,139	4.0%	11,637	4.7%	15,962	6.1%
85+	4,256	1.9%	5,247	2.1%	5,683	2.2%

Figures 3 and 4 provide an age distribution of the population living with a 30-minute drive of the facility by age groups, as reported in United States Census and American Community Survey (ACS) data.

Note that the age ranges are not of equal size. The age groups ranging from birth to 24 years old are grouped into five-year increments, ages 25 to 84 are grouped into ten-year increments and individuals 85 years and older are placed into a single age group.

From a recreation programming and planning perspective, the classification of youth and young adults into small age groups aid your agency with programing decisions for children and young adults. Whereas adults within a ten-year age range (e.g., ages 35 to 44) may likely share similar recreation interests, the similarly large size age groups may not make as much sense for children and young adults. For example, recreation interests of five year olds have few similarities of those of 15 year olds. Hence, the five-year age ranges for the younger age groupings provide your agency with more valuable insights about the relative size of the youth population when considering their recreation needs.

Personal Interests, Activities and Spending Habits

Figures 5 - 8 summarize the personal interests, activities, and spending habits of residents living within a 30-minute drive of the facility. These tables include predictors of recreation activity and spending that better inform programming decision making for your facility.

Pay particular attention to the Market Potential Index, or MPI. The MPI represents the relative likelihood of adults living near your facility to engage in a particular activity in comparison to the U.S. average. This measure is indexed to 100, so that an MPI greater than 100 indicates a greater than average likelihood (relative to the whole U.S.) to participate in the activity while an MPI less than 100 suggests a less than average likelihood to engage in the activity.

Figure 5: Weekly Exercise Habits of People Residing Within a 30-Minute Drive of the Facility

	Expected Number of Adults	Percent	MPI
Spends 7+ hours exercising per week	38,384	19.8%	101
Spends 4-6 hours exercising per week	41,272	21.2%	112
Spends 1-3 hours exercising per week	48,549	25.0%	105

Figure 5 shows the weekly exercise habits for people within a 30-minute drive of your facility. The percentages are the proportion of adults living within a ten-minute drive of the facility that exercise one to three, four to six or seven-plus hours a week. An MPI value greater of 100 indicates a greater percentage of the adult population living within a 30-minute drive of the facility exercises one to two, three to five or six-plus hours a week versus the U.S. as a whole.

Figure 6: Participation Rates of Select Recreation Activities of People Residing Within a 30-Minute Drive of the Facility

	Expected Number of Adults	Percent	MPI
Participated in aerobics in last 12 months	14,835	7.6%	109
Participated in basketball in last 12 months	15,465	8.0%	101
Participated in yoga in last 12 months	18,815	9.7%	118
Participated in weight lifting in last 12 months	23,510	12.1%	118
Participated in tennis in last 12 months	6,874	3.5%	99
Participated in soccer in last 12 months	8,027	4.1%	98

Figure 6 presents data on the level of adult participation in select recreation activities among residents living within a 30-minute drive of the facility. Using this data, you can estimate the interests of residents in your facility's service area, helping inform programming planning decisions.

Figure 7: Social Media Usage of People Residing Within a 30-Minute Drive of the Facility

	Expected Number of Adults	Percent	MPI
Facebook	129,250	66.5%	103
YouTube	102,747	52.9%	102
Twitter	30,212	15.6%	108

Figure 7 shows the level of social media usage of adult residents that reside within a 30-minute drive of your facility. Understanding the social media habits of the residents living near the facility informs your agency on the potential efficacy of social media channels in supporting marketing strategies for the facility's programming and services.

Figure 8: Spending Habits on Recreation Activities of People Residing Within a 30-Minute Drive of the Facility

	Spending Potential Index	Average Annual Amount Spent	Total
Total Spent on Entertainment/Recreation Fees and Admissions	128	$915.87	$88,158,493
- **Tickets to Theatre/Operas/Concerts**	128	$103.36	$9,948,961
- **Tickets to Movies**	122	$69.95	$6,732,975
- **Tickets to Museums/Parks**	119	$39.23	$3,776,306
- **Admission to Sporting Events**	127	$79.50	$7,652,652
- **Fees for Participant Sports**	131	$128.65	$12,383,781
- **Fees for Recreational Lessons**	130	$188.75	$18,168,904
- **Membership Fees for Social/Recreation/Civic Clubs**	127	$305.43	$29,399,466

Figure 8 summarizes the spending habits of nearby residents on recreation activities by presenting the Spending Potential Index (SPI) and average annual spending on select recreation and leisure activities. Similar to the MPI, the SPI is indexed such that a reading of 100 represents average spending among all U.S. households. Hence, a reading above 100 means residents living within a 30-minute drive of the facility spends more on average on the particular activity relative to the U.S. as a whole.

While all of the leisure activities presented in the table may not be relevant to your facility, these data provide your agency with guidance on the leisure interests of your patrons, as well as their ability/willingness to pay for those experiences. For example, a population that has a higher than average SPI for "Fees for Recreational Lessons" may indicate a significant opportunity—and/or a greater willingness to pay—for high quality fee-based recreation programs at your facility.

Final Thoughts

While the information within this report is not intended to be indicative of the entire population served by Square Lake Park, it gives your agency insights on the potential market for the facility with a particular focus on those living within a 30-minute drive. One note of caution: the analysis provided within this report is meant to be for informational purposes only and does not represent a recommendation by NRPA for the facility's operations.

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This report is only one example of the many benefits and resources available to you as a Premier member of NRPA. Your all-inclusive membership gives your agency maximum value and convenience to NRPA's exceptional benefits and resources including:

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For a full list of your membership benefits, please visit www.nrpa.org/Member-Benefits

NRPA Facility Market Report: Health and Wellness

Analysis of:
Square Lake Park
15450 Square Lake Trail N
Stillwater, MN 55082

Park and recreation agencies provide a diverse set of offerings and program activities to meet the needs of their communities. But, the offerings that work well for one agency, or even one part of an agency's service area, may not be the best fit elsewhere. As a result, a better understanding of the people most likely served by particular park and recreation facilities — including their greatest needs and desire — is necessary to make decisions on the optimal program and service offerings.

One resource is the **NRPA Facility Market Report: Health and Wellness** for Square Lake Park. This report offers an array of data that provides your agency with a greater understanding of the residents it serves, with a particular focus on their health and wellness-related behaviors, conditions and interests.

Key Findings About Square Lake Park:

228,330

Number of residents living within a 30-minute drive of the facility per Census 2010

8.3%

Percentage of adult population living within a 30-minute drive of the facility that use prescription drugs for high cholesterol

19.8%

Percentage of adult population living within a 30-minute drive of the facility that exercise at least seven hours per week

1

Figure 1: Map of 10-, 20- and 30-Minute Drives from the Facility

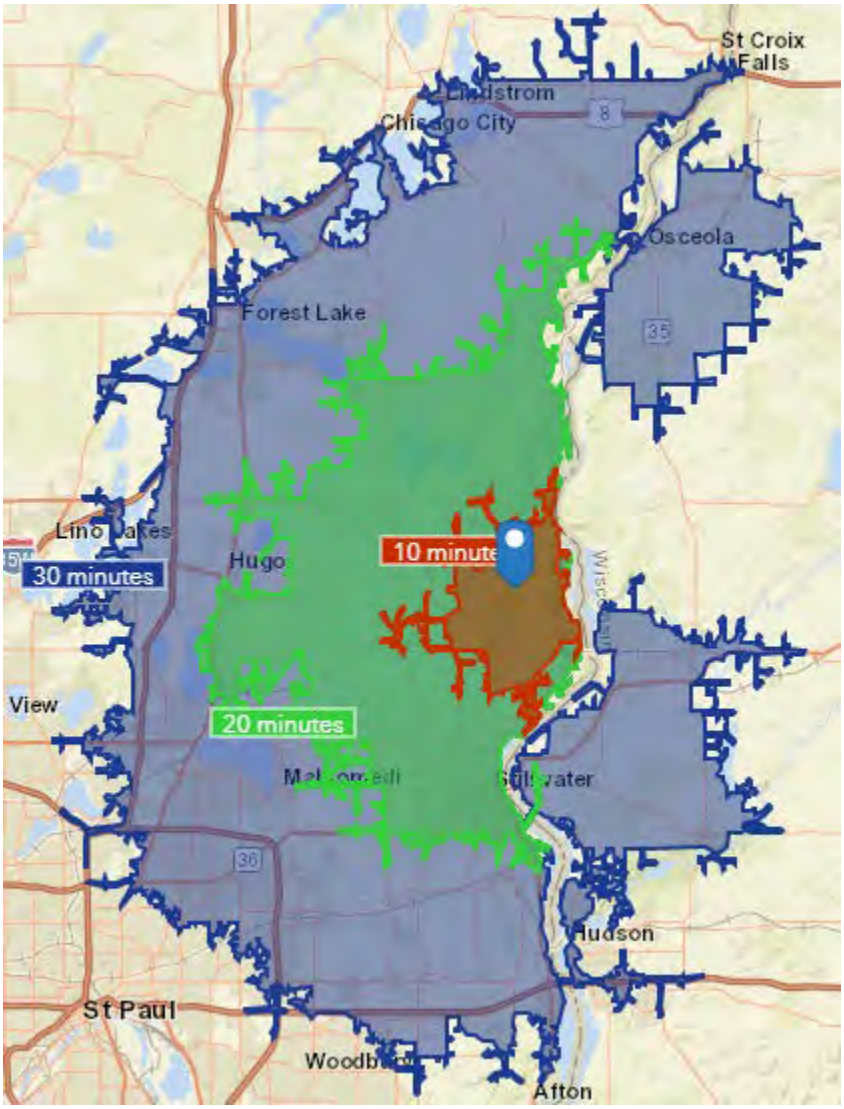

Figure 1 illustrates the physical accessibility, in terms of driving times, of the Square Lake Park. The highlighted areas show the driving times to the facility, broken down into 10- (brown), 20- (green) and 30-minute (blue) estimated drive time intervals. Although usage and constituent population will vary by the facility type, the 30-minute drive time area is presented as a *general* guideline on the size of the population most likely to visit the facility. That is, those residing within the area shaded blue may represent the most likely users of common facilities such as recreation and community centers, athletic fields, playgrounds, tennis courts, senior centers and aquatic facilities.

1

About the Residents Who Live Within a 30-Minute Drive of the Facility

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Summary	Census 2010	2020 Forecast	2025 Forecast
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Households	87,951	96,257	101,054
Families	61,797	66,986	70,199
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Owner-Occupied Homes	70,118	77,286	81,654
Renter-Occupied Homes	17,833	18,971	19,400
Median Age	40.2	41.4	42.1

Households by Income	2020 Forecast	2025 Forecast
Median Household Income	$85,845	$92,416
Average Household Income	$110,263	$121,025
Per Capita Income	$42,547	$46,647

Figure 2 summarizes Census data of the residents living within a 30-minute drive of the facility, including population, home ownership status, households by income and ethnicity. The 2010 data represents United States Census data, while the 2020 and 2025 figures are projections developed by Esri. The projections are based on forecasts for births, deaths, international and domestic migration and other factors that influence population shifts. These projections, which naturally are subject to revision, assist your agency in its planning of future programming at the facility over the coming years.

Figure 3: Race and Ethnicity of People Residing Within a 30-Minute Drive of the Facility

Race and Ethnicity	Census 2010		2020 Forecast		2025 Forecast	
	Number	Percent	Number	Percent	Number	Percent
White Alone	205,948	90.2%	215,306	86.5%	220,201	84.2%
Black Alone	6,441	2.8%	9,630	3.9%	11,850	4.5%
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Hispanic Origin (Any Race)	6,419	2.8%	9,154	3.7%	11,125	4.3%

Although most injuries and diseases are colorblind in terms of race, some health concerns disproportionately affect certain ethnic groups because of differences in genetics, diet, lifestyle behaviors, socioeconomic factors and more. Providing affordable health programs that cater to your community's racial and ethnic makeup through targeted information, fitness opportunities, and alternatives to unhealthy and unsafe practices, your agency can play a vital role in the overall health of community members.

1

Figure 4: Forecasted Age Trends of People Residing Within a 30-Minute Drive of the Facility

	Census 2010		2020 Forecast		2025 Forecast	
Population by Age	Number	Percent	Number	Percent	Number	Percent
0 - 4	13,682	6.0%	13,605	5.5%	14,310	5.5%
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25 - 34	26,571	11.6%	30,516	12.3%	31,261	12.0%
35 - 44	29,985	13.1%	31,567	12.7%	35,675	13.6%
45 - 54	39,551	17.3%	33,483	13.4%	32,309	12.4%
55 - 64	29,986	13.1%	37,638	15.1%	35,651	13.6%
65 - 74	15,579	6.8%	25,696	10.3%	30,960	11.8%
75 - 84	9,139	4.0%	11,637	4.7%	15,962	6.1%
85+	4,256	1.9%	5,247	2.1%	5,683	2.2%

From a recreation programming and planning perspective, the classification of youth and young adults into small age groups aid your agency with programing decisions for children and young adults. Whereas adults within a 10-year age range (e.g., ages 35 to 44) may likely share similar recreation interests, the similarly large size age groups may not make as much sense for children and young adults. For example, recreation interests of 5 year olds have few similarities of those of 15 year olds. Hence, the five-year age ranges for the younger age groupings provide your agency with more valuable insights about the relative size of the youth population when considering their recreation needs.

Health-Related Interests, Activities and Spending Habits

Figures 5-7 summarize the weekly exercise habits, at-home gym equipment ownership and participation in select recreation activities among residents living within a 30-minute drive of the facility. These tables include predictors of exercise activity and recreational activity participation that better inform programming decisions for your facility.

Pay particular attention to the Market Potential Index, or MPI. The MPI represents the relative likelihood of adults living near your facility to engage in a particular activity in comparison to the U.S. average. This measure is indexed to 100 so that an MPI greater than 100 indicates a greater-than-average likelihood (relative to the entire United States) to participate in the activity, while an MPI of less than 100 suggests a less-than-average likelihood to engage in the activity.

1

Figure 5: Weekly Exercise Habits of People Residing Within a 30-Minute Drive of the Facility

	Expected Number of Adults	Percent	MPI
Spends 7+ hours exercising per week	38,384	19.8%	101
Spends 4-6 hours exercising per week	41,272	21.2%	112
Spends 1-3 hours exercising per week	48,549	25.0%	105
Exercise at home 2+ times per week	60,590	31.2%	114
Exercise at club 2+ times per week	31,657	16.3%	115

Figure 5 shows the weekly exercise habits of people within a 30-minute drive of your facility. The percentages are the proportion of adults living within a 30-minute drive of the facility that exercise the indicated number of hours or in the indicated specific locations. An MPI value larger than 100 indicates a greater percentage of the adult population living within a 30-minute drive of the facility participates in the indicated field at a higher rate than the United States as a whole.

Figure 6: Ownership Rates of Select Equipment for People Residing Within a 30-Minute Drive of the Facility

	Expected Number of Adults	Percent	MPI
Own elliptical	10,448	5.4%	129
Own stationary bicycle	11,664	6.0%	119
Own treadmill	21,874	11.3%	136
Own weight lifting equipment	28,182	14.5%	127

Figure 6 presents data on the expected number of adults who own certain pieces of home gym equipment among residents living within a 30-minute drive of the facility. Using this data, you can identify specific interests in exercise equipment by residents in your facility's service area. This information can help create programming that encourages your residents to maintain healthy lifestyles based on activities they already show a personal interest in.

Figure 7: Participation Rates of Select Recreation Activities of People Residing Within a 30-Minute Drive of the Facility

	Expected Number of Adults	Percent	MPI
Participated in aerobics in last 12 months	14,835	7.6%	109
Participated in bicycling (mountain) in last 12 months	8,764	4.5%	111
Participated in bicycling (road) in last 12 months	20,840	10.7%	116
Participated in hiking in last 12 months	28,356	14.6%	120
Participated in jogging/running in last 12 months	27,453	14.1%	116
Participated in swimming in last 12 months	34,265	17.6%	115
Participated in walking for exercise in last 12 months	53,267	27.4%	116

1

Figure 7 summarizes the level of participation in select recreation activities among adult residents living within a 30-minute drive of the facility. Knowing what kind of activities the locals are engaging in can help your agency tailor programs that people will actively want to participate in. This provides another avenue your agency can explore in order to increase in the number of opportunities for physical activity.

Figure 8: Prescription Drug Usage of People Residing Within a 30-Minute Drive of the Facility

Used prescription drug for:	Expected Number of Adults	Percent	MPI
Anxiety / Panic	11,989	6.2%	105
Arthritis / Osteoarthritis	6,051	3.1%	98
Depression	12,190	6.3%	102
Diabetes (insulin dependent)	3,959	2.0%	90
Diabetes (non-insulin dependent)	8,639	4.4%	98
Heartburn / acid reflux	11,331	5.8%	106
High blood pressure	25,818	13.3%	101
High cholesterol	16,048	8.3%	103
Migraine headache	5,970	3.1%	103

Figure 8 shows the level of prescription drug usage for adult residents that reside within a 30-minute drive of your facility. Understanding the prescription drug usage of residents living near the facility gives your agency a high-level perspective on common health issues. Educating residence on how participating in certain health and fitness programs could be beneficial to specific medical conditions may play a significant role in reducing the rate of chronic illnesses and health conditions like diabetes, hypertension and high cholesterol.

Figure 9: Doctor Visitation Levels of People Residing Within a 30-Minute Drive of the Facility

	Expected Number of Adults	Percent	MPI
Visited doctor in last 12 months	153,783	79.2%	104
Visited doctor in last 12 months: 6+ times	64,045	33.0%	112

Figure 9 summarizes the occurrence and frequency of nearby residents when it comes to doctor visitation in the last 12 months. These figures may suggest the number of local residents that may have chronic health issues where parks and recreation can be a part of the solution. At the same time, doctors are trusted advisers to most people. High levels of doctor visits strengthens the case for park and recreation agencies forming and expanding relationships with local medical practitioners, as those practitioners can recommend or prescribe that their patients improve their level of activity by visiting their local parks.

1

Figure 10: Dietary Control Habits of People Residing Within a 30-Minute Drive of the Facility

	Expected Number of Adults	Percent	MPI
Used exercise program for diet method	19,105	9.8%	112
Diet control to maintain weight	19,640	10.1%	107
Diet control for physical fitness	22,252	11.5%	110
Diet control for weight loss	34,538	17.8%	111

Figure 10 summarizes the dietary control habits of the population living within a 30-minute drive of the facility. By having insight on the percentage of adults who are actively controlling their diet to maintain weight or for physical fitness, your agency can design specific workshops that focus on the nutritional education and physical activity habits that lead to a healthy lifestyle.

Figure 11: Dietary Habits of People Residing Within a 30-Minute Drive of the Facility

	Expected Number of Adults	Percent	MPI
Buy foods specifically labeled as fat-free	17,157	8.8%	99
Buy foods specifically labeled as low-calorie	13,245	6.8%	102
Buy foods specifically labeled as sugar-free	20,263	10.4%	103
Went to fast food/drive-in restaurant in last 6 months	176,682	91.0%	101
Went to fast food/drive-in restaurant 9+ times per month	77,410	39.9%	102
Spent at fast food/drive-in last 6 months: $201+	7,421	3.8%	115

Figure 11 summarizes the dietary choices made by nearby residents. By applying nutrition standards to the food and beverages you sell and serve to kids and other patrons, your agency can be a model for healthy eating behaviors in the community. Offering evidence-based education materials about nutrition and physical activity to residents will also encourage residents to lead a healthy and active lifestyle.

Health Characteristics on a County and State Level

There are other important data that can tell the full story of the overall health and wellness of your community's residents. These can include information about incidences of obesity and diabetes along with the percentage of adults that smoke. Unfortunately, these data are not consistently available in detail to the Census-tract level as are the other data presented within this report. As an alternative, we present these data for the county and state in which your agency operates.

1

Figure 12: Additional Health Characteristics of the People Residing Within the County of the Facility

Report Area	Percent Access to Exercise Opportunities	Percent Adults Physically Inactive	Percent Adults with BMI > 30.0 (Obese)
Washington County, MN	94%	16%	25%
Minnesota	87%	20%	30%

Report Area	Percent of Children in Poverty	Ratio of Primary Care Physicians	Ratio of Mental Health Providers	Percent of Children Eligible for Free/ Reduced Price Lunch
Washington County, MN	5%	930:1	400:1	21%
Minnesota	12%	1,120:1	400:1	37%

Report Area	Life Expectancy	Percent Diabetes Prevalence	Percent Adult Smokers
Washington County, MN	82.2	8%	11%
Minnesota	80.9	8%	15%

Figure 12 shows details about a variety of health outcomes and factors as presented by the University of Wisconsin Population Health Institute and the Centers for Disease Control and Prevention based of the most recent years of data available. The cigarette usage indicator is relevant because tobacco use is linked to leading causes of death, such as cancer and cardiovascular disease. Diabetes and obesity are an increasingly common problem in the United States. A lack of exercise, poor diet and a sedentary lifestyle are most often to blame. There is a solution with little to no cost that is available in nearly every town, city and community — local parks and recreation.

While all of the habits and activities presented in these tables may not be relevant to your facility, these data provide your agency with guidance on the interests and behaviors of your patrons, as well as some background on health-related activities and dietary choices.

1

Final Thoughts

While the information within this report is not intended to be indicative of the entire population served by Square Lake Park, it gives your agency insights on the potential market for the facility with a particular focus on those living within a 30-minute drive. *One note of caution:* The analysis provided within this report is meant to be for informational purposes only and does not represent a recommendation by NRPA for the facility's operations.

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- 10 free Premier-exclusive webinars
- Access to approximately $2.4 million in grant opportunities annually
- Member discounts on insurance, background screenings, software and more

For a full list of your membership benefits, please visit www.nrpa.org/Member-Benefits.

1

NRPA Facility Market Report: Youth Profile

Analysis of:
Square Lake Park
15450 Square Lake Trail N
Stillwater, MN 55082

Park and recreation agencies offer a diverse set of offerings and program activities to meet the needs of their communities. But the offerings that work well for one agency, or even one part of an agency's service area, may not be the best fit elsewhere. As a result, park and recreation professionals seek information and insights that empower them to make decisions on the optimal program and service offerings for their communities.

In your hands is the **NRPA Facility Market Report: Youth Profile** for the Square Lake Park. This report offers an array of data that provides your agency with a greater understanding of the residents under the age of 18 served by the facility, with a particular focus on their family structure.

Key Findings About Square Lake Park:

61,797

Number of families living within a 30-minute drive of the facility per Census 2010

$188.75

Average amount adults spent on recreational lessons within a 30-minute drive of the facility per 2017-2018 Bureau of Labor Statistics

24.6%

Percentage of population under 18 years of age within a 30-minute drive of the facility per Census 2010

Figure 1: Map of Ten -, Twenty- and Thirty-Minute Drives from the Facility

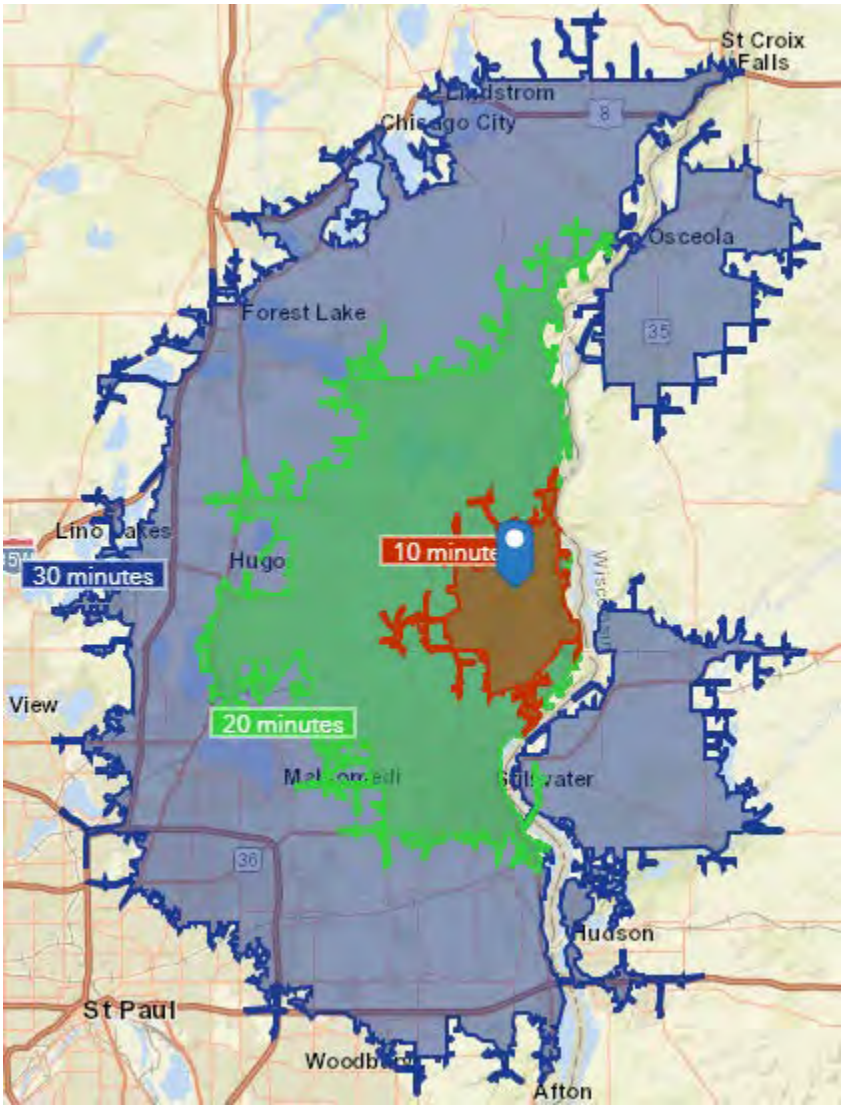

Figure 1 illustrates the physical accessibility, in terms of driving times, of Square Lake Park. The highlighted areas show the driving times of the facility, broken down into ten- (red), twenty- (green) and thirty- (blue) minute estimated drive time intervals. Although usage and constituent population will vary by the facility type, the thirty-minute drive time area is presented as a *general* guideline on the size of the population most likely to visit the facility. That is, those residing within the area shaded blue may represent the most likely users of common facilities such as recreation and community centers, athletic fields, playgrounds, tennis courts, senior centers and aquatic facilities.

About the Residents Who Live Within a Thirty-Minute Drive of the Facility

Figure 2: 2010 Census Data and 2020 & 2025 Forecast Data of People Residing Within a 30-Minute Drive of the Facility

Summary	Census 2010	2019 Forecast	2024 Forecast
Population	228,330	248,966	261,566
Households	87,951	96,257	101,054
Families	61,797	66,986	70,199
Average Household Size	2.54	2.54	2.54
Owner-Occupied Homes	70,118	77,286	81,654
Renter-Occupied Homes	17,833	18,971	19,400
Median Age	40.2	41.4	42.1
Households with Children	28.7%		

Households by Income	2020 Forecast	2025 Forecast
Median Household Income	$85,845	$92,416
Average Household Income	$110,263	$121,025
Per Capita Income	$42,547	$46,647

Figure 2 summarizes Census data of the residents living within a thirty-minute drive of the facility, including population, household formation and home ownership status. The 2010 data represents actual United States Census data, while the 2020 and 2025 figures are projections developed by Esri. The projections are based on forecasts for births, deaths, international and domestic migration and other factors that influence population shifts. These projections, which naturally are subject to revision, assist your agency in its planning of future programming at the facility over the coming years. Households with children include any households with members under age 18, related or not.

Figure 3: Race and Ethnicity of Youth 19 and Under Residing Within a Thirty-Minute Drive of the Facility

Race and Ethnicity	2020 Forecast	
	Number	Percent
White Alone	46,750	21.7%
Black Alone	3,349	34.8%
American Indian Alone	301	24.5%
Asian Alone	4,694	35.1%
Pacific Islander Alone	36	22.5%
Some Other Race Alone	1,043	38.6%
Two or More Races	3,875	58.7%
Hispanic Origin (Any Race)	3,905	42.7%

Figure 3 shows the number of youth aged 19 and under based on race and ethnicity living near the facility. The percentage indicates how much of a given race/ethnic population is under the age of 19. Racial-ethnic disparities in physical activity present important challenges to population health. Public

parks provide access to free or low-cost physical activity opportunities, but it is unclear to what extent parks are utilized by various race-ethnic groups in diverse urban settings.

Figure 4: Forecasted Age Trends of People Residing Within a Thirty-Minute Drive of the Facility

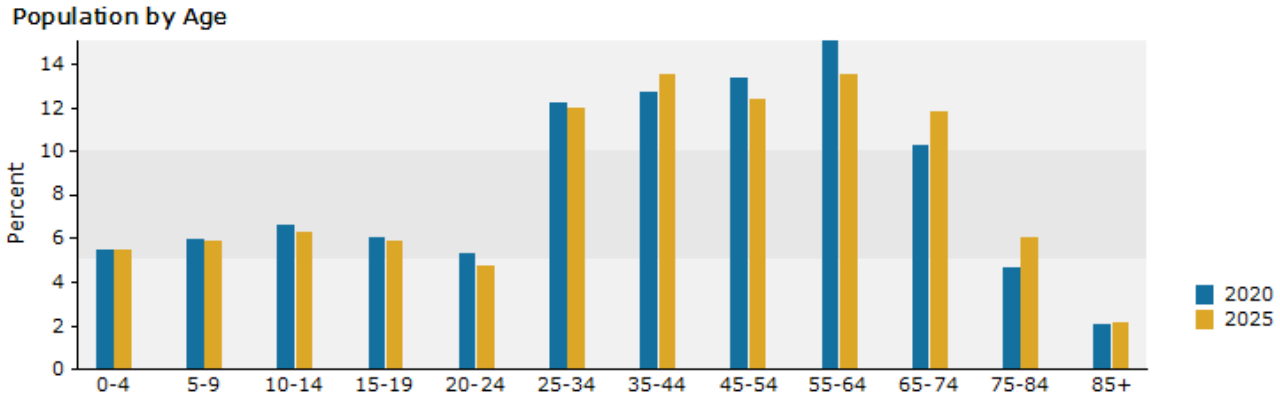

Figure 5: Census 2010 Data and Forecasted Age Trends of People Residing Within a Thirty-Minute Drive of the Facility

	Census 2010		2020 Forecast		2025 Forecast	
Population by Age	Number	Percent	Number	Percent	Number	Percent
0 - 4	13,682	6.0%	13,605	5.5%	14,310	5.5%
5 - 9	15,430	6.8%	14,880	6.0%	15,315	5.9%
10 - 14	16,486	7.2%	16,378	6.6%	16,474	6.3%
15 - 19	15,743	6.9%	15,183	6.1%	15,458	5.9%
20 - 24	11,922	5.2%	13,136	5.3%	12,509	4.8%
25 - 34	26,571	11.6%	30,516	12.3%	31,261	12.0%
35 - 44	29,985	13.1%	31,567	12.7%	35,675	13.6%
45 - 54	39,551	17.3%	33,483	13.4%	32,309	12.4%
55 - 64	29,986	13.1%	37,638	15.1%	35,651	13.6%
65 - 74	15,579	6.8%	25,696	10.3%	30,960	11.8%
75 - 84	9,139	4.0%	11,637	4.7%	15,962	6.1%
85+	4,256	1.9%	5,247	2.1%	5,683	2.2%

Figures 4 and 5 provide a distribution of the population living with a thirty-minute drive of the facility by age groups, as reported in United States Census and American Community Survey (ACS) data.

Note that the age ranges are not of equal size. The age groups ranging from birth to 24 years old are grouped into five-year increments, ages 25 to 84 are grouped into ten-year increments and individuals 85 years and older are placed into a single age group.

From a recreation programming and planning perspective, the classification of youth and young adults into small age groups aid your agency with programing decisions for children and young adults. Whereas adults within a ten-year age range (e.g., ages 35 to 44) may likely share similar recreation interests, the similarly large size age groups may not make as much sense for children and young adults. For example, recreation interests of a five-year old have few similarities of those of a 15-year old, hence the five-year age groupings.

School Enrollment, Households with Children, Primary Language Spoken, and Child Care Expenditures

Figures 6 - 9 summarize the School Enrollment, Households, Primary Language Spoken, and Child Care Expenditures of youth living within a thirty-minute drive of the facility. These tables include predictors of family structure as well as insight into family financial responsibilities.

Pay attention to the Spending Potential Index, or SPI. The SPI represents the relative likelihood of adults living near your facility to spend on a particular service in comparison to the U.S. average. This measure is indexed to 100, so that an SPI greater than 100 indicates a greater than average likelihood (relative to the whole U.S.) to pay for a service while an SPI less than 100 suggests a less than average likelihood to pay for a service.

Figure 6: School Enrollment of Youth Over the Age of Three Residing Within a Thirty-Minute Drive of the Facility

Population Age 3+ by School Enrollment	2014 – 2018 ACS Estimate	Percent
Total	232,374	100.0%
Enrolled in School	57,069	24.6%
Enrolled in nursery school, preschool	4,002	1.7%
Enrolled in kindergarten	2,792	1.2%
Enrolled in grade 1 to grade 4	12,335	5.3%
Enrolled in grade 5 to grade 8	12,212	5.3%
Enrolled in grade 9 to grade 12	14,148	6.1%
Not enrolled in school	175,305	75.4%

Figure 6 shows school enrollment for children living within a thirty-minute drive of your facility. This figure gives insight into the types of programs that may be in highest demand based on the prevalence of a certain grade level. Additionally, knowing the number of students entering into certain grade levels may be able to give your agency that ability to mirror school curricula during out-of-school time programs more efficiently.

Figure 7: Households with Youth Under the Age of 18 Residing Within a Thirty-Minute Drive of the Facility

Households by Presence of People Under 18 Years	2014 – 2018 ACS Estimate	Percent
Households with one or more people under 18 years	29,492	31.8%
Family households	29,218	31.5%
Married-couple family	21,208	22.9%
Male householder, no wife present	2,186	2.4%
Female householder, no husband present	5,824	6.3%
Nonfamily households	274	0.3%

Figure 7 presents data on the number of households with people under 18 years of age living within a thirty-minute drive of the facility. Using this data, you can estimate the interests or needs of residents in your facility's service area, helping inform programming and planning decisions.

Figure 8: Language Spoken at Home by Residents Aged 5-17 Years Residing Within a Thirty-Minute Drive of the Facility

5 to 17 years:	2013 – 2017 ACS Estimate	Percent
Speak only English	37,641	**92%**
Speak Spanish	1,406	**3%**
Speak English "very well" or "well"	1,324	
Speak English "not well"	80	
Speak English "not at all"	2	
Speak other Indo-European languages	429	**1%**
Speak English "very well" or "well"	408	
Speak English "not well"	21	
Speak English "not at all"	0	
Speak Asian and Pacific Island languages	1,260	**3%**
Speak English "very well" or "well"	1,190	
Speak English "not well"	70	
Speak English "not at all"	0	
Speak other languages	346	**1%**
Speak English "very well" or "well"	319	
Speak English "not well"	25	
Speak English "not at all"	2	

Figure 8 presents data on the primary language spoken at home among residents aged 5-17 years living within a thirty-minute drive of the facility. The primary language breakdown represents the percentage of total population aged 5-17 by proficiency. Knowing the primary language your residents are speaking can inform your agency in successfully tailoring marketing or promotional materials resulting in the most effective communication between you and your residents. Additionally, this data could assist in staffing decisions.

Figure 9: Child Care Expenditures for People Residing Within a Thirty-Minute Drive of the Facility

	Spending Potential Index	Average Annual Amount Spent	Total
Household Operations	123	$2,622.54	$252,438,267
- **Child Care**	125	$642.83	$61,877,236

Figure 9 summarizes the level of expenditures for nearby resident's child care by presenting the Spending Potential Index (SPI) and average annual spending. The SPI is indexed such that a reading of 100 represents average spending among all U.S. households. Hence, a reading above 100 means residents living within a thirty-minute drive of the facility spends more on child care than the average U.S. household. This data could assist in establishing a fee structure for families with children enrolled in full-day and/or out-of-school time programs.

Figure 10: Households by Food Stamps / SNAP Status Within a Thirty-Minute Drive of the Facility

	2014 – 2018 ACS Estimate	Percent
Total	92,750	100.0%
With Food Stamps/SNAP	1,963	2.1%
With No Food Stamps/SNAP	90,788	97.9%

Figure 10 shows households by Food Stamp/SNAP status located within a thirty-minute drive of the facility. The Supplemental Nutrition Assistance Program (SNAP), administered by the US Department of Agriculture, offers nutrition assistance to millions of eligible, low-income individuals and families and provides economic benefits to communities. Through NRPA programs such as Commit to Health, parks and recreation agencies are one of the largest providers of out-of-school time meals- having served more than 85 million meals since 2010.

Final Thoughts

Park and recreation agencies strive to serve the members of their community regardless of age. Whether through summer camps or out-of-school time programs, age-appropriate playground equipment or community engagement activities, making parks and recreation a part of youth's lives can foster a life-long love and support for the services you provide.

While the information within this report is not intended to be indicative of the entire population served by Square Lake Park, it gives your agency insights on the potential market for the facility with a particular focus on youth and their family living within a Thirty-minute drive. One note of caution: the analysis provided within this report is meant to be for informational purposes only and does not represent a recommendation by NRPA for the facility's operations.

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- A bulk purchasing discount on conference registration, certification, online learning and more.
- Monthly free Premier-exclusive webinars.
- Access to approximately $4.5 million in grant opportunities annually.
- Member discounts on insurance, background screenings, accessibility audits and more.

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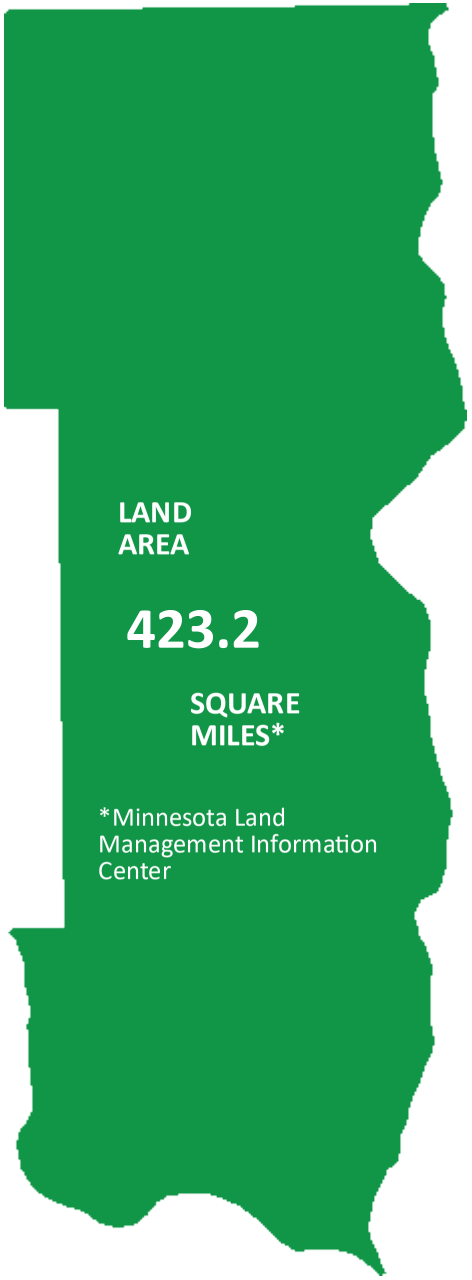
WASHINGTON COUNTY, MINNESOTA

Providing quality services through responsible leadership, innovation and the cooperation of dedicated people.



261,512 — **POPULATION**
2018 Metropolitan Council estimate

335,790 — **PROJECTED 2040 POPULATION**
2040 Metropolitan Council, Thrive MSP 2040 Forecasts

96,424 — **HOUSEHOLDS**
2018 Metropolitan Council estimate

132,400 — **PROJECTED 2040 HOUSEHOLDS**
2040 Metropolitan Council, Thrive MSP 2040 Forecasts

141,974 — **2018 ANNUAL LABOR FORCE**
(Number of people employed and unemployed)
Minnesota Department of Employment and Economic Development annual average, not seasonally adjusted

71,897 — **EMPLOYMENT**
(Number of jobs available)
2010 Metropolitan Council

103,490 — **PROJECTED 2040 EMPLOYMENT**
(Number of jobs available)
2040 Metropolitan Council, Thrive MSP 2040 Forecasts

Washington County

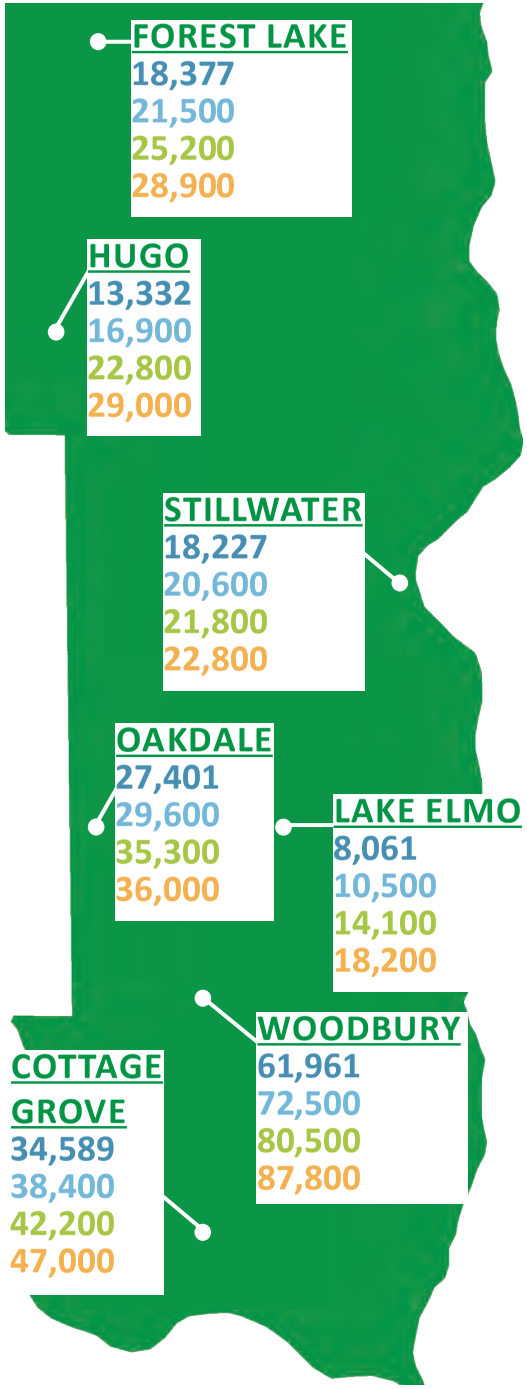
A great place to live, work and play...today and tomorrow

Updated 11/13/2019

DEMOGRAPHICS

POPULATION

Washington County



PROJECTED POPULATION GROWTH

2010
2020
2030
2040

Source: US Census, Metropolitan Council

POPULATION GROWTH

Year	Number	Increase	% Increase from 2000
2018	261,512	60,382	30.0%
2010	238,136	37,006	18.4%

Source: US Census, Metropolitan Council

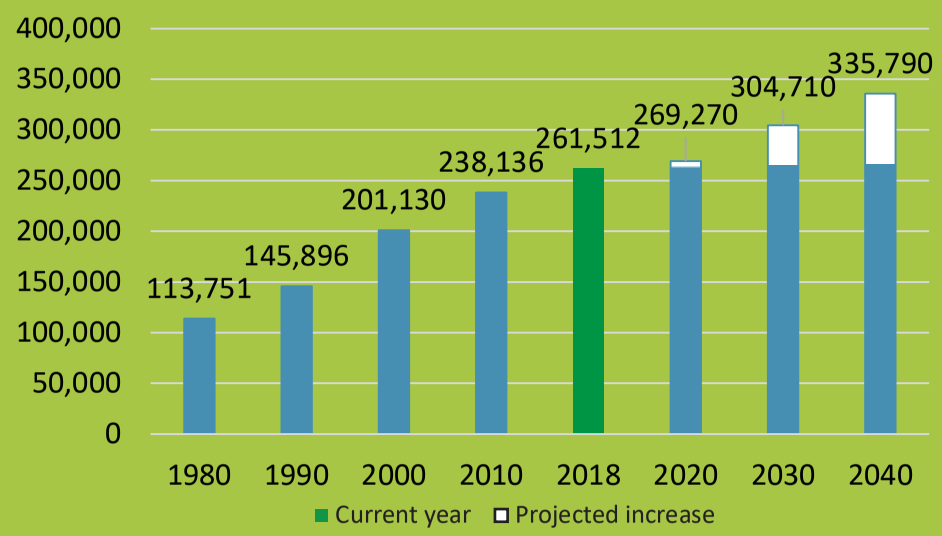
PERCENTAGE OF PEOPLE 65 YEARS AND OVER

Year	Percent
2018	14.9%
2010	9.9%
2005	8.1%

Source: American Community Survey

POPULATION + PROJECTED POPULATION INCREASE BY DECADE

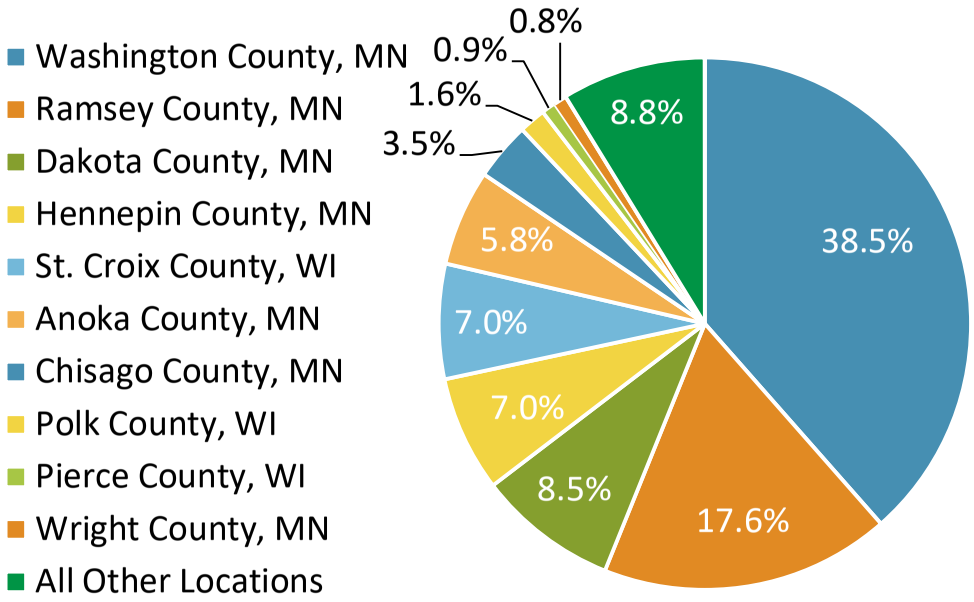
Source: US Census, Metropolitan Council



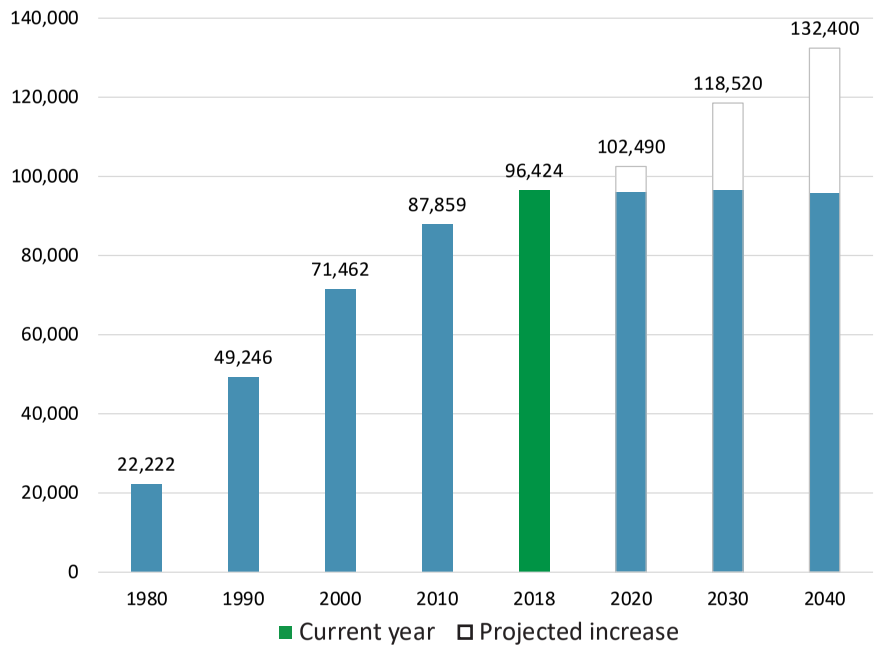
HOUSEHOLDS + EMPLOYMENT

TOP 10 PLACES WASHINGTON COUNTY WORKERS LIVED IN 2017

Primary Jobs



Source: US Census, OnTheMap Application and LEHD Origin-Destination Employment Statistics



HOUSEHOLDS AND FORECASTED HOUSEHOLDS BY DECADE

Source: Metropolitan Council

COUNTY RESIDENTS EMPLOYED

Year	Number of residents employed
2018	138,416
2010	123,188
2000	115,159
1990	79,983

Source: MN Department of Employment and Economic Development

AVERAGE HOUSEHOLD SIZE

Year	Household size
2018	2.65
2010	2.67
2000	2.77
1990	2.91

Source: US Census, American Community Survey

INCOME + ECONOMICS

MEDIAN HOUSEHOLD INCOME	
Year	Income
2018	$95,124
2010	$77,239
2000	$66,305
1990	$44,122

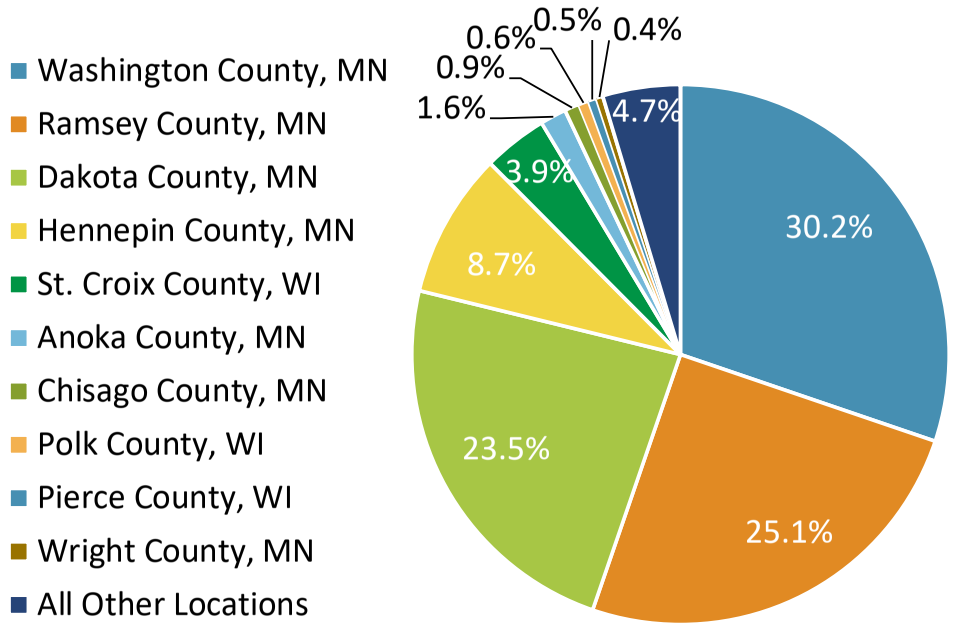
Source: US Census, American Community Survey

POVERTY PERCENTAGES, ALL AGES		
2018	3.7%	Note: The Census Bureau uses a set of money income thresholds that vary by family size and composition to determine who is in poverty. Many government aid programs use a different poverty measure, the Department of Health and Human Services poverty guidelines, or variants thereof.
2010	5.8%	
2005	3.8%	
2000	2.9%	
1990	4.4%	

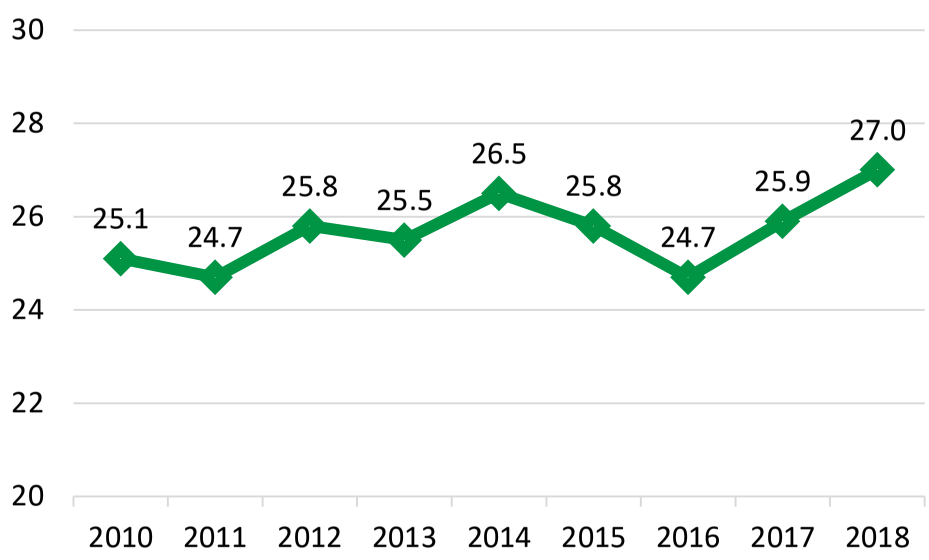
Source: US Census, American Community Survey

TOP 10 PLACES WASHINGTON COUNTY WORKERS WERE EMPLOYED IN 2017

Primary Jobs



Source: US Census, OnTheMap Application and LEHD Origin-Destination Employment Statistics



AVERAGE TRAVEL TIME TO WORK (in minutes)

Source: American Community Survey

EDUCATION + DIVERSITY

STUDENT DIVERSITY BY SCHOOL YEAR

STUDENT DIVERSITY		
Year	% White, non-Hispanic	% Students of color
2018-2019	71.5%	28.5%
2010-2011	82.9%	17.2%
2005-2006	87.8%	12.2%

Source: Minnesota Department of Education

COUNTYWIDE DIVERSITY BY CALENDAR YEAR

COUNTYWIDE DIVERSITY		
Year	% White, non-Hispanic	% Non-white
2030	79.6%	20.4%
2020	82.6%	17.4%
2018	82.1%	17.9%
2010	85.7%	14.3%

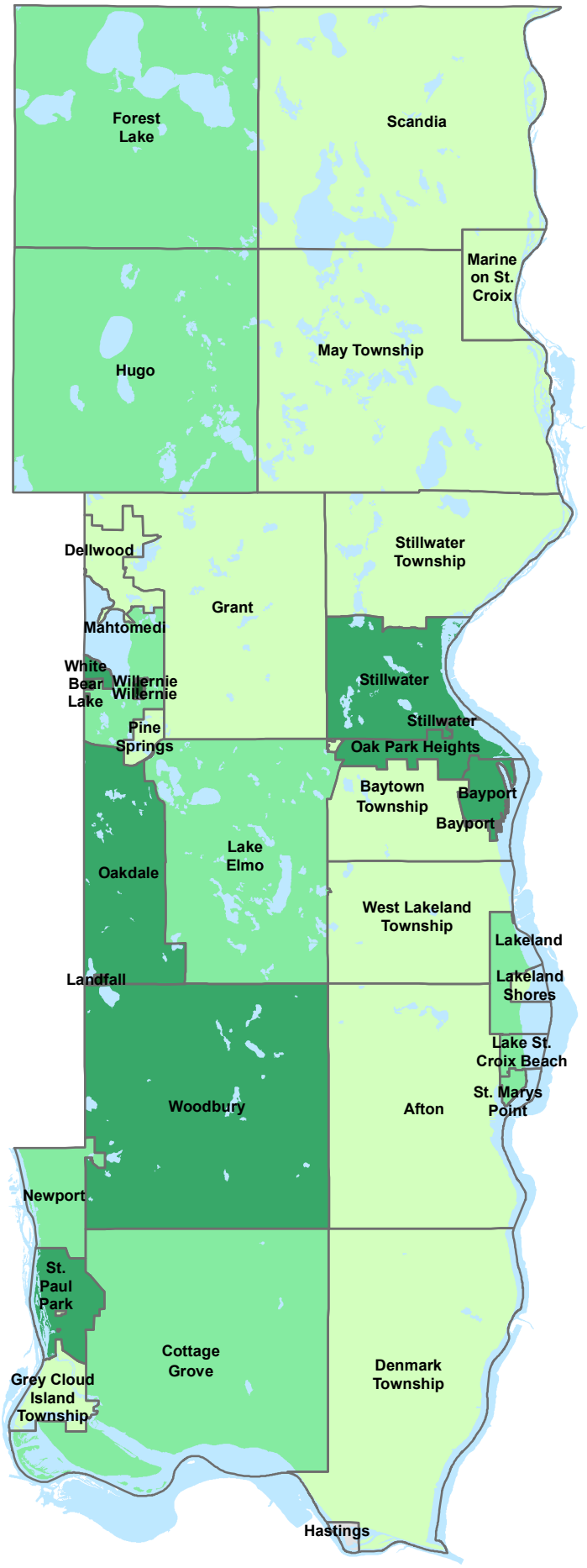
Source: 2010, and projected 2020, 2030 data from Minnesota State Demographic Center, 2018 data from American Community Survey

EDUCATION LEVEL		
Year	High school graduate or higher	Bachelor's Degree or higher
2018	95.5%	45.7%
2010	96.0%	41.4%
2000	94.0%	33.9%
1990	90.3%	26.2%

Source: US Census, American Community Survey

Washington County

2040 Forecasted Population Density (People per Square Mile)



People Per Square Mile (2040 Forecast)

- 0
- 1 - 500
- 501 - 1500
- 1501 - 3500
- 3501 - 7636

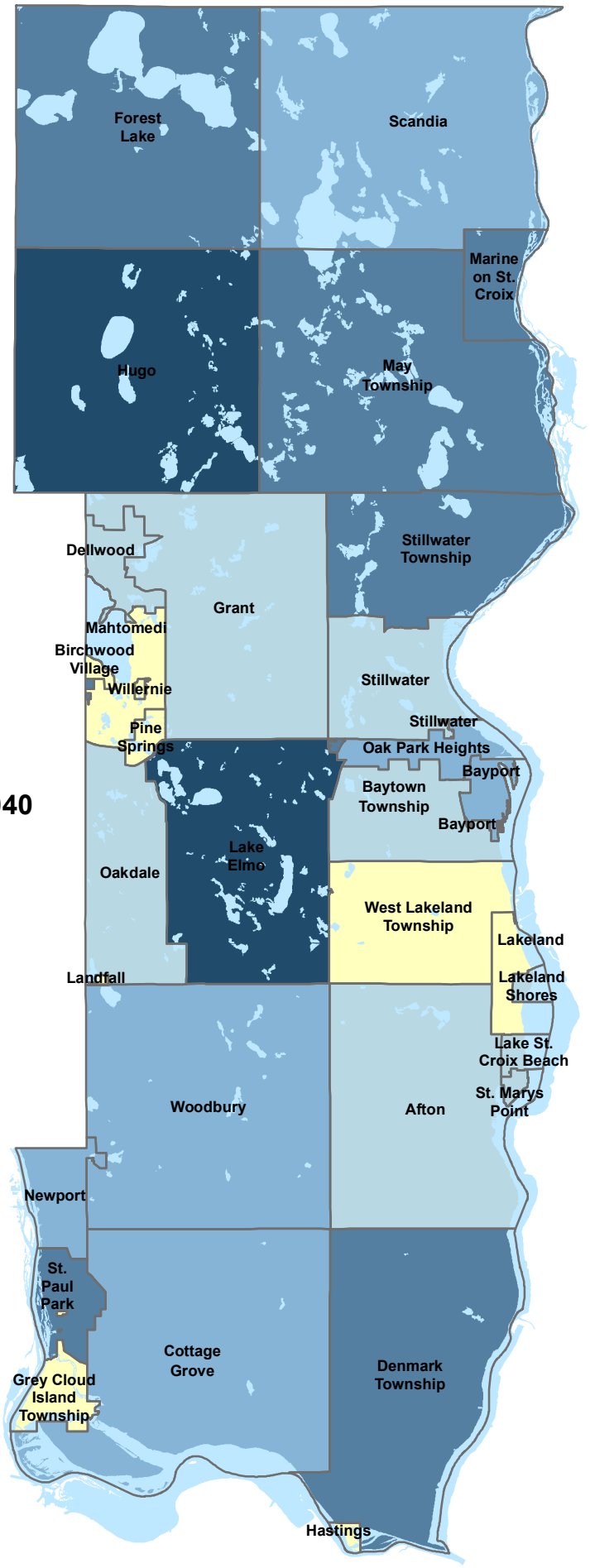
0 2.5 5 10 Miles

N W E S

Created by Washington County GIS, Department of IT. December 2016.
Source: Metropolitan Council, Forecast updated July 2015.

Washington County

Population (People) Growth by Community



Percent Population Change 2015 to 2040

- -15 - 0
- 1 - 15
- 16 - 32
- 33 - 45
- 46 - 111

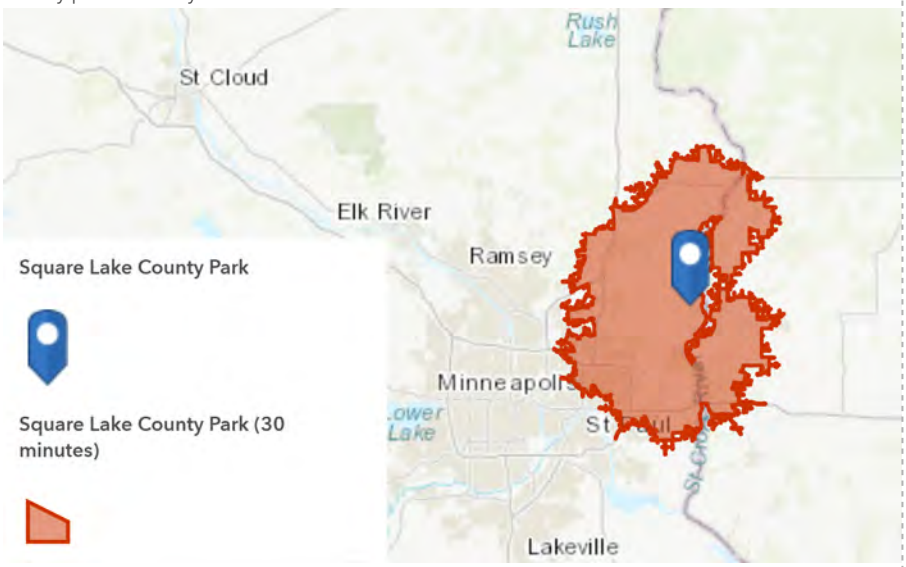
0 2.5 5 10 Miles

N W E S

Created by Washington County GIS, Department of IT. December 2016.
Source: Metropolitan Council, Forecast updated July 2015.

COMMUNITY PROFILE

Source: Data from Esri U.S. demographics unless otherwise noted. ACS is the American Census Survey performed by the U.S. Census Bureau.



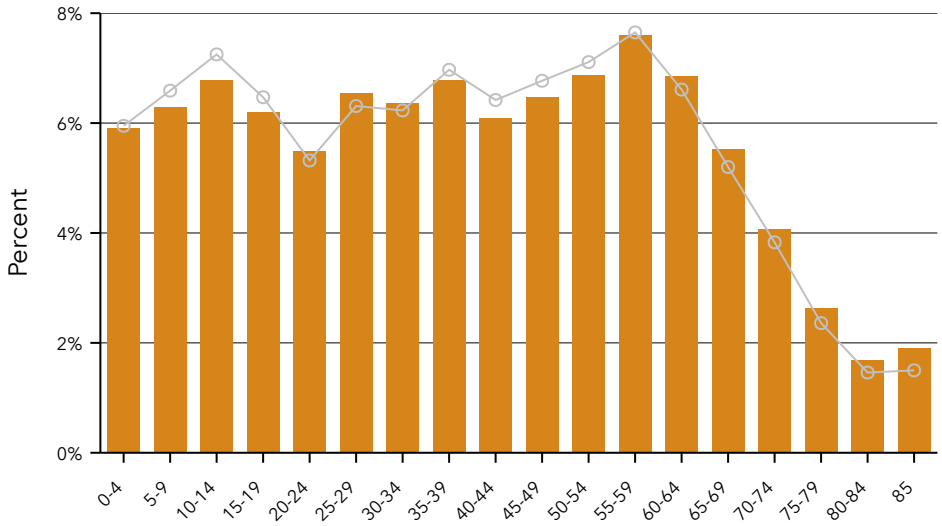
Key Facts

417,234
2019 Total Population

159,306
2019 Total Households

$81,865
2019 Median Household Income

2019 Age Profile



Dots show comparison to Washington County

Electronics and Internet

87%
Have a smartphone

91%
Used internet in last 30 days

66%
Used Facebook in last 30 days

Education

5%
No High School Diploma

23%
High School Graduate

32%
Some College

40%
Bachelor's / Grad/ Prof Degree

2010 Race and Ethnicity (U.S. Census)	
Hispanic	4%
Two or More Races	2%
Other Race	1%
Pacific Islander	0%
White	86%
Black/African American	4%
American Indian/Alaska Native	0%
Asian	6%

2019 Race and Ethnicity (Esri	
Hispanic	4%
Two or More Races	3%
Other Race	1%
Pacific Islander	0%
White	82%
Black/African American	5%
American Indian/Alaska Native	0%
Asian	8%

Housing Stats

$276,266

2019 Median Home Value

$12,968

2019 Average Spent on Mortgage & Basics

$975

2013-17 Median Contract Rent (ACS)

2013-17 Transportation to Work, Age 16+ (ACS)

82%

Drlve Alone

8%

Carpool

2%

Public Transportation

0%

Bicycle

1%

Walk

Renters

23%

2013-2017 Renter Households (ACS)

Employment

68%

White Collar

18%

Blue Collar

14%

Services

2.9%

2019 Unemployment Rate

Poverty Status

6%

2013-2017 ACS Households Below the Poverty Level

Food Stamps

6%

2013-2017 ACS Households Receiving Food Stamps/SNAP Benefits

Persons with a Disability

22%

2013-2017 ACS Households with 1 or More Persons with a Disability

English Proficiency

2013-2017 Population by Language Spoken at Home (Source: American Community Survey, US Census Bureau)	
Ages 18-64 speak Spanish & English Not Well	0%
Ages 18-64 speak Spanish & No English	0%
Ages 18-64 speak Indo-Eur & English Not Well	0%
Ages 18-64 speak Indo-European & No English	0%
Ages 18-64 speak Asian-Pacific Isl & No English	0%
Ages 18-64 speak Asian-Pacific Islander & English Not Well	1%
Ages 18-64 speak Oth Language & English Not Well	0%
Ages 18-64 speak Other Language & No English	0%

2013-2017 Population by Age by Language Spoken at Home (Source: American Community Survey, US Census Bureau)	
Ages 65+ speak Spanish & English Not Well	0%
Ages 65+ speak Spanish & No English	0%
Ages 65+ speak Indo-Eur & English Not Well	0%
Ages 65+ speak Indo-European & No English	0%
Ages 65+ speak Asian-Pacific Islander & English Not Well	0%
Ages 65+ speak Asian-Pacific Islander & No English	0%
Ages 65+ speak Other Language & English Not Well	0%
Ages 65+ speak Other Language & No English	0%

Appendix IV

Public & Agency Engagement

Square Lake Park Master Plan

PMT Meeting (Goal Setting)

AGENDA: 08 May 2020

Attendees:

Washington County:

- ☐ Connor Schaefer – Parks Planner [**Project Lead**]
- ☐ Dan MacSwain – Natural Resource coordinator
- ☐ JJ Williams – Guest Services Supervisor
- ☐ Maureen Hoffman – Planner, Dept. of Public Health and Environment
- ☐ Sharon Price – Right of Way Specialist
- ☐ Alex McKinney – Parks Manager

Bolton & Menk:

- ☐ Josh Shields – Senior Project Landscape Architect [**Project Manager**]

Next Steps/Action Items:

1. SWOT Analysis: Strength, Weaknesses, Opportunities, Threats (20 minutes)
2. Community Values/Themes Exercise (15 minutes)
3. Discuss Desires for Broad-Based Outcomes/Goals (15 minutes)
4. Next Steps

Square Lake Park Master Plan PMT Meeting #2

AGENDA: June 30, 2020

Attendees:

Washington County:

- ☐ Connor Schaefer – Parks Planner [**Project Lead**]
- ☐ Dan MacSwain – Natural Resource coordinator
- ☐ JJ Williams – Guest Services Supervisor
- ☐ Maureen Hoffman – Planner, Dept. of Public Health and Environment
- ☐ Sharon Price – Right of Way Specialist
- ☐ Alex McKinney – Parks Manager
- ☐ Krista Billerbeck - Parks Planning Seasonal

Bolton & Menk:

- ☐ Josh Shields – Senior Project Landscape Architect [**Project Manager**]

Next Steps/Action Items:

1. Review Value & Goal Statements (10 minutes)
2. Natural Resource data review and discussion (20 minutes)
3. Online Engagement/Virtual Open House draft review (20 minutes)
4. Potential Acquisition Discussion (10 minutes)
5. Next Steps

BOLTON & MENK

Real People. Real Solutions.

Public Works Department

Donald J. Theisen, P.E.
Director

Wayne H. Sandberg, P.E.
Deputy Director/County Engineer

Square Lake Park Master Plan

PMT Meeting

1:00-2:00pm - 9/30/20

Click here to access meeting virtually: Join Microsoft Teams Meeting

Or call +1 612-428-8778; Conference ID: 879 911 821#

- **Review of Engagement event – key findings** (5 min)

- **Natural Resource and Water Quality – general guidance** (10 min)
  - Prioritization of efforts

- **Future park improvements discussion** (45 min)
  - Synopsis of improvements that are "low hanging fruit"
  - Key areas where guidance is needed (initial list below):
    - Park-wide ADA access
    - Winter use
    - Overflow parking area – opportunity?
    - Golden Acres parcel (restore camper area? lake access area?)
    - Long-term facility improvements & rental operation
    - More?

Public Works Department

Donald J. Theisen, P.E.
Director

Wayne H. Sandberg, P.E.
Deputy Director/County Engineer

Square Lake Park Master Plan

PMT Meeting

9:00-10:00am - 12/4/20

Click here to access meeting virtually: Join Microsoft Teams Meeting

Or call +1 612-428-8778,,247336424#; Conference ID: 247 336 424#

- **Review of TAC #3** (10 min)

- **Key Master Plan improvement discussion** (50 min)
  - Wilder property
    - What can we reuse/repurpose?
    - Beach use
    - Trails
  - Golden Acres
    - Access/connection options
    - A or B development concept (camping, watercraft access, staging area, trail)
  - Overflow parking area
    - Location challenges
    - Potential uses: pollinator garden, orchard, oak savannah restoration parking lot, play area (nature based, challenge course), lawn space, fitness trail loop, more?
  - Accessibility trail connections

Public Works Department

Donald J. Theisen, P.E.
Director

Wayne H. Sandberg, P.E.
Deputy Director/County Engineer

Square Lake Park Master Plan

Technical Advisory Committee (TAC) Meeting #1

10:30-11:30am - 6/29/20

Click here to access meeting virtually: Join Microsoft Teams Meeting
Or call +1 612-428-8778 ; Conference ID: 931 054 749#

- **Welcome & Kickoff Activity** (15 minutes)
  - Describe what you love about Square Lake Park.
  - What are you looking forward to in the master planning process?
  - What should Washington County be aware of as this process begins?

- **Project Overview & Process Schedule** (15 minutes)
  - Master Plan definition and purpose
  - Technical Advisory Committee Roles and Responsibilities

- **Broad-Based Outcomes/Goals** (20 minutes)
  - What do you like/appreciate about the draft goals/outcomes?
  - What goals/outcomes do you feel may be unclear, missing, or need more information?

- **Next Steps Discussion** (10 minutes)
  - What are your ideas for the best way to gather public input for this park?
  - Is there any data/plans that you could provide to help inform the master plan?
  - How can we create a plan that is "usable" for you?

This meeting will utilize an on online interactive tool to help facilitate discussion throughout the meeting. When prompted, you will be asked to go to menti.com (using any device with internet access) and enter code "87 02 26"

This meeting is being recorded in order to provide a resource for advisory committee members who may be unable to participate during this time. This recording will be made available after the meeting for those who wish to review the proceedings.

Public Works Department

Donald J. Theisen, P.E.
Director

Wayne H. Sandberg, P.E.
Deputy Director/County Engineer

Square Lake Park Master Plan

Technical Advisory Committee (TAC) Meeting #2

2:30-4:00pm - 9/1/20

Click here to access meeting virtually: Join Microsoft Teams Meeting

Or call +1 612-428-8778; Conference ID: 747 043 299#

- **Welcome & (Re)introduction** (10 minutes)

- **Review of TAC #1 and goal/value statements** (20 minutes)

- **Data/site analysis – key findings** (30 minutes)
  - Market Area
  - Visitation and Use
  - Natural Resources
  - Existing Conditions

- **Survey and engagement event – key findings** (20 minutes)

- **Next steps** (10 minutes)

This meeting will utilize an on online interactive tool to help facilitate discussion throughout the meeting. When prompted, you will be asked to go to menti.com (using any device with internet access) and enter code "55 00 84 2"

This meeting is being recorded in order to provide a resource for advisory committee members who may be unable to participate during this time. This recording will be made available after the meeting for those who wish to review the proceedings.

Public Works Department

Donald J. Theisen, P.E.
Director

Wayne H. Sandberg, P.E.
Deputy Director/County Engineer

Square Lake Park Master Plan

Technical Advisory Committee (TAC) Meeting #3

3:00-4:30pm - 11/16/20

Click here to access meeting virtually: Join Microsoft Teams Meeting

Or call +1 612-428-8778; Conference ID: 852 622 127#

- **Welcome & (Re)introduction** (10 minutes)
- **Review of TAC meeting #2 – data analysis & engagement findings** (20 minutes)
- **Review Draft Master Plan Concepts** (30 minutes)
  - Proposed Park Boundary
  - Capital Improvements
  - Natural Resources
- **Feedback Exercise – key topics** (20 minutes)
- **Next steps** (10 minutes)

This meeting will utilize an on online interactive tool to help facilitate discussion throughout the meeting. When prompted, you will be asked to go to menti.com (using any device with internet access) and enter code "24 98 79 1"

This meeting is being recorded in order to provide a resource for advisory committee members who may be unable to participate during this time. This recording will be made available after the meeting for those who wish to review the proceedings.

Public Works Department

Donald J. Theisen, P.E.
Director

Wayne H. Sandberg, P.E.
Deputy Director/County Engineer

Square Lake Park Master Plan

Technical Advisory Committee (TAC) Meeting #4

3:00-4:30pm - 1/14/21

Click here to access meeting virtually: Join Microsoft Teams Meeting

Or call +1 612-428-8778; Conference ID: 967 901 807#

- **Welcome & Roll Call** (10 minutes)

- **Review of TAC meeting #3 & Online Engagement #2 Findings** (20 minutes)

- **Review Master Plan Concepts Draft #2** (30 minutes)
  - Capital Improvements
  - Natural Resources

- **Feedback on Priorities Exercise** (20 minutes)

- **Final Steps & Thank You!** (10 minutes)

This meeting will utilize an on online interactive tool to help facilitate discussion throughout the meeting. When prompted, you will be asked to go to menti.com (using any device with internet access) and enter code "77 61 02 8"

This meeting is being recorded in order to provide a resource for advisory committee members who may be unable to participate during this time. This recording will be made available after the meeting for those who wish to review the proceedings.

Square Lake Park Master Plan

Todd Kemery MPOSC Commissioner and ADA Coordinator – Site Visit 9/29/20

- Those with limited abilities can and like to scuba dive at this lake. It would be great to facilitate this because Golden Acres is the preferred access for this population due to the lack of slope issues and ability to unload equipment right on the beach/boat access
    - Organization: Dive Pirates, Dive Buddies (Mark)
- Better signage about where parking is, where the easiest place to access the park
- Paved trail extension needed to Golden Acres when acquired
- Docks need to be wider, more stable to help people who use mobility devices be able to get into adaptive watercraft.
- Adjustable/varying height grills
- Accessible picnic benches
- Accessible fishing pier – modify existing to lower railings
- Mobility beach mats
- Suggestion: floatable accessible nonmotorized boat launch
- Existing picnic area is accessible, as long as ground is firm
- Consider adding lacher material to make trail loop more accessible.
- If providing watercraft rentals – make sure to have accessible equipment available (and associated items like special lifejackets, device to help people get into watercraft)
- Reduce sidehilling when redoing trails, access road, maintenance road

<u>Square Lake Park Master Plan</u>

Maintenance Crew – Site Visit 9/29/20

- Access road – bad condition. Need leveling, repaving, widening.
- Water and drainage #1 issue that needs addressing in short term
    - Impacts turf area and water quality. Time consuming to rake back sand after rainfall events and reseed turf every year
- Grill area south of restrooms – lots of volleyball, spike ball, etc gets setup here. Lots of hammocks to – we should designate good areas to do this.
- Fishing Pier:
    - Ice pushes and damages it, so we move it near the boat launch to store over winter
        - Very difficult task, can't get room for gator or equipment to help with this due to retaining wall.
        - Possible idea is to redo retaining wall, extend it and move it back from the shore a few extra feet.
    - Access path is too narrow for emergency equipment too.
- Pathway to lake along boundary to Josephson farm – people shorefish here, good idea for improvement.
- Underused turf area behind fishing pier:
    - Flatten out land
    - Clear out some junk/dead trees to open view to lake better
    - Connection with trail should be more visible, people don't know it's back there and if they do see it, it doesn't look like you're supposed to be there
    - There used to be steps from parking lot and to lake, now grown over
- Restroom/Beach building
    - Just got new plumbing
    - Getting new roof this year
    - Ventilation needed badly – any short term improvement we can make to the building to do this? Extreme bug and moisture buildup
    - Bathrooms too small for crowded weekends
    - Lifeguard space works well
    - Used to be used for concessions, now that space is used for storage. Potential to repurpose to do rentals?
    - Need more storage space for maintenance equipment – a separate maintenance shed behind bathroom building?
    - Could we add a second story with a viewing deck and connect to upper parking lot area?
- Parking/overflow area
    - Crew believes leave as is until acquisitions are made to accommodate parking
- Park access road needs curb and gutter
    - Way too narrow – difficult to plow, trailers basically make it a one way
- Emergency vehicle gate into Golden Acres needed. Location has been determined.
- Where do the beehive drains drain at the south end of the park?
- Vault toilets would be better than portable toilets near boat launch
- North parking lot – can it drain to ditch closer to County Road and not down the hill to beach?

Square Lake Park Master Plan Engagement Survey - 2020

Q1

Please provide your information (optional):

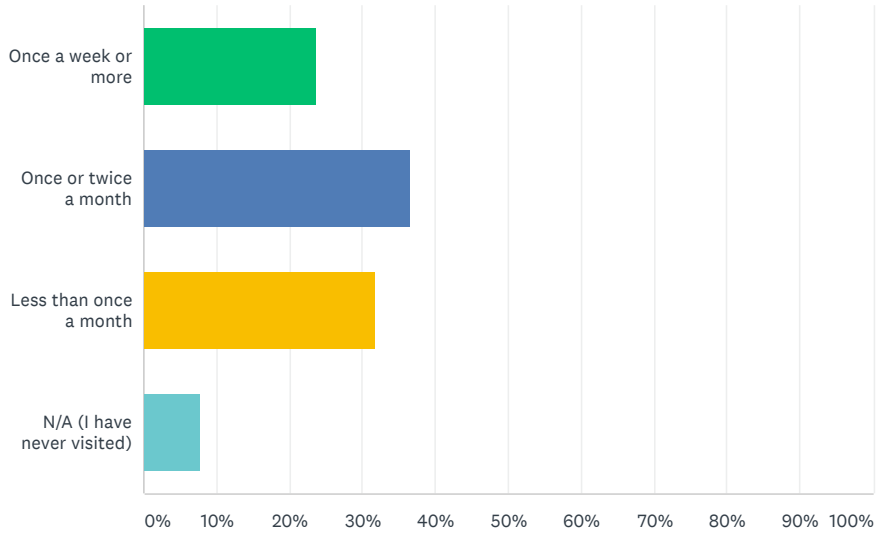
Answered: 561 Skipped: 55

ANSWER CHOICES		RESPONSES	
City/Township	Responses	98.22%	551
Zip Code	Responses	98.93%	555

Q2

How often do you visit Square Lake Park, during warm-weather months (May-September)?

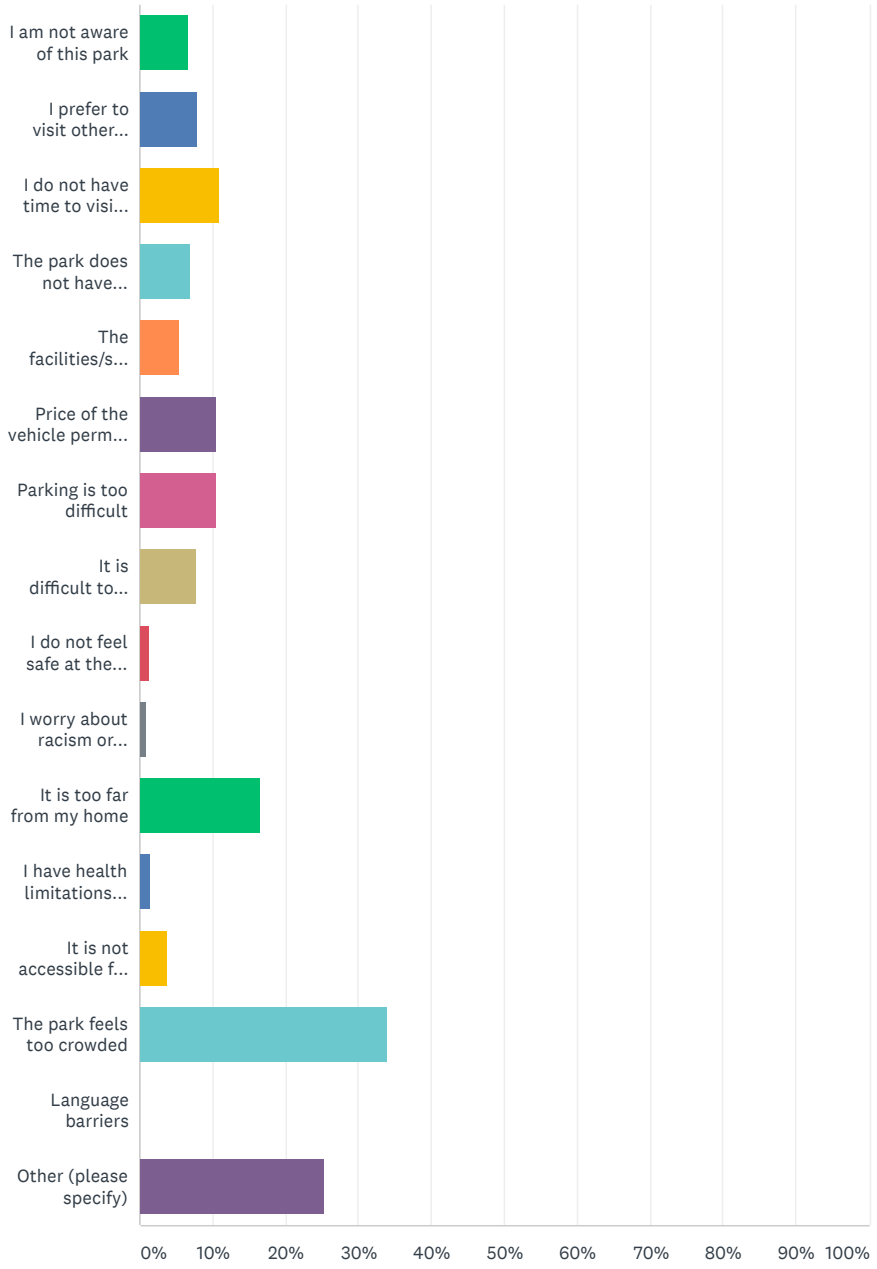
Answered: 616 Skipped: 0



ANSWER CHOICES	RESPONSES	
Once a week or more	23.70%	146
Once or twice a month	36.69%	226
Less than once a month	31.82%	196
N/A (I have never visited)	7.79%	48
TOTAL		**616**

What barriers deter you from visiting Square Lake Park or visiting the park more often? Check all that apply. (optional)

Answered: 516 Skipped: 100



ANSWER CHOICES	RESPONSES	
I am not aware of this park	6.78%	35
I prefer to visit other parks	7.95%	41
I do not have time to visit parks	10.85%	56
The park does not have facilities/activities I am interested in	6.98%	36
The facilities/services are not in good condition	5.43%	28
Price of the vehicle permit fee	10.47%	54
Parking is too difficult	10.47%	54
It is difficult to access by bike/on foot	7.75%	40

616 responses

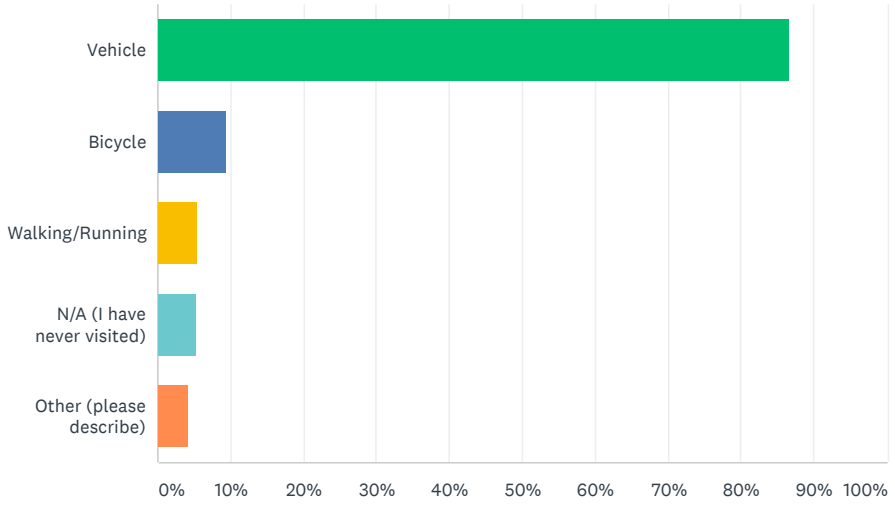
It is not accessible for me based on my physical abilities		3.68%	19
The park feels too crowded		33.91%	175
Language barriers		0.00%	0
Other (please specify)	Responses	25.39%	131

Total Respondents: 516

Q4

How do you typically get to the park?

Answered: 612 Skipped: 4



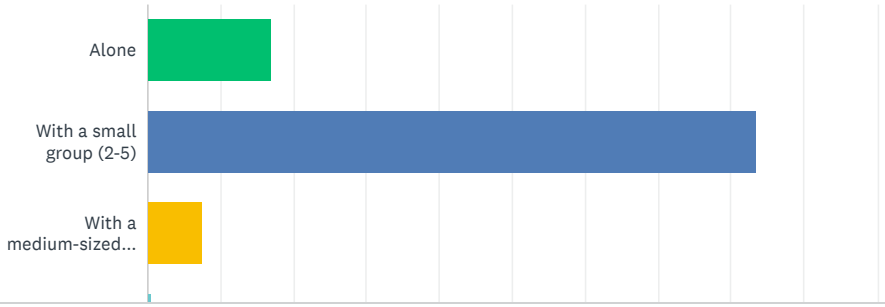
ANSWER CHOICES		RESPONSES	
Vehicle		86.60%	530
Bicycle		9.48%	58
Walking/Running		5.39%	33
N/A (I have never visited)		5.23%	32
Other (please describe)	Responses	4.08%	25

Total Respondents: 612

Q5

Who do you visit the park with?

Answered: 616 Skipped: 0



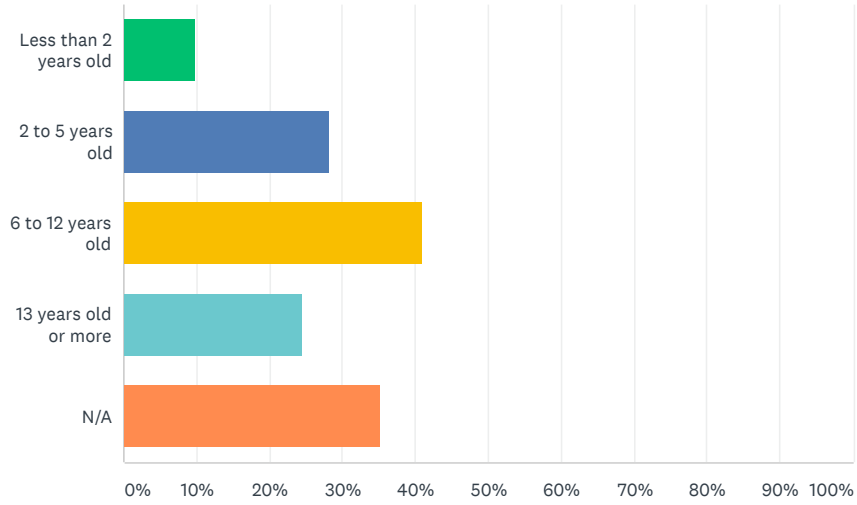
ANSWER CHOICES	RESPONSES	
Alone	16.88%	104
With a small group (2-5)	83.44%	514
With a medium-sized group (6-15)	7.63%	47
With a large group (16+)	0.49%	3
N/A (I have never visited)	5.03%	31

Total Respondents: 616

Q6

When/if you visit Square Lake Park with children, what are their ages? Check all that apply. (Optional)

Answered: 599 Skipped: 17



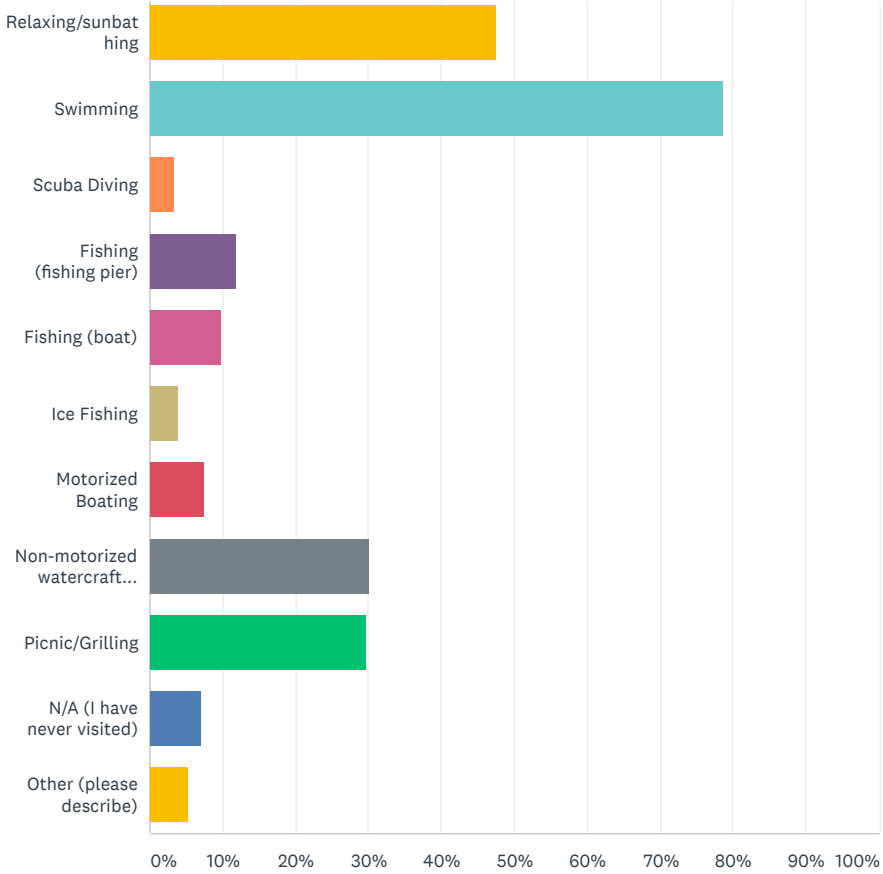
ANSWER CHOICES	RESPONSES	
Less than 2 years old	9.85%	59
2 to 5 years old	28.21%	169
6 to 12 years old	41.07%	246
13 years old or more	24.54%	147
N/A	35.06%	210

Total Respondents: 599

Q7

What activities do you participate in while at Square Lake Park? Check all that apply.

Answered: 616 Skipped: 0



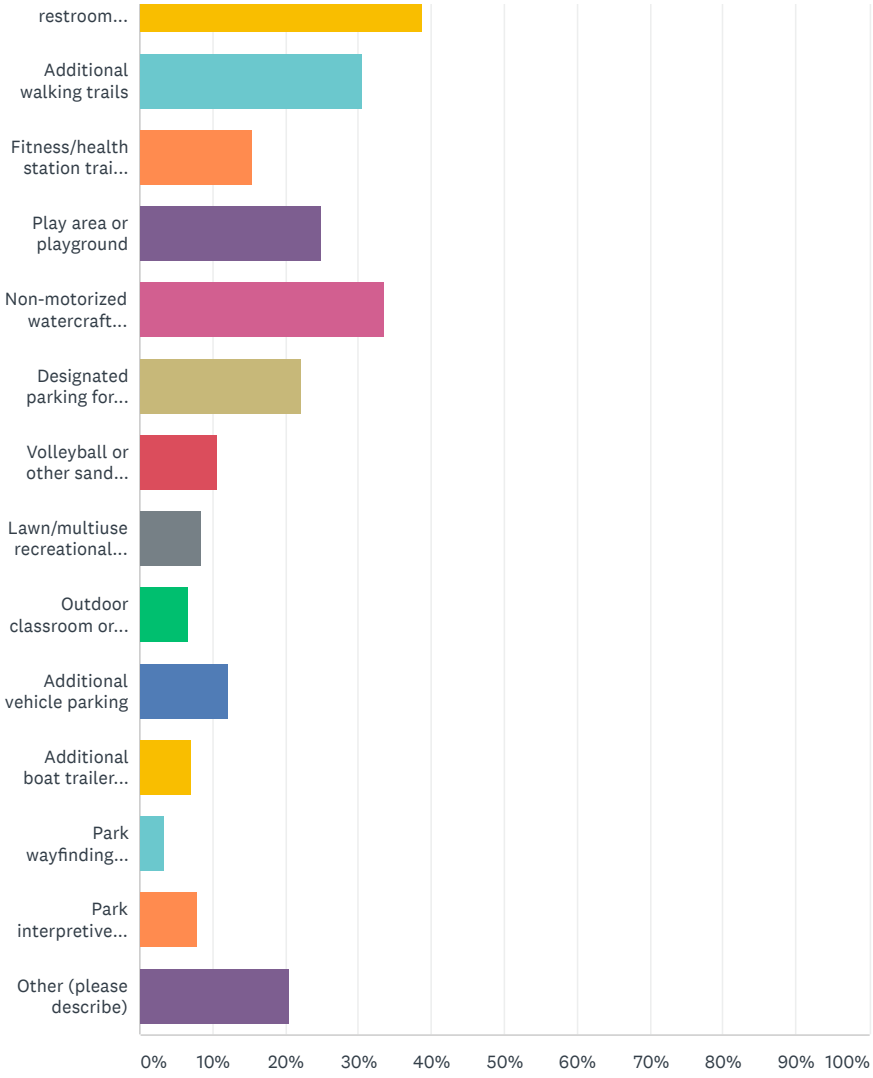
ANSWER CHOICES		RESPONSES	
Walking/Hiking		18.83%	116
Dog Walking		6.49%	40
Relaxing/sunbathing		47.40%	292
Swimming		78.73%	485
Scuba Diving		3.25%	20
Fishing (fishing pier)		11.85%	73
Fishing (boat)		9.90%	61
Ice Fishing		3.90%	24
Motorized Boating		7.63%	47
Non-motorized watercraft (canoe, kayak, paddleboard)		30.03%	185
Picnic/Grilling		29.71%	183
N/A (I have never visited)		7.14%	44
Other (please describe)	Responses	5.19%	32

Total Respondents: 616

Q8

What NEW amenities would you like to see added in Square Lake Park? Please check up to 5 answers.

Answered: 616 Skipped: 0

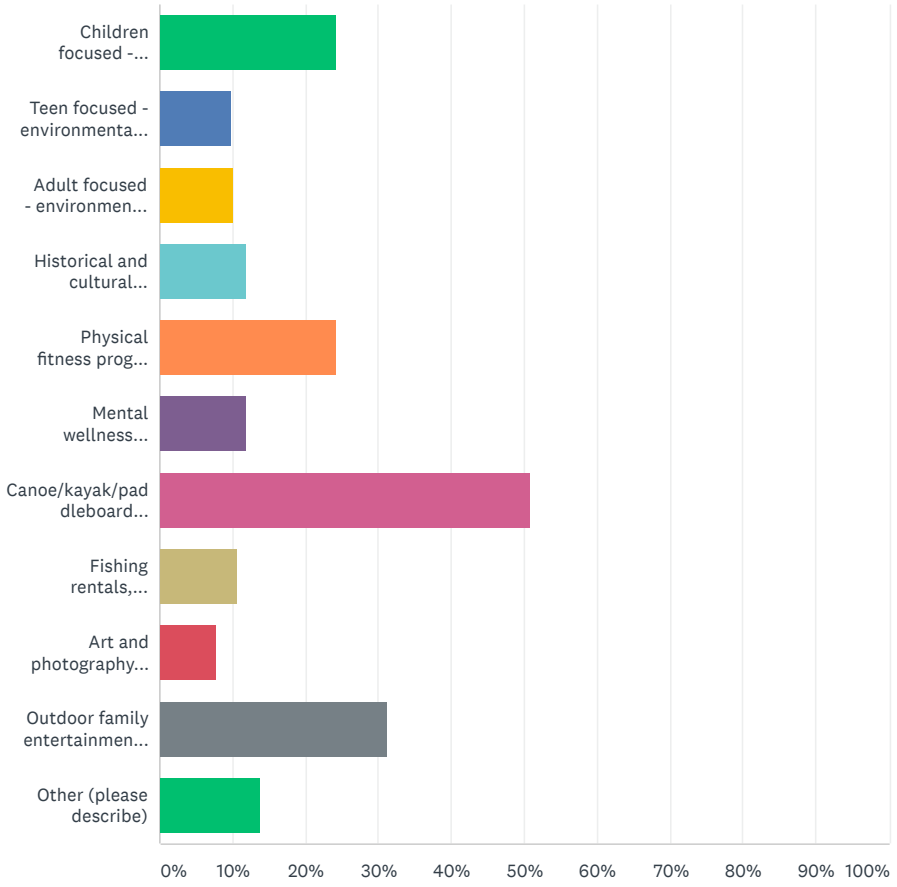


ANSWER CHOICES		RESPONSES	
Additional picnic areas and picnic tables		21.92%	135
Reserverable park shelter for group gatherings		11.85%	73
Improved beach restroom building		38.80%	239
Additional walking trails		30.52%	188
Fitness/health station trail loop		15.58%	96
Play area or playground		25.00%	154
Non-motorized watercraft (canoe, kayak, paddleboard) launch		33.44%	206
Designated parking for non-motorized watercraft (canoe, kayak, paddleboard)		22.24%	137
Volleyball or other sand recreation court		10.71%	66
Lawn/multiuse recreational area		8.28%	51
Outdoor classroom or learning space		6.66%	41
Additional vehicle parking		12.18%	75
Additional boat trailer parking		7.14%	44
Park wayfinding signage		3.41%	21
Park interpretive/educational signage		7.95%	49
Other (please describe)	Responses	20.45%	126

Total Respondents: 616

Lake Park? Please check up to 3 answers.

Answered: 616 Skipped: 0

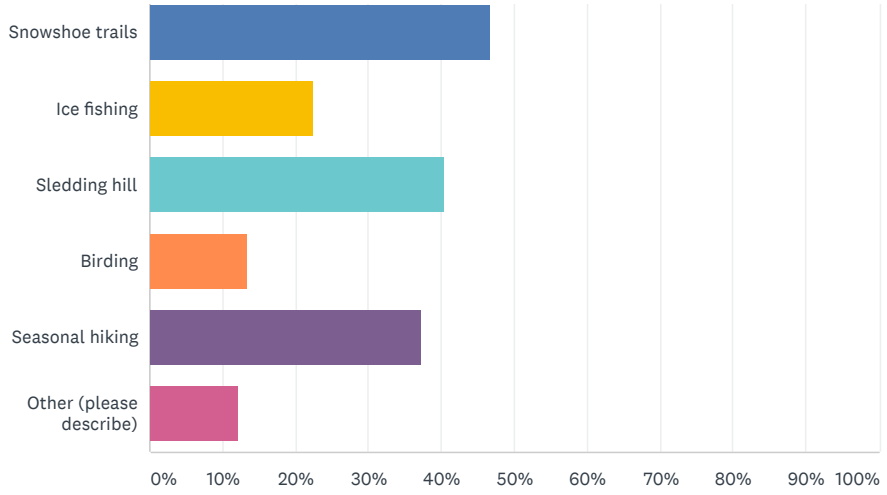


ANSWER CHOICES		RESPONSES	
Children focused - environmental education		24.35%	150
Teen focused - environmental education		9.90%	61
Adult focused - environmental education		10.06%	62
Historical and cultural education		11.85%	73
Physical fitness program (e.g. yoga, guided fitness hikes, cardio classes)		24.35%	150
Mental wellness program (e.g. meditation, forest bathing, sensory hike)		12.01%	74
Canoe/kayak/paddleboard rentals, demonstrations, or lessons		50.81%	313
Fishing rentals, demonstrations, or lessons		10.71%	66
Art and photography demonstrations or lessons		7.79%	48
Outdoor family entertainment (movies in the park, small concerts)		31.17%	192
Other (please describe)	Responses	13.80%	85

Total Respondents: 616

Q10

During the colder-weather months (October-April), what would draw you and your family to visit Square Lake Park? Please choose all that apply.



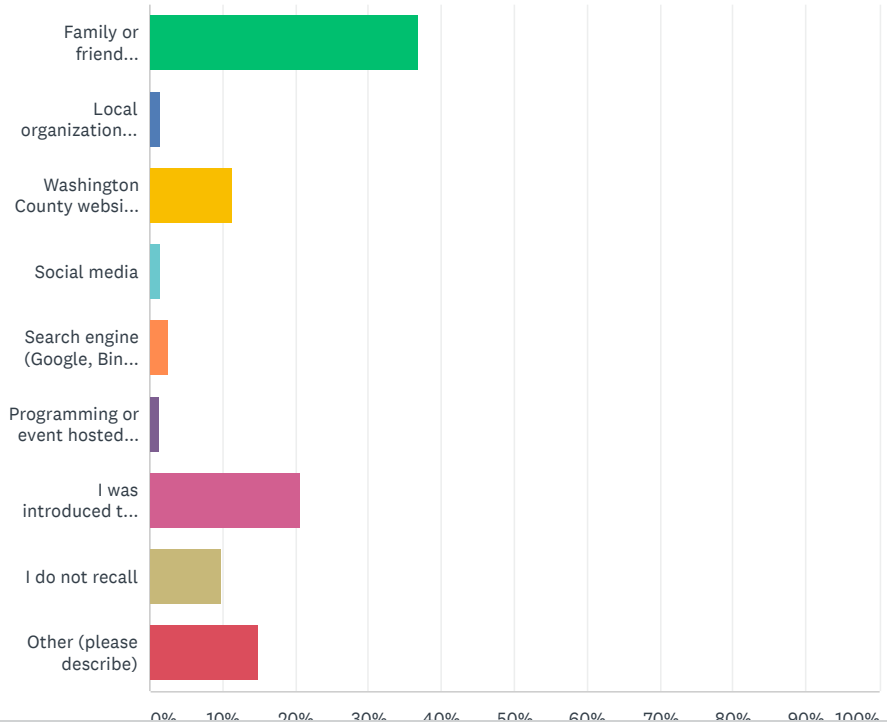
ANSWER CHOICES		RESPONSES	
Ice skating on the lake		52.60%	324
Snowshoe trails		46.75%	288
Ice fishing		22.40%	138
Sledding hill		40.42%	249
Birding		13.31%	82
Seasonal hiking		37.18%	229
Other (please describe)	Responses	12.18%	75

Total Respondents: 616

Q11

How did you first become aware of Square Lake Park?

Answered: 616 Skipped: 0



Local organization (school, community group)		1.46%	9
Washington County website or social media account		11.20%	69
Social media		1.46%	9
Search engine (Google, Bing, Google Maps, Apple Maps, etc.)		2.44%	15
Programming or event hosted at the park		1.30%	8
I was introduced to the park as a child		20.78%	128
I do not recall		9.74%	60
Other (please describe)	Responses	14.77%	91
TOTAL			**616**

Q12

What do you enjoy most about the park?

Answered: 616 Skipped: 0

Beach

8/29/2020 10:55 AM

The lake access

8/28/2020 11:58 AM

natural beauty and clean, clear water. This year, however , the water does not seem as clear. It has also been warmer.

8/26/2020 2:20 PM

Great setup for families to spend the day! We love the beach, access to the boat launch, and shaded picnic areas all nearby - makes for a fun day for everyone

8/25/2020 6:24 AM

Q13

What is your biggest concern about the park?

Answered: 616 Skipped: 0

Rude swimmers

8/29/2020 10:55 AM

over use

8/26/2020 2:20 PM

Crowd sizes on the beach on the weekends - swimming “breaks” for the lifeguards become annoying

8/25/2020 6:24 AM

Q14

If you could prioritize one simple change that would improve your experience at Square Lake Park, what would it be?

Answered: 616 Skipped: 0

More hiking

8/29/2020 10:55 AM

Ban motorized boats on the lake.

8/28/2020 11:58 AM

Better rule enforcement and limit the size of boats brought onto the lake.

8/26/2020 2:20 PM

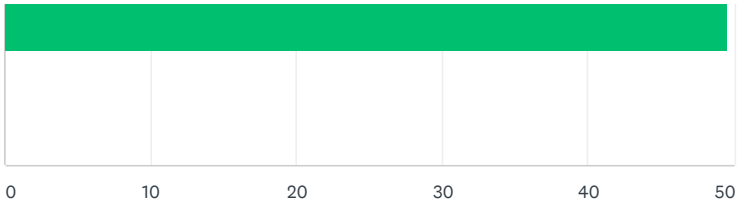
Sand volleyball court! It’s so hard to find a well maintained outdoor court to play on with friends - would love to eventually see an outdoor league of some kind

8/25/2020 6:24 AM

Q15

How has the COVID-19 pandemic impacted your use of Washington County parks and trails?

Answered: 577 Skipped: 39



ANSWER CHOICES	AVERAGE NUMBER	TOTAL NUMBER	RESPONSES
Responses	50	28,579	577

Total Respondents: 577

Q16

Please provide a brief explanation of you answer to Question 15:

Answered: 534 Skipped: 82

Governor Walz has placed unconstitutional limits upon MN citizens. Spending time outdoors is one of the only forms of entertainment or ability to see other people.

8/29/2020 10:57 AM

Go early and avoid people as much as possible, but go less than I'd like.

8/28/2020 12:01 PM

it is something safe distancing can accommodate.

8/26/2020 2:22 PM

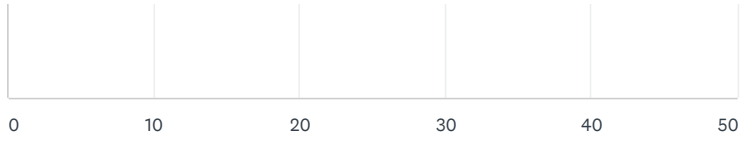
Have been hesitant of crows so spending less weekend time at the park and more weekday time when we can

8/25/2020 6:25 AM

Q17

How has the COVID-19 pandemic changed the way you want to experience Washington County parks and trails in the future?

Answered: 495 Skipped: 121



ANSWER CHOICES	AVERAGE NUMBER	TOTAL NUMBER	RESPONSES
Responses	47	23,486	495

Total Respondents: 495

Q18

Please provide a brief explanation of you answer to Question 16:

Answered: 479 Skipped: 137

See comment at #16

8/29/2020 10:57 AM

not comfortable being near people until a vaccination is available.

8/28/2020 12:01 PM

without visible enforcement mechanism the rules are out the window.

8/26/2020 2:22 PM

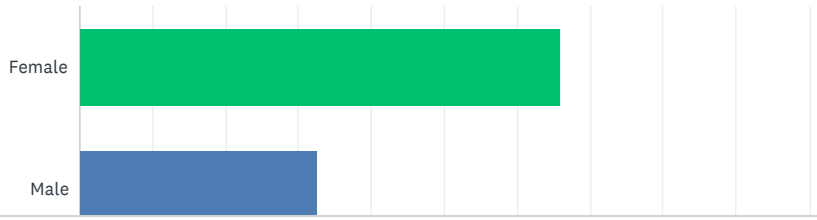
Spend MORE time outside in Washington County parks given that we are not traveling as much and the parks are a great way to get outside and stay distant

8/25/2020 6:25 AM

Q19

How do you describe your gender?

Answered: 584 Skipped: 32

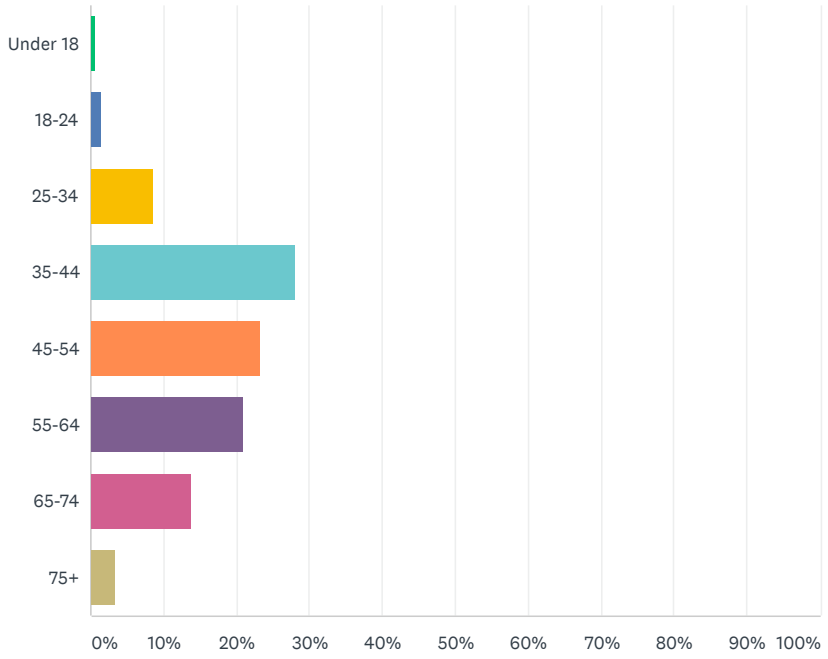


ANSWER CHOICES		RESPONSES	
Female		65.92%	385
Male		32.53%	190
Self-describe:	Responses	1.54%	9
TOTAL			**584**

Q20

What is your age?

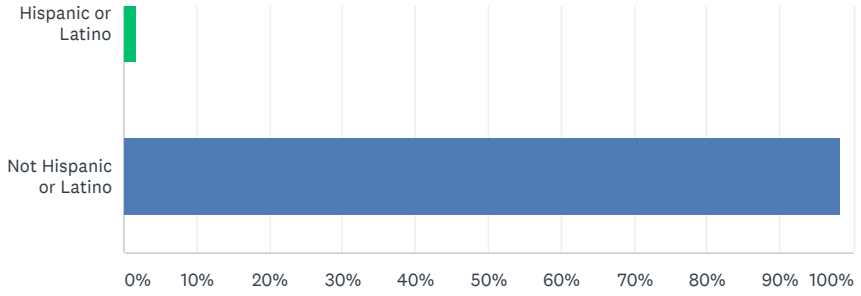
Answered: 587 Skipped: 29



ANSWER CHOICES	RESPONSES	
Under 18	0.68%	4
18-24	1.36%	8
25-34	8.52%	50
35-44	28.11%	165
45-54	23.17%	136
55-64	20.95%	123
65-74	13.80%	81
75+	3.41%	20
TOTAL		**587**

Q21

What is your ethnicity?

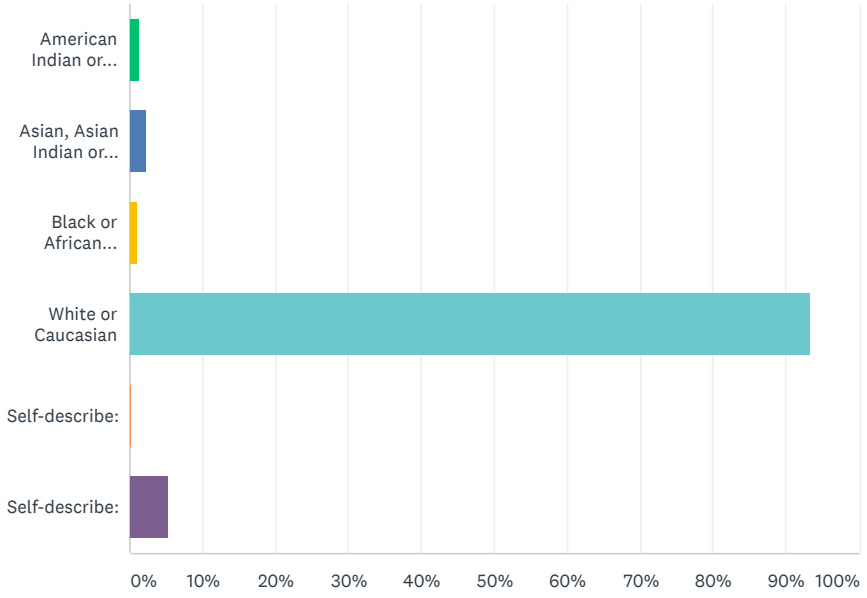


ANSWER CHOICES	RESPONSES	
Hispanic or Latino	1.58%	9
Not Hispanic or Latino	98.42%	562
TOTAL		**571**

Q22

What is your race? (one or more may be selected)

Answered: 575 Skipped: 41



ANSWER CHOICES		RESPONSES	
American Indian or Alaska Native		1.22%	7
Asian, Asian Indian or Pacific Islander		2.26%	13
Black or African American		1.04%	6
White or Caucasian		93.22%	536
Self-describe:		0.17%	1
Self-describe:	Responses	5.22%	30

Total Respondents: 575

Q23

Washington County

Square Lake Park Master Plan

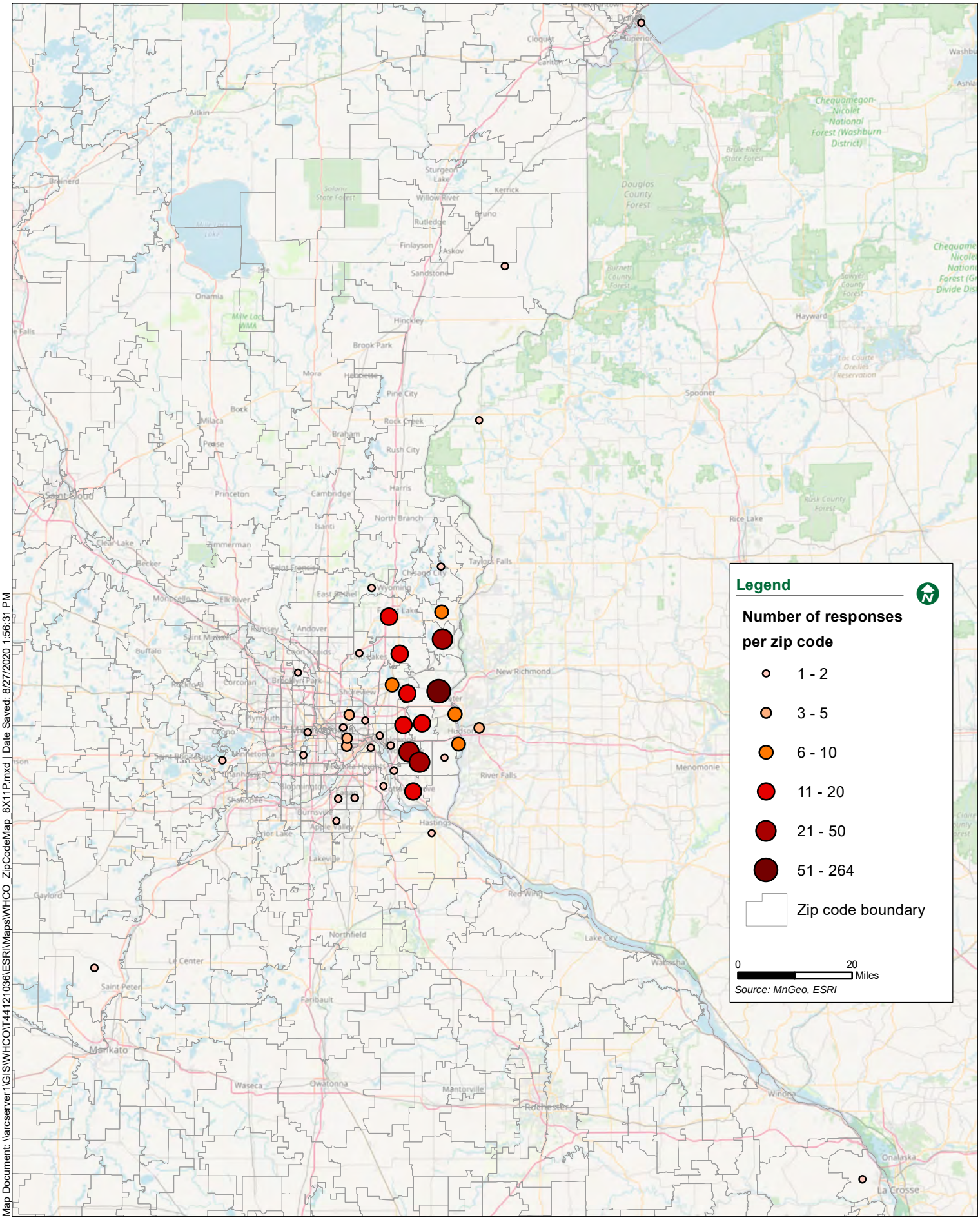
Washington County, MN

Location of Survey Participants

August 2020

BOLTON & MENK

Real People. Real Solutions.

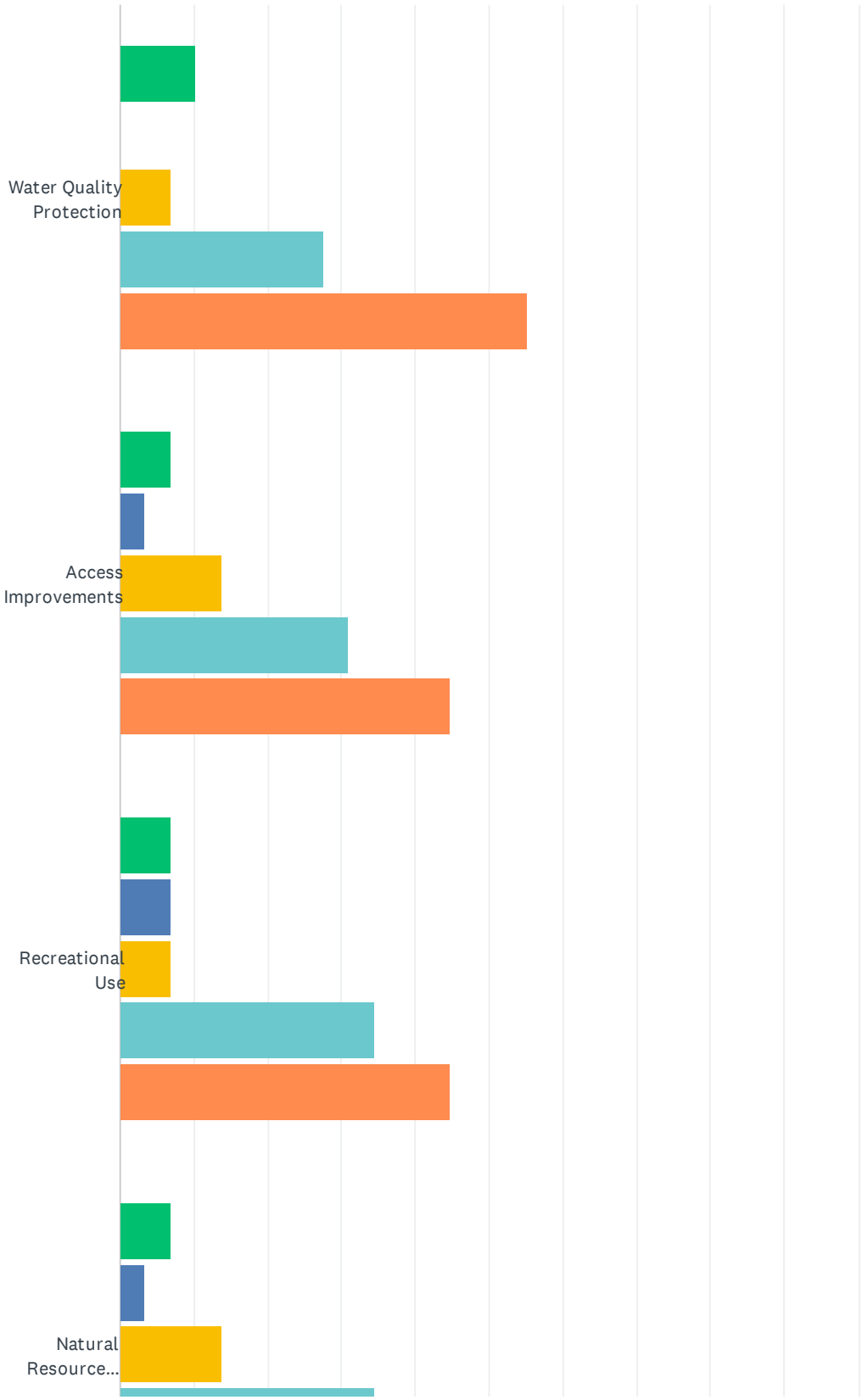


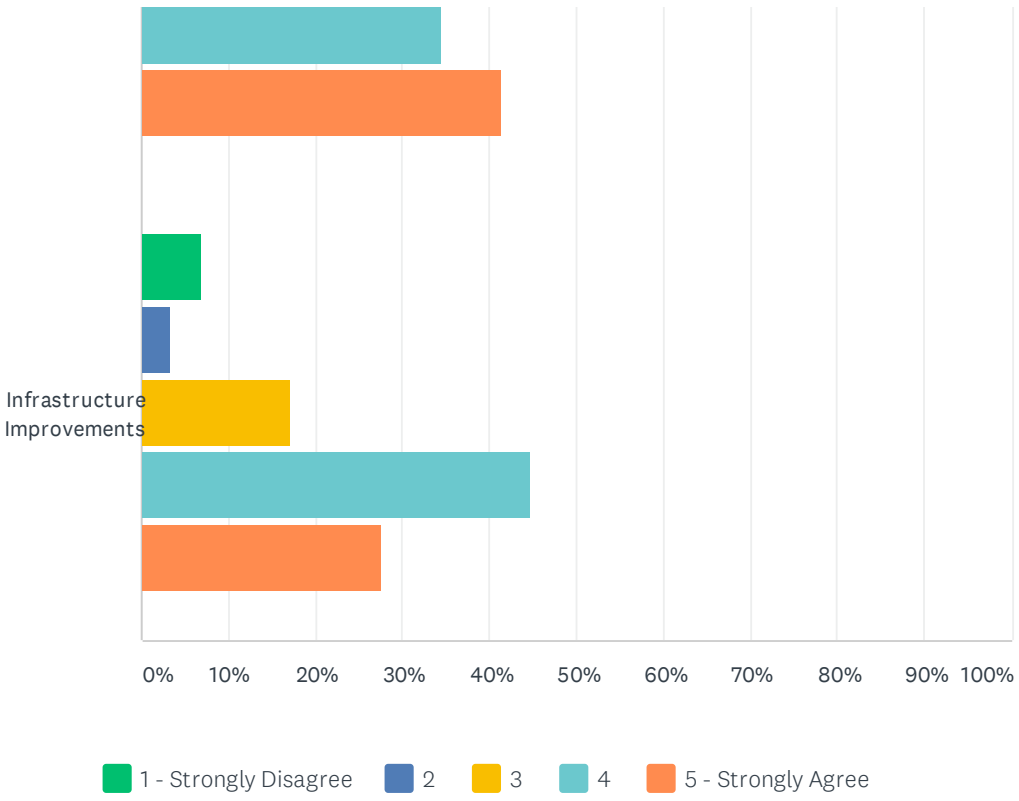
Map Document: \\arcserver1\GIS\WHCO\T44121036\ESRI\Maps\WHCO_ZipCodeMap_8X11P.mxd | Date Saved: 8/27/2020 1:56:31 PM

#	CITY/TOWN	DATE
1	May	12/27/2020 8:54 PM
2	Stillwater	12/27/2020 1:15 PM
3	Stillwater	12/23/2020 3:50 PM
4	Marine on st croix	12/22/2020 9:35 PM
5	Lino Lakes	12/22/2020 6:24 PM
6	Lake Elmo	12/22/2020 3:53 PM
7	Stillwater	12/21/2020 1:45 PM
8	Oakdale	12/21/2020 7:30 AM
9	Stillwater	12/20/2020 1:21 PM
10	Marine	12/19/2020 7:08 PM
11	stillwater t	12/19/2020 10:16 AM
12	Woodbury	12/19/2020 6:46 AM
13	Stillwater	12/18/2020 8:50 PM
14	Stillwater	12/18/2020 8:39 PM
15	Grant	12/18/2020 8:09 PM
16	Marine	12/18/2020 7:51 PM
17	Cottage Grove	12/18/2020 7:43 PM
18	Mahtomedi	12/18/2020 7:00 PM
19	May township	12/18/2020 6:47 PM
20	Lakeland Shores	12/18/2020 5:39 PM
21	Stillwater	12/18/2020 5:06 PM
22	Eagan	12/18/2020 4:16 PM
23	White Bear Lake	12/18/2020 3:39 PM
24	Forest Lake	12/18/2020 3:07 PM
25	Stillwater	12/18/2020 11:44 AM
26	Stillwater	12/17/2020 12:17 PM
27	May Township	12/16/2020 7:24 PM
#	**STATE/PROVINCE**	**DATE**
	There are no responses.	

Q2 In your opinion, does the Proposed Square Lake Park Development Concept Map align with the master plan themes and goals?

Answered: 29 Skipped: 1

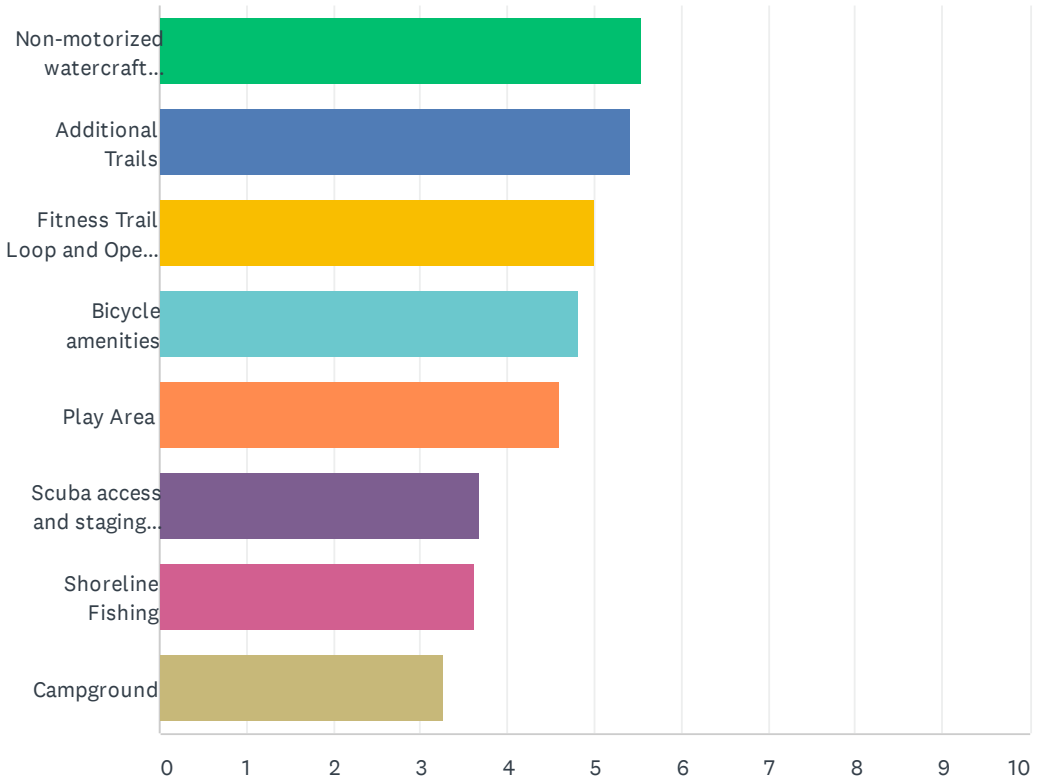




	1 - STRONGLY DISAGREE	2	3	4	5 - STRONGLY AGREE	TOTAL	WEIGHTED AVERAGE
Water Quality Protection	10.34% 3	0.00% 0	6.90% 2	27.59% 8	55.17% 16	29	4.17
Access Improvements	6.90% 2	3.45% 1	13.79% 4	31.03% 9	44.83% 13	29	4.03
Recreational Use	6.90% 2	6.90% 2	6.90% 2	34.48% 10	44.83% 13	29	4.03
Natural Resource Protection	6.90% 2	3.45% 1	13.79% 4	34.48% 10	41.38% 12	29	4.00
Infrastructure Improvements	6.90% 2	3.45% 1	17.24% 5	44.83% 13	27.59% 8	29	3.83

Q3 How would you prioritize the implementation of the improvements recommended in the Proposed Square Lake Park Development Concept Map?View the online engagement webpage for more information.

Answered: 29 Skipped: 1



	1	2	3	4	5	6	7	8	TOTAL	SCORE
Non-motorized watercraft launch	27.59% 8	10.34% 3	6.90% 2	31.03% 9	6.90% 2	6.90% 2	6.90% 2	3.45% 1	29	5.55
Additional Trails	13.79% 4	13.79% 4	31.03% 9	13.79% 4	6.90% 2	10.34% 3	10.34% 3	0.00% 0	29	5.41
Fitness Trail Loop and Open Green Space	7.14% 2	28.57% 8	17.86% 5	3.57% 1	17.86% 5	7.14% 2	7.14% 2	10.71% 3	28	5.00
Bicycle amenities	10.71% 3	17.86% 5	10.71% 3	14.29% 4	14.29% 4	14.29% 4	17.86% 5	0.00% 0	28	4.82
Play Area	17.86% 5	3.57% 1	10.71% 3	17.86% 5	17.86% 5	14.29% 4	7.14% 2	10.71% 3	28	4.61
Scuba access and staging area	7.14% 2	3.57% 1	17.86% 5	3.57% 1	10.71% 3	21.43% 6	17.86% 5	17.86% 5	28	3.68
Shoreline Fishing	10.71% 3	7.14% 2	3.57% 1	14.29% 4	7.14% 2	14.29% 4	17.86% 5	25.00% 7	28	3.61
Campground	3.70% 1	14.81% 4	3.70% 1	0.00% 0	18.52% 5	11.11% 3	14.81% 4	33.33% 9	27	3.26

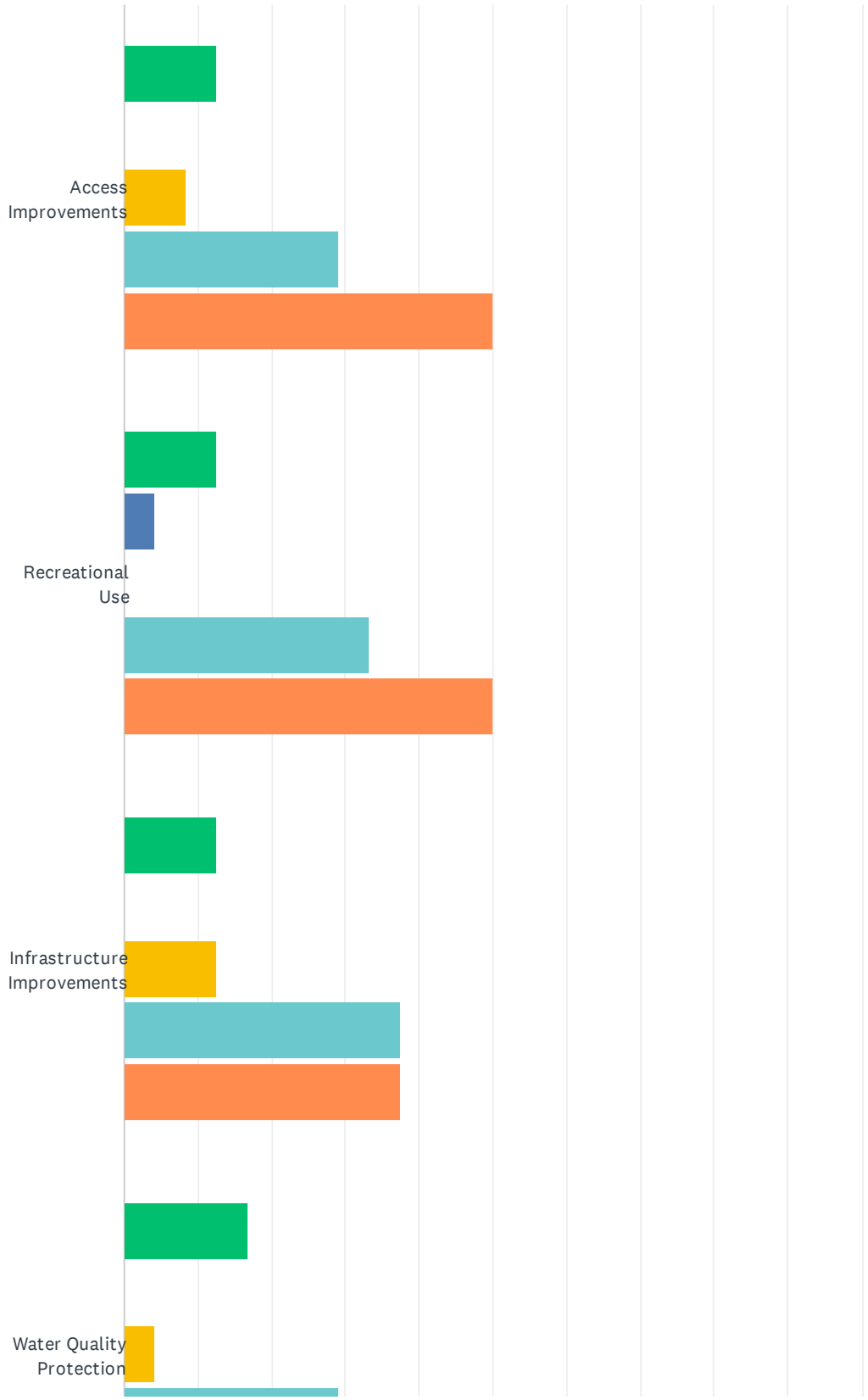
Q4 Are there additional ideas or comments regarding the Proposed Square Lake Park Development Concept Map you would like the county to consider?

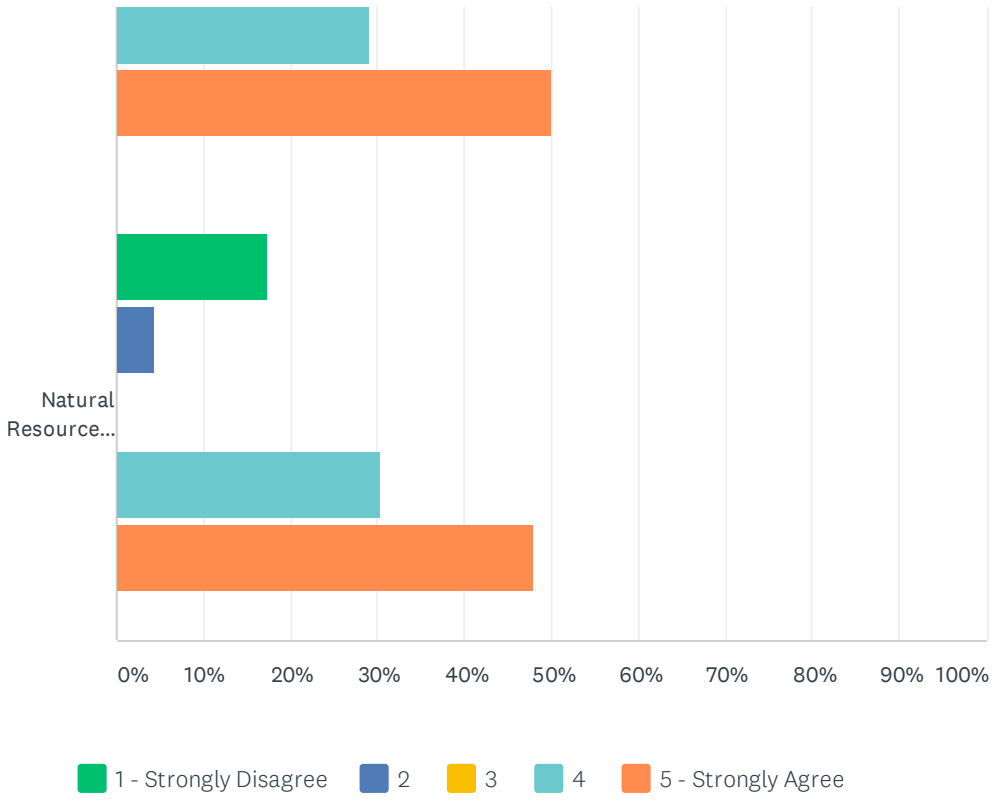
Answered: 14 Skipped: 16

#	RESPONSES	DATE
1	We've lived by Square lake for 23 years and when we first moved here there was a motor limitation on boats. Over the years that has changed and not for the better. Square is not a big lake so we'd like to see less powerboats and more opportunities for non-motorized craft.	12/27/2020 8:54 PM
2	Please make this a non-motorized boat lake. Maybe with landowners having an exception? If you attract more people, this gem will be overrun. Once you attract lots of motor boat traffic it is hard to reduce access later. Love the idea of improved access for canoe/kayak activities!	12/27/2020 6:59 PM
3	There is already way to much traffic in and out of the park. The park and lake are too small for your proposed ideas. There is not enough parking now and with your proposed plan it would only increase the problem causing park visitors to trespass on adjacent properties.	12/27/2020 1:15 PM
4	I'm struggling with the public benefit of acquiring the Wilder Site NW of Square Lake and would prefer that any future acquisition be contiguous with the park. I would also prefer investment in the existing park boundary over acquisition of land that is not contiguous.	12/23/2020 3:50 PM
5	The size of this park area, if not increased through acquisitions, requires good management practices so that it is not over crowded. Thank you for your work on this. With Covid 19, we have visited our Washington County Regional parks more frequently and have been very impressed by these parks and what they have to offer in terms of variety of hikes, recreation opportunities and general upkeep. Thank you!	12/19/2020 10:16 AM
6	The Wilder property is very cool! That would be a real plum for the county to buy, plus Wilder needs the money. If that goes thru sooner than later, some of the trails, etc. planned for the current park site could be changed to that area....play area, trails as planned, etc.	12/19/2020 6:46 AM
7	Xc ski trails at new possible Wilder site	12/18/2020 8:39 PM
8	The park is used by many open water swimmers, some signage letting boaters know swimmers may be present would be nice. A complete ban on motor usage in the early am could also improve safety and lake experience for all.	12/18/2020 8:09 PM
9	Good work!	12/18/2020 7:51 PM
10	Great long term thinking to try to add the 2 new areas to the park . Also great thinking to add facilities that will be nice to visit and use outside of the summer beach season. This park is a great biking destination	12/18/2020 7:00 PM
11	Stop spending money! Get out of the park business! Taxes are too high for the county residents now. This is prime property for high end housing to increase the tax base. No more public employees to manage this for the benefit for the few that use it.. Just STOP spending! PLEASE!	12/18/2020 5:06 PM
12	Not all anglers wish to fish from shore. Access to the lake via non-motorized watercraft should also be considered, and could be easily added to the Wilder property as well.	12/18/2020 4:16 PM
13	add tennis courts, trout to the lake, mountain bike trails, ice rink.	12/17/2020 12:17 PM
14	Limit parking for motorized boats. Post the no wake sign more clearly. NOBODY that visits this lake with a boat is aware of the no wake rules.	12/16/2020 7:24 PM

Q5 In your opinion, does the Proposed Square Lake Park Natural Resource Plan align with the master plan themes and goals?

Answered: 24 Skipped: 6

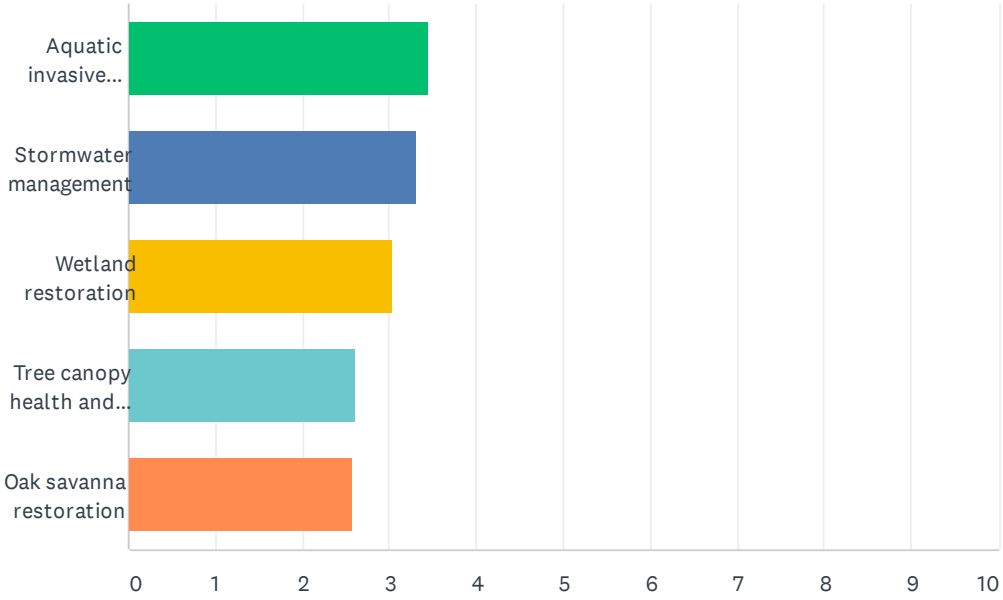




	1 - STRONGLY DISAGREE	2	3	4	5 - STRONGLY AGREE	TOTAL	WEIGHTED AVERAGE
Access Improvements	12.50% 3	0.00% 0	8.33% 2	29.17% 7	50.00% 12	24	4.04
Recreational Use	12.50% 3	4.17% 1	0.00% 0	33.33% 8	50.00% 12	24	4.04
Infrastructure Improvements	12.50% 3	0.00% 0	12.50% 3	37.50% 9	37.50% 9	24	3.88
Water Quality Protection	16.67% 4	0.00% 0	4.17% 1	29.17% 7	50.00% 12	24	3.96
Natural Resource Protection	17.39% 4	4.35% 1	0.00% 0	30.43% 7	47.83% 11	23	3.87

Q6 How would you prioritize the implementation of the improvements recommended in the Proposed Square Lake Park Natural Resource Plan? View the online engagement webpage for more information.

Answered: 26 Skipped: 4



	1	2	3	4	5	TOTAL	SCORE
Aquatic invasive species risk mitigation	34.62% 9	19.23% 5	15.38% 4	19.23% 5	11.54% 3	26	3.46
Stormwater management	26.92% 7	19.23% 5	26.92% 7	11.54% 3	15.38% 4	26	3.31
Wetland restoration	19.23% 5	15.38% 4	30.77% 8	19.23% 5	15.38% 4	26	3.04
Tree canopy health and succession	11.54% 3	19.23% 5	15.38% 4	26.92% 7	26.92% 7	26	2.62
Oak savanna restoration	7.69% 2	26.92% 7	11.54% 3	23.08% 6	30.77% 8	26	2.58

Q7 Are there additional ideas or comments regarding the Proposed Square Lake Park Natural Resource Plan you would like the county to consider?

Answered: 8 Skipped: 22

#	RESPONSES	DATE
1	The northern acquisition would be first priority in our minds. There's just too much pressure in the existing park area and acquiring Golden Acres is not as attractive for adding the amenities you are considering.	12/27/2020 8:57 PM
2	Please buy the rv resort!!	12/27/2020 7:01 PM
3	This park and lake are too small for your proposed plan. There is already too much traffic in and out of the park without significant parking availability. With increasing traffic and not enough parking the park visitors are trespassing on adjacent properties.	12/27/2020 1:20 PM
4	None	12/18/2020 7:53 PM
5	Water quality used to be so much better ; what is the county doing to ensure homeowners around the lake are ensuring their septic and drainage systems are all in good order.	12/18/2020 7:03 PM
6	There are PLENTY of parks and trails.. Just Stop spending.. No improvements are needed and wanted. Sell the land and get out of the parks business.	12/18/2020 5:10 PM
7	I am not in favor of any improvements that will attract more people. This lake is at capacity from my view. Square Lake is too small to handle any further population growth. I live on the lake.	12/18/2020 11:53 AM
8	Limit the paved areas to minimize runoff into the lake. Limit trailer parking to reduce traffic on the lake.	12/16/2020 7:25 PM

Engagement Findings

Washington County

Engagement Summary

Project webpage views:

- 458 in August

Online Event:

- Event total views: 1,200
- Survey – 616 respondents
- Interactive Map – 65 comments/likes

Targeted Outreach meetings

Observation Site Visits

Facebook ad reached: 4,655

- 610 engagements (likes/reactions, comments, shares)

Nextdoor post impressions: 7,040

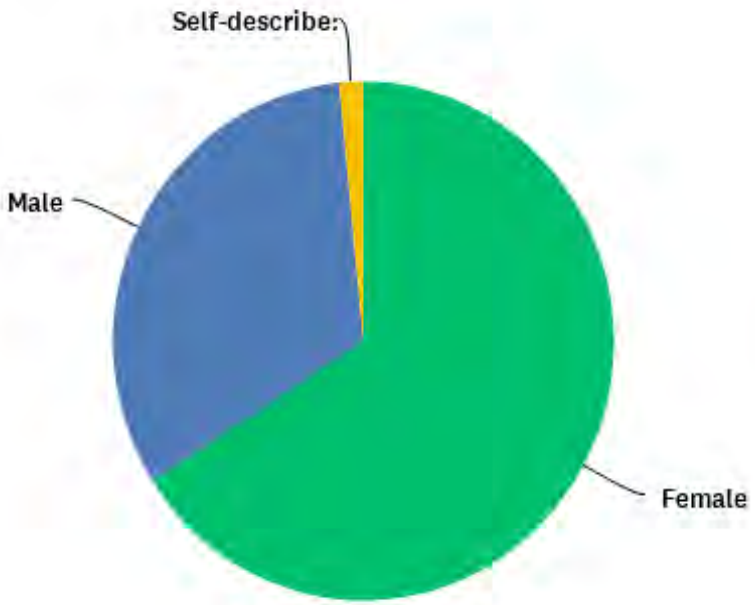
- 3 reactions

Twitter impressions: 262

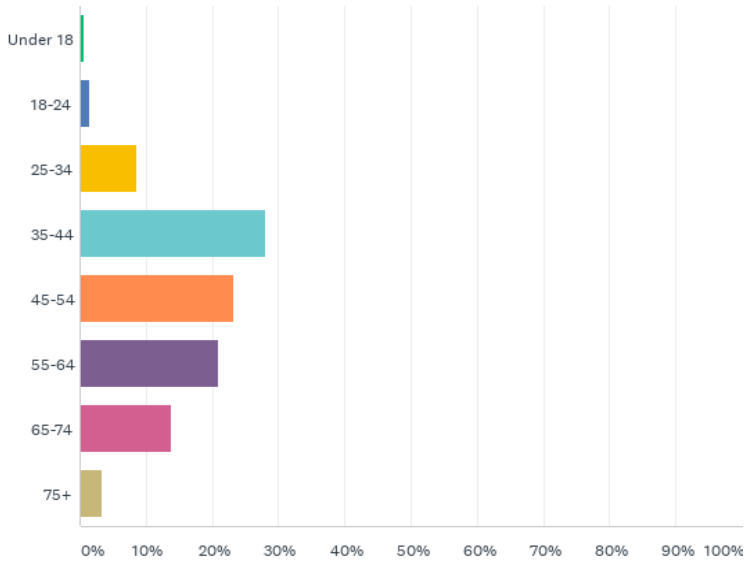
- 10 engagements

Demographics of Respondents

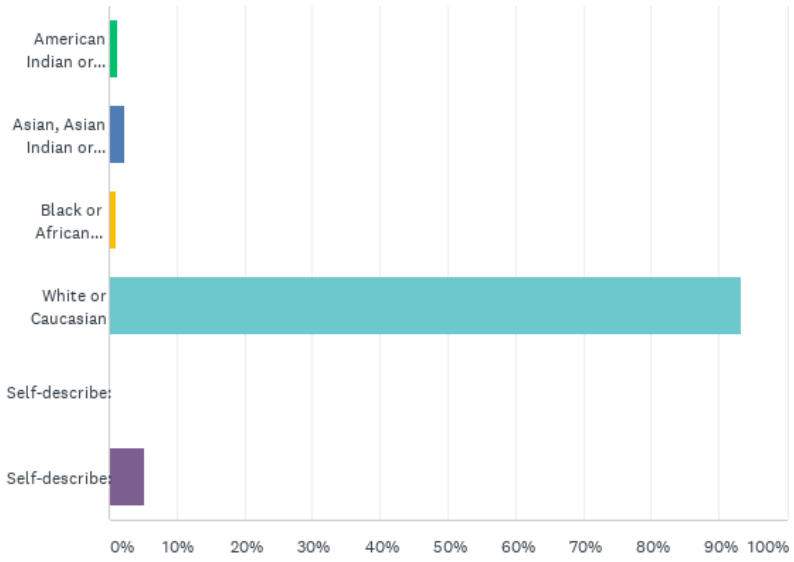
ANSWER CHOICES	RESPONSES	
Female	65.92%	385
Male	32.53%	190
Self-describe:	1.54%	9
TOTAL		584



ANSWER CHOICES	RESPONSES	
Under 18	0.68%	4
18-24	1.36%	8
25-34	8.52%	50
35-44	28.11%	165
45-54	23.17%	136
55-64	20.95%	123
65-74	13.80%	81
75+	3.41%	20
TOTAL		587



ANSWER CHOICES	RESPONSES	
American Indian or Alaska Native	1.22%	7
Asian, Asian Indian or Pacific Islander	2.26%	13
Black or African American	1.04%	6
White or Caucasian	93.22%	536
Self-describe:	0.17%	1
Self-describe:	5.22%	30
Total Respondents: 575		



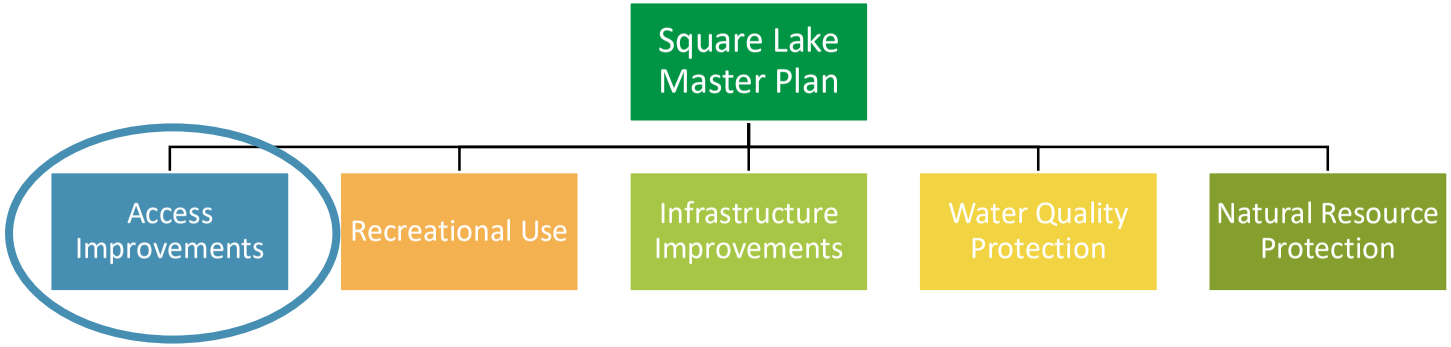
Engagement Findings

Overall theme:

Square Lake Park is a destination renowned for its access to one of the clearest lakes in the region. Future park investments will continue to improve and complement what makes the lake special.

Engagement Finding #1

Square Lake Park is visited and loved by both local residents and people all over the region

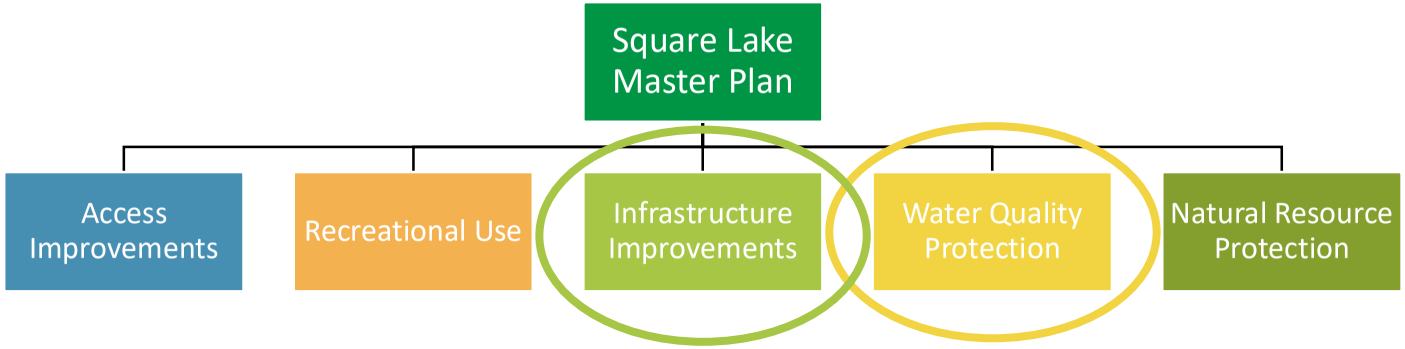


Sources:

- Market Area
- Streetlight Analysis
- Demographics (survey)
- Observational Visits

Engagement Finding #2

Protecting and enhancing water quality and clarity is a key priority

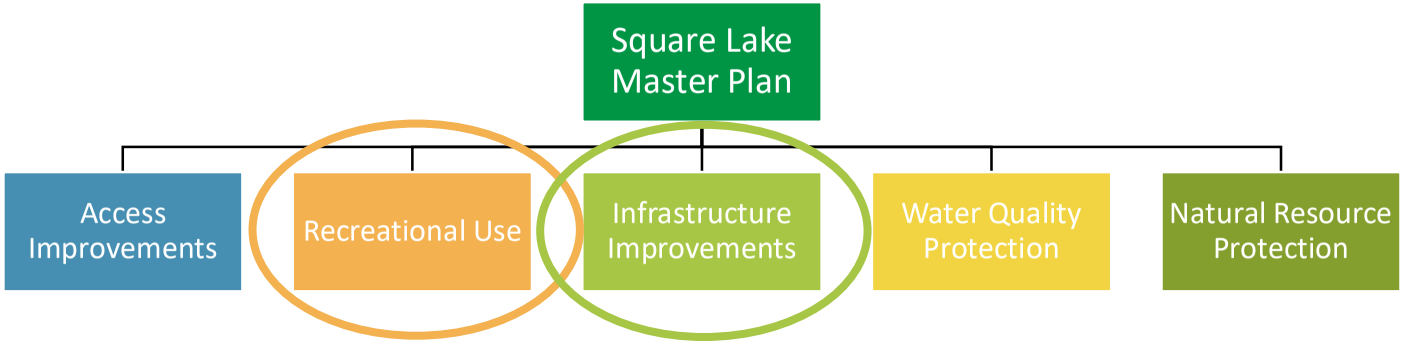


Sources (Online Event, Outreach meetings, Observational Visits):

- What do you enjoy most about the park?
  - 42% of responses
  - "The beach is beautiful and the water quality is exceptional. Keeping the lake clean is paramount."

Engagement Finding #3

Significant demand for improving nonmotorized watercraft site amenities and programming

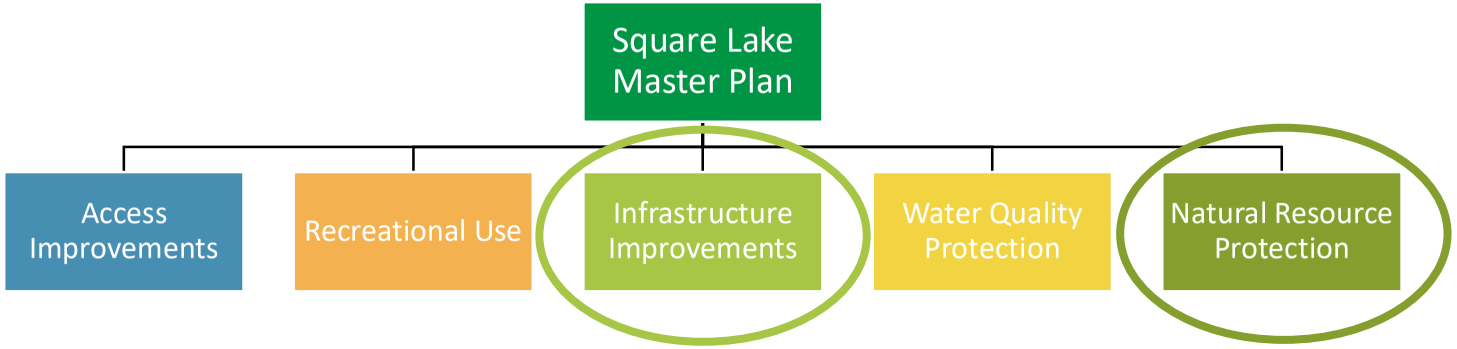


Sources (Online Event, Outreach meetings, Observational Visits):

- What activities do you participate in while at Square Lake Park?
- What NEW amenities would you like to see added in Square Lake Park?
- What programs would you like to see offered at Square Lake Park?

Engagement Finding #4

Preservation of natural, scenic setting is desired

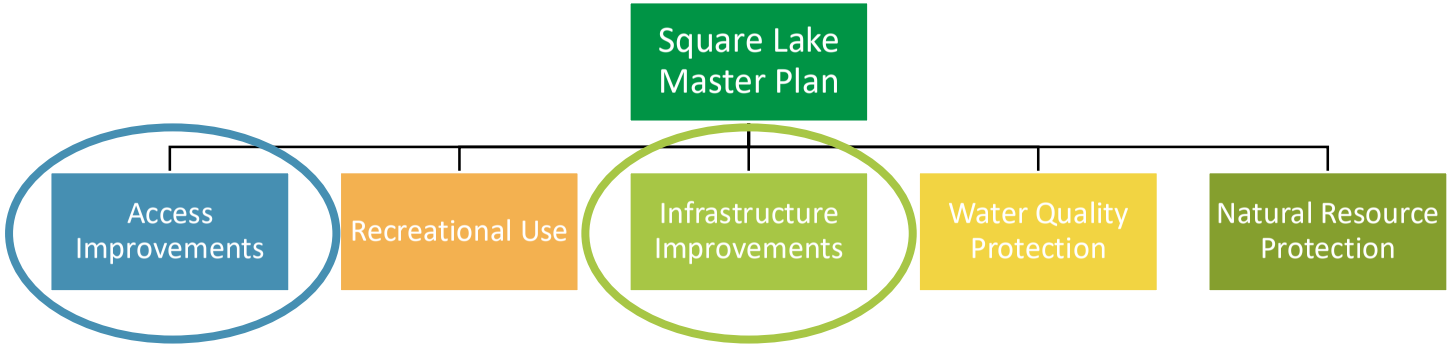


Sources (Online Event):

- What do you enjoy most about the park?
  - "Beautiful. Simple. Just the beach and nature. Not cluttered up with buildings and homes. Love the clear water. Friendly people."

Engagement Finding #5

Improvements are needed to better connect and access upper and lower areas of park

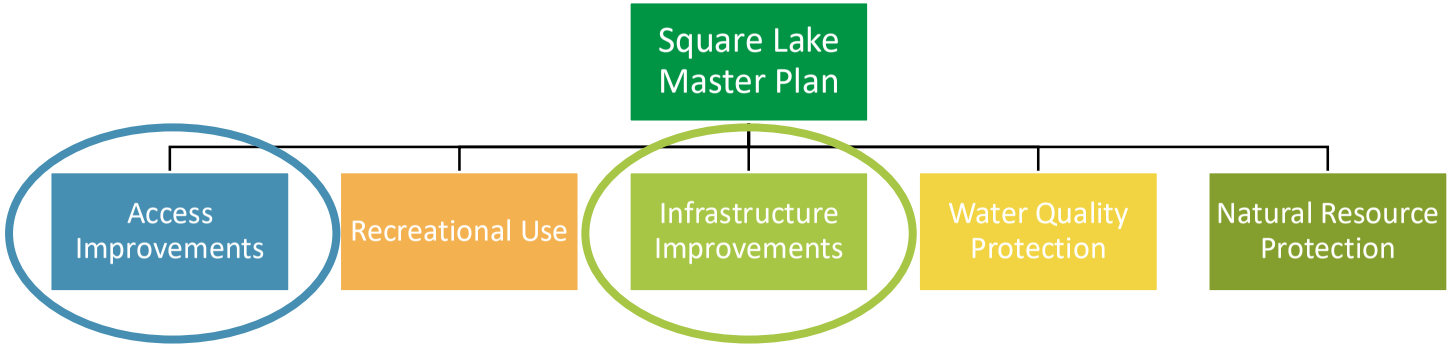


Sources (Online Event):

- What NEW amenities would you like to see added in Square Lake Park?
  - "Better access to the beach for handicapped visitors. Those stairs are difficult to navigate for older visitors as well as little kids."
- If you could prioritize one simple change that would improve your experience at Square Lake Park, what would it be?

Engagement Finding #6

Crowding at beach and high usage of lake impacts park experience

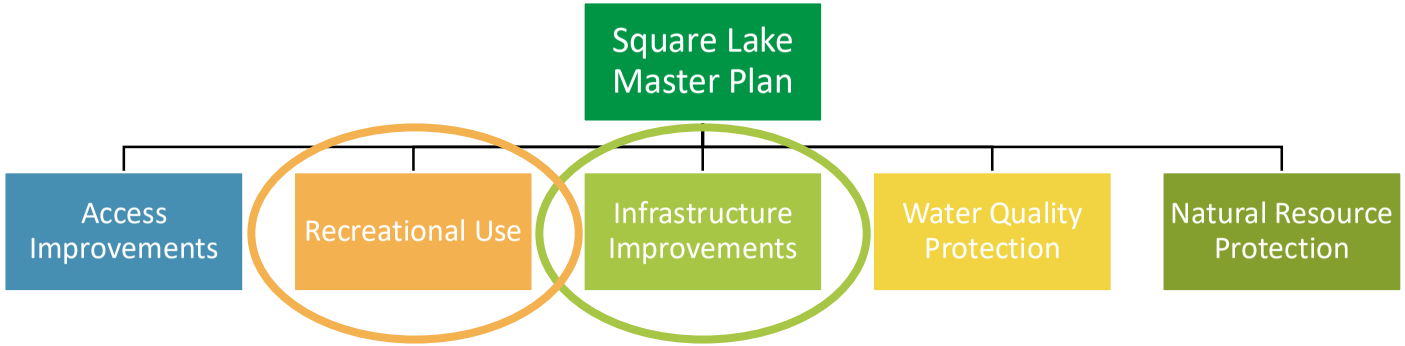


Sources (Online Event, Observational Visits):

- What is your biggest concern about the park?
  - "My biggest concern is that the park, and Square Lake are getting over-used and that it is not being protected and maintained; I worry that Square Lake has too much motorized activity on it and that the quality of the water is getting reduced."
- What barriers deter you from visiting Square Lake Park or visiting the park more often?
  - 34% - The park feels too crowded (most popular response)
- How has the COVID-19 pandemic changed the way you want to experience Washington County parks and trails in the future?

Engagement Finding #7

People are interested in visiting and using the park more in non-summer months

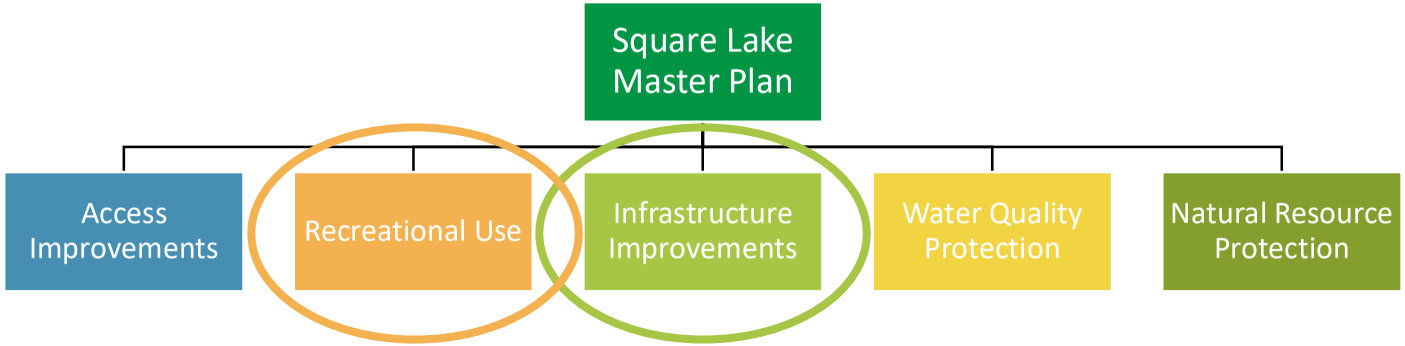


Sources (Online Event):

- During the colder-weather months (October-April), what would draw you and your family to visit Square Lake Park?
  - Top 3 responses:
    - Ice skating
    - Snowshoe trails
    - Sledding hill

Engagement Finding #8

Restroom facility is used by all users and improvement and consistent maintenance are important



Sources (Online Event, Outreach meetings, Observational Visits):

- What NEW amenities would you like to see added in Square Lake Park?
  - 39% - Improved beach restroom building (most popular response)
- What is your biggest concern about the park?
  - "The bathrooms aren't large enough for the crowds that are there in the summer, and as a result, feel less than clean as the day goes on."
- How has the COVID-19 pandemic changed the way you want to experience Washington County parks and trails in the future?
  - "We'll be much more aware of restrooms in the parks going forward (e.g., are they cleaned frequently, are they well-stocked with handsoap, etc.)."

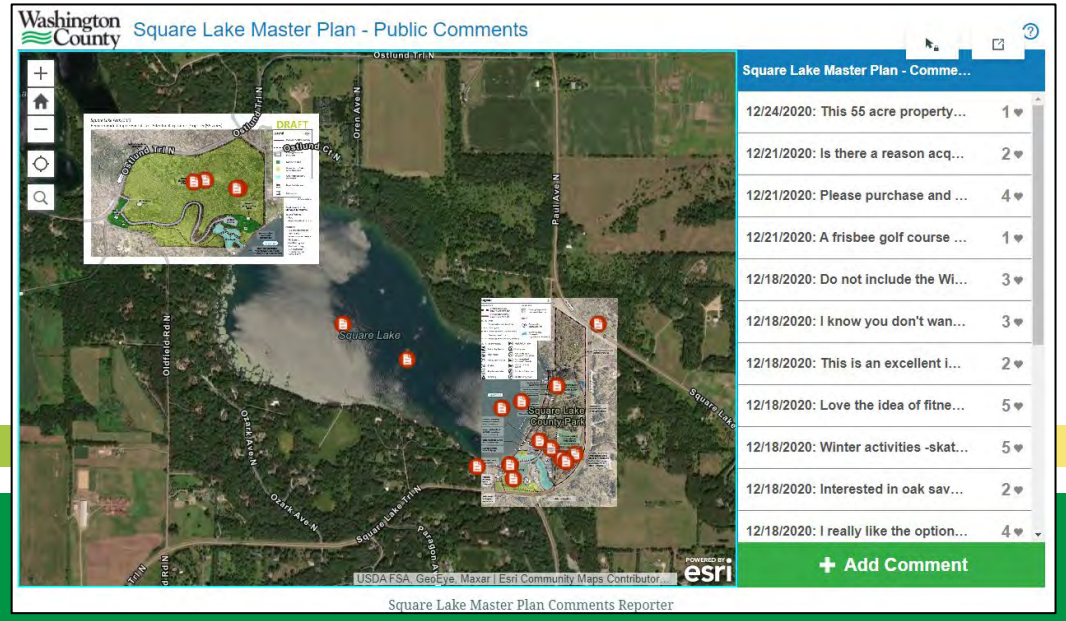
Summary of Findings

- Square Lake Park is visited and loved by both local residents and people all over the region
- Protecting and enhancing water quality and clarity is a key priority
- Significant demand for improving nonmotorized watercraft site amenities and programming
- Preservation of natural, scenic setting is desired
- Improvements are needed to better connect and access upper and lower areas of park
- Crowding at beach and high usage of lake impacts park experience
- People are interested in visiting and using the park more in non-summer months
- Restroom facility is used by all users and improvement and consistent maintenance are important

Online Engagement #2 Summary

Online Event - December 14-27

- Event total views: 482
- Interactive Map: 100 comments/likes
- Survey: 32 respondents



Square Lake Master Plan Comments Reporter

Key Findings:

- Proposal on the right track!
- Watercraft amenities
- Supportive of trail additions
- Motorized boat use
- Future park boundary
- Supportive improving non-summer park use

Engagement Findings – Final

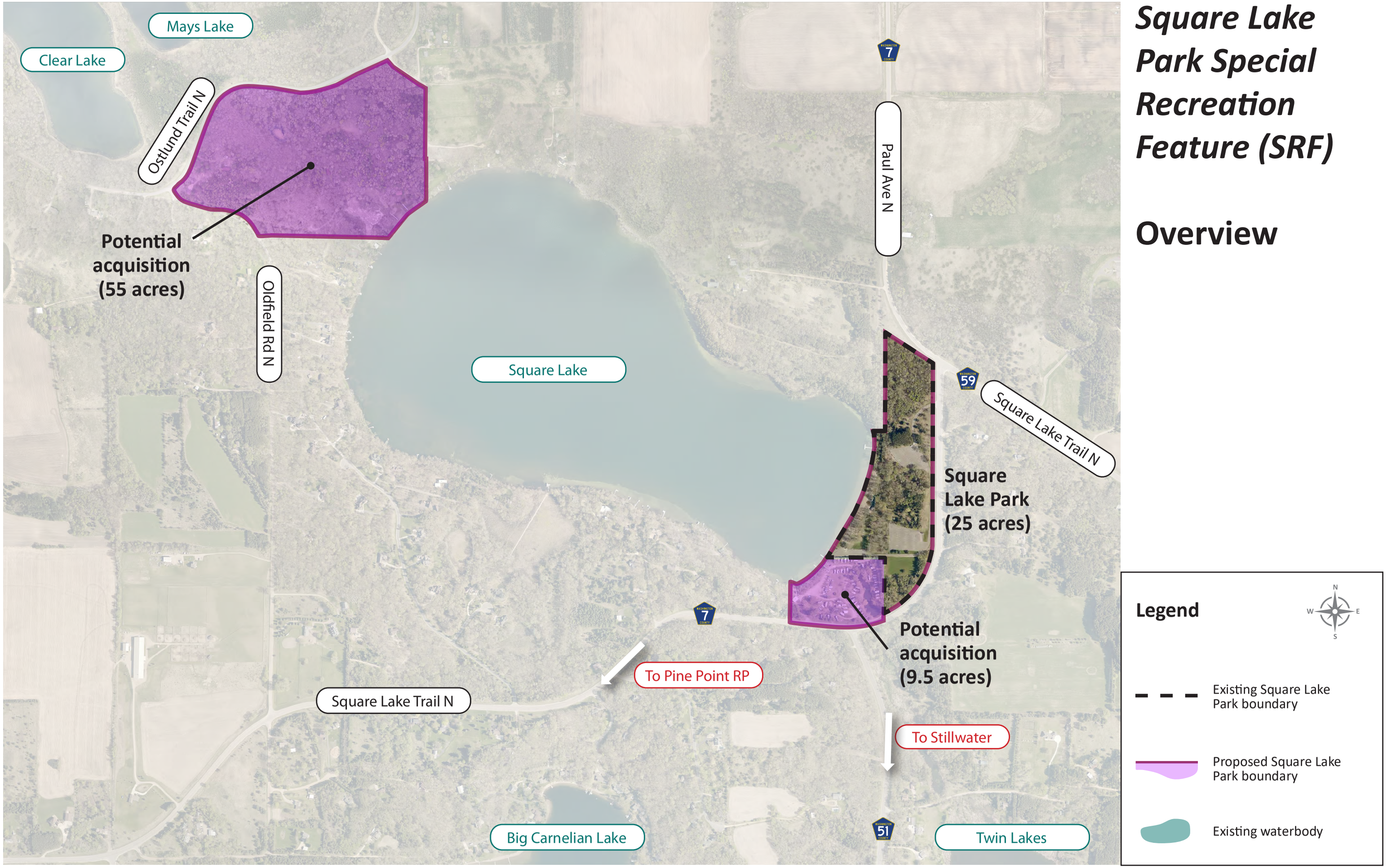
- Square Lake Park is visited and loved by both local residents and people all over the region.
- Protecting and enhancing water quality and clarity is a key priority.
- Significant demand for improving nonmotorized watercraft site amenities and programming
- Preservation of natural, scenic setting is desired.
- Improvements are needed to better connect and access upper and lower areas of park
- Crowding at beach and high usage of lake during peak times impacts park experience
- People are interested in visiting and using the park more in non-summer months
- Restroom facility is well used and therefore improvements and consistent maintenance are important
- Develop additional trails and explore opportunities to complement existing uses
- Proposed acquisitions will add value to the park and region through conservation of natural resources and low impact park improvements

Appendix V

Recommendation Displays

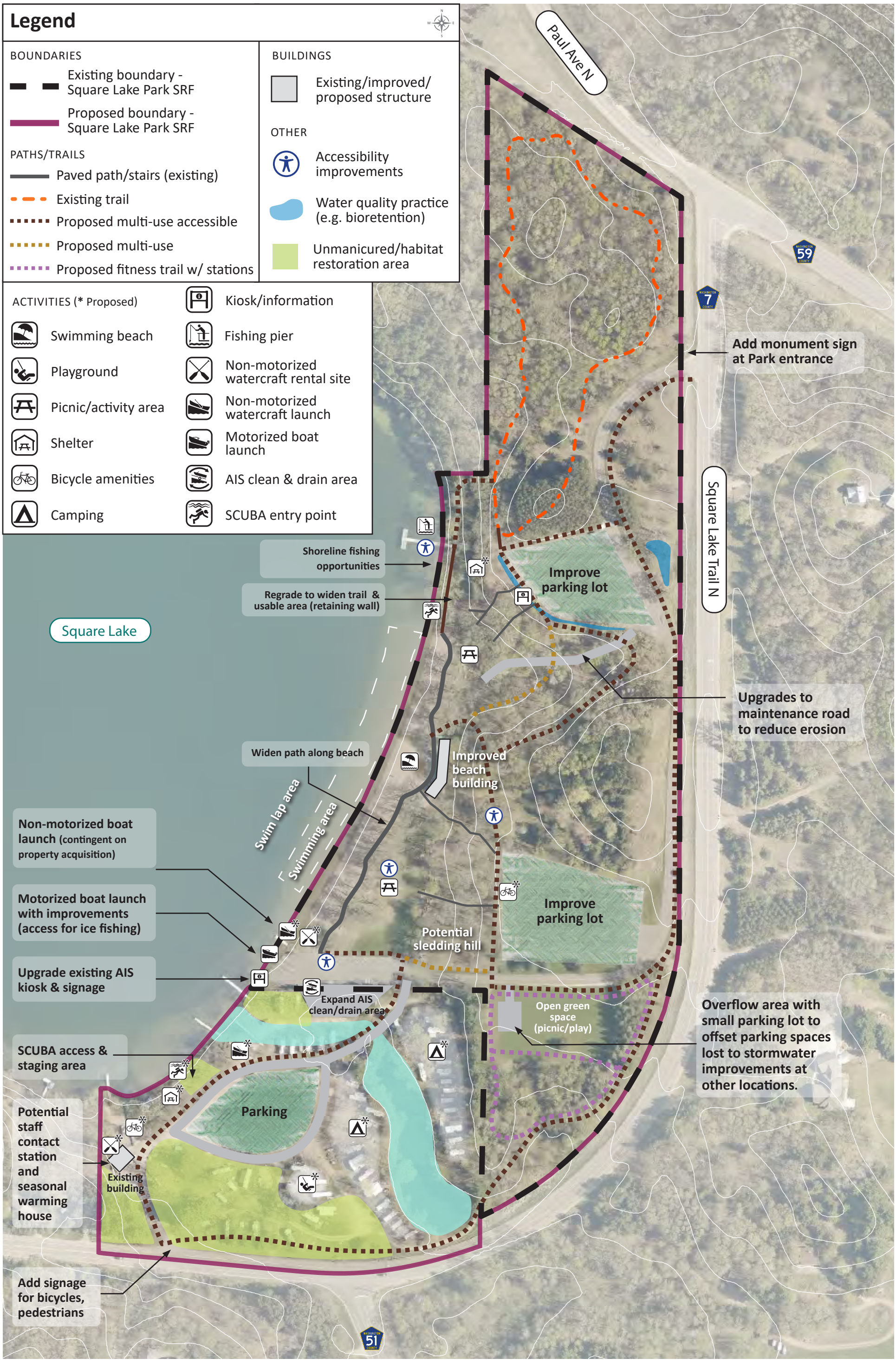
Square Lake Park Special Recreation Feature (SRF)

Overview



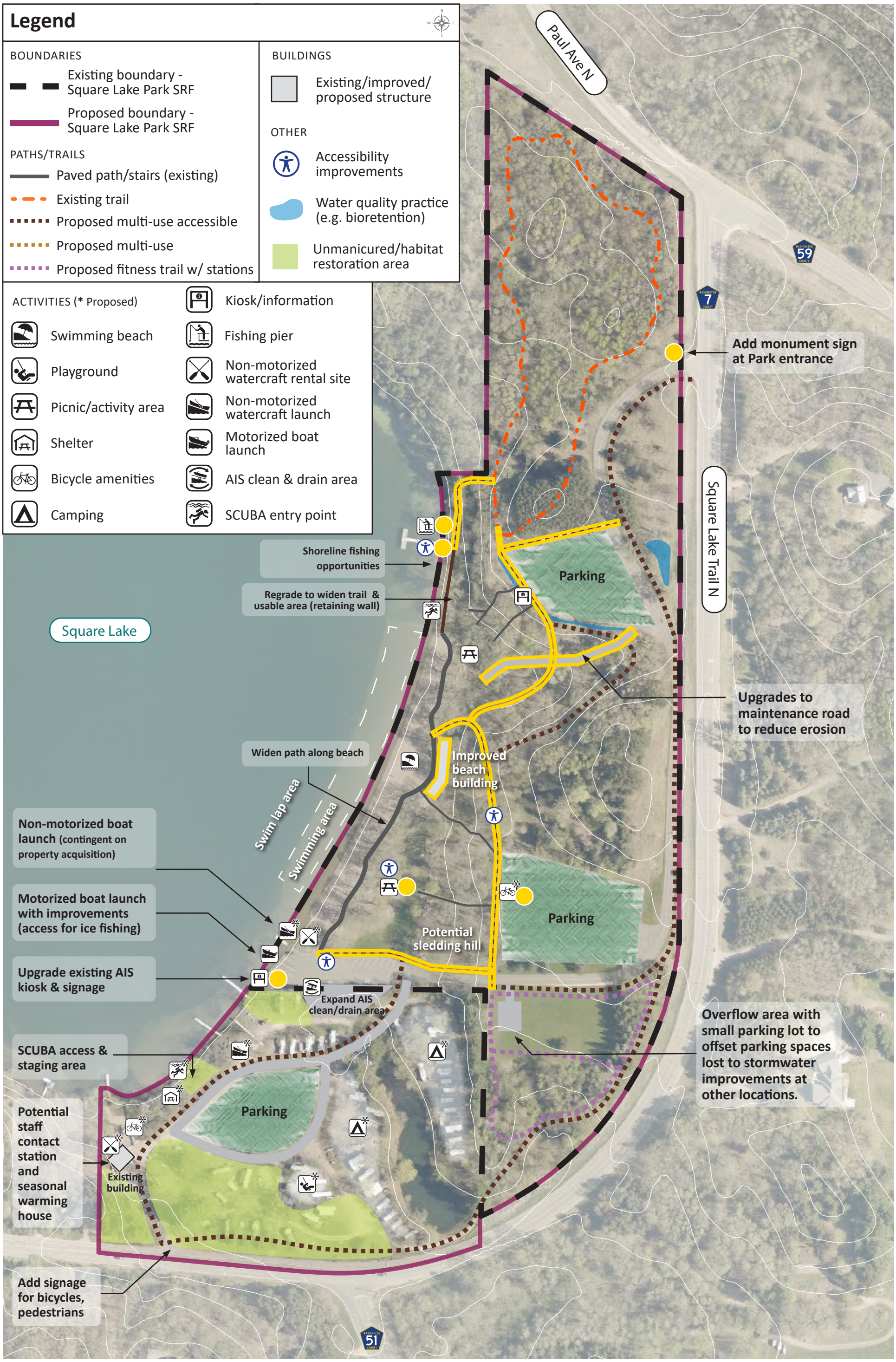
Square Lake Park (SRF) - Recommended Improvements for Existing (25 acres) & Potential Acquisitions (9.5 acres)

Capital Improvements



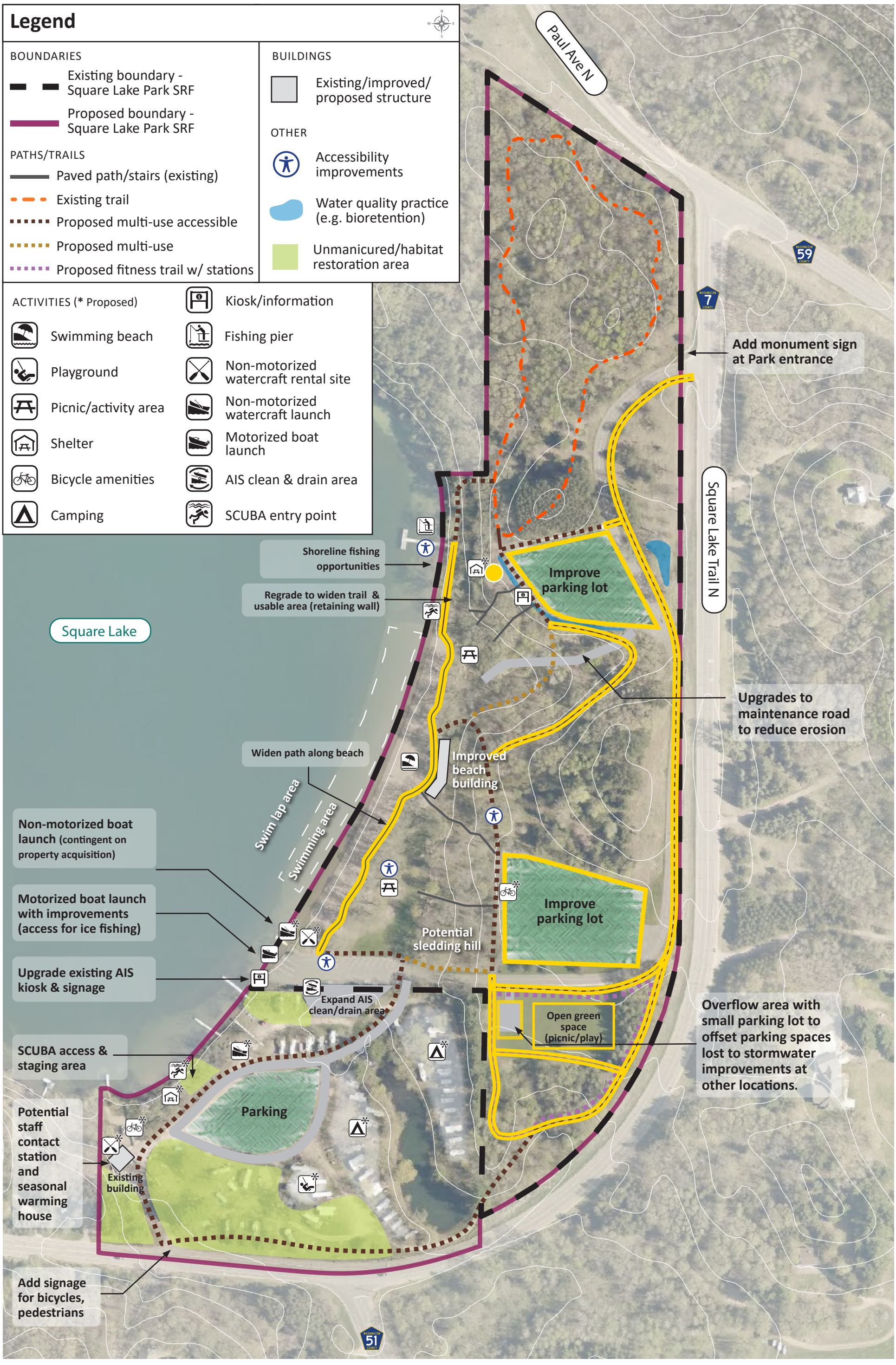
Square Lake Park (SRF) - Recommended Improvements for Existing (25 acres) & Potential Acquisition (9.5 acres)

Phase 1 Capital Projects



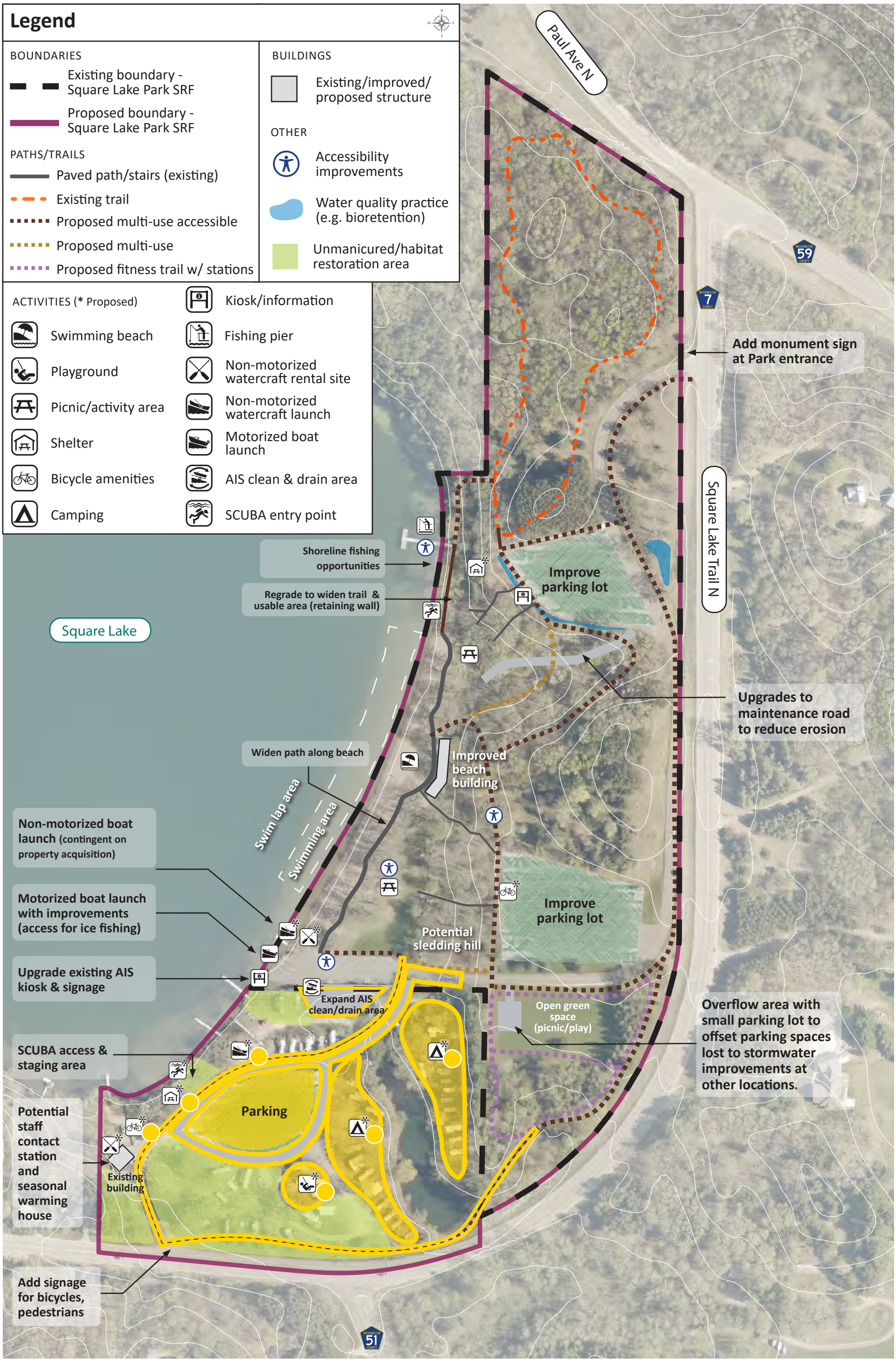
Square Lake Park (SRF) - Recommended Improvements for Existing (25 acres) & Potential Acquisition (9.5 acres)

Phase 2 Capital Projects



Square Lake Park (SRF) - Recommended Improvements for Existing (25 acres) & Potential Acquisition (9.5 acres)

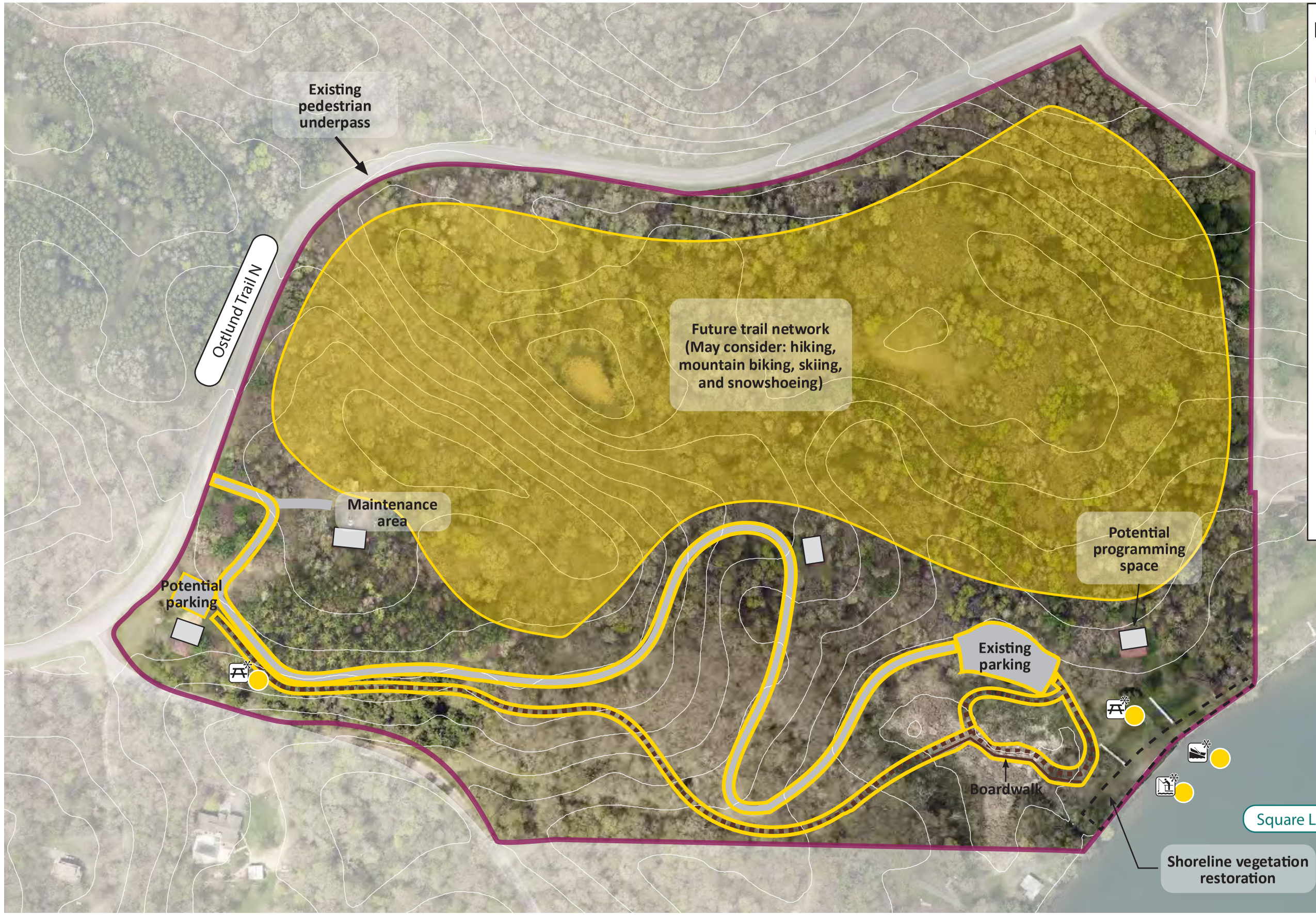
Phase 3 Capital Projects



Square Lake Park (SRF)

Recommended Improvements for Potential Acquisition Property (55 acres)

Phase 3 Capital Projects



Legend

- Proposed SQRP boundary
- Improved/proposed trail
- Existing/improved structures
- Manicured area
- Mixed deciduous forest transition area
- Unmanicured/habitat restoration area
- Wetland protection/ restoration
- Picnic/activity area
- Fishing pier
- Non-motorized watercraft launch

* Proposed items

Development of this site would be minimal.

Existing features:

- Road (improvements required)
- Several on-site structures

Additions:

- Two small parking lots
- Mowed trails
- Boardwalk over wetland
- Picnic areas
- Small fishing pier
- Shoreline fishing
- Non-motorized watercraft launch and docking

Square Lake Park (SRF)- Recommended Improvements for Existing & Potential Acquisition (9.8 acres) Properties

Natural Resources & Land Use

Square Lake Park (SRF)

Recommended Improvements for Potential Acquisition Property (55 acres)

Natural Resources & Land Use

Existing features:

- Road (improvements required)
- Several on-site structures

Additions:

- Two small parking lots
- Mowed trails
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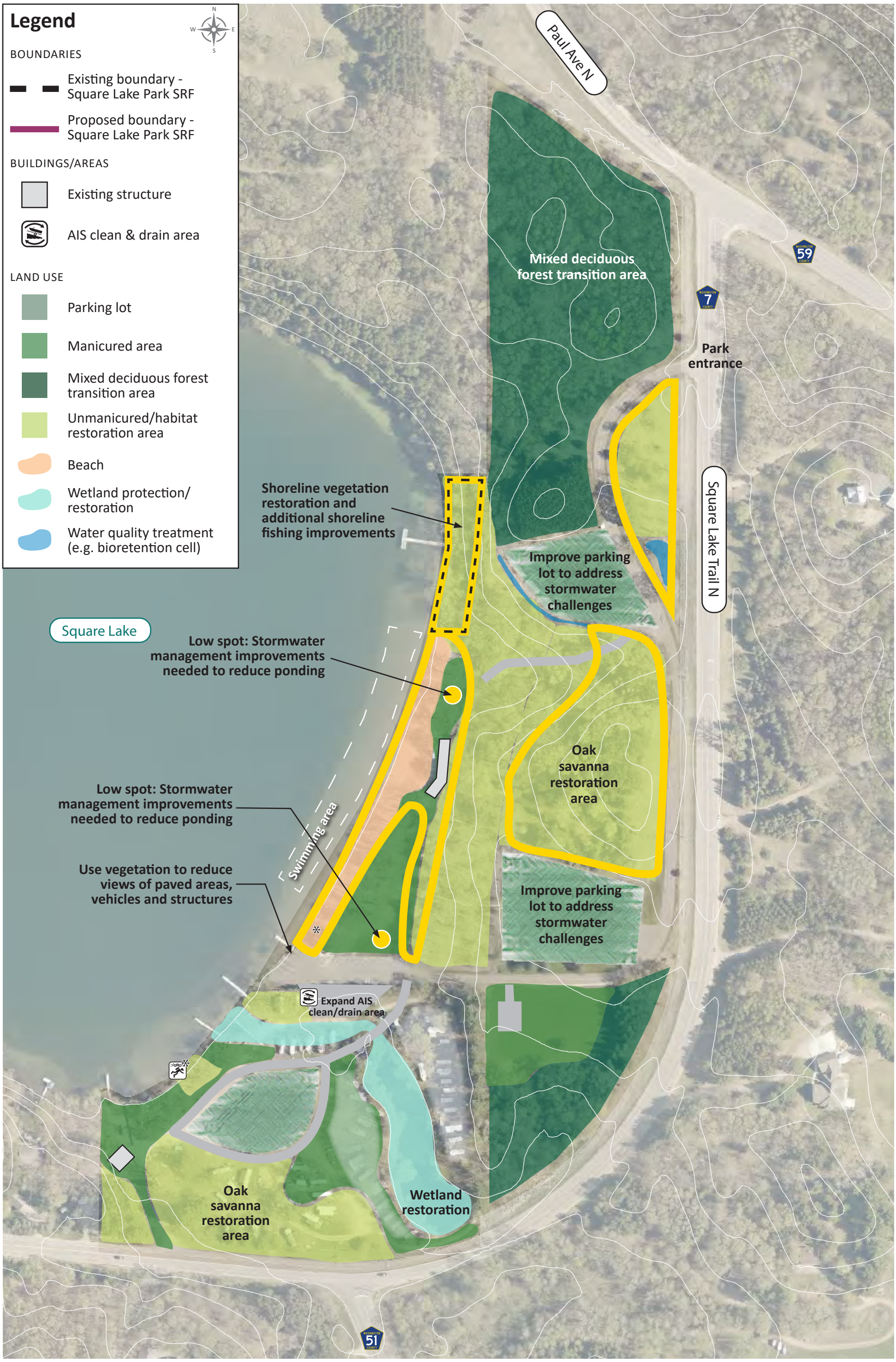
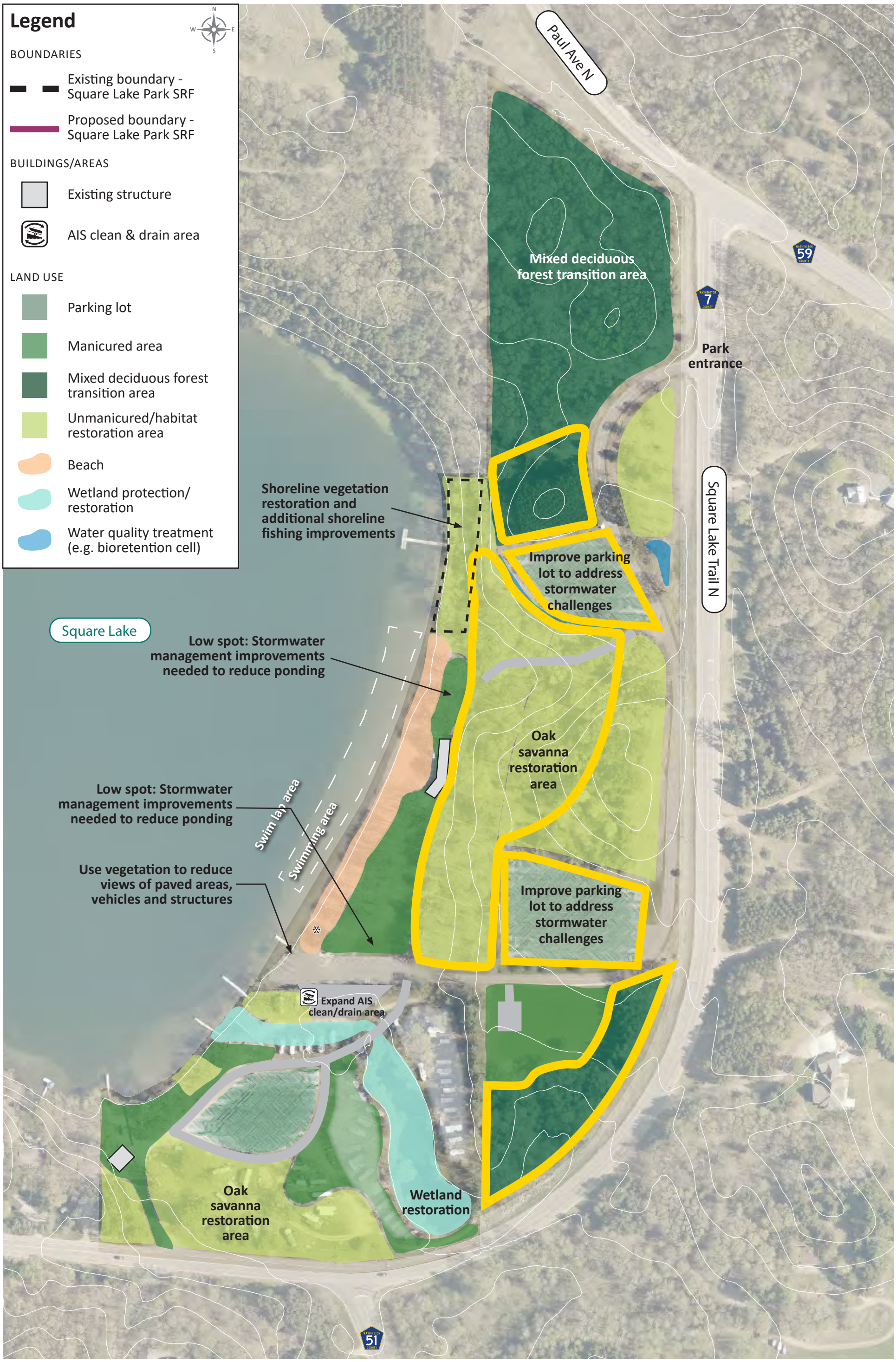
Square Lake Park (SRF) - Recommended Improvements for Existing (25 acres) & Potential Acquisition (9.5 acres)

Phase 1 Natural Resources



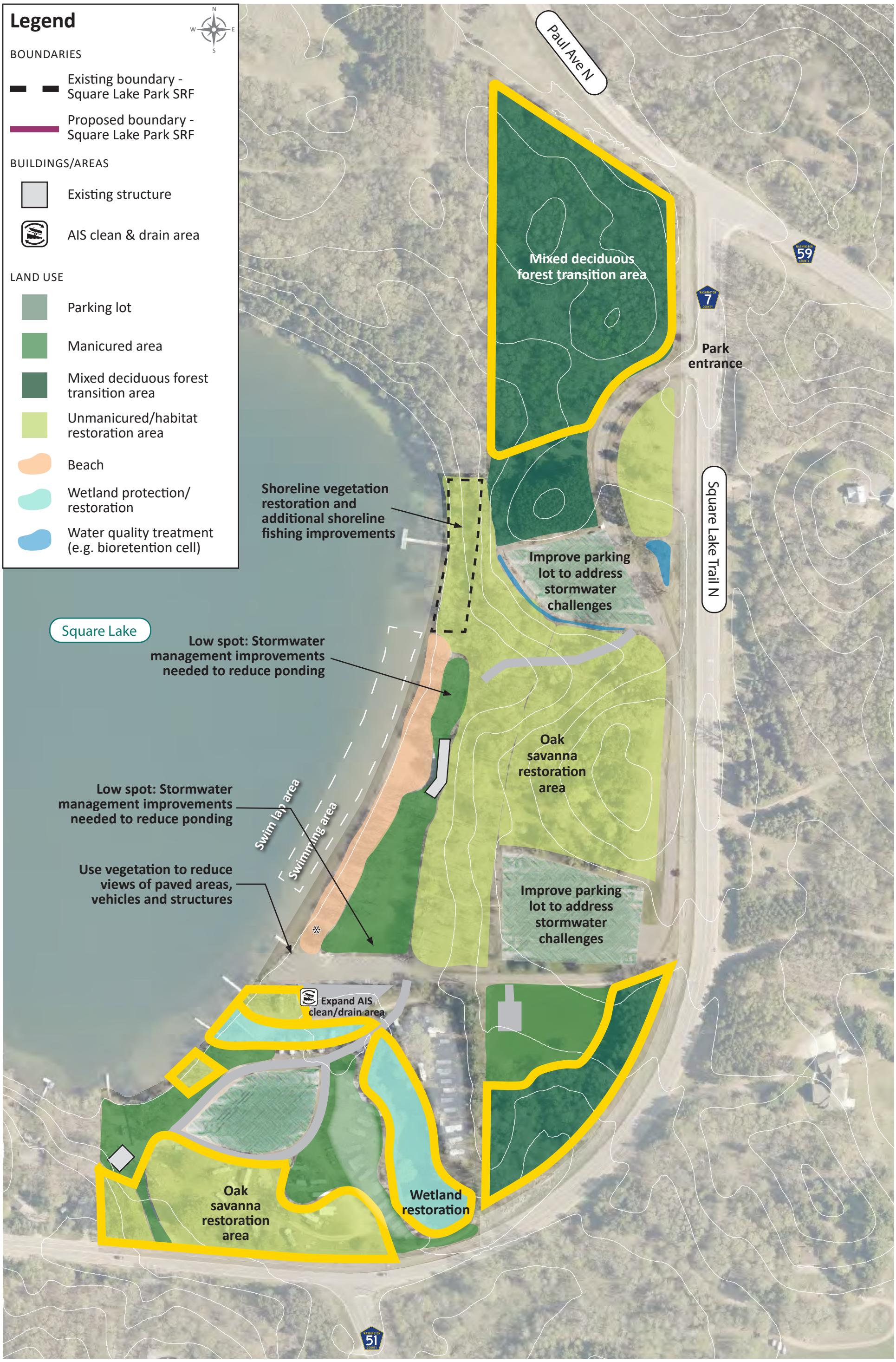
Square Lake Park (SRF) - Recommended Improvements for Existing (25 acres) & Potential Acquisition (9.5 acres)

Phase 2
Natural Resources



Square Lake Park (SRF) - Recommended Improvements for Existing (25 acres) & Potential Acquisition (9.5 acres)

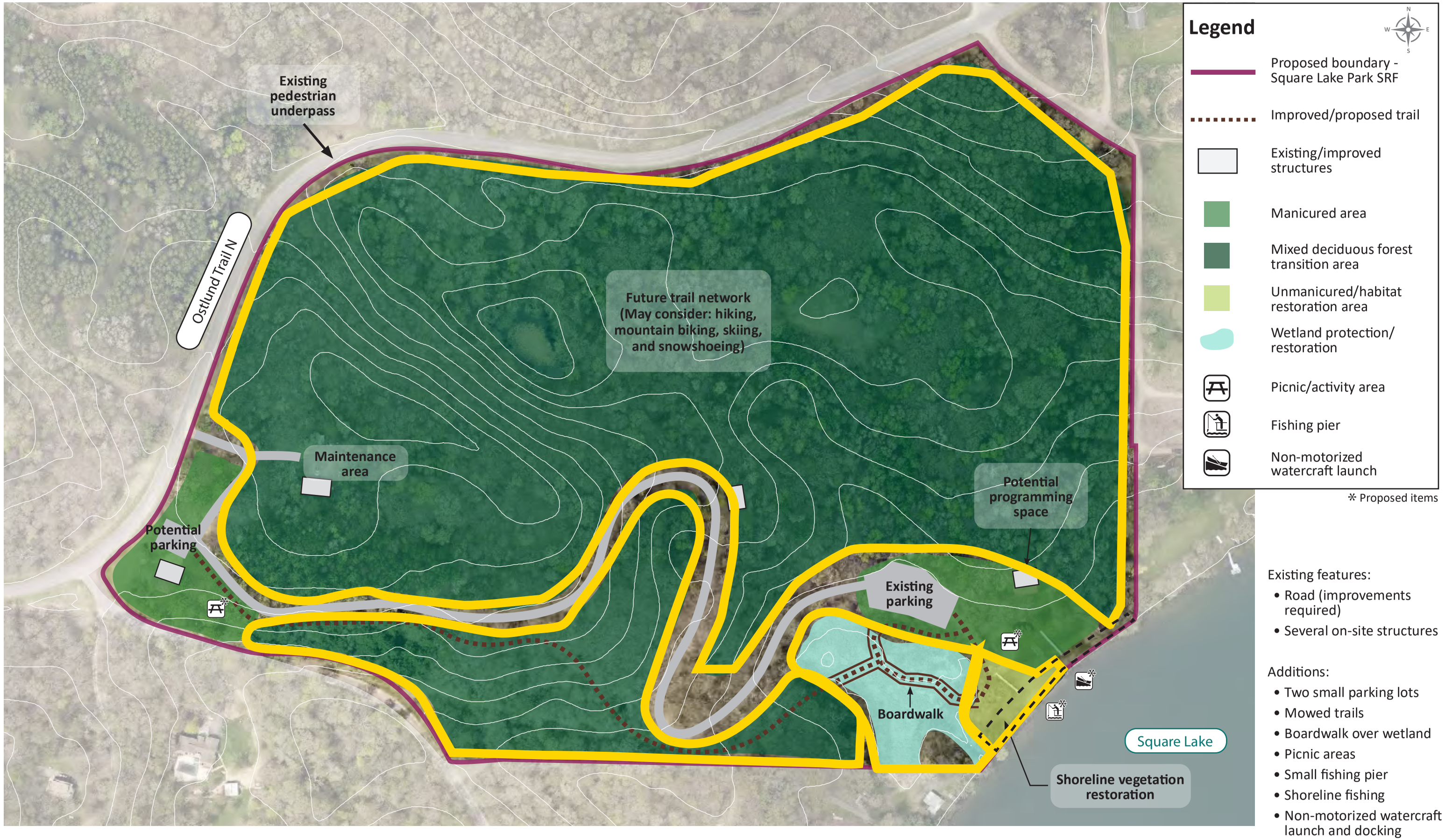
Phase 3
Natural Resources



Square Lake Park (SRF)

Recommended Improvements for Potential Acquisition Property (55 acres)

Phase 3
Natural Resources



Existing features:

- Road (improvements required)
- Several on-site structures

Additions:

- Two small parking lots
- Mowed trails
- Boardwalk over wetland
- Picnic areas
- Small fishing pier
- Shoreline fishing
- Non-motorized watercraft launch and docking

Appendix VI

Stakeholder Support

BOARD OF COUNTY COMMISSIONERS
WASHINGTON COUNTY, MINNESOTA

RESOLUTION NO. 2021-019

DATE February 9, 2021

DEPARTMENT Public Works

MOTION BY COMMISSIONER Miron

SECONDED BY COMMISSIONER Kriesel

RESOLUTION SUPPORTING SUBMITTAL OF THE SQUARE LAKE SPECIAL RECREATION FEATURE MASTER PLAN TO METROPOLITAN COUNCIL

WHEREAS, a special recreation feature master plan is required to address the criteria set forth in the Metropolitan Council's 2040 Regional Park Policy Plan to become eligible for Metropolitan Council regional park system designation and funding; and

WHEREAS, the proposed Square Lake Special Recreation Feature master plan provides planning and implementation guidance for the capital improvements, acquisitions, natural resource management, and overall development to create a regional park that meets the needs of Washington County park users; and

WHEREAS, the master planning process for the Square Lake Special Recreation Feature master plan included public engagement events and meetings that provided the opportunity for input from partner agencies and public stakeholders; and

WHEREAS, the draft Square Lake Special Recreation Feature master plan was reviewed and supported by the Washington County Park and Open Space Commission (POSC) on January 21, 2021; and

WHEREAS, the Washington County Board of Commissioners heard a staff presentation on the Square Lake Special Recreation Feature master plan on January 26, 2021.

NOW, THEREFORE, BE IT RESOLVED that the Washington County Board of Commissioners supports the proposed Square Lake Special Recreation Feature master plan.

BE IT FURTHER RESOLVED that the Square Lake Special Recreation Feature master plan be submitted to the Metropolitan Council for review and approval.

ATTEST:

DocuSigned by:
Kevin Corbid
BF6D5C95BF3E41A...

COUNTY ADMINISTRATOR

DocuSigned by:
Lisa Weik
2BB6324A826E467...

COUNTY BOARD CHAIR

	YES	NO
MIRON	X	
KARWOSKI	X	
KRIESEL	X	
JOHNSON	X	
WEIK	X	

Updated: January 2021

February 4, 2021

Metropolitan Council Chair and Parks and Open Space Commission
390 North Robert Street
Saint Paul, MN 55101

Hello Chair and Commission Members,

East Metro Area Fisheries is pleased to provide this letter of support for the Square Lake Special Recreation Feature master plan. The park is located in our fisheries management area and is an important part of the regional park system renowned for its access to some of the clearest waters in the metropolitan region. Informed by the interagency and public engagement process, a master plan will provide the vision and direction for the future development of this park for the benefit of all users.

East Metro Area Fisheries supports the improvements proposed in the Square Lake Special Recreation Feature. Existing and future generations of park users will benefit from the proposed improvement to the park's infrastructure and recreational opportunities. This plan also provides essential guidance on the park's ecological functioning by recommending improvements and management practices that will help protect and enhance Square Lake and the surrounding watershed.

Thank you for the opportunity to send our support. We look forward to working with all agency partners on the implementation of the Square Lake Special Recreation Feature master plan.

Regards,

TJ DeBates
East Metro Area Supervisor
1200 Warner Road
Saint Paul, MN 55106