PARKS, RECREATION, AND CULTURE REGULAR MEETING

December 2, 2025 - 6:00 PM
Community Recreation Center, 250 N. 11th Street Windsor, CO 80550

AGENDA

A. CALL TO ORDER

1. Roll Call
2. Review of Agenda by the Board and Addition of Items of New Business to the Agenda for Consideration
3. Liaison Reports
    - Town Board Liaison
    - Weld RE-4 School District
4. Public Invited to be Heard

B. CONSENT CALENDAR

1. Minutes (October 7, 2025)

C. BOARD REVIEW/DISCUSSION

1. Windsor Lake Management Plan
2. Kyger Reservoir Management Plan

D. COMMUNICATIONS

1. Staff
2. Board

E. ADJOURN

The Town of Windsor will make reasonable accommodations for access to Town services, programs, and activities and will make special communication arrangements for persons with disabilities. Please call (970) 674-2400 by noon on the Thursday prior to the meeting to make arrangements.

Parks Recreation & Culture Regular Meeting

October 7, 2025 - 6:00 PM
Community Recreation Center
250 N.11th Street, Windsor, CO 80550

MINUTES

A. MS. BOUCHARD CALLED THE MEETING TO ORDER AT 6:01 PM

1. Roll Call

Present:
Vanessa Bouchard/Chair
Nick Mask/Co-Chair
Jim Giffin
Jean Labus (Absent)
Patrick Lightfoot
Michael Nagl

Mark Leach – School Board Liaison (Absent)
Ken Symsack – Town Board Liaison

Also Present:
Tara Fotsch – Parks, Recreation & Culture Director
Bobby Warner – Recreation Manager
Kendra Martin – Operations & Facilities Manager
Kristy Zulkoski – Administrative Specialist

2. Review of Agenda by the Board and Addition of Items of New Business to the Agenda for Consideration

MR. MASK MOVED TO APPROVE THE AGENDA AS PRESENTED. MR. LIGHTFOOT SECONDED THE MOTION. ALL MEMBERS PRESENT VOTED AYE. MOTION CARRIED.

3. Liaison Reports
   - Town Board Liaison/Ken Symsack
     - Deep in the budget process, broken out into work sessions for operations and capital expenses, reviewed revenues and expected expenses, finalized during budget retreat on Saturday, softer revenue projections for next year, running a little tighter, staff did a good job of making cuts, Parks, Recreation & Culture includes future athletic facility, Assistant Director position and other changes to the reorganization
     - Working on a framework for ordinance concerning electric vehicles/toys and golf carts around town, becoming a bigger concern as more people own them, will include identifying classifications and what is and isn't allowed on trails and/or streets
     - Natural medicine ordinance for mushrooms had been put on hold for a bit as it was made legal, first reading on creating restrictions and zoning for where it isappropriate

- Second reading on garage sale regulations ordinance, limited to three days a year, HOA's can make their own rules but must fall under Town's ordinance, follow whichever one is more strict
- Residential set-backs for registered sex offenders has passed, must be 1,000 feet away from schools and parks and 500 feet of trails, there were no restrictions before

- Ms. Bouchard inquired if the new signage and awareness has shown a difference on the use of electric bicycles and golf carts
  - There are always those one-offs, many more summer reports of late evening riding around, so many different classifications, put in writing what's allowed on roads or not, fines and fees will be determined, based on policy by Broomfield for kids which can include a fee for parent, it is meant to be more educational
- Mr. Mask shared his concern for the narrow paths that are four feet in Pelican Farms, golf carts will be on them and there is no room for single pedestrians, Metro District "Golf Cart Friendly" signs
  - Path vs. trail regulations, will inquire about that issue
- Ms. Bouchard inquired about mushroom zoning use vs. distribution?
  - It is legal state-wide, therapy side could use commercial space, different than production which is limited to industrial space

- Weld RE-4 School District/Mark Leach
  - No Report

4. Public Invited to be Heard
   - Pete Parker – 821 Main Street, Windsor, CO
     - Windsor resident for three years, Eco Point consulting company across from WMS, professor of Parks, Rec & Tourism, interested in participating with many years of experience in P&R field

B. CONSENT CALENDAR

1. Minutes from July 1, 2025

MR. GIFFIN MOVED TO APPROVE THE JULY 1, 2025 MINUTES AS PRESENTED. MR. LIGHTFOOT SECONDED THE MOTION. ALL MEMBERS PRESENT VOTED AYE. MOTION CARRIED.

C. BOARD REVIEW/DISCUSSION

1. 2026 Budget Presentation
   - Personnel Requests
     - Assistant Director
     - Rec Supervisor – Events and Partnerships, reorganization changing Culture Supervisor to Culture & Engagement Manager
     - Two PTYR Rec Specialist to Rec Coordinator
     - Facilities Supervisor to a Manager role over that division, lighten Ms. Martin's load
   - General Fund
     - Cemetery
       - Accomplishments
         - Two new columbariums installed along with a new cement

pad for and landscape improvements made in the area around them
        - 48 burials, 2 columbarium, 83 plots sold
        - Turf/irrigation improvement measures helped this year, will continue into 2026
    - What is changing in 2026
        - 3% increase in O&M
            - Battery powered equipment, vases for columbariums
    - Goals
        - Landscape documents for existing cemetery to work on completing Master Plan
        - Improve turf maintenance around gravesites – reseeding, top dressing, aerating on an annal basis
- Community Events
    - Accomplishments
        - Farmer's Market was extended for two weeks, averaging 40 crafts, food and produce vendors and featuring music, ArtLive!, and yoga
        - July 4th celebration expanded to an all-day event at Boardwalk Park utilizing 5th Street for vendors and bands, the Train Depot and the show stage for the headline, fireworks
        - Concerts in the Park enhanced – food vendors were expanded, a high school band that won Battle of the Bands was hired, emergency action plan was created for the concerts and Boardwalk Park
        - 2025 – 287 volunteers have served 3,846 hours which equals to $133,802, a 14% increase from 2024, does not include coaches
    - What is changing in 2026
        - 33% increase in O&M
            - Safe Routes to School (grant funded), Treasure Island Master Plan i grant is approved
    - Goals
        - Program and increase rental opportunities at the newly renovated Boardwalk Park outdoor space
        - Emergency Management Plans that focus on traffic and parking
        - Strategize the use of 5th Street for current and new events, partnering with the WDA
        - Safe Routes to School Program implementation
- Forestry
    - Accomplishments
        - Completed bed renovations at Bison Ridge and Eastman Park roundabouts
        - Completed Tree Inventory with Davey Resource Group
        - 7th Street and Eastman Park Drive tree removal
        - Updated a number of drip systems in beds at parks, facilities and roundabouts
        - Special Events – Sick Tree Day and Arbor Day Celebrations
    - What is changing in 2026
        - 9% increase in O&M
            - Downtown holiday tree light installation
        - Implement Tree Management Plan – in the works, Tree Inventory is the first step
        - Review and look at current ordinances and see what needs updated/revise

- ❖ Plant replacements in downtown, roundabouts, parks and facilities
- ❖ Host educational opportunities along with social media engagement/campaign
- ❖ Continue to transition equipment from gas to electric

- Recreation
  - Accomplishments
    - ❖ Camp Windsor expanded to a second location at NOCO Sports, offering sports focused weekly activities
    - ❖ Managed practice and game scheduling for multiple sports following the closure of Future Legends and increased school conflicts
    - ❖ Held Safe Routes to School fall education programs in several elementary schools
  - What is changing in 2026
    - ❖ 4% decrease
      - ➢ NCSO fees based on three-year lookback
  - Goals
    - ❖ Research before and after school programs that focus on students being dropped off at the recreation center
    - ❖ Increase the number of seniors who stay for lunch by providing additional activities to encourage socialization
    - ❖ Utilize additional schools and fields to support the expansion of athletic programs
- Aquatics
  - Accomplishments
    - ❖ Updated our Windsor Lake Management Plan and created a Management Plan for Kyger Open Space
    - ❖ Revamped staff training to increase safety, confidence in the team and efficiencies
    - ❖ Enhanced our safety protocols and exercised our EAP for consistent and effective outcomes
    - ❖ Successfully ran two new events – Chimney Cook Out and Witch Paddle, both maxing registration numbers
  - What is changing in 2026
    - ❖ 14% decrease in O&M
      - ➢ Lounge chairs and tables replaced in 2025, not needed in 2026
  - Goals
    - ❖ Enhance our Swimming Lesson Program
    - ❖ Create opportunities at Eastman Park and Windsor Lake to revitalize and enhance operations
    - ❖ Create a replacement plan for aquatic pump room operations in addition to Windsor Lake fleet
- Open Space & Trails
  - Accomplishments
    - ❖ Completed first open space acquisition
    - ❖ Kyger Reservoir Management Plan
    - ❖ Completed Kyger Open Space Reservoir access improvements
    - ❖ Poudre Trail Wayfinding completion
    - ❖ Poudre Trail re-alignment completion
  - What is changing in 2026
    - ❖ 46% increase in O&M
      - ➢ Open Space & Trails Master Plan, if funded by GOCO
  - Goals
    - ❖ Continue to explore acquisitions and leveraging of funds and partnerships
    - ❖ 15th Street Trail construction

            - ❖ Trails Master Plan update as part of Transportation Master Plan
            - ❖ Strategize long term management of new open spaces
            - ❖ Continued growth and expansion of volunteer program
        - Parks
            - Accomplishments
                - ❖ Main Park playground and Aaron Cook turf projects
                - ❖ Drain pans in Boardwalk grass, improved drainage
                - ❖ Moved park fertilization inhouse
                - ❖ Robotic mower operations
                - ❖ Early spring fire damage repairs/replacements
            - What is changing in 2026
                - ❖ 7% increase in O&M
                    - ➢ Battery powered tools, assessments (decrease in ball field maintenance)
            - Goals
                - ❖ Continue conversion from gas to electric equipment
                - ❖ Eastman Park playground
                - ❖ Chimney Park fields 2 & 3 renovations
                - ❖ Park Pump station improvements
                - ❖ Improve turf management policies
                - ❖ Ongoing irrigation training for staff
        - Art & Heritage
            - Accomplishments
                - ❖ Two historical homes (Eaton House & Dickey Farmhouse) were opened, featuring open houses, educational programming and public showings
                - ❖ The Museum Strategic Plan was completed
                - ❖ Launched Sculpture on Loan program with eleven new temporary sculptures at Windsor Lake to be rotated annually
            - What is changing in 2026
                - ❖ 4% decrease in O&M
                    - ➢ Artifact conservation not needed in 2026 and tribal consultation reduced
            - Goals
                - ❖ Develop and install Depot 50th Anniversary Exhibition with interactive components and new interpretation, host exhibition/Museum opening in conjunction with other Colorado 150/US 250 commemoration in partnership with WSHS and HPC
                - ❖ Work closely with indigenous consultant groups to develop and install a Native American exhibit at the Windsor History Museum
                - ❖ Expand the Sculpture on Loan program to include an arts festival to celebrate the launch of season two
- Facilities Services Fund
    - Custodial Services
        - Accomplishments
            - ❖ Organized chemical product use for safety and efficiency
            - ❖ Streamlined paper product ordering
            - ❖ Successful Shut Down week at the CRC
            - ❖ CRC floor renovation projects
        - What is changing for 2026
            - ❖ 2% increase in O&M
                - ➢ Cost of supplies and additional facilities (Comm Dev), moved painting contracts to facilities maintenance
        - Goals

- ❖ Tracking of time and tasks to increase efficiencies and future planning
- ❖ Incorporate deep cleanings at all Town facilities

- Facility Maintenance
  - Accomplishments
    - ❖ Created opportunities for effective staff organization changes
    - ❖ Utilized skilled in-house team members to decrease contractual costs
    - ❖ Created a trackable key inventory system
    - ❖ Completed Main Park restroom remodel again (due to fire)
  - What is changing in 2026
    - ❖ 31% increase
      - ➢ Cost of supplies, increase in facilities (Comm Dev, Eaton House, Halfway Homestead) addition of painting from custodial services
  - Goals
    - ❖ Finalize Level of Service Standards
    - ❖ Create opportunities for customer service training
    - ❖ Complete Asset Management System for all Town facilities
- Community Recreation Center
  - Accomplishments
    - ❖ Embarked on a Facility Feasibility Study
    - ❖ Currently 6,477 members
    - ❖ Have had 314,030 visitors to date with an average of 1,187 visitors each day
    - ❖ Launched very own Windsor Parks, Recreation & Culture app
    - ❖ Created Standard Operating Procedures for all aspects of operations
  - What is changing in 2026
    - ❖ 18% decrease
      - ➢ Cardio equipment was replaced in 2025, next cycle will be 2028, update to the 2020 Strategic Plan
  - Goals
    - ❖ Create a Community Feedback process
    - ❖ Enhance member experience through Fitness/Member Challenges, member activities and an upgraded pro shop
    - ❖ Create a visitor management process for the safety of staff and participants (drop in users, contractors, interviewees)
    - ❖ Enhance the Jr. Fitness Program and add youth programming for middle and high school aged students

- Park Improvement Fund
  - Future Athletic Complex
    - $12,000,000
      - ❖ Lighted ballfields, parking lot, road, restroom facility
      - ❖ #1 area of need is lighted baseball, #2 area of need is soccer/football/multipurpose
      - ❖ Indoor Facility Study – location not yet determined





    - Chimney Park turf renovations and lighting installation
        - Two fields - $2,240,000
            - $600k CTF
            - $1.64M CIP
        - Lights three fields - $1,050,000 PIF
    - Windsor Lake Trail
        - $150,000
            - Design for trail connecting Windsor Lake to CR 15; along Prairie Song/Windsor Lake Road
- Conservation Trust Fund
    - Trail realignment and flooding contingency
        - $75,000
- Capital Improvement Fund
    - Chimney Park Pool slide and bathhouse renovation
        - $920,000
            - Slide is 25 years old
            - $40,000 in repairs needed if we try to keep it for another year, need to order by November for it to be completed for the summer season
            - Project includes two slides, no slide pool, but will have a slide run out
            - Bathroom renovations will include fixtures and tile upgrades
    - Eastman Park playground replacement
        - $700,000
            - 21 years old
            - Still has mulch surfacing
            - Hight traffic play area due to its location
            - If the slides break, they will not be replaceable as they have been discontinued
    - Park Signage Replacement Plan
        - Year 3 - $100,000
            - Entry signs will begin going up this fall
            - Phase 3 of the project is to replace all the Rules & Regulations signs in the park system
    - Historic Preservation – Historic Buildings
        - $100,000
            - Conducting a study this fall to determine priorities for historic facilities, will then work on a three-year plan to begin rehabilitation if needed
            - Includes Windsor History Museum buildings, Art & Heritage Center and Town Hall (exterior only)
    - Heated sidewalks – East Entrance Public Services
        - $85,000
            - Completes the east entrance of the public services facility, main public entrance
    - Art & Heritage Small Equipment
        - Oversized storage - $40,000
        - Depot 50th Anniversary Exhibit refresh - $30,000
    - Building H drainage repairs (Parks)
        - $60,000
            - Current building drains onto the sidewalk areas
            - Unsafe for staff, drainage needs to be buried
    - Small Equipment
        - Recreation - $32,000
            - Batting cage nets and L screens - $16,000
            - Chair replacements - $10,000

            - ❖ Scoreboard repairs - $6,500
        - Parks - $118,000
            - ❖ Irrigation pump repairs - $40,000
            - ❖ Electrical equipment - $20,000
            - ❖ Portable fencing - $28,000
            - ❖ Benches - $30,000
        - Aquatics - $6,300
            - ❖ Repair concessions window at Boardwalk Park
- Community Recreation Center Expansion Fund
    - Facility Upgrades
        - Pool Vacuums - $14,000
        - Evergreen Room partition replacement - $145,000
        - Track resurfacing - $76,000
        - Parking lot crack, slurry - $125,000
        - Interior paint - $100,000
        - Carpet replacement - $200,000
        - Re-tile bathrooms - $30,000
        - Front desk remodel - $20,000
        - Replace hoop adjusters in main gym - $20,000

- Mr. Nagl inquired about the general feedback and the potential new rec center/facility, very derogatory in his neighborhood
    - ➢ Biggest supporters were not present at the last Steering Committee Meeting, still have not dove into the real numbers of how much the facility will cost or how it will be funded, if moving forward, need to tell the story of our restrictions based on data and analysis - losing 2,200 members annually, the impact of being maxed at capacity for youth sports, cannot always rely on the schools for gym space, biggest uphill battle will be the education component, have had preliminary conversations with the Severance management and they are interested, will get them involved in future meetings, are they able to come to the table with funding as a partnership, will bring a full report to a future meeting
- Mr. Mask inquired about the enhancement to swim lessons
    - ➢ Not specifically to the program for lessons, but additions to the curriculum, will offer various classes to cater to specific groups
- Mr. Mask inquired if the usage of turf rather grass fields is being tracked
    - ➢ Analysis from Aaron Cook field done the summer, cost benefit is one-third of staff expenses
- Mr. Nagl inquired about injuries from turf surfaces
    - ➢ Safer materials used, organic infill, extra padding installed, can host soccer or flag football
    - ➢ Mr. Mask stated that it would be a great educational opportunity for coaches and parents about proper footwear/cleats
- Mr. Nagl inquired how Shut Down Week timing is determined
    - ➢ Always the third week of August every year, school is back in session and usually see a decrease in visits during that time
- Mr. Lightfoot shared how sweet, kind and engaging the morning custodial staff are at the rec center
- Ms. Bouchard mentioned Willow Bend Park in Loveland, great foundation and interesting move with elevation play equipment, packed with kids, may be great for Eastman Park ground surfaces
- Ms. Fotsch shared that the Poudre Trail Authority Board is looking for a new Director, latest request from them is $57,000 from $32,000 previously, Town Board is having conversations and will probably not continue that partnership, so that those dollars can be kept within the Open Space budget or hire a part-time staff

MR. MASK MOVED TO RECOMMEND THE 2026 BUDGET AS PRESENTED TO TOWN BOARD. MR. GIFFIN SECONDED THE MOTION. ALL MEMBERS PRESENT VOTED AYE. MOTION CARRIED.

D. COMMUNICATIONS

1. Staff
    - Ms. Fotsch
        - Public hearing for Chimney Park lights is tomorrow night at Public Services, lights will be on at Ridgeline Middle School for those attending

2. Board
    - No Report

E. ADJOURN

MR. LIGHTFOOT MOVED TO ADJOURN. MR. NAGL SECONDED THE MOTION. MEETING WAS ADJOURNED AT 7:28 PM

Submitted by: Kristy Zulkoski/Administrative Specialist

_____
Name/Board Chair

_____
Date

TOWN OF WINDSOR
PARKS, RECREATION & CULTURE

WINDSOR LAKE RECREATION & PRESERVATION STRATEGY

DRAFT 2025



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Right: Entrance sign at Boardwalk Park listing rules, regulations, and other information.

INTRODUCTION

INTRODUCTION

Though Windsor Lake (originally known as Kern Reservoir) and the adjacent Boardwalk Community Park have seen many improvements over the last 20 years, including the addition of a concessions and restroom facility, event pavilion, and stage platform, Lake operations have largely been guided by the 2004 Management Plan. With the ever-increasing demand for public recreation opportunities and competing user groups, the Town of Windsor (Town) sought to develop this Recreation and Preservation Strategy (Strategy) to guide adaptive management for Windsor Lake and the surrounding park land for the next 20 plus years.

This Strategy reviews existing operations, management, and recreational use and provides recommendations to further clarify and define the role that this incredible open space area provides to the community and region. Topics covered in the Strategy include visitor experience, surrounding land use, access and circulation, education and interpretation, natural and cultural resources, partnerships, safety and resource protection, and enforcement.

The Town hired Logan Simpson and DJ&A to facilitate and provide technical expertise to create this Strategy.

Strategy Purpose and Overview:

- Evaluate current operational model including staffing, boat rentals, motorized and non-motorized permitting and fee schedule, and provide recommendations.
- Provide recommendations for sustainable management practices that protect and enhance the reservoir's environmental and ecological integrity.
- Identify, recommend, and prioritize appropriate recreation that broadly meet the priorities of the community.
- Develop strategies for continued and potential increased public access, education, and stewardship with increased population demands.
- Create a plan that is adaptable to future changes and incorporates stakeholder input.

Right: Dr. Tom Jones Trail marker



Overview of the Property

For the purposes of this Strategy, Windsor Lake is defined as the lake itself, along with the trail around the lake, fishing and boat access points, the beach area, boat rentals, and concession area. While Boardwalk Park's proximity and fluidity with the lake have significant influence and relevance, this Strategy does not include recommendations specific to the park area, including the stage, event pavilion, playground, and programming and events not associated with water recreation.

Windsor Lake is located ½ of a block off of Main Street in the heart of Downtown Windsor. Highway 257 runs north-south along the western end of the lake. The lake is 180 surface water acres. Over the last 20 years the site's popularity has increased year by year and is a very popular regional destination.

The Kern Reservoir and Ditch Company owns Windsor Lake and the water rights that are stored in the lake. The company, which is controlled by a board of directors consisting of seven members, includes 100 shares owned entirely by the Town of Windsor. The board membership consists of the current Windsor Town Board. Through an agreement with the New Cache la Poudre Irrigating Company, the reservoir acts as a storage vessel and equalizer for the new Cache Ditch. The New Cache Water is primarily used for agricultural irrigation on farms and ranches to the east. The Town utilizes its shares for augmentation, some residential landscape, and parkland irrigation. This plan does not change or impact valid and existing rights, such as access, operations, and water agreements.

The Town's Open Space and Trails Division of the Parks, Recreation & Culture Department is responsible for conserving and maintaining the open space and trail around the lake, while the Aquatics Division manages the boat rentals and permitting and staffs the concessions and boat patrol. The Town's Water Resources Division manages distribution of the water in and out of the reservoir. The Town's Police and Stormwater departments, as well as Windsor Severance Fire Rescue and Colorado Parks and Wildlife, are involved in different aspects of the lake but not directly responsible for its operation. See the Operations Structure Section for additional details.



Signage at a Windsor Lake Pier

Relationship to Existing Plans

In the early 2000s, all shares of the Kern Reservoir and Ditch Company were conveyed to the Town. This conveyance put the Town in the position to take over all oversite and operations of the Lake. In 2004, the Town opened the lake to the public. Since that time, it has been operating under the vision and goals and management direction of the 2004 Windsor Lake Management Plan. Updates to rules and regulations, as well as the rental fleet and boat permit pricing, have been updated throughout the years but the management has generally stayed the same.

Many Town-wide planning efforts guide the overall vision of the Town's quality-of life, amenities, and other key aspects of the community. The 2020 Town of Windsor's Strategic Plan and the 2020 Parks, Recreation & Culture Strategic Plan contain several high-level action items that have a strong focus on the amount of open space preservation and trail development. The 2022 Open Space and Trails Strategic Plan accomplishes many action items and advances other longer-term action items in the PRC Strategic Plan by gathering additional public input on open space and identifying more specific and relevant open space action items. Many of these plans emphasize the community's desires for public access to nature and outdoor recreation including the 2024 Windsor Comprehensive Plan which serves as the foundation for decision-making for housing, transportation, land use, growth, access to recreation, etc.

Windsor's Comprehensive Plan highlights Windsor Lake vision principles:

"Windsor Lake offers exceptional and memorable park, recreation, open space, and trail experiences accessible to everyone, that incorporate wild landscapes and a sense of discovery."

"Windsor Lake emphasizes stewardship of natural resources to help preserve a healthy and thriving environment for present and future generations."

When polled about the experience at Windsor Lake, these vision principles, over 76% and 70% agreed, respectively.

The 2022 Open Space and Trails Strategic Plan summarized the following challenges and opportunities at Windsor Lake. Properties were visited and assessed by the OST Division Staff and consulting team in May 2021. Various uses, features, and environmental stressors were assessed to develop site specific challenges and opportunities.

Challenges:

- Shoreline habitat quality is low due to level of use and rock stabilization.
- Motorized boating compromises peaceful experiences during summer.
- Dog park allowing dogs to swim in lake creates negative wildlife interactions.
- Park-like use levels which requires the site to be highly managed and manicured.

Opportunities:

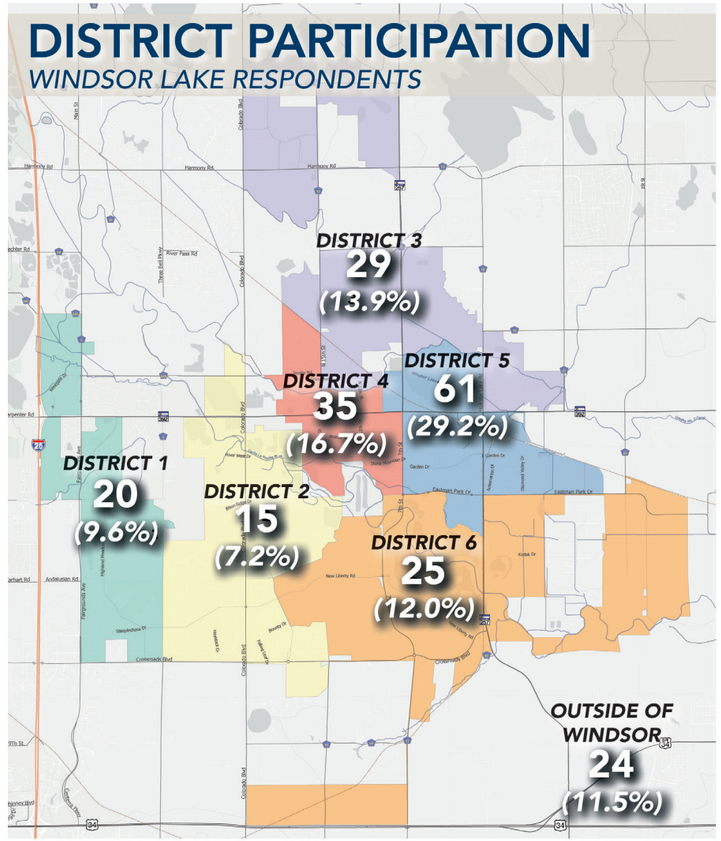
- B.H. Eaton Nature Center being constructed in 2022 - interpretation for history, water, and wildlife.
- Gateway art/signage at entrance
- Future residential development to the north could adjust the management objectives

Process and Public Input Overview

The questionnaire included 25 questions. It was open from June 10 through July 9, 2025, and was distributed to community members and visitors by way of QR code yard signs posted onsite, postcards distributed at events, and email distribution to the PRC newsletter. There was a total of 211 questionnaire responses.

Of the 211 respondents, the large majority (77%) identified their race/ethnicity as white/Caucasian, approximately 17% marked "prefer not to answer," and approximately 6% identified their race/ethnicity as American Indian or Alaskan, Asian, Black or African American, Hispanic/Latinx, and Polynesian/ Pacific Islander.

Respondents represented all six districts, and some respondents (11.5%) identified themselves as not living in Windsor. In this survey, District 5 had the most participation at 29.2%.



CONTEXT & SETTING

CONTEXT AND SETTING

The context and setting section summarizes and analyzes the current state of resources and visitor use management at Windsor Lake. It serves as the foundation for the vision, goals, and recommendations presented later in this Strategy. The challenges and opportunities presented in each resource section were generated through the project questionnaire, site visit and stakeholder interviews, and review of existing conditions.

History of the Property

Windsor Lake, also known as Kern Reservoir, has existed as a water storage and irrigation supply facility for over 100 years. In winter ice was cut on the lake. Early on, the reservoir provided a variety of recreation opportunities for town residents including boating, swimming, and fishing. Until 2003, the Windsor Boat Club leased the surface water rights to the reservoir, allowing motorized use to members for over 50 years.

In 2003, the Town of Windsor acquired the surface water rights to the reservoir and initiated extensive improvements to the facility. Windsor Lake was drained and approximately 5 million cubic yards of earth was removed at a cost of $6.4 million dollars (of which $4.5 million dollars was spent by the Town). Water storage increased from 800 acre-feet to over 3,000 acre-feet. A clay liner was installed, and Boardwalk Park was increased in size by 7 acres to a total of 12 acres and additional land was created around the lake edge to accommodate a multi-use concrete trail.

In 2004 as a part of the development of Boardwalk Park, the Lake was opened for public access, for motorized and non-motorized boating.



A gate at the end of a pier



Signage at the Windsor Lake boat rental pier



Rental boats on the Lake

Setting

Coined as the crown jewel of the community, Windsor Lake provides an attractive setting for a diversity of recreational experiences that are compatible with surrounding land uses. In addition, the shoreline and uplands around the reservoir contain potential habitat for a variety of wildlife species including birds, mammals, and small rodents.

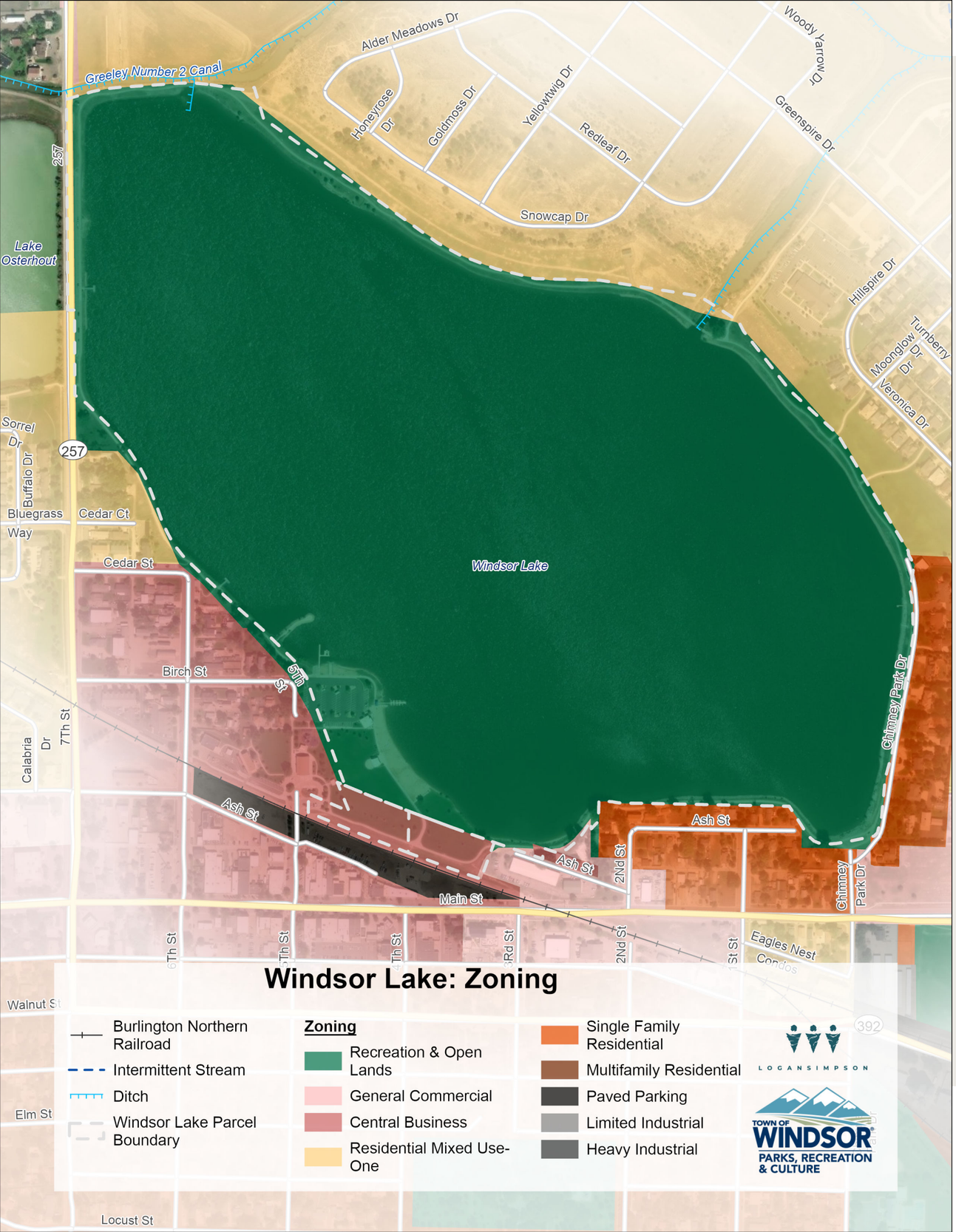
The Town of Windsor has experienced steady population growth over the last 30 years. The population grew steadily from approximately 6,400 in 1995 to 21,300 in 2017, then the town experienced accelerated growth between 2020 and 2025, resulting in the approximate 45,000 residents today (US Census Bureau 2024; Town of Windsor 2024). Windsor's rapid growth has transformed the Town into a largely suburban community, anchored by the historic downtown. Current population projections for 2041 range from 61,206, reflecting low growth, up to 89,389, reflecting high growth (Town of Windsor 2024).

There is existing residential housing surrounding most of the Lake. Residential neighborhoods to the southeast, south, and southwest are part of the historic neighborhood fabric. New and planned residential development to the northeast and north of the lake have added large turf grass areas along the lake. Currently, direct public access to Windsor Lake is only permitted along the southwest corner at Boardwalk Park. Pressure for additional access is likely to increase as the Greenspire neighborhood builds out its final phases on the north side of the lake. This final phase will add 75 new residential units and a new neighborhood park, Wayne Miller Park, on the north side of the lake.

Visitors access the Lake in a variety of ways. The most common methods include via personal vehicle (57%), bike (22%), and by foot (20%), according to the project questionnaire.



Right: A path in Boardwalk Park near Windsor Lake



Challenges:

- Future development on the north side of the Lake will increase pressures for non-motorized paddle craft access.
- If visitation increases, additional safety issues/conflicts between non-motorized and motorized boating are likely to increase.
- Deeded access on the east side of the lake existed before Windsor Lake was open to the public.

Opportunities:

- Consider improving the integration between the lake and downtown through creative development of backlots parking, walking access, pedestrian train track crossing, 5th Street shops.
- Sidewalk improvement along Main Street/392 from Hollister Lake Road to central Windsor.
- Reduce the speed on route 257 as it passes the Lake. Preferably reduce the speed to 35 - 40 mph.



Right: A group of cyclists ride along a paved path

Natural and Cultural Resources

Wildlife

Windsor Lake provides habitat for wildlife, especially species that do well in urban and more developed areas.

Colorado Parks and Wildlife (CPW) has documented an active bald eagle (*Haeliaeetus leucocephalus*) nest approximately 1 mile from the lake. Bald eagle roost sites are also present approximately 1 mile to the south and 2 – 3 miles to the west, north, and southeast. CPW also identifies the lake as a winter concentration and forage area for bald eagles. Other raptors including hawks and northern harrier (*Circus hudsonius*) also make winter use of the lake. Waterfowl like Canada goose (*Branta canadensis*), pelicans (*Pelecanus* spp.), and mallards (Anas platyrhynchos) are also common on the lake. The entire lake is also documented by CPW as a foraging and winter concentration area for Canada geese, a foraging area for white pelicans, and a winter forage and winter concentration area for bald eagles.

Windsor Lake is also within 1 mile of CPW's mapped white-tailed deer (*Odocoileus virginianus*) concentration area and completely within the overall range for mule deer (*Odocoileus hemionus*). Deer have been reported at the lake previously, although their presence may decrease as development around the lake continues to increase. Other mammals that have been found around the lake include foxes (*Vulpes vulpes fulva*), coyotes (*Canis latrans*), raccoons (*Procyon lotor*), weasels, and mice. Reptiles have included snakes and turtles and observed amphibians have included frogs, toads, and salamanders. Prairie dog (Genus *cynomys*) colonies are to the north and east of the lake, although these may be impacted by future development. To the west, Lake Osterhaut and other less developed areas including agricultural lands are across North 7th Street from Windsor Lake, offering more intact habitat for wildlife that may cross the road to access Windsor Lake.

When the lake was drained and excavated starting in 2002 , the entire fish population in the lake was eradicated. Now, CPW stocks the lake with largemouth bass (*Micropterus nigricans*), yellow perch fingerling (*Perca flavescens*), bluegill (Lepomis macrochirus), channel catfish (*Ictalurus punctatus*), black crappie (*Pomoxis nigromaculatus*), common carp (*Cyprinus carpio*), and rainbow trout (*Oncorhynchus mykiss*) and cutbow trout (*Oncorhynchus* spp. × *mykiss*) for recreational fishing (Town of Windsor Parks, Recreation, and Culture 2025 CPW 2025).

No threatened or endangered species have been observed in the lake or in the areas around the lake.

The following challenges and opportunities were generated through the project questionnaire, site visit and stakeholder interviews, and review of existing conditions.



Challenges:

- Habitat fragmentation from increased development
- Introduction of aquatic nuisance species from boating activities. The introduction of aquatic nuisance species like zebra and quagga mussels (Dreissena polymorpha and D. bugensis) are of increasing concern at Windsor Lake. These species can find their way into the lake by hitchhiking on boats.
- Disturbance of wildlife from recreation
- Negative impacts to wildlife and habitat due to water quality issues
- Negative impacts to the quality of the fishery due to water quality issues from blue green algae

Opportunities:

- Education and signage on how to drain, dry, and inspect watercrafts for aquatic nuisance species
- Coordination with CPW to manage aquatic nuisance species risk
- Establish a boat decontamination station
- Additional logs/habitat structures in the lake to attract waterfowl and provide fish habitat

Left: Adult and juvenile mallards swimming
Right: Floating vegetation platforms in the Lake





Vegetation

The shoreline vegetation was degraded during the lake excavation that occurred during 2002 and 2003, although much of the surrounding vegetation was agricultural previously. According to the USFS LANDFIRE data, some western great plains shortgrass prairie and closed depression wetland vegetation remain in the area (LANDFIRE 2022).

Currently, the area around Windsor Lake is highly developed on the southern side and moderately developed to the east and northeast. Additional development is currently in progress to the east and north of the lake. Some areas contain trees near the shoreline, including cottonwoods (*Populus deltoides*). Much of the vegetation around the lake is highly disturbed, with fewer native species and more introduced or manicured grasses and forbs, including invasive and noxious species.

The following challenges and opportunities were generated through the project questionnaire, site visit and stakeholder interviews, and review of existing conditions.

Challenges:

- Management of invasive and noxious species

Opportunities:

- Restoration of wetland and native vegetation



Right: Vegetation growing above the lake shoreline

Hydrology

Windsor Lake receives water inputs from four sources:

- **Greeley Canal #2 carrying water from Poudre River:** Running along the northern end of the lake, flows from this ditch into the lake are regulated by inlet and outlet gates. This is the primary water source for Windsor Lake.
- **Culvert and flapper valve under Highway 257:** Water is piped into Windsor Lake from Lake Osterhaut, a groundwater-fed lake on the west side of the highway.
- **Springer Ditch:** The Springer Ditch (also known as the West Tributary) is an outlet from Windsor Lake. It serves as the only major defined drainage channel for the area.
- **Stormwater runoff sewer:** Water enters the lake from the residential development on the southwest side.

Windsor Lake is entirely within the Coalbank Creek-Cache la Poudre River Hydrologic Unit Code-10 watershed (NHD 2022). The entire lake is also within an area of minimal flood hazard (FEMA 2025). Flooding is not a major management concern.

Water Uses and Quantity

The primary use of Windsor Lake (also known as Kern Reservoir) is as an equalizing reservoir for water storage and agricultural irrigation supply. The lake is also open to the public with many recreation opportunities, including motorized and non-motorized boating, fishing, swimming, a dog beach, and concerts and festivals. Irrigation management affects the lake levels as water is pulled for agricultural use or storage. Kern Reservoir and Ditch Company, a private company, controls the water flow in and out of the lake as needed.

Windsor Lake has been used as a water storage facility for more than 100 years. After the lake was excavated during 2002 and 2003 to increase water storage from approximately 800 acre-feet, the 170-acre lake now has a water capacity of over 3,000 acre-feet. Water levels are controlled by a private ditch company based on need for irrigation water or water storage. Typically, most water delivery occurs during the spring while distribution of water from the lake occurs during the summer and early fall.

Wetlands

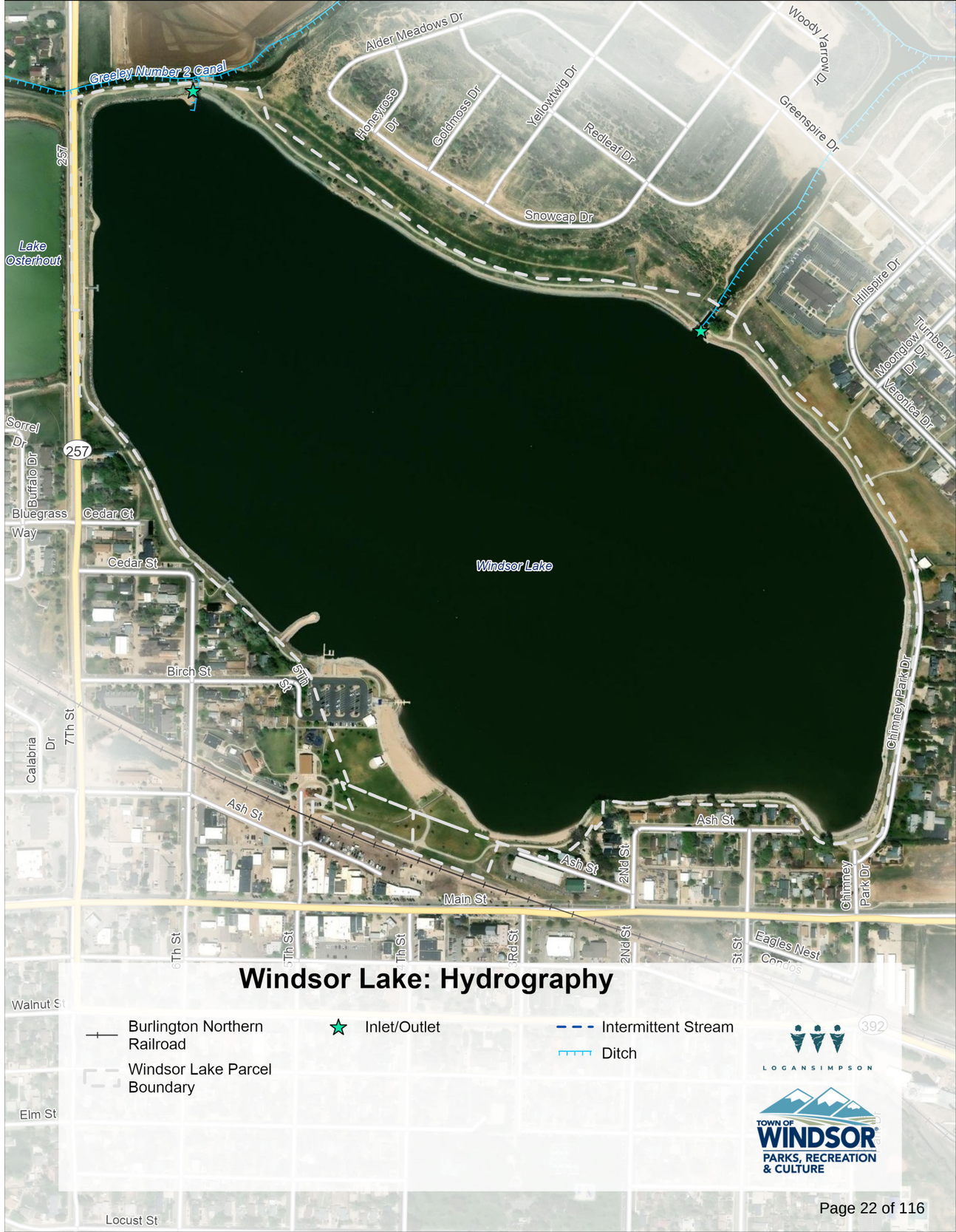
Other than the lake itself and the 2 canals that connect to the lake, no other features are included in the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) in and around the lake. Aerial photography suggests minimal wetland vegetation may be present, but due to development and shoreline destabilization, most wetland vegetation is either absent or highly degraded.
Water Quality

Algae Blooms

Algae blooms are occurring with more frequency and intensity at Windsor Lake, especially during the increasingly warm summer months. As the surrounding population increases, stormwater runoff contributes to more nutrient loading, which promotes algae growth. High phosphorus from agricultural inputs brought into the lake from Greeley Canal #2 also add to the nutrient loading. As



An inlet for Windsor Lake



climate change progresses and water temperature increases, water conditions will continually promote algae growth. Some species of algae produce harmful cyanotoxins that at high enough concentrations can make people and wildlife sick or can even be fatal. Algal blooms can also deplete the dissolved oxygen of waterbodies, which kills fish. Lake closures during the summer months due to dangerous levels of cyanotoxins occur more frequently, with 13 days of closure during the 2024 season as compared to 3 closed days in 2019.

In 2023, the Town established a nutrient sampling program for Windsor Lake. At the time the program began, the lake had nearly 30 times the amount of nitrogen and phosphorous needed for eutrophication.

Monitoring

Town of Windsor staff perform weekly nutrient testing at the swim beach and boating dock to monitor E. coli and total fecal coliform levels in collaboration with the Colorado State University Environmental Quality Laboratory. Windsor Lake follows guidelines from the Colorado Department of Public Health and Environment (CDPHE). Levels above 235 per 100 milliliter results in lake closure, which have not occurred over the last six years.

To monitor algae blooms, the Town of Windsor installed four LG Sonic monitoring buoys in 2024, which are visually checked daily by boat patrol staff and cleaned and maintained by the Stormwater Department. Algae monitoring includes live buoy data readings alongside daily inspections by Town staff. The buoys also kill blue-green algae (Cyanobacteria) and sink it to the lake bottom with sonar technology. Over time, the buoys learn to predict when a bloom may occur based on measured conditions and can apply the sonar treatment preventatively. Other current algae bloom mitigation efforts include EutroSORB socks at key inlets to absorb nutrients from stormwater and enhanced pond habitat through floating islands. When a bloom occurs, water samples from the location of the bloom, often by the boat ramp or swim beach, are sent to CDPHE for testing from the location of the bloom. If mycrocystin levels are above 8 parts per billion, the water is considered unsafe for recreational use.

Pollutant Reduction Efforts

Because the lake is primarily for agricultural use and much of its water source is agricultural, it is not possible to completely reduce nutrient loading from water inputs. Rather, water quality management is focused on reducing nutrient levels to prevent toxic levels of algae.

The Town has implemented several different methods to reduce pollution loading into the Lake. An interactive GIS map was created for use by staff indicating inflow sources including irrigation supply, stormwater outfalls, and some surface flow. This map has helped staff identify source water and upstream sources of nutrients, sediments, and pollutants and allowed them to determine which locations to focus water quality improvement efforts on. For example, an inlet from the Greeley Number 2 supply ditch was closed in 2024, preventing debris and excess nutrients from flowing into the lake. Nutrient absorption and phosphorous filtering logs were also installed in storm drain inlet boxes and other inflow structures in three inflow source locations.

The following challenges and opportunities were generated through the project questionnaire, site visit and stakeholder interviews, and review of existing conditions.

Challenges:

- Algae blooms are occurring with more frequency and intensity, inducing more frequent lake closure days

Opportunities:

- Install natural stormwater filtration systems like bioswales to filter stormwater before it enters the lake
- Educate landowners along the canal that feeds the lake about fertilizers
- Reduce mowing and fertilizers used in the park around the lake

Geology, Soils, Paleontology

The lake is lined with clay to prevent water absorption and promote storage. The soil surrounding the lake is primarily loam in the north and fine sandy loam in the south (NRCS 2024). According to the soil K factors (susceptibility to water erosion) and Wind Erodibility Groups, the soil to the northwest of the lake is not susceptible to erosion while soils in all other surrounding areas are moderately susceptible (NRCS 2024). However, other factors in addition to soil type can increase the risk and rate of erosion, including stormwater runoff, increased development in the area, and loss of vegetation along the shore, all of which are concerns for Windsor Lake. The presence of vegetation decreases the risk of erosion because root systems stabilize soil and absorb some of the impacts from water and wind action.

While hard shoreline infrastructure is often installed with the intention of lessening or slowing the erosion process, it can contribute to erosion and other shoreline issues (Michigan Department of Environmental Quality n.d.). Hardened shoreline infrastructure includes sea walls, rip rap, boat ramps, and other installations. When waves hit hard infrastructure, the energy is reflected downwards, increasing erosion under the infrastructure, at the lake bottom, and to the side, displacing the erosive forces to neighboring areas (Michigan Department of Environmental Quality n.d.). Scouring of the lake bottom can also contribute to cloudy water and algae blooms. Riprap can negatively affect submerged aquatic vegetation. Intact aquatic vegetation can reduce erosion by slowing water to allow for sediment settlement and increase dissolved oxygen and nutrients (National Centers for Coastal Ocean Science 2015). In contrast, soft shorelines absorb and disperse energy from water, increasing shoreline resilience. Natural materials used in soft infrastructure can also remove pollutants from stormwater runoff and other lake water input sources when designed with pollutant removal in mind (National Resources Defense Council 2022). Soft shoreline infrastructure includes beach nourishment, native shoreline vegetation restoration, and softscape materials like jute and coir matting for shoreline stabilization (University of Victoria n.d.).

The following challenges and opportunities were generated through the project questionnaire, site visit and stakeholder interviews, and review of existing conditions.

Challenges:

- Shoreline erosion and destabilization

Opportunities:

- Consider integrating green infrastructure to manage erosion while also promoting water quality and additional habitat

A rocky shoreline along the lake



Windsor Lake: Soil Classifications

Windsor Lake Parcel Boundary

Soil Classification

- Aquolls and Aquepts, flooded
- Kim loam
- Olney fine sandy loam
- Otero sandy loam

- Burlington Northern Railroad
- Intermittent Stream
- Ditch

LOGANSIMPSON

TOWN OF WINDSOR PARKS, RECREATION & CULTURE

Windsor Lake: Soil Erodibility

Windsor Lake Parcel Boundary

K Factor (Erodibility)

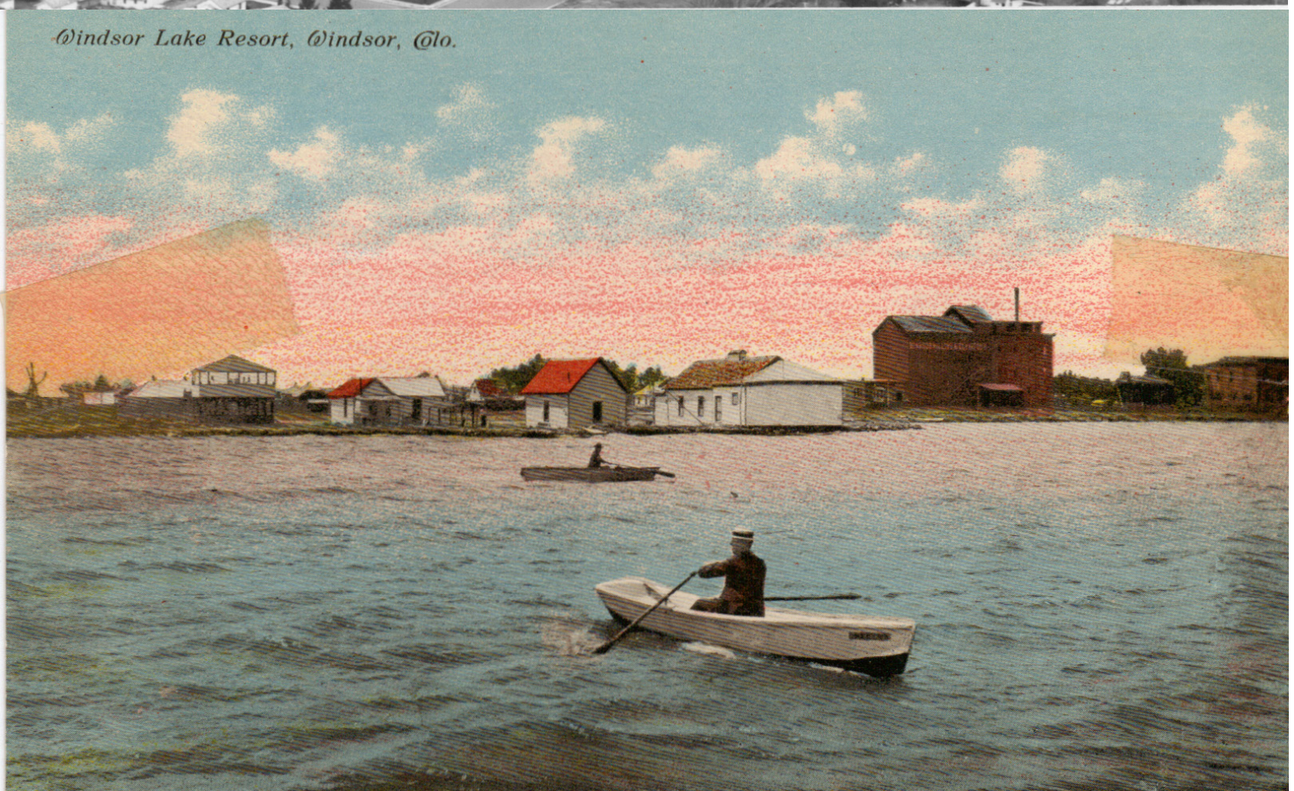
- Low
- Moderately Low

- Burlington Northern Railroad
- Intermittent Stream
- Ditch

LOGANSIMPSON

TOWN OF WINDSOR PARKS, RECREATION & CULTURE





Cultural Resources

Windsor Lake sits on the ancestral homelands of the Ndé Kónitsąąíí Gokíyaa (Lipan Apache), hinono'eino' biito'owu' (Arapaho), Núu-agha-tʉvʉ-pʉ (Ute), Tséstho'e (Cheyenne), and Očhéthi Šakówiŋ (Native Land Digital 2025).

The Lipan Apache people experienced confrontation and displacement by Anglo settlers in the early 1800s. By 1880, the tribe had scattered—some of them went to live with tribes in New Mexico and Oklahoma and the U.S government forced some onto reservations (The Lipan Apache Tribe 2025).

The Arapaho people experienced intense confrontation with White invaders after the discovery of gold near Denver in 1858. Many bands traditionally wintered in the sheltered Denver/Boulder area. A treaty in 1861 attempted to remove the southern branch of the Tribe to a small area along the Arkansas River, but the treaty was never ratified by representatives of the Tribe. As conflict turned violent, a peaceful band of Arapaho and Cheyenne camped along Sand Creek in southeastern Colorado in 1864. They were attacked without warning, despite white flags of truce, and brutally massacred by Colorado militia. The Sand Creek Massacre touched off widespread conflict throughout 1864-65. Treaties were finally signed in 1867 and 1869 which resulted in the Southern Arapaho moving to west-central Oklahoma, where they remain to this day (The Arapaho Project n.d.)

For the Cheyenne people, the period from 1830 to 1870 was generally characterized by a series of treaties with the U.S. government, punctuated by episodes of warfare. After 1869 Southern Cheyenne bands and families assembled on their assigned reservation in Indian Territory. Fort Reno housed the soldiers who guarded them, and the town of El Reno grew up as a service center for the reservation and the fort (Oklahoma Historical Society n.d.).

Top Left: An historic aerial image of Windsor Lake
Bottom Left: An historic Windsor Lake Resort postcard
Right: Swimmers at Neff Lake (Windsor Lake)

Considering that Windsor Lake is a modern human-made lake, there are no historical uses of the water body. However, the Lipan Apache, Arapaho, and Cheyenne people lived along the banks of the Cache la Poudre River for thousands of years. The Northern Arapaho tribe specifically used the region by the river for clan gatherings, ceremonies, and food gathering more than 100 years before European settlers made their way to the valley (Cache La Poudre River 2009).

Located on the southwest shore of Windsor Lake, the Windsor History Museum consists of several historic buildings built between 1882 and the 1920s. The museum also coordinates events and promotes public art.

The following challenges and opportunities were generated through the project questionnaire, site visit and stakeholder interviews, and review of existing conditions.

Opportunities:

- Include historical and cultural information on interpretive signage
- Collaborate with the Windsor History Museum on events promoting education on local and lake history including from Indigenous perspectives



Recreation Facilities and Infrastructure

Windsor Lake offers a unique amenity to Windsor residents and visitors for biking, walking, riding other small-wheeled devices, dog walking/swimming, fishing, wildlife viewing, swimming, motorized and non-motorized boating, and picnicking. Boardwalk Park offers additional amenities and event programming, as well as access to Windsor's Central Business District. Parking for the lake can be accessed via 90+ parking lot off Birch Street, 30+ spots between Highway 257 and the west side of the Lake, with overflow parking along Brich or Ash Streets. In addition to these parking areas, there are a number of pedestrian and bike access points around the Lake. The 2.25-mile Windsor Lake Trail surrounds the perimeter of the lake and links to regional trails and neighborhood access points. The No. 2 Ditch Trail, which connects with the north center of the Windsor Lake Trail, links the entire Town via a 6 mile east-west trail. Chimney Park Drive on the eastern end of the lake provides access to the residential homes fronting the lake. Although the road is private and signed, unauthorized parking along the road has been a problem.

Two motorized boat ramps are located at the north end of the Birch Street lot with a small dock. Non-motorized (non-rental) boats also launch from a grassy/gravel area adjacent to the boat ramps. On the southeast side of the Birch Street lot there is a building for concessions, boat rental storage, and restrooms. A dock for the Town's rental fleet is adjacent to the swim beach. Boat rentals include aqua trikes, canoes, CORCLs, kayaks, paddleboards, and GoBoats. All rentals are first come, first serve with no reservations available. The swim beach offers about 500 feet of lakefront access. Swimming is limited to the buoyed area off the swim beach. Non-wake areas of the lake are marked by buoys placed 150 feet from the shoreline.

Dog access is available at a designated dog swim beach on the north side of the lake. Two fishing/wildlife viewing pier s and one fishing jetty located on the southwest and west side of the lake. Fishing is permitted along designated shorelines and the designated piers/jetties along the west and southwest side of the lake. Three porta-potties, two on the west side and one on the north side near the dog swim beach, are provided year-round. Restrooms at the main concession area are closed in the winter because the building is not heated, but the restroom at the Fire Museum is open year-round.

The following challenges and opportunities were generated through the project questionnaire, site visit and stakeholder interviews, and review of existing conditions.

Challenges:

- Parking lots fill on weekends with good weather in the afternoon
- Need for more facilities on the east/south side, especially in the winter
- Fishing in inappropriate or prohibited areas

Opportunities:

- More beach area by expanding existing a new beach area.
- More paved parking to access the Lake.
- More enforcement of fishing regulations



Right: Boardwalk Park pavilion with Windsor Lake in the background

Events/Programming/ Education

Boardwalk Park and the events hosted there influence lake operations and management since the boundaries of the lake property and the park are so fluid. Boardwalk Park hosts large concerts in the park series on Thursday's during the summer, a 4th of July celebration, Movies in the Park, and seasonal events like a Harvest Festival and Halloween Carnival. Events are hosted by the Recreation Division of the PRC Department as well as many other special events hosted by other individuals and entities.

The PRC Department includes a Culture Division to support the programs and educational events across the Town's system.

The following challenges and opportunities were generated through the project questionnaire, site visit and stakeholder interviews, and review of existing conditions.

Challenges:

- Event impacts on boat operations and safety
- Parking lot for lake access is shared with Boardwalk Park

Opportunities:

- Create a sign audit and replacement plan to improve education and ensure enforcement (i.e., without sufficient signage rules cannot be enforced)
- Improve education on watershed health and best practices (e.g., natural grass buffers and fertilizer application practices)
- Create a "meet the PRC staff night" to increase public awareness and education about lake specific operations

Visitation

Since there is not one entry point to Windsor Lake, total visitation is not easily calculated. However, there are number of key indicators including trail use, boat rentals and permits, visitation to Thursday night concerts, and spot counts completed during this planning process.

Windsor Lake is open to the public between 5 a.m. to 10 p.m. year-round. In the summer (generally Memorial Day to Labor Day) the swim beach is open during daylight hours, and staff manage rentals and permits Monday-Wednesday 11 a.m. to 5 p.m. and Thursday-Sunday 11 a.m. – 7 p.m.

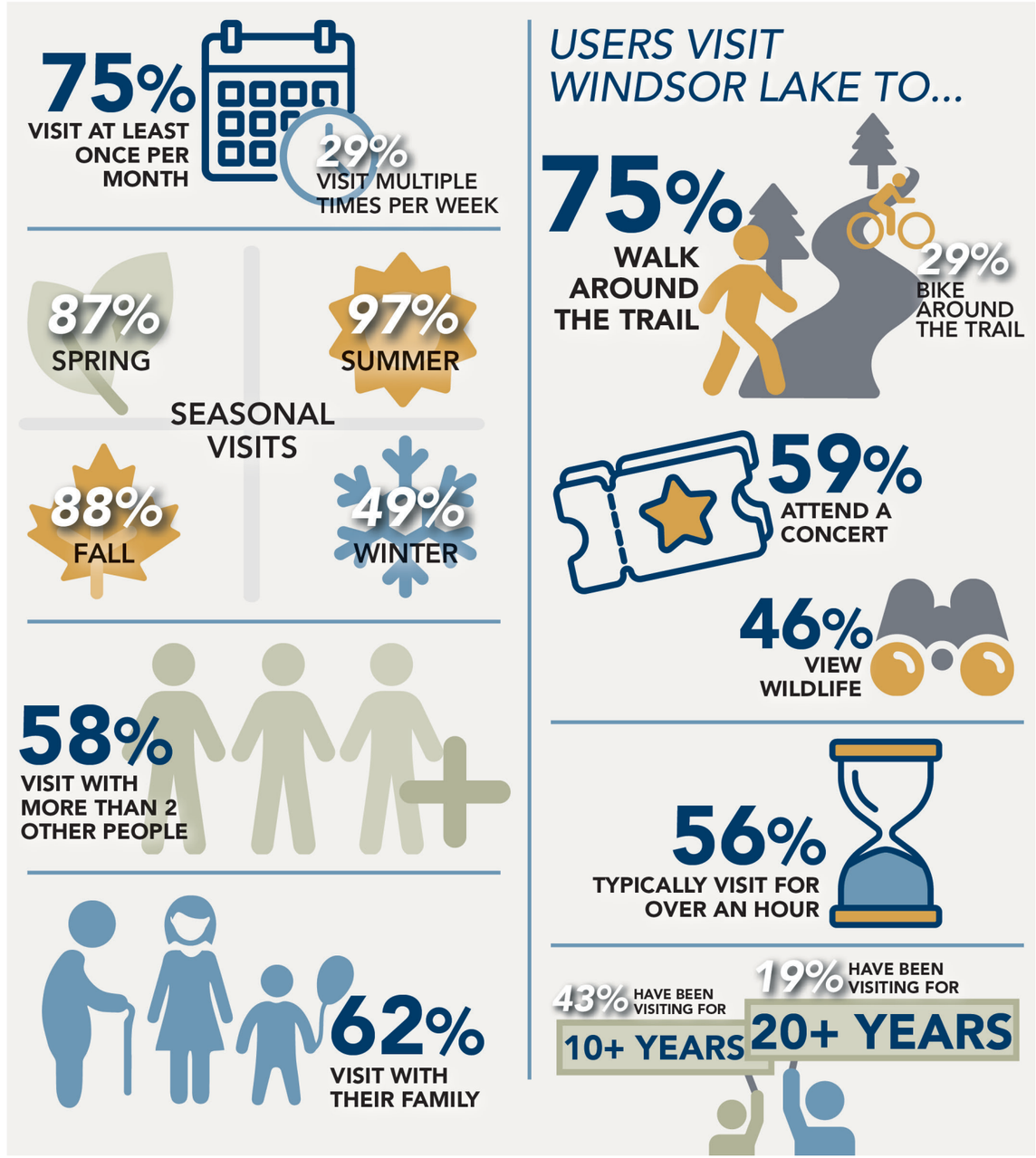
Questionnaire Responses - Visitation

Responses to the Windsor Lake Questionnaire on visitation are summarized on the following pages.



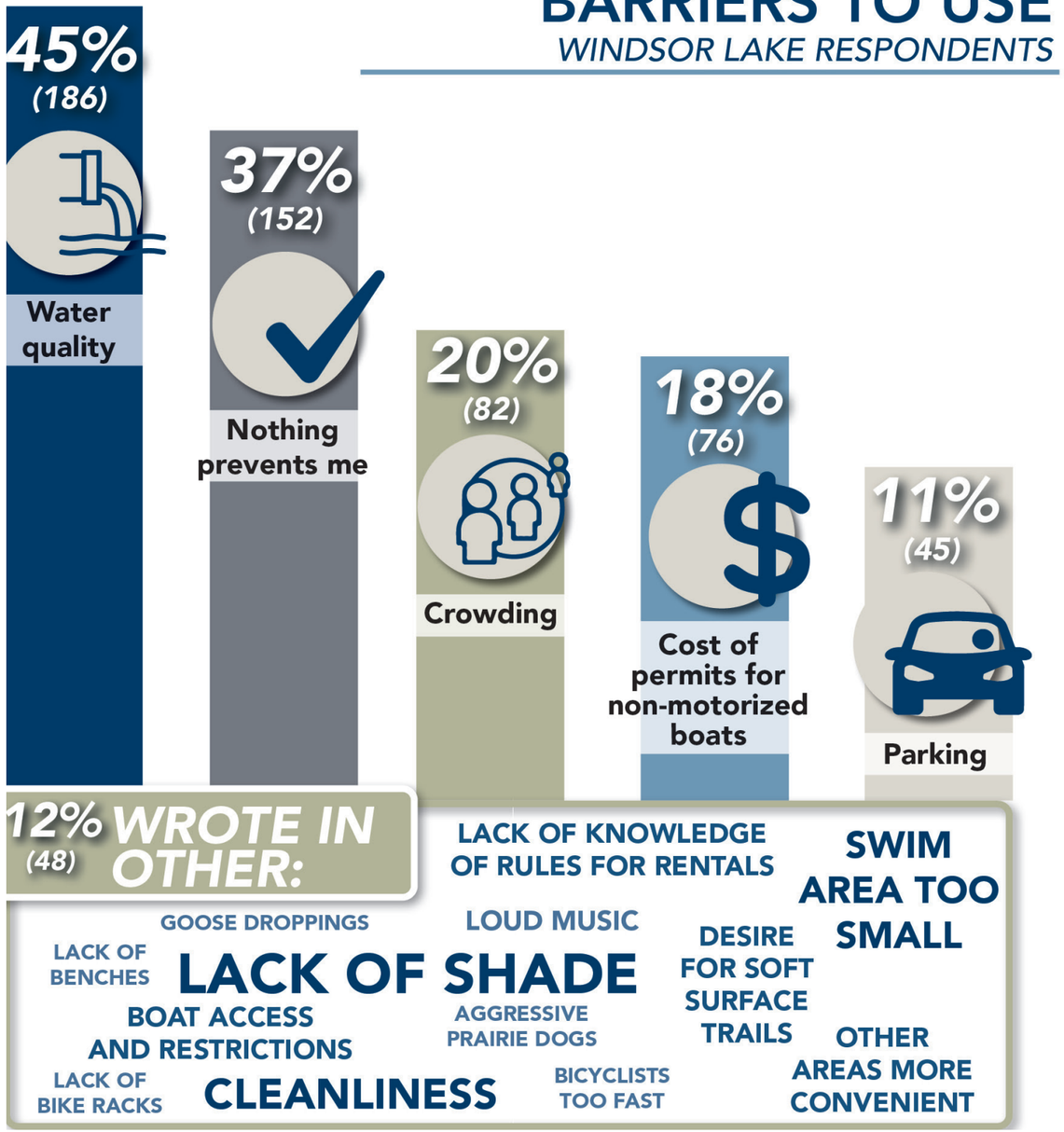
Right: Participants at 2025 paddleboard event

PATTERNS OF USE AT WINDSOR LAKE



BARRIERS TO USE

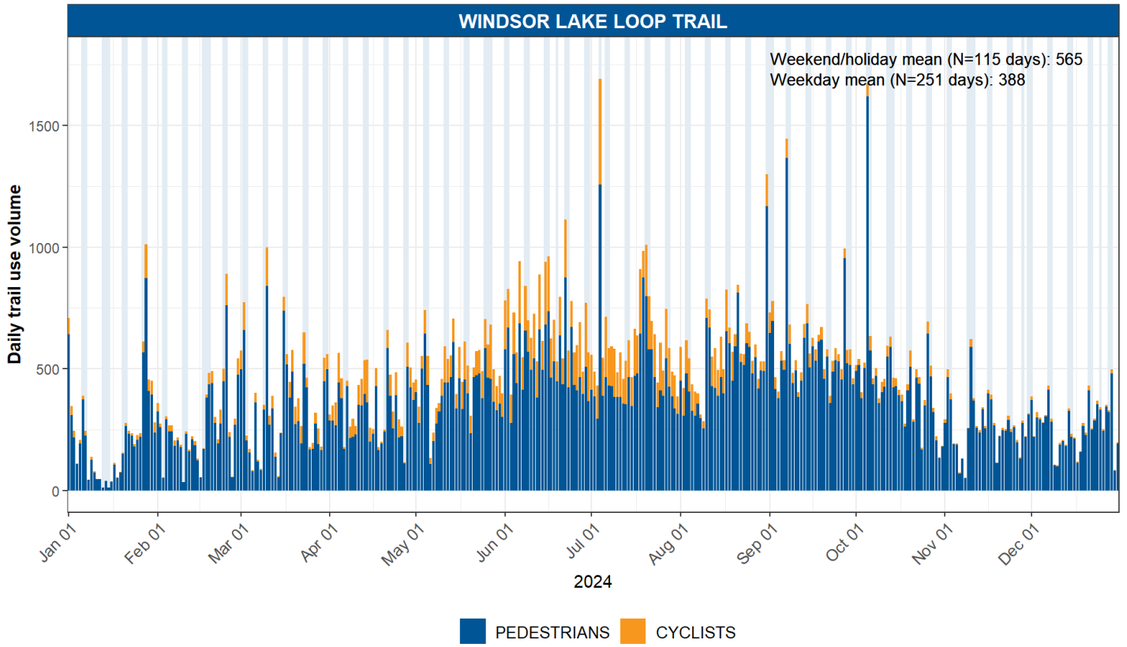
WINDSOR LAKE RESPONDENTS



Trail use on the Windsor Lake Trail Loop

Daily trail use volumes during the 2024 calendar year and during the summer 2024 season[1] on the Windsor Lake Trail Loop are summarized in Figure 1 and Figure 2. These data show that trail use volumes were highest between May and October, with June and July being the peak months for trail use. The busiest days of the year were the 4th of July and the first Saturday of October, with daily trail use exceeding 1,500 people. On average, daily trail use volumes during the summer 2024 season exceeded 775 visits on weekends/holidays and 550 visits on weekdays. In 2024, over three-fourths (88%) of trail users were pedestrians, and bikers accounted for the remaining 12% of trail users. However, the proportion of bikers in warmer weather months (e.g., April through August) was higher compared to cold-weather months.

Figure 1. Total daily trail use volumes on the Windsor Lake Loop Trail, by recreation use type (i.e., pedestrians and cyclists) in 2024



1 The summer 2024 season is defined as the period between Memorial Day Weekend and Labor Day Weekend.

Figure 2. Total daily trail use volumes on the Windsor Lake Loop Trail, by recreation use type (i.e., pedestrians and cyclists) during the summer 2024 season

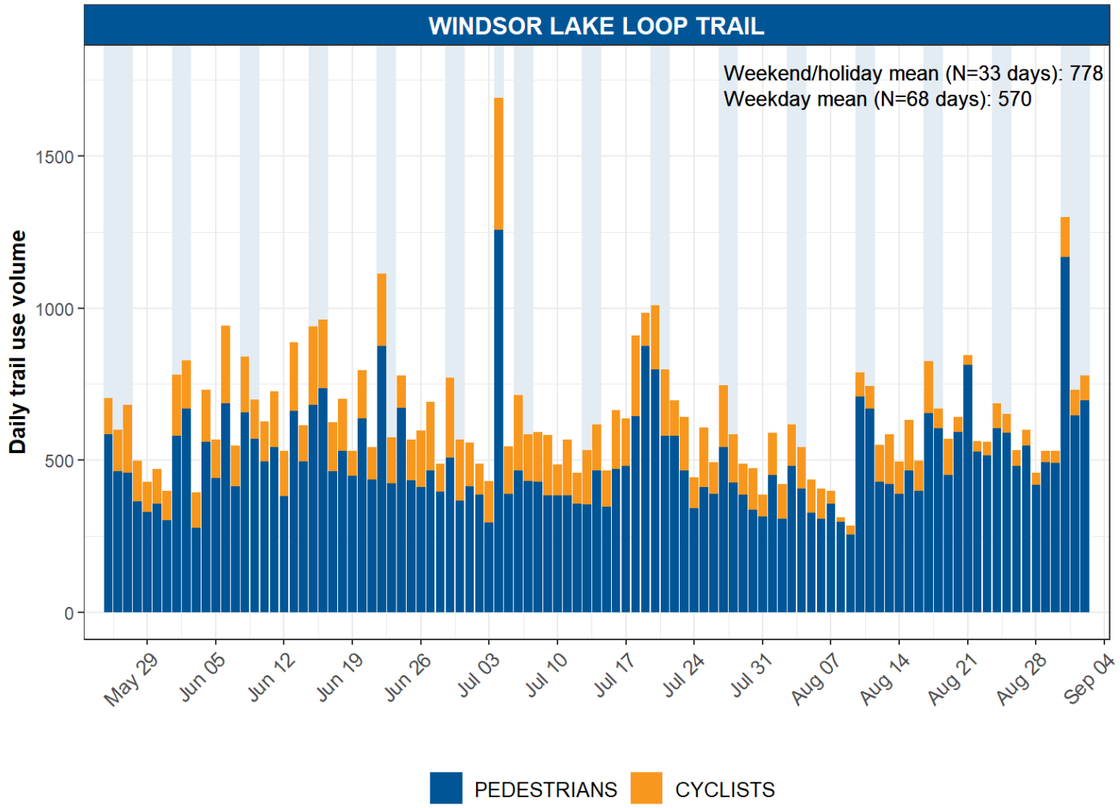
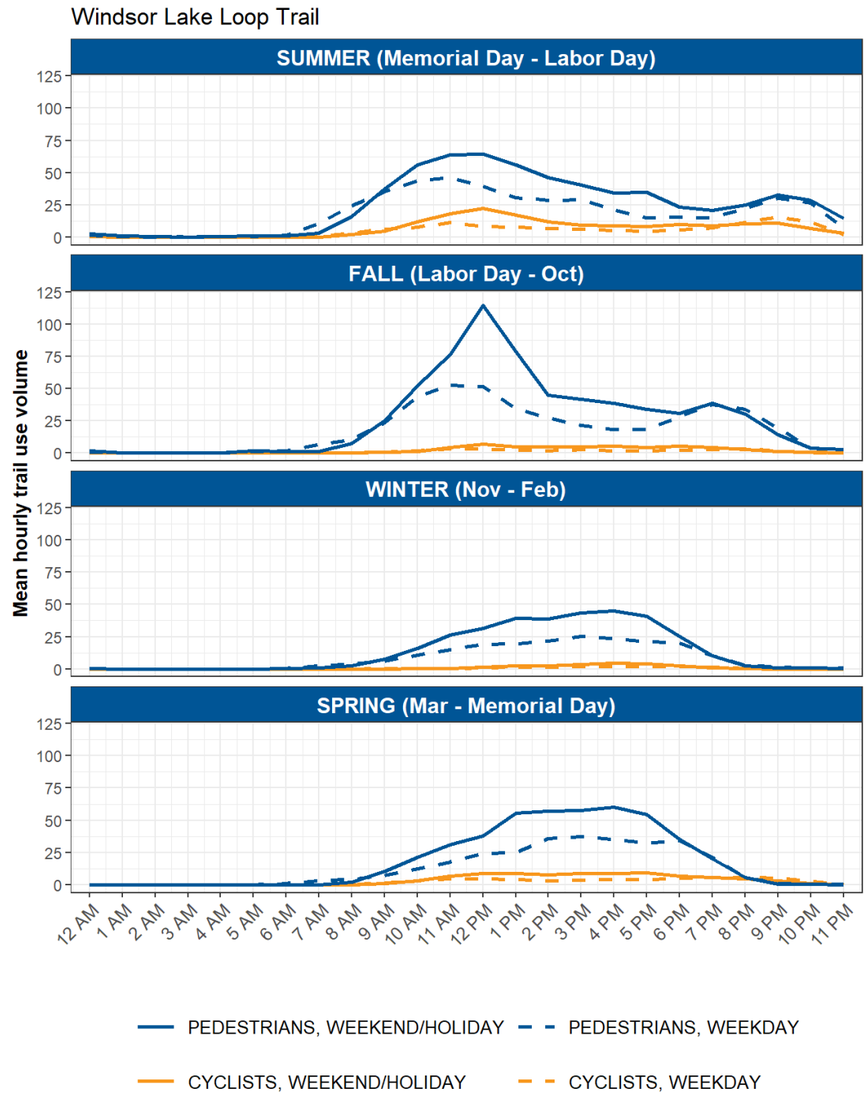


Figure 3 to the right shows average hourly trail use volumes on the Windsor Lake Trail Loop during each of the four seasons. On average, summer trail use volumes on weekends and holidays increased starting at 7 a.m. until they reached approximately 65 pedestrians and 25 cyclists at noon, at which point they decreased through the afternoon and early evening hours. Average weekday summer trail use volumes increased starting at 6 a.m. until they reached a peak of approximately 45 pedestrians and 10 cyclists at noon, at which point they decreased through the afternoon and early evening hours. There were noticeable upticks in evening trail use volumes between 8 p.m. and 9 p.m. in the summer and at 7 p.m. in the fall. The intense uptick in midday average pedestrian trail use volumes on fall weekends/holidays is largely attributed to abnormally large counts observed by the counter on October 5 during the 11:00 a.m. through 1:00 p.m. hours. During the winter and spring seasons, trail use typically occurred between 8 a.m. and 8 p.m., compared to the summer and fall seasons where trail use occurred between 6 a.m. and 9 p.m.

Figure 3. Average hourly total trail use volumes for the 2024 calendar year on the Windsor Lake Loop Trail, by day of week type (i.e., weekend and weekday), recreation use type (i.e., pedestrians and cyclists), and season

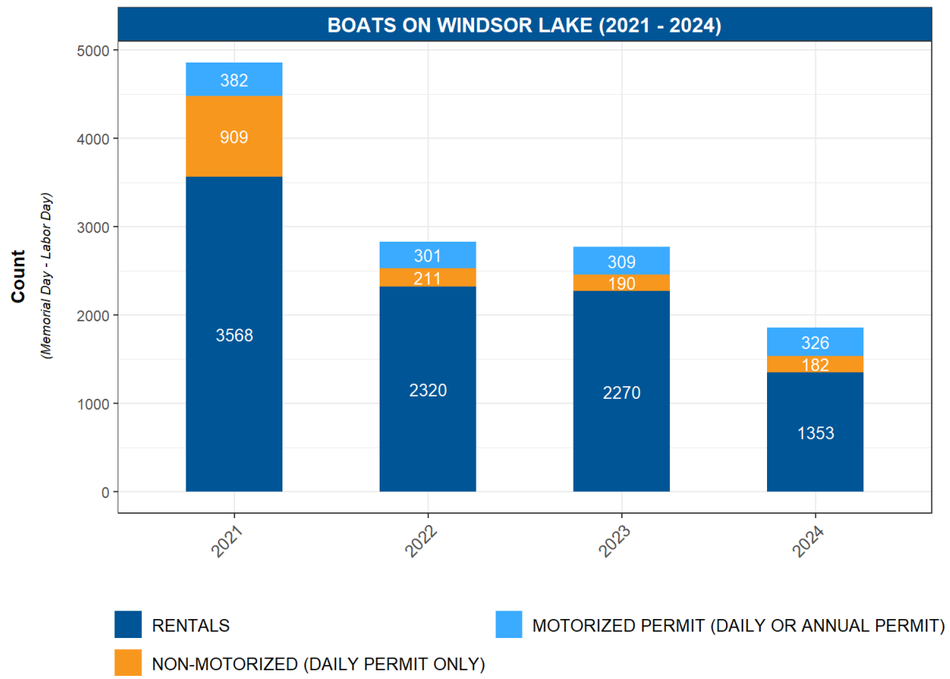


Boat Rentals and Permits

All personal boats (motorized and non-motorized) must show the applicable permit when they access the water. Motorized permit holders must schedule a time on the lake. Up to six boats can make a reservation on a first come, first serve basis by calling on Monday of the reservation week. Two time slots are available 8am- 2pm and 2pm to 8pm on Wednesday, Friday, Saturday, and Sunday. Non-motorized boats can be on the lake year-round from sunrise to sunset as long as ice is not present. While non-motorized permits are checked, they are not tracked. Therefore, total non-motorized use numbers are not known and the boating data summarized in this sub-section do not include annual non-motorized permit holder use counts. For context, 261 annual non-motorized boat permits were sold during the 2024 summer season. As such, the data summaries likely underestimate non-motorized use on the lake.

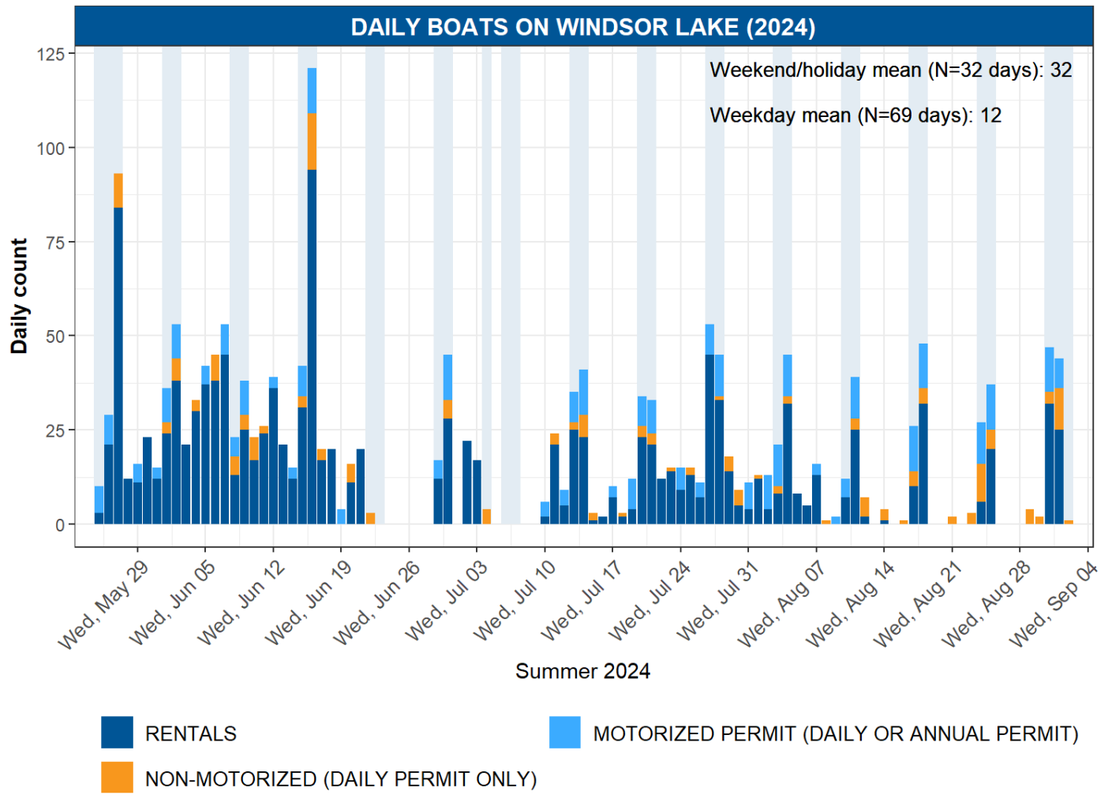
Seasonal boat use, by boat type, on Windsor Lake between summer 2021 and summer 2024 is summarized in Figure 4. These data show that the total number of boats on the lake decreased with each season between 2021 and 2024. In 2021, there were a total of nearly 5,000 boats on the lake during the summer season, compared to summer 2024, which had to total of approximately 2,000 boats. While the total number of boats on the lake decreased across seasons, the number of motorized boats on the lake during each season remained relatively consistent. A steady decrease in boat rentals is most strongly contributing to the decreasing trend.

Figure 4. Seasonal number of boats on Windsor Lake, by boat type (Memorial Day through Labor Day; 2021 - 2024)



Daily boat use on Windsor Lake during the summer 2024 season is summarized in Figure 5. These data show that, on average, there were 32 boats on the lake per day on weekends/holidays and 12 boats on the lake per day on weekdays. The highest proportion of boat use on Windsor Lake was typically attributed to non-motorized boat rentals. The busiest day of the 2024 summer season occurred on Sunday, June 16. This was a sunny day with temperatures reaching nearly 90 degrees. Days with little to no boat use could be attributed to algae blooms.

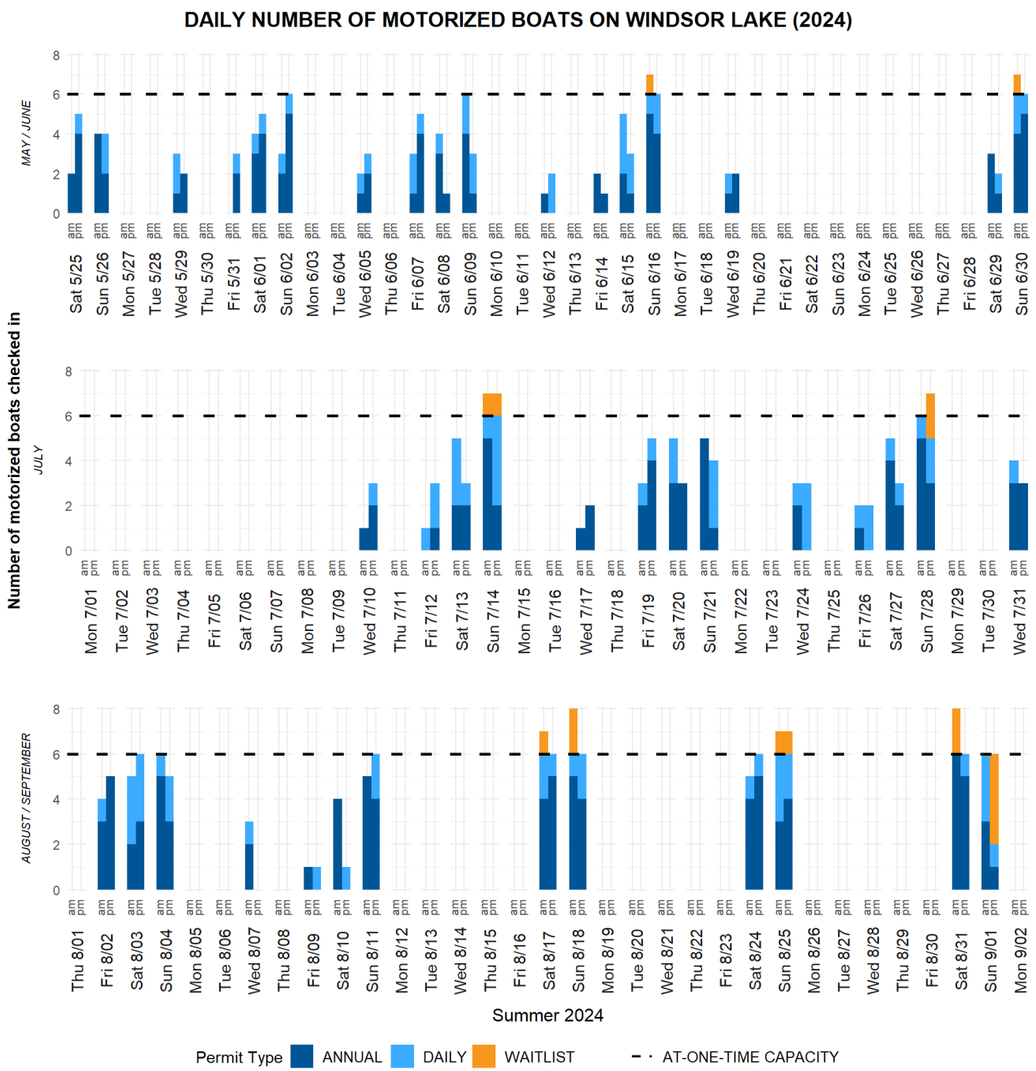
Figure 5. Daily number of boats on Windsor Lake during the summer 2024 season (light blue shading in background indicates weekends/holidays)



Daily motorized boat use on Windsor Lake during the summer 2024 season is summarized in Figure 6. These data show that demand (i.e., both users and waitlist members included) for motorized boating use exceeded the lake's capacity of six boats at-one-time on nine unique days of the season. All of these days were on weekend days. Across the summer season, a larger proportion of motorized boat users had annual permits rather than daily permits. There were no significant differences or patterns between amounts of motorized boat use in the morning compared to the afternoon. Days with little-to-no motorized boat use could be attributed to algae blooms or poor weather.

Of the survey respondents that said they purchased an annual non-motorized boat permit to recreate on Windsor Lake in the last 5 years, the average use was 5.3 days.

Figure 6. Daily motorized boat use on Windsor Lake, by time of day (i.e., AM and PM) and by motorized permit type (i.e., annual, daily, or waitlist), during the 2024 summer season



Thursday Concert Nights[2]

Across each of seven Thursdays between June 12 and September 12, 2024, from 5 p.m. to 9 p.m., there were a total of approximately 21,100 visits to the concert area (depicted in Figure 7) at Windsor Lake. Additionally, there were 13,800 unique visitors to the concert area, which indicates that unique visitors attended between one to two concerts per summer season.

On average, visitors stayed in the Windsor Lake concert area for a duration of approximately 81 minutes. July 4, 2024 occurred on a Thursday, and visitation to the concert on this holiday evening approximately doubled normal visitation rates (Figure 8). The top five most frequent home locations of concert attendees are reported in Table 1.[3]

Figure 7. Geospatial polygon of the Windsor Lake concert area for Placer.ai analysis



Figure 8. Total visits to the Windsor Lake concert area (Thursdays, 5:00 - 9:00 p.m.)



Table 1. Top five most frequent home locations of concert attendees

City in Colorado by Zipcode	Visits (Percent of Total)
Windsor (80550)	10,200 (48.5%)
Greeley (80634)	1,900 (8.8%)
Fort Collins (80528)	1,000 (5%)
Fort Collins (80524)	915 (4.3%)
Loveland (80538)	790 (3.8%)

2 The Windsor Lake concert night attendance rates and patterns reported were sourced from Placer.ai data summaries and should be interpreted with caution.

3 29.6% of visitors reside in areas not included in the list of top five most frequent home locations.

Park Visitor Travel Patterns

Placer.ai data were used to understand where Windsor Lake visitors travel to within the Town of Windsor on the same day during their trip to the park. This information can facilitate an understanding of (1) whether Windsor Lake plays a role in attracting visitors from out-of-town who generate economic impacts elsewhere in the Town of Windsor before or after their visit to the park, and (2) if so, where and in what sectors do park visitors generate economic impacts? This information is important to understand specifically in the context of cost recovery. It should be noted that Placer.ai data cannot infer how much money visitors spend in each of the places they visit, and a more thorough study regarding visitor use spending effects would need to be conducted to answer related questions.

Placer.ai measured the most heavily foot-trafficked sites by Windsor Lake visitors within the four hours preceding or proceeding their visit to the park.

- 23.5% of Windsor visitors on foot were at some local destination prior to their visit to the park, and 12.8% went to a local destination afterwards.
- Industry types associated with the top 10 most heavily foot-trafficked sites before arriving to Windsor Lake include: food and beverage (40%), retail (30%), health and beauty (20%), gas station (10%).
- Industry types associated with the top10 most heavily foot-trafficked sites after having visited Windsor Lake include food and beverage (50%), gas station (30%), retail (20%).
- The following locations were summarized by Placer.ai as the top 10 most heavily foot-trafficked sites both before and after visiting Windsor Lake: Windsor Lake Coffee, McDonald's, New Windsor Marketplace, Dollar Tree, The Border Restaurant, and American Legion.
- Placer.ai summaries show that a relatively small share of park visitors was traveling to local sites (e.g., the highest share of foot traffic prior to visiting the park was 2.1% at Windsor Lake Coffee).[6]
- These Placer.ai data summaries should be caveated with the note that 35.8% of the visits to Windsor Lake were distinguished as visits by residents of Windsor. In cases where local residents visit the park, we cannot as easily presume that Windsor Lake drew them into the town and instigated additional spending in the local area.

4 The National Park Service (NPS) conducts ongoing monitoring of visitor use spending effects to measure how park visitor spending cycles through local economies (see the NPS 2022 report and 2023 report summarizing their study methods and findings).
5 According to the Placer.ai website, foot traffic is defined as pedestrian movements from a Point A to a Point B. This would suggest that percentages of "foot-traffic" in this analysis summarizes the percent of park visitors that walk from the park to local destinations and does not include those who travel by vehicle. The project team has contacted Placer.ai to better understand the definition, but no response has been received and for now the definition of foot-traffic is not confirmed.
6 The low percentages could be an effect of the foot-traffic variable potentially only summarizing trips of those who walked from the park to the sites (and not including cases of those who drove), but this information is not confirmed by Placer.ai. Please reference the previous footnote for more information.



A pavilion in Boardwalk Park

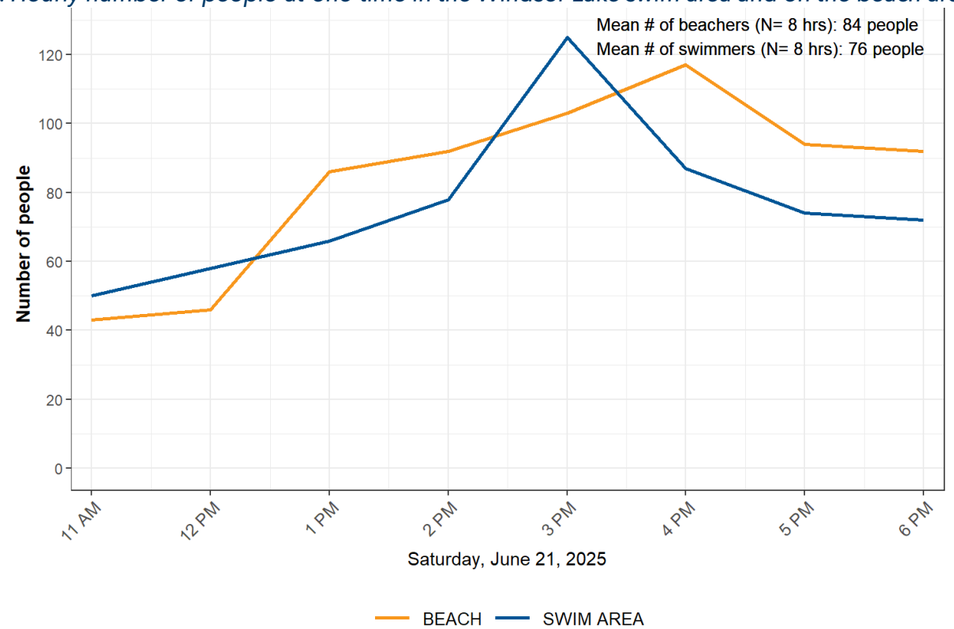
Spot Counts

The spot count data summarized below were conducted on Saturday, June 21, 2025. The high temperature reported for Windsor, CO on this day was 99°F. Hourly counts of people in the Windsor Lake beach area and designated swim area are summarized in Figure 9 and Table 2. These data show that the peak use level of 125 people at-one-time in the designated swim area occurred at 3 p.m.

Table 2. Sand Beach Area Density, By Hour

Time	Number of People on the Sand Beach at One Time	Density (ft²/ person)
11:00	43	688
12:00	46	643
13:00	86	344
14:00	92	321
15:00	103	287
16:00	117	253
17:00	94	315
18:00	92	321

Figure 9. Hourly number of people-at-one-time in the Windsor Lake swim area and on the beach area



The peak use level of 117 people at-one-time in the sand beach area occurred at 4 p.m. Beach and swim area use levels typically increased from the morning and through late afternoon and peaked at around 3 p.m. and 4 p.m. before decreasing steadily through the remainder of the day. During each of the data collection hours, beachgoers were observed outside of the sand beach in nearby grass areas. Similarly, during the 12 p.m., 1 p.m., and 4 p.m. hours, swimmers were observed outside the buoys.[7]

Hourly counts of boats on Windsor Lake at-one-time are summarized in Figure 10. These data show that between 20 and 35 boats were observed to be on the lake at-one-time during sampling hours.

The peak boating hour was 1 p.m., with 32 non-motorized and three motorized boats on the lake at-one-time. On average there were three motorized and 25 non-motorized boats on the lake at-one-time.

Hourly parking accumulation counts in the designated Windsor Lake parking lot are summarized in Figure 11. These data show that between 78 and 87 vehicles were parked in the designated parking lot during sampling hours. The peak hour for parking in the designated lot was 4 p.m. On average, there were 83 vehicles parked in the designated parking lot. While the designated parking lot capacity was never exceeded, there were always cars parked along adjacent roadside areas. Some of this roadside parking was presumably attributed to local residents parking in front of their homes, but some of it was also presumably attributed to Windsor Lake visitors.

Hourly counts of anglers around Windsor Lake are summarized in Figure 12. These data show that there were between four and 13 lakeshore anglers at-one-time during the sampling hours. The peak count of 13 lakeshore anglers at-one-time was observed at 3 p.m.

Figure 10. Hourly number of boats-at-one-time on Windsor Lake, by boat type (i.e., motorized and non-motorized)

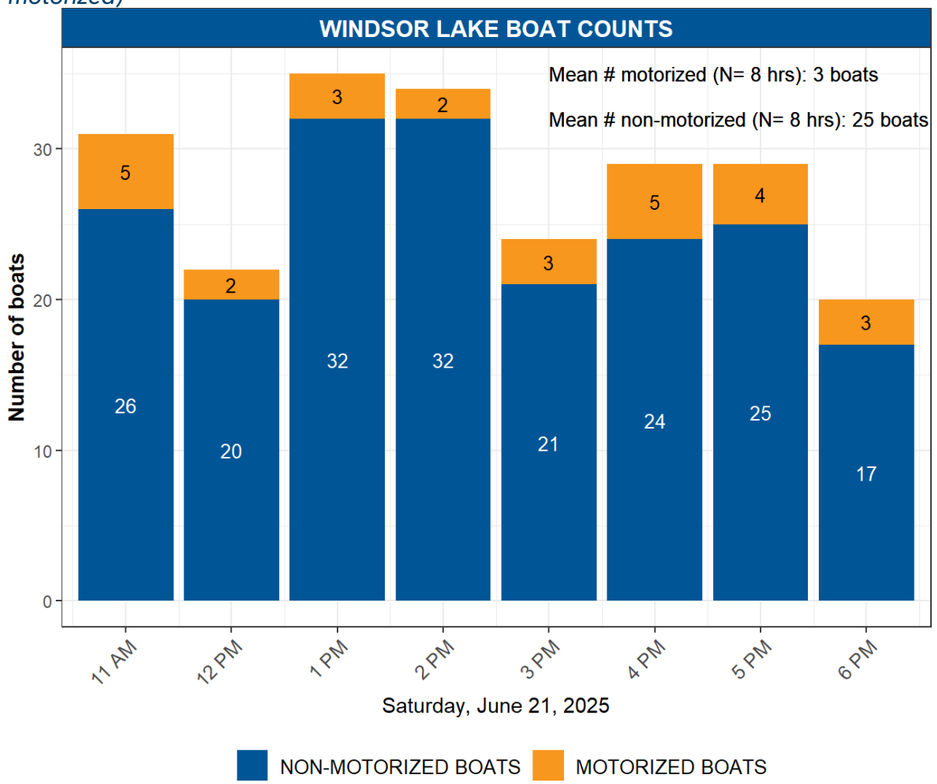


Figure 11. Hourly parking lot accumulation in the designated Windsor Lake parking lot, by vehicle type (i.e., automobiles and automobiles with boat trailers)

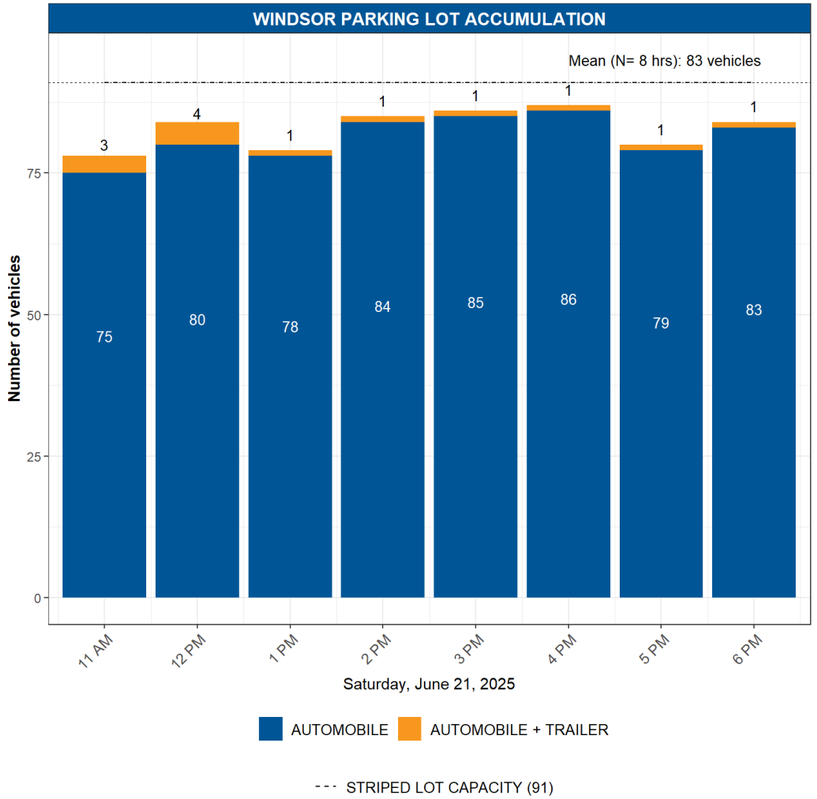
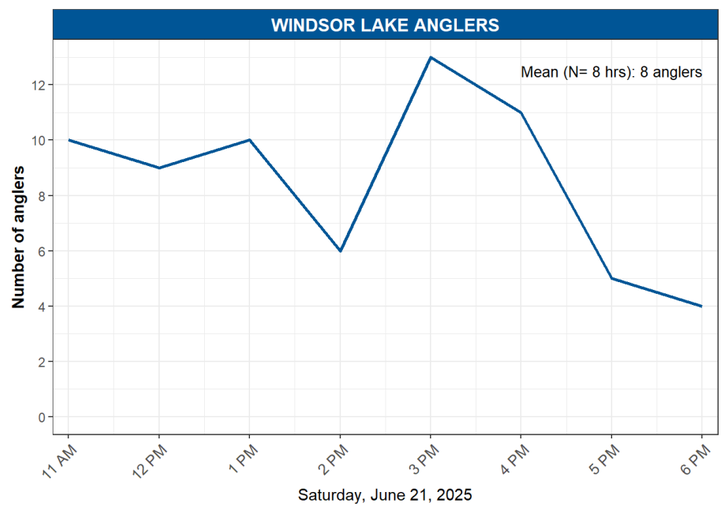


Figure 12 Hourly number of anglers-at-one-time around Windsor Lake



6 The low percentages could be an effect of the Foot-Traffic variable potentially only summarizing trips of those who walked from the park to the sites (and not including cases of those who drove), but this information is not confirmed by Placer.ai. Please reference the previous footnote for more information.
7 Beachgoers on the grass and swimmers outside the buoys were not included in the summary figure.

Boating Capacity and Density

Carrying capacity is a component of visitor use management and is the maximum amounts and types of visitor use that an area can accommodate while achieving and maintaining desired resource conditions and visitor experiences that are consistent with the purposes for which the area was established (Interagency Visitor Use Management Council [IVUMC]). It is a measurable threshold that identifies the maximum number of boats that a recreational resource can accommodate without the number of users negatively affecting the resource or the visitor experience. Limiting attributes for capacity could be linked to the facility, ecological, social, and/or spatial factors of the recreational resource. Boating capacity was evaluated as part of this Strategy to understand impacts on safety, exclusivity, cost recovery, and resource demands.

Spatial capacity refers to the physical constraints of the lake related to its size and usable area for various boating uses. It is the number of boats that can comfortably operate on the lake at-one-time. The current boating density at Windsor Lake varies per day. On days that motorized use is allowed the maximum motorized boating density is 30 acres per motorized boat (180 surface acres/6 motorized boats allowed at one time) due to the permitted use limitations. Because of the reasons described above, the current non-motorized boating density is more difficult to calculate. Historical data and spots counts show that on a weekend/holiday an average of 25-30 non-motorized (rental and private) are on the lake at-one-time. On the weekend, this number is closer to 10-15 non-motorized boats. Therefore, the current non-motorized boating density is between 7.2 – 18 acres per non-motorized boat. While many studies have suggested an optimal number of acres per boat or boat type, these estimates vary widely and often are dependent on other aspects of carrying capacity.

Because water body surface acres play a large role in spatial capacities, it should be noted that Windsor Lake is one of the smallest bodies of water in the local Colorado Front Range area that currently allows motorized boating. For comparison purposes, other local water-based recreation areas that allow motorized use are listed in Table 3, along with the water body size. This table helps contextualize the question of how much value motorized boaters are getting from their experience on a small lake relative to other nearby locations with larger surface area for water recreation, and whether Windsor Lake is too small to accommodate safe motorized boating use. In other words, it questions the value and consumer benefit for such an exclusive use type offered by the park.

Table 3. Surface acres of water bodies in the local Front Range area that allow motorized use

Local Waterbodies with Motorized Use	City (in Colorado)	Waterbody Size (Surface Area)
Jackson Lake (State Park)	Orchard	2,700
Barr Lake* (State Park)	Brighton	1,950
Horsetooth Reservoir (County Park)	Fort Collins	1,898
Boyd Lake (State Park)	Loveland	1,700
Chatfield Reservoir (State Park)	Littleton	1,479
Carter Lake (County Park)	Loveland	1,100
Cherry Creek Reservoir (State Park)	Aurora	880
Union Reservoir	Longmont	736
Boulder Reservoir (City Park)	Boulder	700
Windsor Lake	Windsor	180

8 ≤10 horsepower restriction

Challenges:

- Safety should be the main reason for limiting capacity.
- Weekday permits and rentals are significantly lower than weekends.
- Rental rates have continued a steady decline since the COVID pandemic.
- Motorized boating is limited to 20 annual permits sold, which is an exclusive use.
- Windsor Lake is relatively small compared to other reservoirs that provide motorized recreation.

Below: Rental boats sit at a pier



Recreation Trends

According to the Outdoor Industry Association's 2024 Outdoor Participation Trends Report, participation in outdoor recreation across the U.S. grew by:

- Approximately 15% across a five-year period between 2018 and 2023
- Approximately 10% between 2020 and 2023
- Approximately 4% across the year-long period between 2022 and 2023

Although the number of U.S. outdoor recreation participants has increased significantly, the number of outdoor outings per participant (i.e., frequency of participation) has fallen significantly. Between 2013 and 2023, the average number of outdoor outings per person decreased by 26.1%. Between 2022 and 2023, number of outdoor outings per person decreased by 11.4%.

According to the 2025–2029 Colorado Statewide Comprehensive Outdoor Recreation Plan (SCORP):

- Colorado's population is projected to number 7.5 million people by 2050, compared to the current population of just over 6 million. 88% of that growth is predicted to occur along the Front Range.
- Colorado experienced a 24.6% growth in outdoor recreation economic compensation between 2022 and 2023, which is a strong indicator that outdoor recreation participation also increased.
- Seven of the top 10 most popular outdoor recreation activities in Colorado are primary activities supported at Windsor. These activities include walking, picnicking, swimming, biking, playground activities, running, and fishing.
- 72% of Coloradans recreate outdoors once a week or more, and 96% engage in outdoor activities annually.

Water-based recreation participation specifically is projected to increase if people in the U.S. continue to react to global warming induced temperature changes the same way they have in the past. In more detail, a study estimating the effects of climate change on outdoor recreation participation in the United States found that if the climate warms by 1 degree Celsius, participation in outdoor recreation activities will increase by 88 million trips annually, and by 401 million trips annually if the climate warms by 6 degrees Celsius (Willwerth et al. 2023). These projected increases in trips are largely driven by participation in water sports. In fact, the study found that excluding water-based recreation participation from the forecast model and including only non-water-based recreation activities actually projected decreases in future outdoor recreation participation.

In addition to state and national reports on trends, peer community interviews were completed to understand local reservoir/lake-based recreation trends and opportunities for future management. Three departments participated in a 1-hour interview as part of this task: (1) The City of Boulder (Boulder Reservoir), (2) The City of Longmont (Union Reservoir), and (3) The City of Fort Collins (Arapaho Bend Natural Area). An overview of each of the departments' water management units is included in Table 4, followed by key findings from the interviews, organized by theme. It should be noted that a brief email interview was conducted with the City of Berthoud (Berthoud Reservoir).

The peer interview anecdotal data suggest that future recreation trends might be dependent on local population growth and forthcoming management strategies (e.g., wake policies, permit fees). Statewide and countrywide trends research suggest that visitation to outdoor recreation sites is increasing and is likely to continue to do so in the future. This data could also suggest that there are fewer repeat visitors at recreation sites.

In the peer exchange interview, managers at both Boulder Reservoir (City of Boulder) and at Arapaho Bend Natural Area (City of Fort Collins) noted that there has been a decline in boat use (motorized and non-motorized) on their waters over the last five years. Boulder Reservoir attributed this trend to (1) increasing fees for boat use and (2) visitors having less disposable income. Arapaho Bend Natural Area attributed this trend to "return to normal" conditions following the COVID-19 pandemic boom in paddleboard use.

Union Reservoir, on the other hand, noted that they are experiencing increasing use patterns. They attribute the increasing trend to local population growth in Longmont and also believe that they are the preferred spots for paddleboarders because of their full-time wakeless boating policy.

Peer Community Challenges and Opportunities

The following challenges and opportunities were generated through the project questionnaire, site visit and stakeholder interviews, and review of existing conditions.

Parking

- Demand for parking at Beaver Pond in Arapaho Bend Natural Area exceeds supply, so people park along the roadside. To improve safety and the visitor experience, managers have blocked off parking on the roadside opposite the water (to prevent users from crossing the road to access the water) and plan to build a new parking lot.
- Beaver Pond (Arapaho Bend Natural Area) is visible from a main road and has quick and easy access from parking areas to the pond. Managers express that easy access typically makes a body of water a preferable and popular option for paddleboarders.
- The City of Boulder has worked to build ample striped parking to accommodate parking demand, partially in an effort to minimize complaints from surrounding residents.

Water access (e.g., hours, seasons, and locations)

- Boulder Reservoir recently adapted boating hours (that apply to motorized and non-motorized boats) that end an hour earlier before the park's formal closure time. This allows adequate time for boat users to get off the lake and exit the park before the overall park closure.

Table 4. Peer Community Water Management Units

Department	Body of Water	Size of Water	Primary Recreation Use Types	Fees
City of Boulder	Boulder Reservoir	700 acres	• Motorized and non-motorized boating • Fishing • Rec path use (i.e., walking/ running/biking) • Beaching • Swimming • Dogs prohibited from main shoreline area during the summer season	Park entrance fee + watercraft fee. Only seasonal passes are available. See fee structure here.[9]
City of Longmont	Union Reservoir	736 acres	• Non-motorized boating • Wakeless motorized boating • Fishing • Beaching • Swimming • Playground • (No rec path)	Park entrance fee + watercraft fee. Daily and seasonal pass options available. See fee structure here.
City of Fort Collins	Arapaho Bend Natural Area	Beaver Pond is 36 acres	• Non-motorized boating • Fishing • Rec path use (i.e., walking/ running/biking/dog walking)	Not required

9 Boulder Reservoir is considering lowering their annual motorized permit fees to reduce complaints about high fees, and because the Reservoir capacity and safety procedures allow for it.

- Union Reservoir water access is open from March through end of November. While there are not many paddleboarders on the reservoir in October and November, fishing activity is still abundant.
- For summer 2025, Union Reservoir managers are focused on closing access to the reservoir completely when the park is near its parking capacity on busy weekends and holidays. They hope that this preventative management approach improves cleanliness, safety, and the visitor experience.
- Beaver Pond (Arapaho Bend Natural Area) has dozens of informal water access points for paddleboarders. To improve safety and ecological health, and to reduce visitor conflicts, managers expressed the need for reducing and formalizing water access points.

Efforts to reduce motorized and non-motorized boating conflicts

- To reduce user conflicts on the water, the Boulder Reservoir has scheduled no-wake, limited-wake, and full-wake times throughout each day.
- In the future, Boulder Reservoir may ban the use of Class 5 boats[10] because they have negative impacts on other reservoir users, aquatic nuisance species, and cause erosion on the shoreline.
- Union Reservoir has a wakeless policy for motorized boats. This policy reduces the presence of large boats but increases the number of paddleboarders. On busy weekends and holidays, there can be anywhere between 200-400 paddleboarders on the 736-acre body of water.

10 Class 5 boats are defined as boats with ballasts, pontoons, house boats, and cabin cruisers.

Below: A bench overlooking Windsor Lake



Ranger Programs

- Triggers for creating a natural areas ranger program include:
  - Inability to manage recreation use, especially in environmentally sensitive areas (City of Fort Collins).
  - There was a sustained period of rule violations and disruptive behavior by visitors. Due to Boulder Reservoir's remote location relative to the city, response times from police were often delayed and individuals involved in the incidents were gone by the time law enforcement arrived. Additionally, the nature of the reservoir's enforcement needs typically ranked low in priority compared to city-wide public safety concerns. This led to a growing perception among visitors that there were no real consequences for breaking rules, which contributed to a decline in overall compliance and visitor experience (City of Boulder).
  - The City of Longmont has had a ranger program for over 30 years, with an emphasis on ranger presence at water recreation sites. The program expanded recently due to public requests for ranger presence in parks, open spaces, and trails for management of issues like dogs off-leash and resource impacts from people experiencing homelessness.
- Strategies, roles, and enforcement techniques include:
  - Rangers are authorized by the police department to respond to violations specific to natural areas, parks, and open spaces. Rangers conduct patrols (rather than operating via dispatches). Ranger operating procedures mirror those of the police department, but with several limitations, such not being armed (City of Fort Collins).
  - Senior rangers carry tasers, pepper spray, and batons, but not firearms (City of Longmont).
  - Two full-time rangers are stationed at Boulder Reservoir, and they have limited law enforcement commissions, allowing them to issue citations and actively enforce rules on-site. However, they prioritize education over enforcement to foster communication and understanding amongst visitors.
  - There is no natural area ranger program in the City of Berthoud. Enforcement is deferred to the Larimer County Sheriffs, CPW, or local code enforcement staff.
- Funding sources include:
  - Personnel and operating costs are funded through ballot-initiated sales tax (City of Fort Collins).
  - In the City of Boulder, the ranger program is primarily funded through the Parks and Recreation department, a subset of which is funded via watercraft permit fees.

Signage and Education

- Arapaho Bend Natural Area managers emphasized that visitors ignore signage. Tabling or enforcement are much more effective for ensuring compliance and safety.
- Boulder Reservoir managers emphasized that despite signage and onsite education efforts, it took about four years for visitors to acknowledge and respect their formalized watercraft access points.
- The City of Berthoud notes that one of the biggest challenges they face at Berthoud Reservoir is fishermen trespassing into the water treatment plant area despite extensive signage.

Operations Structure, Staffing, and Budget

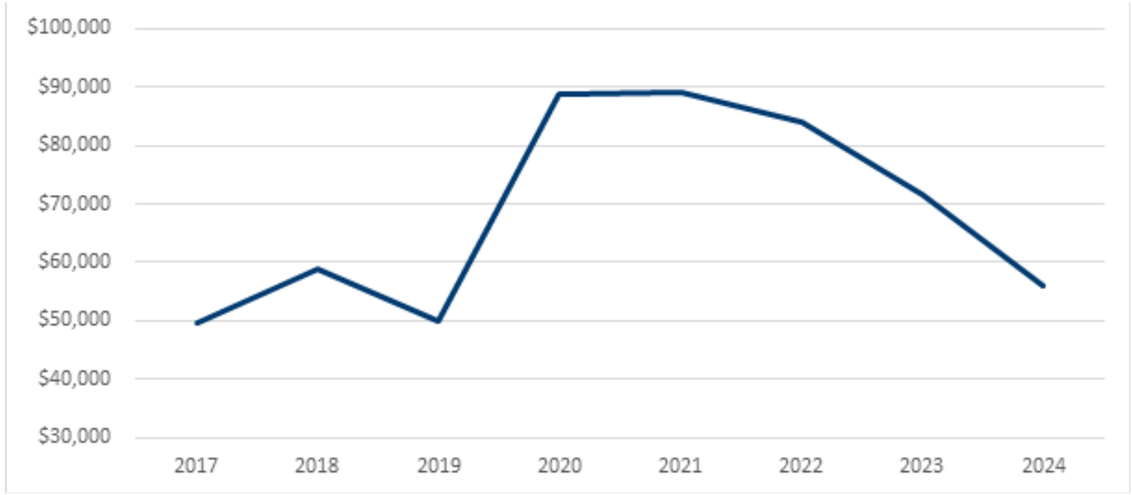
As mentioned, the Town's Open Space and Trails and Aquatics divisions of the Parks, Recreation & Culture Department share responsibilities at Windsor Lake. The administration, enforcement, and seasonal employees of the concessions, boat rentals, and boat permitting is staffed by the Aquatics Division. These seasonals work during boat concession rental hours: Memorial Day Weekend through August and on weekends through the third weekend in September (Monday-Wednesday 11am-5pm, Thursday-Sunday 11am-7pm). They are responsible for: boat rental and food concessions, checking boating permits, on-water boat patrols and support, and managing open/closures in case of weather. The Open Space and Trails Division completes maintenance and vegetation management of the area around the lake, including mowing a 3-foot buffer band along paved trails and seeding to increase native vegetation. Because of the proximity to Boardwalk Park, Park Division staff assist in trash and other maintenance around Windsor Lake.

Emergency response and enforcement is supported by the Town's Police Department and Windsor Severance Fire Department. Since Aquatic Division staff can only restrict access for boating and permitting violations and not issue fines, seasonal staff often rely on calling the non-emergency number Police Department line to manage more serious situations. Specific incidents are unknown unless a police report or ticket is issued. While resource impacts or safety issues are minimal at this time they are on the rise, according to anecdotal conversations with aquatics staff and the police department. Potential concerns with people experiencing homelessness have been noted.

Budget

Revenue sources collected at Windsor Lake are primarily from boating permit costs, including annual and daily motorized permits and non-motorized permits, boat rentals, and concessions. Revenue from these permits is collected by the Aquatics Division and added to the General Fund budget. Figure 13 depicts total revenue at Windsor Lake per year from 2017 - 2024.

Figure 13. Total Revenue at Windsor Lake per Year



Below: Two visitors in a rental electric watercraft



Current Staff Operations Summary

The approximate amount of staff used to manage and operate the recreation amenities and maintain the grounds around Windsor Lake includes:

PRC Department: Aquatics

- ~15% of one full time employee (FTE) for Administration/Oversight
- Four managers, Four boat patrol, and 12 cashiers (which are shared with Eastman Park River Experience and Kyger Open Space)

PRC Department: Open Space

- ~5% of one FTE for maintenance/mowing/ weed management of trail and land around the lake

PRC Department: Parks

- Aquatics staff funds the maintenance of concessionaire/restroom building
- Full-time Parks manages the adjacent Boardwalk Park including trash pickup and mowing

Additional Support

- One Police Department staff (community service officer or police officer) assigned to all Town trails, parks, and open spaces during the summer only
- Other PRC and Police Department staff during large events at Boardwalk Park

Table 5. Comparison of Collected Permit Fees and Boat Rental Costs with a Comparison across Agencies

Community	Size of Water (acres)	Rentals	Non-motorized Permits (Entrance Fees, as applicable)	Motorized Permits (Entrance Fees, as applicable)
Windsor		$10 per 30-minute rental, except for GoBoats which are $12 per 30 minutes	Daily Permit (Windsor Residents): $10 Daily Permit (Non-Residents): $15 Annual Permit (Windsor Residents): $50 Annual Permit (Non-Residents): $65	1/2 Day Cost: $25 Residents 1/2 Day Cost: $35 Non-Residents Annual Cost: $500 Maximum of 20 permits sold starting May 12, 2025.
Fort Collins		N/A	Free	N/A
City of Longmont		N/A	Daily entrance fee $10(weekday)/$15 (weekend) plus $5 for watercraft Annual Pass: $85/car Non-resident $115/car Plus watercraft permit $35 for 5 personal watercraft	N/A
Larimer County		N/A (provided by concessionaires)	$10/vehicle; Annual permit resident $100, non- resident $130	$20/vehicle and boat trailer Motorized Boat(trailered) resident $200, non-resident $260
Inlet Bay Marina Concessionaire (Horsetooth – Larimer County)		$25/hour (Damage Deposit $100)	Larimer County entrance fees apply	Larimer County entrance fees apply
Boyd Lake Marina Concessionaire (Boyd Lake State Park)		$15/hour SUPs $20/hour Canoe &Kayak	State Park entrance fees apply	State Park entrance fees apply

Collected permit fees and boat rental costs with a comparison to other agencies is summarized in Table 5. Costs of doing business at Windsor Lake primarily include staffing costs. Windsor Lake's operating budget covers part-time and seasonal staff but not full-time salaried positions like supervisors or registration staff. These overhead costs are appropriated from the overall General Fund/PRC Department Budget. Other costs include rental and patrol boat repair, maintenance, and operations of the concession building.

Capital improvements, when needed, are funded by separate sources such as grants and impact fees from new development. Water quality monitoring (through Colorado State University) is funded through the general fund with the Public Works Department paying for the LG Sonic equipment and contracts. Porty potties around the lake are appropriated out of the Open Space Division budget.

All municipal parks and recreation departments subsidize the cost of providing services to the public at community facilities like Windsor Lake. Many communities determine the level of subsidy, or cost recovery, based on the level of importance of the service or program being run. Some communities define a program's importance by the level of benefit to the community versus individuals. Amenities that provide an individualized benefit, such as boat rentals or motorized access, should cover the full cost of that service. Other amenities that provide a large community benefit, such as trails, beach access, or general open space/park area, typically have a lower percentage of cost recovery. Cost recovery goals are a good indicator to assess and apply; however, it is not a strong driver in management decisions because Windsor Lake provides a large community-wide benefit (See the Funding and Revenue Section for more information).

The PRC Department currently assesses cost recovery for its recreation programs and events. While there are not many models for cost recovery goals at lakes/reservoirs, the current goal of operations (including revenue from boat rentals, permits, and concessions and costs from part-time and seasonal staff) is to have a cost recovery of 120%. For comparison, the PRC Department has a current goal of 100% cost recovery for fitness classes but only a 80% goal for youth sports (PRC Strategic Plan, June 2020).

For Windsor Lake, this does not include salaried employees who only spend a portion of their time associated with Windsor Lake as well as costs incurred by other departments. While this is industry standard and calculating every cost that is associated with operating boating permits and rentals is not realistic, it is still important to note. While the PRC Department budgets for a 120% cost recovery, actual costs and revenue can fluctuate yearly due to lake closures from poor water quality and rainy weather, which leads to a reduction in daily permits and rentals being sold. Rainy weather can negatively impact both actual revenue and costs, as staff may work their shift with no or limited. rentals or concessions if the weather is questionable. During the years of 2020-2022 cost recovery was met but visitation to local parks and open space has decreased in recent years.

The following challenges and opportunities were generated through the project questionnaire, site visit and stakeholder interviews, and review of existing conditions.

Challenges:

- Staff, especially seasonal staff, do not have the training or the directive to complete the role of enforcement.
- Concerns with paddle board safety warrants a ranger to ensure compliance with the necessary permits, PFDs on each paddle craft, and noise making devise.
- Issues with jump/diving off ditch structures.
- Issues with residential trash dumping in parks.
- Full authority needed to enforce all regulations identified in the municipal code, including dogs off leash, e-bikes, and wildlife conflicts.
- Needed enforcement/focus on wildlife and natural resource infractions not just the serious infractions.
- Staffing amounts and/or timing should be adjusted to meet cost recovery goals.

Opportunities:

- Public input suggested that the cost to participate in motorized or non-motorized boating was not a significant deterrent for recreating more at Windsor Lake. Therefore, prices could be increased to meet cost recovery goals.
- Need for electronic messaging, beacon, flag, and/or digital messaging for weather alerts.
- Desire to use new technology for permit checking.
- While concerns with people experiencing homelessness hasn't been a significant issue yet there is an opportunity to develop speaking points for staff and improve planning and design of facilities ahead of any issues.
- Need to collect data to inform future staffing, including tracking call for service which may not result in a police report.

VISION & GOALS

VISION AND GOALS

The vision and goals for Windsor Lake guide the desired future conditions and is the foundation upon which the site is managed. They were originally developed by Windsor staff and the public during the 2004 Windsor Lake Management Plan and then revised as a part of this planning effort. They come from a combination of current site conditions, opportunities and constraints, desired outcomes of management, and community values and needs.

Community Values and Needs

During the community-wide questionnaire, respondents provided their input for what they value most about Windsor Lake. These values helped guide the revision of the vision and goals for Windsor Lake.

Further, the community was asked to weigh in on how the vision statement in the 2004 Windsor Lake Management Plan describes the current experience at Windsor Lake Park. Over 82% of respondents agreed that it accurately describes their experience.

Table 6 summarizes the most frequent topics mentioned on what should change if respondents did not agree that the vision statement meets the current conditions at Windsor Lake. Water quality (31), motorized boating (17), and safety (17) occurring the most frequently. Note that some commenters spoke about more than one topic. For comments related to motorized boating, 12 supporting a reduction in motorized boating, more separation between motorized and non-motorized boating, or removal of all motorized boating on the lake, while seven comments supported the current management of motorized boating or an increase in motorized boating.

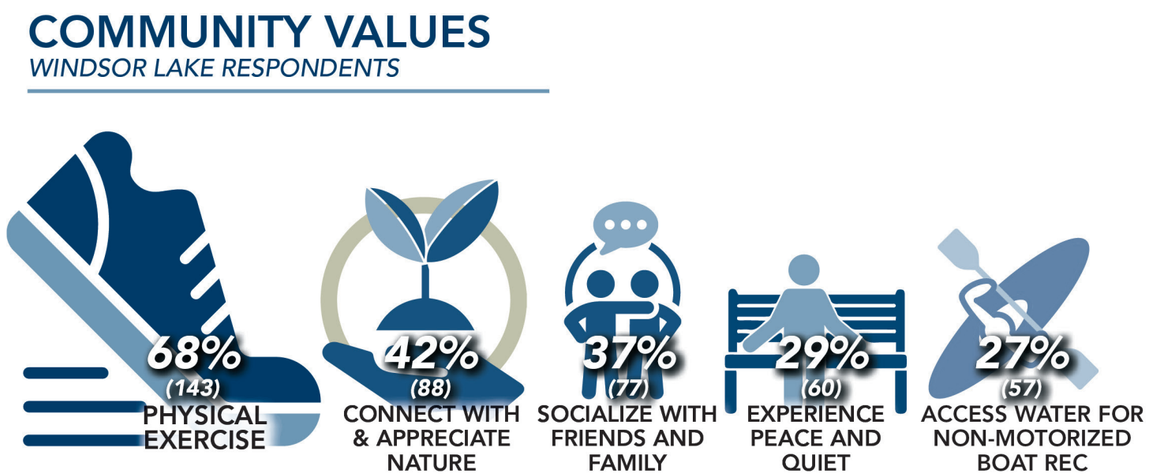


Table 6. Public Input on What Should Change at Windsor Lake

Summarized Topics	Count	Example Comments
Water Quality	**31**	**"Poor water quality, family has had repeated issues for years with either skin or GI after visiting lake during hot months."**
Motorized Boating	**17**	**"On motorized boating days I would restrict non-motorized boaters to no wake areas along the perimeter of the lake."**
Safety	**17**	**"The lake is too small for motorboats. They are loud and polluting and dangerous. State laws are ignored, and their wakes are often in the beach endangering all. I see them at dusk and when there is lightning. They get so close to shore it make fishing tough."**
Fees and Permits	13	"My family and I enjoy and really appreciate the Windsor Lake recreation opportunities. I think the only thing I might consider changing is the fee for using stand-up paddle boards and small nonmotorized boats. I know for my family this barrier has caused us to not go to the lake as much. I think these small human powered craft would be considered a healthy activity that should be encouraged in the community. The hassle of the permits honestly is a barrier that keeps me from going to the lake for this activity. Beautiful early morning, feeling like going out, too early to get a day pass, don't have a yearly pass, so I have just not considered it an option for the last couple of years. I love that it is easy to rent equipment if the rentals are open and the fees are reasonable."
Additional Amenities	12	"More restrooms, recreation activities, larger and more secure dog park, exercise equipment along trail, benches and picnic tables, etc."
Habitat Quality	10	"I want the birds to feel safe enough to continue to swim there. I love to watch the pelicans."
Non-Motorized Boating	9	"I think the lake would be better utilized if it was all non-motorized boating and it was cheaper or free. Paddle boarding is so popular now, and I know so many people who go to Loveland or Fort Collins to paddle board due to price or accessibility even though we have this perfect lake right here. The alternating schedule of motorized and non-motorized is difficult to keep track of."
Parking	8	"Improved parking or flow of traffic is a nice to have."
Dogs	8	"Would like to see wildlife habitat that is protected from people and off leash dogs."
Trails	8	"Would love to see some firmer rules regarding electric bikes/scooters. People fly by and do not always look out for pedestrians."
Maintenance	7	"Sweeping trail more often and mowing the edges to better see and access lake areas."
Shade	7	"Provide more shade. People seem to always be under trees by the beach and when I ride my bike it's hard to bring shade umbrellas"

Table 6. Public Input on What Should Change at Windsor Lake (continued)

Summarized Topics	Count	Example Comments
Mixed Use Recreation Conflicts	7	"There has GOT to be some better guidelines for the way nonmotorized and motorized boats share the lake. Someone is going to be killed. I know this sounds harsh but I'm scared. When we use the boat docks, kids on paddle boards have been in our way. It's terrifying. Last weekend, two paddle boarders were lying down in their boards in the middle of the lake and it's hard to see them. Please provide some better boundaries for paddle boarders and canoes to use a specified area of the lake before a tragedy occurs. Please!"
Fishing	6	"Would there be anyway for motorized boats to launch earlier than 8AM if we don't use the motor? I'm interested in fishing earlier in the day and would be willing to only the electric trolling motor so I don't make any noise. Thanks!"
Adjacent Land Use	6	"Better integration with downtown through creative development of backlots parking, walking access, pedestrian train track crossing, 5th Street mall."
Education	5	"A management plan should include stewardship of the flora and fauna in and around the lake as well as public education about them."
Crowding	4	
Scenic Quality	4	"Increased screening / trees / plants between lake path and housing."
Connections to Nature	3	"Add more logs to surface of lake to assist photographers--closer to shore. Add more benches."
General Support	2	"Lovely area for all residents to enjoy the lake and all amenities it offers, such as fishing and the beauty of the area."
Events	1	"Have 5k runs again"

The questionnaire asked for specific activities or amenities that are not currently provided that could be considered in this planning effort. Table 7 summarizes the most frequent topics mentioned in answers to this question, with sports facilities (16) and more boating facilities (13) occurring the most frequently. Note that some commenters spoke about more than one topic. For comments suggesting additional boating facilities or changes to current boating facilities, 12 were suggestions for motorized boating while nine were suggestions for non-motorized boating.

Table 7. Specific Activities or Amenities That Are Not Currently Provided That Could Be Considered in This Planning Effort

Summarized Topics	Count	Example Comments
Sports Facilities	16	"More play areas - beach volleyball, grass volleyball, pickleball courts, cornhole areas, larger dog park area"
More Boating Facilities	13	"More access points for non-motorized crafts."
Shade	11	"Potentially more trees or means of shade on the perimeter walk around the park."
Events	11	"Organized meet up groups for learning some outdoor activities associated with the park. For example, learning/playing corn-hole or kayaking."
Bathrooms	7	"Year-round bathrooms. I like having showers available."
Trail Improvements	6	"More softer surfaces (crushed gravel) for walking, for those with bad knees, hips, and feet."
Signage	5	"Interpretive signage for education about the birds, plants and animals that are found in and around the lake."
Water Quality	4	"I would use the amenities if I felt the water was safe and that the beach wasn't so crowded."
Do Not Add More Amenities	3	"Please don't keep adding amenities. Keep the natural state."
Dog Park	3	"Add a dog park that has beach access."
Benches	3	"A few more benches along the walking trail."
Reduced Motorized Boating	3	"More non-motorized boating days would be good."
Lighting	2	"Solar night lights along walking path the surrounds lake."
Museum Improvements	2	"I love what you have done with the historical village museum area. Continue to work on improvements there."
Safety	2	"Life jackets for children under 5."
Maintenance	2	"More frequent bathroom/porta potty cleaning."
Parking	2	"Better parking and entrance/exit off 257."
Habitat Restoration	2	"Nature zone on east side."
Landscaping	1	"I think the area on the north side of the lake is primed for opportunity. There should be flower gardens, sculptures, a street style cafe for coffee, ice cream, drinks, shaded sitting areas, along with an actual restroom."
Nature Viewing	1	"Already noted--logs for waterfowl photography. Maybe a few blinds to assist with photography."
Fishing	1	"North side fishing pier."

Finally, the questionnaire asked respondents to provide any additional thoughts on resource and recreation management that may not have been covered. Table 8 summarizes the most frequent topics in response with general support (12), safety (10), fees and permits (7), and signage and education (7) occurring the most frequently. Note that some commenters spoke about more than one topic.

Table 8. Additional Thoughts on Resource and Recreation Management

Summarized Topics	Count	Example Comments
General Support	12	"I really appreciate that you seem to be trying to balance people's experience with the need to provide habitat and care for the ecology of the area."
Safety	10	"I wish there was a way to enforce leash laws for dogs and to keep motorized bikes (some classes of e-bikes are fine) off the trail."
Fees and Permits	7	"Lower fees the lake is always closed for a month or more. After the 4th of July for boarding. So it's hard to pay and not get to use it."
Signage and Education	7	"Maybe more information to appreciate indigenous history and land stewardship."
Habitat Quality	6	"Your statement above talks about preserving natural resources and also makes mention of wild landscapes. Neither of these actually exist at Windsor Lake especially now that they're developing the only side of the lake that has anything close either of those things."
Maintenance	6	"The water and beach are always dirty with geese droppings and trash."
Trails	5	"Sidewalk improvement along Main Street/392 from Hollister Lake Road to central Windsor."
Additional Amenities	5	"Consider adding an additional playground. The playground is nice and new but can get busy."
Boating Facilities	5	"The lake staff needs to do a better job of policing the area around the boat ramp. When we launch our boat there are usually several rental paddle boards and or water trikes right around the ramp."
Events	4	"It would be nice if the concert series ran a little bit longer in the summer. It seems like it's over so quickly."
E-Bikes	4	"Please consider how to regulate e-bikes. For some, it's great to have an e-bike for accessibility. However, there are many classes of e-bikes, and some are basically electric motorcycles. Can we keep those off the rec trails?"

Table 8. Additional Thoughts on Resource and Recreation Management (continued)

Summarized Topics	Count	Example Comments
Dog Park	4	"You need to establish stricter dog laws for the parks. On weekends there are a lot of dogs who are off leash or on a long leash (not under their owner's control). All it will take is a few dog fights or people getting bitten to give the Lake area a reputation it doesn't want."
Adjacent Land Use	3	"Town should protect surrounding neighborhoods' rights and properties about all else."
Bathrooms	3	"The porta potties around the trail are SO important."
Fishing	2	"More fish stocking"
Noise	2	"I love to enjoy the wildlife around the lake. But the motorized boating tends to discourage and disrupt the wildlife."
Cost Efficiency	2	"Concerned that the vision is to provide more than the area/lake/ facilities can provide by trying to be many things to many people. consider having less activities."
Shade	2	"I like the trail around the lake. It does feel pretty exposed so it's hard to use during the summer with the heat/lack of shade structures to pause beneath."
Crowding	2	"The only thing that I feel is lacking, is areas to swim in. The beach area is too crowded."
Landscaping	1	"Landscaping around the museum needs updating. Would like to see signage to the museum garden."

Vision

The following vision ensures that the community's intentions for Windsor Lake are reflected in the goals and recommendations:

As the central amenity in the downtown area, Windsor Lake will welcome the entire community to recreate and convene along its shores and on the water. The lake will provide an attractive setting for a diversity of recreational experiences that are compatible with surrounding neighborhoods and the environment.

Goals

The following goals guide the visitor use management and long-term health of Windsor Lake:

Visitor Experience and Safety

- Provide a range of visitor experiences that ensure visitor safety, use compatibility, and a pleasant experience for a diversity of users while they are on the lake or along the shore.
- Provide appropriate measures to ensure visitors have a safe experience while on and off the lake.
- Provide accessible recreation facilities, allowing people from diverse backgrounds, ages, and abilities to experience the lake and its shoreline for a diversity of uses.
- Minimize user conflicts including amongst user groups, dogs, and human/dog conflicts.
- Ensure all visitors enjoy a safe environment through design, communication, education, and patrols.
- Provide opportunities for visitors to connect with nature through a diversity of means.

Surrounding Land Use

- Encourage surrounding land uses to be mindful impacts to the Windsor Lake experience.
- Develop appropriate uses and site facilities that minimize impacts to surrounding neighbors and land uses.
- Adhere to existing operational agreements and valid and existing rights.
- Meet operational needs to provide water supply.

Access and Circulation

- Provide safe and efficient access, circulation, and parking for the diverse user groups, in a manner that minimizes conflicts with recreational users, neighbors, and adjacent roadways.
- Create strong connections between Windsor Lake and the downtown.
- Ensure the Windsor Lake trail system connects to the existing and proposed trail systems surrounding the lake and downtown.
- Allow for ease of access for a variety of transportation methods.

Education and Interpretation

- Utilize a variety of interpretative means to educate visitors about the unique natural, cultural, and scenic resources in and around the lake.
- Create a culture of safety through education and programming.

Natural and Cultural Resource Protection

- Protect natural and cultural resources.
- Manage water quality for safety of the visitor experience and minimize algal blooms.
- Restore and enhance the wildlife habitats along the lakeshore and in the lake.
- Minimize wildlife/human interactions.
- Educate visitors about the importance of Windsor Lake's natural and cultural resources and how they support the heritage and evolution of the area.

Partnerships

- Develop and maintain healthy and robust partnerships.
- Continuously connect with visitors and neighbors to gather feedback that informs adaptive and responsive management strategies.



Right: Signage indicating directions to points of interest on the bikeway

MANAGEMENT PLAN



MANAGEMENT PLAN

This section outlines strategic recommendations to direct the future management, development, and preservation of recreation opportunities at Windsor Lake. Building upon existing conditions, community input, and environmental considerations, the following actions are designed to enhance visitor experiences, support sustainable use, and protect natural and cultural resources. Each recommendation aligns with the overarching vision and goals. The management plan also outlines the funding, staffing, and revenue structure needed to achieve the recommendations. Together, these actions provide a framework for thoughtful implementation and adaptive management.

Regulations

Windsor Lake incorporates the following regulations pertaining to boating and park use in order to protect the natural resources and enhance visitor safety and their experience while visiting. Boating regulations are provided at: https://www.recreationliveshere.com/DocumentCenter/View/2372/Windsor-Lake-Boating-Regulations-2025

Boating Regulations

Permits

Daily or annual permits are available for non-motorized and motorized boats. Permits will be sold at the Community Recreation Center located at 250 N. 11th Street. Permits can be purchased during normal business hours. Non-motorized daily permits will also be sold at the lake when Lake Staff are present. Permits may also be purchased online at recreationliveshere.com. Day use permits are valid for the day of purchase only.



Right: Visitors fishing in chairs on the shoreline

A Town of Windsor boating permit is required to launch any boat and must be affixed to the right side of the boat. Permits are non-transferable and non-refundable. The permit holder is accountable for the actions of the boat driver. The permits may also list additional residents of the permit holder's household who may operate the boat. The permit holder or an additional named household resident must be on-board at all times while the boat is being operated on Windsor Lake.

The following items must be presented when purchasing a permit. There will be no exceptions.

Proof of residency for Windsor resident rate (Town of Windsor utility bill, property tax, or lease agreement)

Driver's license (the number must be recorded on the permit application).

Current state boat registration (for motorboats/sailboats).

Proof of liability coverage with minimum limits of $300,000 for bodily injury and property damage is required, (motorized only). Binders, applications, or receipts are not acceptable . A copy of the insurance certificate will be kept on file with Parks and Recreation Department for the current permit season only.

Motorized boats will be allowed on Windsor Lake on Wednesdays, Fridays, Saturdays, and Sundays only. Non-motorized boats will be allowed to use the lake on Mondays, Tuesdays, Thursdays, Saturdays, and Sundays only. Saturdays and Sundays will be shared days. If problems arise the Town of Windsor reserves the right to change the procedures. There will only be 12 motorized boating permits sold on a first come, first serve basis for each motorized day. Sale of daily permits will begin Monday of each week. 6 permits will be issued for 8:00am to 2:00pm, and 6 permits will be issued for 2:00pm to 8:00pm. The permit and fee structure covers a Memorial Day weekend until the first day of school and will extend to the 3rd weekend of September, Saturdays and Sundays only. The season is subject to change due to fluctuation in lake water levels or unsafe conditions. Parking is 1st come 1st served and is available along roads but watch for marked non parking areas.

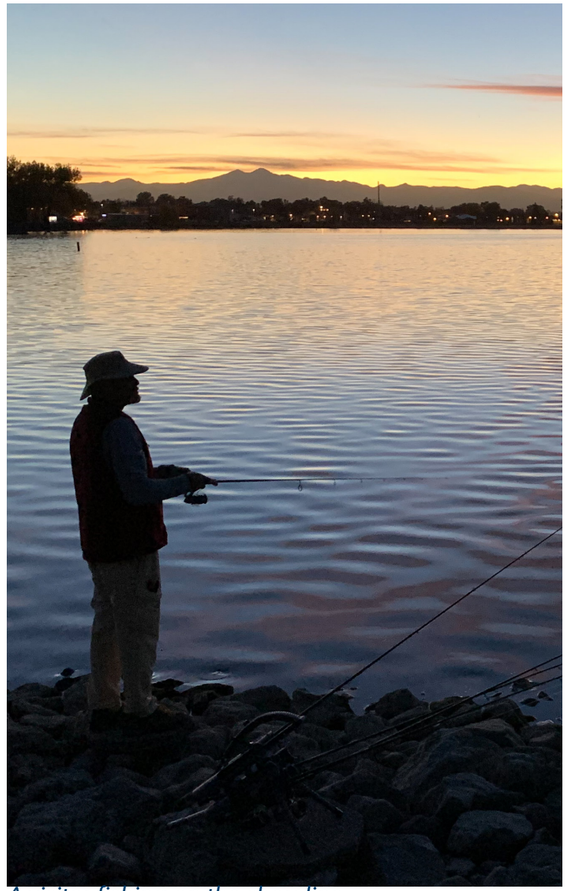
Boating may also be restricted due to special events. Motorized Boating will not be allowed on July 4. Non-motorized boating is available until 8pm on July 4.

Daily Motorized Permits: If you do not call to cancel your boating permit reservation, you will not receive a refund. If you call with minimum of 24 hours' notice and we can fill your spot, you will receive a refund for your permit.

General Boating Regulations

1. All crafts outside of the swim beach must have a current Town of Windsor Permit to use the lake.
2. Non-motorized watercraft are to launch from the designated area; please follow signage and staff direction.
3. No jet skis are permitted on Windsor Lake.
4. eFoils, parasails and windsurfing are not permitted on Windsor Lake.
5. No remote-control boats are permitted on Windsor Lake.
6. All crafts must have Coast Guard approved life jackets for every person on board, a paddling device, and at least one buoyant cushion or life ring. An efficient whistle or other mechanical sound producing device, at least one 2 pound (or higher) "B-1" fire extinguisher, and navigation lights are also required on boats over 16 feet.
7. Boats may not exceed one motor or 22 feet in length. There is a 350-horsepower limit. No loud straight pipes or inboard hydroplanes will be permitted.
8. The speed limit for Windsor Lake is 40 mph.
9. All motorized boats must remain inside designated markers/buoys unless docking.
10. Boaters are advised to exercise caution when navigating the lake, paying close attention to signage and barrier floats indicating the presence of the LG Sonic MPC-Buoys. Barrier floats and signage will be installed around the LG Sonic MPC-Buoys to mark restricted zones.

11. We do not recommend that any single occupancy vessels go outside the no wake zone on shared days.
12. Coast Guard approved personal flotation devices must be worn at all times while boating on Windsor Lake.
13. Swimming or diving from any watercraft is prohibited.
14. No alcohol or mind-altering substances will be permitted in or around boating activities.
15. Safe boating must be a priority for all users.
16. Boating privileges can be revoked for individuals in violation of rules or regulations or if a staff member deems necessary.



A visitor fishing on the shoreline

17. No boating of any kind allowed before daylight or after dark.
18. No motorized boat shall launch from any point other than the boat ramp.
19. While a boat is moving, passengers must be seated and off gunwales and bows.
20. No person under sixteen years of age shall operate a motorboat in this state unless they hold & have in their possession a boating safety certificate approved by the Division of Parks and Outdoor Recreation.
21. An inspection of your boat by any Parks, Recreation and Culture Department staff member or police may be done at any time during the boating season.
22. Low water levels should be checked before launching vessels.
23. Due to the water fluctuation levels, please watch for debris.
24. When lightning is a 30 second count distance away, the lake will be closed. It is strongly recommended that you find shelter in your car. Thirty minutes after the last audible thunder the lake will reopen.
25. All boat travel will be counterclockwise rotation.
26. This reservoir is used for recreational purposes and agricultural irrigation supply. As in any natural body of water, microorganisms are present, which may cause illness if ingested.
27. No private docks are allowed on the lake. No overnight storage on lake property.
28. Buoys and logs may shift throughout the year, please be vigilant and safe at all times.
29. Windsor Parks and Recreation Areas are smoke and vape free – this includes Windsor Lake.

Water Sports

1. All water sports will abide by appropriate State of Colorado boating statutes and regulations.
2. A maximum of six motorized boats will be permitted on the lake at one time.
3. Boats towing water sport participants have right of way over other motorboats.
4. Boats towing water sport participants must have a competent driver and an observer in the boat at all times. The observer must be at least 12 years old and capable of handling the tow rope, flag, and relaying water sport participant's signals to the driver.
5. The observer must clearly display an orange or red flag at least 12 inches square when skier/wake boarder is down. If a water sport participant falls, they should immediately give the "okay" hand signal.
6. Water sport participants will respect privileges of shore fisherman and will not travel in the buoyed area and will stay a safe distance from other boaters.
7. Boats will travel at "wake less" speeds in and out of loading areas. Buoys will mark zones around the lake.
8. Participants must wear a life jacket or a barefoot suit with a built-in floatation device.
9. Towropes will be no longer than 100 feet

Annual Motorized Boating Permits

1. Windsor Lake access will be on a first come first serve basis on motorized days.
2. Annual Motorized Permit holders will be required to cancel if they cannot fulfil their reserved spot. Cancelling can be done by calling the Recreation Center at least 24 hours in advance. Failure to do so will result in a delayed reservation time for the following week.
3. Permits will be sold/reserved on a weekly basis. Annual permit holders can reserve a spot for the week beginning at 7am. Daily permits are available for purchase at 9:00am.
4. Only half day permits sold/reserved. A full day can be acquired by calling Wednesday morning beginning at 7:00am and filling any open spot on a first come, first served basis. Non-annual permit holders can call after 9:00am and purchase any open spots.
5. All motorized permits must be purchased from the Community Recreation Center.

Park Regulations

Park Regulations Park regulations can be found in Windsor's Municipal Code Chapter 10, Article 9 at: https://library.municode.com/co/windsor/codes/charter_and_municipal_code?nodeId=WI_CH10GEOF_ARTIXREAPCOPETONEPATROPSP_S10-9-40PR

General regulations include:

1. Park hours: 5 a.m. to 10 p.m.
2. Glass containers prohibited
3. Smoking and vaping prohibited
4. Portable charcoal grills prohibited
5. Propane-fueled cooking devices are limited to 300 square inches and 16.4-ounce containers
6. Tents prohibited after 6 p.m.
7. Littering prohibited
8. Horses prohibited
9. Golfing prohibited
10. Vehicles prohibited off-road
11. Dogs off-leash are prohibited, unless in designated off-leash areas
12. No pet snakes permitted in parks
13. Clean up after pets
14. Full strength beer and wine permitted in parks.



A motorized boat

Operations and Management Recommendations

Over the next 10 years, Windsor staff may implement the following operational and management recommendations to maintain the outlined vision and goals. Recommendations include a variety of policies, capital improvements, initiatives, and guidance. Maintaining the character of Windsor Lake is important to providing quality outdoor recreational experiences for visitors. Short- and long-term recommendations are identified where applicable to inform adaptive management and provide flexibility as conditions change.

Passive Recreation Management - Recreation Experience and VUM

Primary allowable uses at Windsor Lake currently include motorized boating, non-motorized boating, swimming, beaching, picnicking, playground activity, going to the dog park, hiking, running, biking, fishing, and participating in community events (e.g., concert nights). There is interest in and support for each of these activities, which suggests that managers are not mis-allocating resources to make these use types available to the public. These allowable uses are also compatible with Windsor Lake Park's primary goals and desired conditions.

According to the visitor survey, 41% of respondents feel crowded only during special events, 19% of respondents feel crowded at the beach, and 16% of respondents feel crowded in the parking lot. According to the visitor survey, only 6% of visitors reported feeling crowded on Windsor Lake.

Existing studies and literature suggest that sufficient motorized boating densities are between approximately 10-30 acres per motorboat. A density range of 10-30 acres per boat translates to 6-18 boats at-one-time on Windsor Lake. The current boating capacity of 6 boats at-one-time translates to an allowable density of 30 acres per boat on Windsor Lake.

Historical data and spots counts show that on a weekend/holiday an average of 25-30 non-motorized (rental and private) are on the lake at-one-time. On the weekend, this number is closer to 10-15 non-motorized boats. Therefore, the current non-motorized boating density is between 7.2 – 18 acres per non-motorized boat.

While existing studies and literature suggest that the motorized boating density is currently under the allowable density, additional considerations were examined during this process, including:

- Perceptions of safety related to motorized boating.
- Windsor Lake is one of the smallest bodies of water in the local Colorado Front Range area that currently allows motorized boating.
- The opportunity to serve a larger number of non-motorized recreation participants in the absence of motorized boating.
- Future increases in visitation to the lake. For example, the addition of new users and a potential access point on the north side of the lake will increase the number of non-motorized users on the lake, will introduce more non-motorized users in a new area of the lake, and will subsequently increase conflict and safety concerns between non-motorized and motorized users.

Further, additional pros and cons of considering the removal of motorized boating include:

Pros:

- Reduction in needed staff time to manage motorized permit program
- Increased safety for users
- Being proactive regarding management
- Ability to add different/additional non-motorized programming, rentals, and/or new features on the lake
- Improved safety for non-motorized users, especially as use increases from multiple access points

Cons:

- Removal of historic but exclusive use
- Other area reservoirs are also reducing accessing limiting motorized boating opportunities in the region
- Reduction in aeration of water which aids in water-quality
- Reduction in revenue

Recommendations:

If the lake is consistently experiencing non-motorized visitors at higher volumes, eliminating motorized use will serve a much larger population of visitors. If Windsor Lake experiences 40 non-motorized boats on the lake at a time (not including special events), motorized boating should be reduced or removed as an allowable use. Also, if additional non-motorized access is added on the north side of the lake, motorized boating should be reduced or removed as an allowable use. The lake should also continuously monitor the number of boats-at-one-time on the lake, by boat type (per the recommendation in Table 10 in the Implementation section of this report).

Windsor Lake staff should continue to monitor public sentiment regarding motorized boaters, especially as it relates to safety, as a basis for evaluating motorized boating management strategies over time. This can most efficiently be done by way of surveying. If surveys result in an increase in safety or user conflict concerns, this should also be considered a trigger for reducing or removing motorized boating as an allowable use.

As part of the process for adaptively managing Windsor Lake's motorized boating capacity, it will also be important to monitor the number of non-motorized boats on the lake at-one-time. On a final note, if the ongoing monitoring and adaptive management process starts to suggest an increase in the motorized boating capacity, then managers should address the staffing resources and budget it would require to manage an increased number of motorized boats at-one-time.



Visitors at the 2023 Boardwalk Park playground ribbon-cutting.

Public Access and Education

Short-term Recommendations:

Vehicle Parking Access.

Continue to monitor parking access and maintain existing street and overflow parking areas. Based on the spot counts and staff anecdotes, the Windsor Lake parking supply meets typical parking demand and should not be expanded. It is important to note that the surrounding neighborhood street parking is a valuable contribution to the lake's parking supply, especially during peak hours of busy days. Because staff members hear minimal complaints from residents in these neighborhood areas, Windsor Lake should continue to allow overflow parking in these neighboring streets.

Additional Non-Motorized Lake Access

Due to likely increased demand from new development on the north side of the lake, creating a formalized access point could help get ahead of potential impacts. This access point could help accommodate and formalize use to improve safety and reduce resource damage and could potentially alleviate parking pressure in the main lot. With an additional access point, staff would also increase signage efforts to discourage the use of informal put-in access around the shoreline of Windsor Lake. This signage should clearly advertise where around the lake formalized paddleboard access points are located. Staffing would need to be added to this access point, at least temporarily, to ensure appropriate rules and regulations are being followed. An additional non-motorized access point should be considered as part of the development for the planned Wayne Mill Park. However, typical neighborhood park features do not include the level of service amenities (e.g. parking, restrooms, etc.) that may be needed to accommodate access to Windsor Lake, as a large regional destination. Additional funding and/or phasing may need to be considered.

Signage and Education Plan.

Continue to post new and maintain existing signage and manage tabling events yearly. Signage can help properly communicate messages and can establish grounds for officers to enforce posted rules. As mentioned by multiple lake/reservoir management departments in the local front range area that participated in the peer exchange interviews, signage alone isn't always effective. Windsor Lake staff should consider using volunteers to manage tabling events as a method to educate and minimize unwanted behaviors.

According to the questionnaire, suggestions for signage/tabling topics could include (1) local history and wildlife, (2) education about indigenous culture and history, (3) water quality and monitoring programs.

Long-term Recommendations:

Vehicle Parking Access.

Expand capacity of formal parking areas. Staff should continuously monitor the number of vehicles-at-one-time in the parking lot (per the recommendation in Table 11 in the section of this report), especially during peak hours of the day, to see if the lot is constantly at capacity, which could serve as justification for formalizing overflow parking lots. Staff should also continue to listen for feedback and/or complaints from their surrounding neighbors, and if the number of complaints about parking on adjacent roadside areas increases, then staff should re-evaluate the need to expand the capacity of their formal parking lot.

Paid Parking

Consider parking strategies in tandem with a broader downtown parking strategy and master plan development.

Enforcement

Other lake/reservoir management departments in the local front range area that participated in the peer exchange interviews noted that direct enforcement strategies (e.g., ticketing) are much more effective than signage and tabling efforts. Both Union Reservoir and Boulder Reservoir are overseen by ranger programs to support enforcement efforts. Staffing recommendations are provided below.

Infrastructure and Facilities

Short-term Recommendations:

Expanded Beach Area

Expand the existing beach area as increased visitation leads to increased crowding.

Expanded Dog Park Area.

Expand the dog park area lengthwise along the shoreline and include the dog park beach area. There is a need to delineate what water area is open to dogs. The public has expressed a need to expand the dog park because it is not currently big enough for multiple dogs if there are aggressive and timid dogs utilizing at the same time. Among participants who use the dog park, approximately 34% believe that the dog park is not adequately sized.

Toilet Facilities.

Add additional toilets on the north side of the lake. There is a need for more toilets located around Windsor Lake – especially on the north end of the lake. There is also a need to maintain toilets year-round. There is a need for more frequent maintenance of toilet facilities.

Life Jacket Loaner Station.

Move the station closer to staff and create a checkout process. Seek out a life jacket sponsor to provide and sustain the supply of life jackets. Demand for the current Life Jacket Loaner Station will continue to increase as non-motorized use visitors increases. Expand locations of Loaner Stations to all non-motorized watercraft launch points

Long-term Recommendations:

Crime Prevention through Environmental Design

Facilities are designed for crime prevention through environmental design principles to improve safety.

Natural Resource Management

Short-term Recommendations:

Water Quality.

Maintain healthy water quality for all users and wildlife by working to:

- Continue to partner with the Stormwater Division to maintain and manage the LG Sonic water monitoring systems to reduce harmful algal blooms, reduce the risk of waterborne illnesses, maintain healthy aquatic biodiversity and ecosystems, provide safe visitor use experiences, and reduce water-related closures.
- Install natural stormwater filtration systems like bioswales to filter stormwater before it enters the lake.
- Educate landowners along the ditch that feeds the lake about reducing the use of fertilizers that add nutrients to the lake.
- Reduce mowing and fertilizers used in the park around the lake.
- Increase maintenance of area surrounding the lake by more frequently collecting trash, littered fishing line, and dog waste.
- Create a water quality management plan to address and improve water quality at Windsor Lake and throughout the watershed.

Historic and Cultural Resource Education.

Include historical and cultural information on interpretive signage and expand programming with partners. Collaborate with the Windsor History Museum and local Indigenous groups on events promoting education on local history including from Indigenous perspectives, such as educational events focused on native knowledge of and practices with natural resources.

Aquatic Nuisance Species

Add language promoting best practices around aquatic nuisance species (clean, drain, dry) to boating regulations and motorized boating registration in addition to the signage already present at the lake. Informing boaters ahead of their arrival at the lake allows them to be more prepared to apply these practices and increases awareness of their importance. Non-motorized boaters should also be informed of clean, drain, dry practices, as the spread of aquatic nuisance species becomes a statewide concern across all boating types.

Long-term Recommendations:

Fishery Management.

Continue to coordinate with CPW to assess health and quality of fishery and complete fish stocking as needed.

Monitor for aquatic nuisance species to ensure additional staff and infrastructure are not needed.

Wildlife.

Improve habitat by working to:

- Integrate logs and other habitat structures in the lake to provide fish habitat. These structures could also attract waterfowl.
- Develop floating islands and establish a buffer from motorized boating to mitigate disturbance to waterfowl.
- Implement restoration projects over time related to invasive weed removal, vegetation planting, bank stabilization, habitat creation, and wetland vegetation establishment. Increased shoreline vegetation also promotes shoreline stabilization and can reduce access to fishing in inappropriate locations.
- Plant native trees to increase shade.

Shoreline Stabilization.

Consider integrating green infrastructure to manage erosion while also promoting water quality and additional habitat.

Restore wetland and native vegetation around shoreline where appropriate.

Long-term Sustainability

Volunteer Programs.

Coordinate with local volunteer restoration groups to complete restoration projects. Projects should include monitoring plans to ensure project goals are being met in the long term. Coordinate on a bird count program with local birding and bird conservation groups (e.g. Bird Conservancy of the Rockies, Audubon Society, etc.). Other species counts could also serve as an indicator of wildlife health at the Reservoir, through a volunteer program or through citizen science methods e.g. tracking iNaturalist observations.

Public Health and Safety

Continue collaborating with the Windsor Housing Authority, Northern Colorado Continuum of Care, Weld's Way Home, and other programs to connect those in open spaces who are experiencing homelessness to available resources and services.

Conduct safety and education training for staff on outreach techniques, crisis intervention, and Mental Health First Aid.

Allow access to restroom facilities during the day. New restroom facilities or replacement/retrofit of existing facilities should incorporate design best practices according to Crime Prevention through Environmental Design (CPTED) principles.

Safety and Emergency Response Planning

Short-term Recommendations:

Develop an Emergency Action Plan (EAP)

Expand the EAP to include public safety and access. The Plan should include potential situations, determines correct actions, and identifies clear communication protocols for emergencies. Partner with Windsor-Severance Fire Rescue, Larimer County Department of Natural Resources, and Windsor Police Department.

Shade.

Additional shade, provided via trees and/or human-made sculpture/style coverings, could improve the safety of the site. Additional shade would protect visitors from harmful UV rays and lower heat-related illnesses like heatstroke and exhaustion.

Long-term Recommendations:

Continued coordination with Police Department.

Continue collaborating with the Police Department's Community Services Team to enforce regulations and address issues or disturbances that are beyond the capacity of staff or create dangerous situations.

Rescue Training.

Continue to partner with Windsor-Severance Fire Rescue to complete regular rescue practices at Windsor Lake.

Increase Staff Presence.

Increase staff presence (e.g., roving ranger, tabling, etc.) to facilitate more fluid education and enforcement.

Programming

Short-term Recommendations:

Interpretive programs.

Continue to work with Museum staff to provide environmental education and interpretation programs on a regular basis for school groups, summer camps, organizations, and other interested members of the public.

Junior Ranger Nature-based Program.

A Junior Ranger program could be established to engage young visitors in stewardship practices.

Volunteer Opportunities.

Continue to expand volunteer opportunities on a consistent basis throughout the year. These volunteer opportunities could include restoration projects like invasive weed removal, vegetation planting, bank stabilization, habitat creation, and wetland vegetation establishment.

Yoga.

Yoga classes could be offered in suitable areas like the beach or the grass area of Boardwalk Community Park.

Stand-up Paddleboard (SUP) Yoga.

SUP Yoga classes could be offered where participants are lead through a yoga flow while out on the lake.

Long-term Recommendations:

Continually Gauge Public Interest

Add new and innovative programs and events based on interest, opportunity, and need (e.g., nature lectures, birding classes, outdoor art classes, etc.).

Expand Rental Program.

In addition to the rental offerings (paddle boats, kayaks, bike boats, etc.) other potential offerings include beach umbrellas, rafts, and floating cabanas.

Aqua Park.

The Aqua Park could include a series of floating obstacles—featuring ramps, jumps, ladders, a trampoline, two slides, etc. Visitors could climb, leap, and splash their way through a dynamic floating obstacle course. An aqua park can be scaled to different sizes from a single water trampoline to a full collection of obstacles.

Towed-watersports Cable Park.

The cable park could provide a method for continued towed watersports (wakeboarding, waterskiing, kneeboarding, etc.) without the need for motorized boats. The cable park could include features/obstacles like jumps, rails, and boxes to allow participants to practice freestyle tricks and progression in a controlled environment.

Ziplines.

A zipline system could allow participants to zipline from an elevated area into the lake.

Floating Wave Pool.

A floating wave pool would allow participants the opportunity to surf a deepwater wave in a lake environment. The wave could be adjusted for first-time beginners to highly skilled pros.

Staffing and Revenue Recommendations

The funding and staffing resources required to implement this Strategy should be considered, along with the parties responsible for implementation and the effectiveness of each recommendation. Providing high quality outdoor recreation experiences attracts recreational demand and visitor use, which may necessitate the implementation of additional funding sources and staffing. Many recommendations can be implemented with current staff and funding sources, providing high benefits at little cost. Funding will be the most significant obstacle to making progress with implementation beyond the status quo. Having additional funding that can be used for enforcement and education will help support the Strategy's vision and goals of maintaining an attractive, nature-based setting for recreational experiences at Windsor Lake.

Additional operational and management controls result in a need for additional staffing and partnership coordination. The Town should ensure appropriate staffing levels to provide safe and well-maintained open space and trails for high quality experiences.

Short-term recommendations:

Reduce Hours of Operation for Rental/Permit Staff.

Reduce staff on weekdays (primarily Monday – Thursday) consistent with lower rental and permit rates. Needs for enforcement during unstaffed hours should be fulfilled by new ranger staff.

Trail and Lake Ambassadors/Volunteer Program.

Work within the entire OST division to develop a volunteer program to help educate visitors about safe and environmentally friendly lake use natural resources and open space features. Create a citizen science program for monitoring wildlife with iNaturalist.org. Recreational use intensity and user types (i.e., parking, motorized use, non-motorized use, dogs, beach users, swim area users) could be monitored to scientifically manage human influences on wildlife.

Water Quality Monitoring.

Maintain internal and external partnerships and vendors to complete water quality monitoring and management assistance.

Volunteer/Partnership Coordinator.

Hire part-time Volunteer/Partnership Coordinator for the PRC Department to focus on water recreation safety and natural resources/wildlife education.

Long Term Recommendations:

Ranger Program.

Develop a PRC Department ranger program that patrols all open spaces, trailheads, trails and also monitors and manages visitor use and resource protection. Provide more ranger patrols in high-use areas, during high-use periods to assist Aquatics staff, check permits when no Aquatics staff are on duty, and in areas with special resource protection needs. Enable rangers, through Town regulation and peace officer certification, to provide education, warnings, citations, and arrests while patrolling. A dedicated PRC Department Ranger Program would provide a proactive and visible presence to protect natural resources, enhance visitor experiences, and ensure sustainable management, including completing basic maintenance activities. Table 9 compares types of enforcement officers, their duties, and their associated training needs. All levels could be seasonal of full time.

- The ranger program should provide full time coverage during the boating season and part time coverage in the off season across all parks, open spaces, and trails.
- Work with the Police Department, Code Enforcement, and Animal Control to define roles.
- Define need and funding sources for gear and equipment, including uniform stipends, ballistic vests, cameras, vehicle type (with or without reds and blues), bike patrol, etc. that aligns the Police Department policy.
- Coordinate with Rocky Mountain Ranger Association on program start up.

Value of an Open Space Ranger:

- Keeps law enforcement officers focused on high priority town-wide safety concerns, especially with minimal staffing: Response times from police were often delayed in responding to calls at open spaces and nature of the reservoir's enforcement needs typically ranked low in priority compared to city-wide public safety concerns. Reduces a perception among visitors that there were no real consequences for breaking rules, which contributed to a decline in overall compliance and visitor experience.
- Enforce local and state regulations: Commissioned rangers are often able to cite Title 33 (State of Colorado wildlife and parks statutes) which are highly relevant to the Town. Should County or Town personnel write these citations, the penalty assessment for the citations is returned to the local municipality/county as opposed to the state. Violations with points (wildlife) can be submitted by the local personnel to CPW, and suspension/point enforcement will still be applied.
- Prevents costly resource damage: Unchecked off-trail use, illegal dumping, and habitat destruction can require costly restoration projects. Rangers can deter and address these activities before they escalate. Early detection of invasive species or erosion issues prevents remediation expenses that can grow exponentially if left unmanaged.
- Prevents costly infrastructure damage: Regular ranger patrols prevent vandalism, ensure timely repairs, and extend asset life. With growing recreation demand, unmanaged use risks long-term environmental damage and reduced visitor satisfaction.
- Supports enforcement of open space values regulations: Rangers can act as ambassadors, fostering positive relationships with community groups, volunteers, and partner organizations to inform the public of the value of the natural resources for which these areas were preserved. Presence supports enforcement of permits, seasonal closures, and management plans, improving compliance with minimal conflict.

Table 9. Comparison of Types of Rangers

Type of Enforcement	Duties	Training
Non-commissioned Ranger	• Check boat permits • Basic maintenance activities • Community interaction • Write notices of infraction	• Ranger Excellence School (recommended, not required) • Natural Resource Background (recommended, not required)
Partially commissioned Ranger	• Check boat permits and boat inspections (ANS) • Basic maintenance activities • Community interaction (patrol) • Enforce local regulations (municipal code) • Emergency response • Wears body camera (recommended)	• Commissioned as a code officer by Police Department • Ranger Excellence School (recommended, not required) • Natural Resource Background (recommended, not required)
Fully Commissioned Ranger (officially a police officer)	• Check boat permits and boat inspections (ANS) • Community interaction (patrol) • Enforce local and state regulations, including drug and alcohol infractions • Use of force, carry a firearms, arrest and detention • Emergency response • Wears body cameras (state requirement)	• Peace Officer Standards and Training (POST) Certified • Ranger Excellence School (recommended, not required) • Natural Resource Background (recommended, not required)

Funding and Revenue Recommendations

Minimal capital improvements are proposed that are typically ideal candidates for grants and donations. Management, maintenance, and operations will be funded through general funds, sales tax, and/or user fees/permits. Therefore, additional funding needs are limited, however, it is important to continue assessing revenue and cost recovery.

Short-term Recommendations:

Cost Recovery Goals.

As the PRC Department evaluates cost recovery goals, consider managing concessions, rentals, and permits between a 100-110% cost recovery or comparable with other value-added services. Promote Windsor Lake as part of the economic vitality of downtown and track Windsor Lake's visitation impact on businesses in the area.

Increase Boat Permit Rates.

Increase non-motorized annual permits to $65-75 for residents and $75-85 for non-residents to cover both Windsor Lake and Kyger Open Space. If motorized use continues, increase annual motorized permits to $600. Rental rates should remain unchanged.

New revenue sources.

Use lake-related events (fishing tournaments, clean-up days, festivals) and new non-motorized opportunities to generate revenue including through sponsorships, registrations, and local sales taxes.

Investigate private concessionaires for boat rentals.

While Town already owns and operates the boat rentals and concessionaires, as costs of doing business increases, staff could investigate the privatizing this service. Concessionaires would pay a licensing fee and then a portion of gross revenue. Agreements could be made for the management of existing infrastructure. Pros and cons should we weigh, such as the ability of a private concessionaire to provide the same level of quality and service and represent the Town of Windsor.

Long-term Recommendations:

Assess new technology for permit checking.

Options to explore include:

- QR codes to validate permits
  - https://xanthus.in/qr-code-based-permit-validation-system/
  - https://xanthus.in/tech-tools/
- Mobile permit apps with GPS check in
  - https://www.recreation.gov/mobile-app
  - Use GPS location to validate site access and check in at trailheads or entry points
- Geotagged permit purchase/validation
  - The Wave Geofencing permits: https://www.blm.gov/sites/default/files/docs/2023-10/FAQs_508.2023.pdf
- RFID tags
  - https://www.atlasrfidstore.com/rfid-vehicle-tags/?srsltid=AfmBOooKi8bjsFJvU77bFuXI05O5aU2BjV7WYTffuXgUGUwqv_AZqpMV
  - https://www.zebra.com/us/en/products/supplies/rfid-labels-tags.html
  - https://www.zebra.com/us/en/industry/government/inspection-code-enforcement.html
- Iron rangers - Self serve kiosks with solar power (Note: Higher staff time needed to complete compliance)
- Plan for capital replacement costs of boat rentals, buoys, patrol boat, docks, safety equipment, and signage.

IMPLEMENTATION



IMPLEMENTATION

To meet the identified Vision and Goals, implementation of this Strategy will require annual review of monitoring indicators and establishing an adaptive management plan to adjust to evolving management issues.

Monitoring Indicators

This section of the report includes a list of recommended indicators for monitoring at Windsor Lake. The indicators reported in this section can be used to define specific and easily measurable conditions that can be monitored in order to infer conditions in relation to the lake's natural resources, crowding, and operations. All indicators should be attached to corresponding thresholds, which define the minimum acceptable condition for each indicator. It is the responsibility and privilege of Windsor Staff to identify thresholds that align with the vision and goals. The process of selecting a final set of indicators and corresponding thresholds for monitoring supports an adaptive management approach, where targeted management actions at Windsor Lake can be made in response to the results of indicators monitoring.

A workshop was conducted with Windsor staff in July 2025 to identify potential indicators to include in this Strategy. Potential indicators that were discussed during this workshop, and indicators recommended by the project team, are included in Table 10. This table also includes a rationale for selecting the indicator, and documents any currently known conditions associated with the indicators and preliminary recommendations regarding potential thresholds.

Table 10. Potential Monitoring Indicators for Windsor Lake

Natural Resources		
Recommended Indicator	**Rationale**	**Desired Threshold**
Number of lake closure days	Windsor Lake will close water access when E. coli levels are too high or in the presence of toxic algae blooms, making the number of lake closure days per summer season a practical indicator for water quality and visitor experience.	**Current conditions:** 13 days during 2024 season; 3 days in 2019 **Desired threshold:** Reduce to 0 **Corrective Action:** Implement additional short-term recommendations for water quality.
Measurement of E. coli in the lake (CFU per 100 milliliters)	E. coli measurements are reliable indicators of water quality. If E. coli levels are above a certain threshold, it could suggest the potential presence of harmful bacteria in Windsor Lake.	**Current conditions:** Variable **Desired threshold:** < 235 per 100 milliliters (mL) **Corrective Action:** Implement additional short-term recommendations for water quality.
Number of informal paddleboard put-ins	The number of informal paddleboard put-ins can be used to quantify the severity of visitor-caused damage to and trampling of shoreline vegetation and soil resources surrounding Windsor Lake, which can have negative impacts on both water quality and wildlife habitats.	**Current conditions:** 0 **Desired threshold:** Maintain **Corrective Action:** Develop north side access point and/or complete restoration efforts.
Number of fish/ diversity of fish	The number/diversity of fish in Windsor Lake could be a reliable indicator of water quality, as fish are sensitive to shifts in temperature, pH, dissolved oxygen levels, the presence of pollutants, and food resources. For that reason, changes in fish abundance could signal a change in water quality that should be further analyzed. It should be noted that this type of data monitoring could be feasibly collected in partnership with CPW.	**Current conditions:** TBD (Creel reports occur infrequently so may not be a desirable indicator) **Desired threshold:** TBD

Table 10. Potential Monitoring Indicators for Windsor Lake (continued)

Crowding

Recommended Indicator	Rationale	Desired Threshold
Hourly VAOT in the parking lot	The hourly number of vehicles-at-one-time (VAOT) in the Windsor Lake parking lot can be used as indicator of transportation and park access quality. Instances in which parking lot capacities are exceeded can be indicative of vehicle congestion, negative visitor experiences, and concerns for impacts to safety conditions, natural resources, and the surrounding neighborhood.	**Current conditions:** Hourly average of 83 vehicles in the main lot **Desired threshold:** Maintain (i.e., do not exceed the main lot's current striped capacity of 93 parking spaces) **Corrective Action:** Complete parking study as part of the Downtown Plan.
Number of boats on the lake at-one-time, by motorized and non-motorized	The popularity of Windsor Lake for both motorized and non-motorized boating can lead to high numbers of boats at-one-time on the lake. Monitoring boats-at-one-time provides a reasonable basis upon which both safety and the quality of visitors' experiences on the lake can be inferred.	**Current conditions (motorized boats):** Average of 3 boats at-one-time **Desired threshold (motorized boats):** Maintain as 6 boats at-one-time (unless use changes) **Current conditions (non-motorized boats):** Average of 25 boats at-one-time **Desired threshold (non-motorized boats):** Maintain current conditions; **Corrective Action:** If 40 boats at-one-time is exceeded (excluding special events), reduce or remove motorized boating
Number of people on the beach at-one-time	Monitoring the number of people in the Windsor Lake beach area at-one-time provides a reasonable basis upon which the quality of visitors' experiences at a popular area on the lake can be inferred. It should be noted that numbers of people can also be translated into visitor densities to understand space per person on the beach.	**Current conditions:** Hourly average of 84 people **Desired threshold:** Maintain **Corrective Action:** Expand the existing beach area as increased visitation leads to increased crowding.

Table 10. Potential Monitoring Indicators for Windsor Lake (continued)

Number of people in the swim area at-one-time	Monitoring the number of people in the Windsor Lake swim area at-one-time provides a reasonable basis upon which the quality of visitors' experiences at a popular area on the lake can be inferred. It should be noted that numbers of people can also be translated to visitor densities to understand space per person in the swim area.	**Current conditions:** Hourly average of 76 people **Desired threshold:** Maintain **Corrective Action:** Expand the existing beach area and the associated buoys as increased visitation leads to increased crowding.
Number of people encounters on trail	Crowding on trails can adversely affect the visitor experience, so monitoring the number of people encounters per circuit of the Windsor Lake Loop Trail could help infer the quality of visitors' experiences on the rec path.	**Current conditions:** TBD, pending further data collection **Desired threshold:** TBD

Operations

Recommended Indicator	Rationale	Desired Threshold
Number of reported violations	A high number of reported violations typically correlates to increased visitor risk and potential for incidents or accidents. As such, a high number of reported violations could signal the need for improved education and enforcement strategies.	**Current conditions:** TBD – does Rachel have this data on hand? **Desired threshold:** TBD **Corrective Action:** Develop a PRC Department ranger program that patrols all open spaces, trailheads, trails and also monitors and manages visitor use and resource protection.
Monitor resource damage and user conflicts	A high number of incidents impacting natural resources, such as off-trail use, illegal dumping, wildlife harassment, and habitat destruction can negatively impact the visitor use experiences and values for which the property was conserved.	**Current conditions:** Need to collect **Desired threshold:** TBD **Corrective Action:** Develop a PRC Department ranger program that patrols all open spaces, trailheads, trails and also monitors and manages visitor use and resource protection.



Adaptive Management

Immediate actions, recommendations, and policies will be initiated to ensure the vision and goals are met and address current health and safety concerns. However, not all recommendations need to be implemented in the short term. Long-term recommendations are also listed in the above section. These long-term recommendations may only need to be implemented if desired conditions are not met in the future, conditions change, or community sentiment changes. This is called adaptive management.

A brief annual indicator report will be produced to track key monitoring indicators. Alternatively, a dashboard could be set up on the website, providing quick access to information and links to other online data. Annual indicator reports should be designed to evaluate and document trends to make informed management decisions. These annual snapshots should be summarized and presented to other technical working groups and public forums.

If monitoring indicators in the Strategy exceed the desired threshold for multiple years, additional strategies may be implemented. Based on the indicator report, the Aquatics and Open Space and Trails, and Parks Divisions will work together to identify a work plan to be submitted with the Town budget every year. The work plan may include staffing, funding, or management changes to be implemented to meet the monitoring indicators. As various actions or changes in management are completed and/or new best practices, technology, and information become available, the work plan may include adaptive management actions that are not listed.

When and How to Update this Strategy

This Strategy will be living, allowing it to adapt to changes. Annual monitoring enables the ability to react quickly. While additional or more stringent actions may not be the most desired outcome, they may be necessary for progress toward the desired result. Regular review and updates will allow the addition of current data, removal or additional monitoring, and the incorporation of completed actions. The Strategy should be updated if and when:

- There are significant changes to staffing structures
- There are significant changes to funding structures
- Adaptive management requires new strategies and/or monitoring indicators
- Changes in use are implemented

Even if there are no significant changes and monitoring indicators are met, the Strategy should be updated at least every ten years. A more extensive public process should ensure the Strategy always meets the community wide vision for Windsor Lake Park. Regular, informed, and focused updates to the Strategy will allow the community to affirm its values and identify new implementation strategies. The ten-year update should be a community effort built on the lessons learned through the annual indicator reports.

Left: A marker for Dr. Tom Jones Trail

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PARKS, RECREATION & CULTURE

KYGER OPEN SPACE RECREATION & PRESERVATION STRATEGY

DRAFT 2025



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Right: Cattails along the shoreline







INTRODUCTION

INTRODUCTION

Kyger Open Space opened to the public in the spring of 2021 for hiking, walking, wildlife viewing, and biking, was recently improved to allow fishing and non-motorized paddle craft on the reservoir after completing a master plan and visioning process in 2022. With the ever-increasing demand for public water-based recreation opportunities and population growth, the Town of Windsor (Town) sought to develop this Recreation and Preservation Strategy (Strategy) to help guide the visitor use management of, and access to, the reservoir for the next 20 plus years.

This Strategy reviews existing management, wildlife and habitat values, and recreational use and provides recommendations to further clarify and define the role that this incredible open space area provides to the community and region. Topics covered in the Strategy include visitor experience, surrounding land use, access and circulation, education and interpretation, natural and cultural, and partnerships.

The Town hired Logan Simpson and DJ&A to facilitate and provide technical expertise to create this Strategy.



Strategy Purpose and Overview:

1. Evaluate current operational model including staffing, boat rentals, motorized and non-motorized permitting and fee schedule, and provide recommendations.
2. Provide recommendations for sustainable management practices that protect and enhance the reservoir's environmental and ecological integrity.
3. Identify, recommend, and prioritize appropriate recreation that broadly meet the priorities of the community.
4. Develop strategies for continued and potential increased public access, education, and stewardship with increased population demands.
5. Create a plan that is adaptable to future changes and incorporates stakeholder input.

Left: Educational and regulatory signage
Right: A sculpture near the parking lot





Kyger Open Space: Overview

- Regional Active Transportation Corridor
- Trail
- Parcel Boundary
- Bald Eagle Roost Tree
- Hand-Launch Access Point
- Cell Tower
- Floating Fishing Dock
- Hard Fishing Dock
- Parking
- Restroom
- Perennial Stream
- County Boundary

LOGANSIMPSON

TOWN OF WINDSOR PARKS, RECREATION & CULTURE

Overview of the Property

The 150-acre Kyger Open Space offers passive recreation in a naturalized setting. Its proximity to other open spaces and undeveloped lands provides for wildlife habitat and movement corridors, rich biodiversity, and views of the Continental Divide. The property includes a 90-acre water augmentation reservoir that is a former gravel mine. Facilities include paved and unpaved trails and recently completed reservoir access, redesigned parking lot, and public art. The access to reservoir recreation opened to the public in June 2025.

The property directly connects to Larimer County's River Bluffs Open Space to the west and provides access to the Poudre River Trail, a paved long distance regional trail which will soon run 45-miles from Bellvue to Greeley – a project 40 years in the making. Additionally, Kyger Open Space is a hub for multiple local trails. A trail connects Kyger Open Space east-west along State Highway 392 (SH 392) to the No. 2 Ditch Trail System, which travels through the core of Windsor to Windsor Lake and further east. A trail runs along the east side of Kyger Open Space along Colorado Boulevard connecting to the River West neighborhoods.

A small section of Colorado Boulevard in the northeast section of the Open Space (where it meets Weld County Road 68 ½) will be moved slightly to the west in 2026. This is currently being designed, but construction is pending appropriation (anticipated within the next 5 years).

The Town's Open Space and Trails Division of the Parks, Recreation & Culture Department is responsible for conserving and maintaining Kyger Open Space. Permitting for non-motorized access is managed by the Aquatics Division, similar to Windsor Lake. No boat rentals or concessionaires are available at the open space at this time.

Larimer County provides support for law enforcement based on a Memorandum of Agreement between the Town of Windsor and Larimer County that pre-dates reservoir access.



Right: Wildflowers along the shoreline

Relationship to Existing Plans

Many Town-wide planning efforts guide the overall vision of the Town, quality-of life, amenities, and other key aspects of the community. The 2020 Town of Windsor's Strategic Plan and the 2020 Parks, Recreation & Culture Strategic Plan contain several high-level action items that have a strong focus on open space preservation and trail development. The 2022 Open Space and Trails Strategic Plan accomplishes many action items and advances other longer-term action items in the PRC Strategic Plan by gathering additional public input on open space and identifying more specific and relevant open space action items.

The 2024 Windsor Comprehensive Plan serves as the foundation for decision-making for housing, transportation, land use, growth, access to recreation, etc.

Windsor's Comprehensive Plan highlights key community values:

"Exceptional and memorable park, recreation, open space, and trail experiences accessible to everyone, that incorporate wild landscapes and a sense of discovery."

"Stewardship of natural resources to help preserve a healthy and thriving environment for present and future generations."

When polled about the experience at Kyger Reservoir meeting Windsor Lake vision principles, nearly 70% agreed.

Open Space and Trails Strategic Plan summary of Challenges and Opportunities at Kyger Open Space, many have been addressed with recent improvements (denoted with checkmark √):

Challenges:

- √ Drainage from parking lot flows over trails
- √ Water level fluctuations and steep undercut banks create difficult water access conditions
- Siberian Elm and Russian Olive
- Realignment of Colorado Boulevard/ Weld County Road 13 will cut into northeast corner of property
- Minimal shade
- Major vehicle corridors of Highway 392 and County Road 32C negatively impact wildlife

Opportunities:

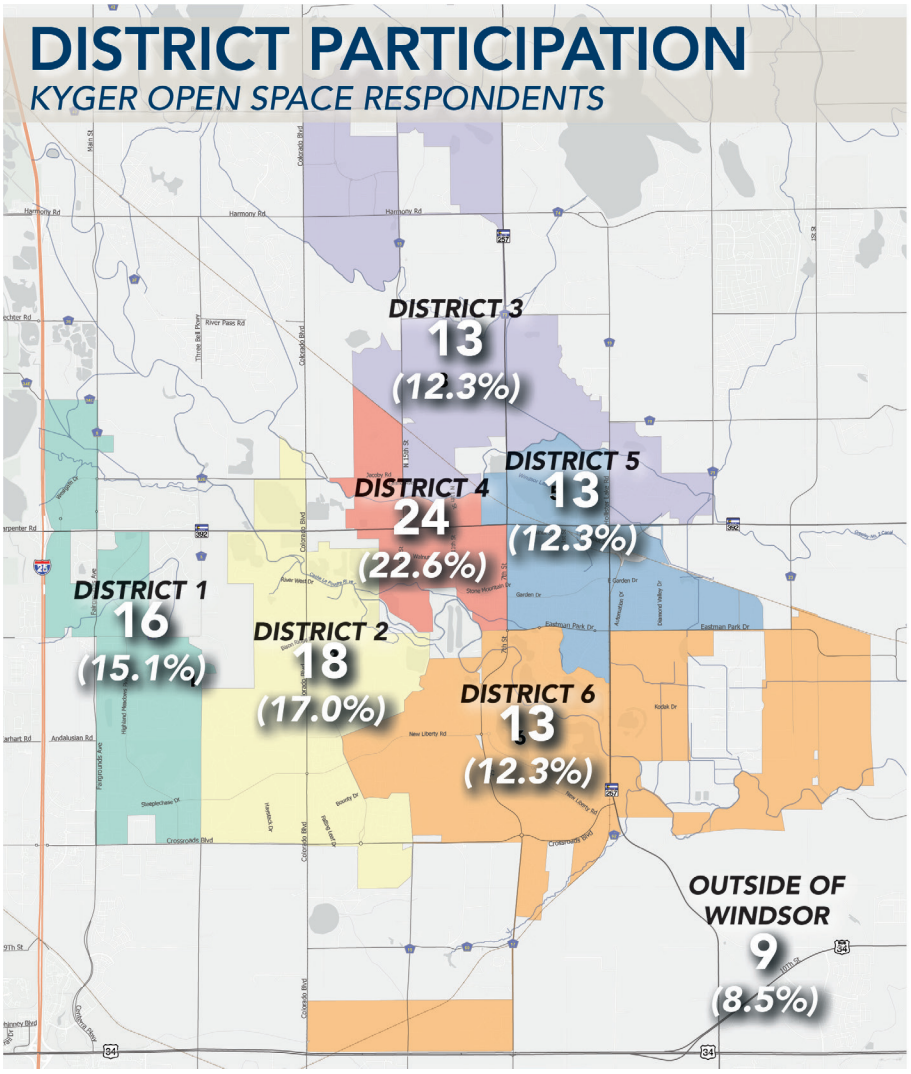
- √ Prairie and aquatic habitat restoration
- √ Gateway art/signage at entrance
- Open, level area in northeast corner could be a location for several facilities/ activities including a nature center, bike skills course, or picnic pavilion
- √ Interpretive/Discovery trail with native plant and animal species
- √ Paddle sports and fishing
- √ Property master plan as prototype for future open spaces
- Incorporate nature play features throughout site
- √ Good location for formal photography
- √ Additional soft-surface and/or single-track trails
- √ Designated overlooks and water access points
- √ Bird viewing area

Process and Public Input Overview

The public process centered on a questionnaire that included 14 questions. It was open from June 10 through July 9, 2025 and was distributed to community members and visitors by way of QR code yard signs posted onsite, postcards distributed at events, and email distribution to the PRC Department newsletter. There was a total of 110 survey responses.

Of the 110 respondents, the large majority (79%) identified their race/ethnicity as white/Caucasian, approximately 15% marked "prefer not to answer," and approximately 6% identified their race/ethnicity as American Indian or Alaskan, Asian, Black or African American, Hispanic/Latinx, and Polynesian/Pacific Islander.

Respondents represented all six districts, and some respondents (8.5%) identified themselves as not living in Windsor. In this questionnaire each district was represented fairly equally—ranging from 24 respondents in District 4 (the most respondents in a district) to 16 respondents in District 1 (the least respondents in a district).







CONTEXT & SETTING

CONTEXT AND SETTING

The context and setting section summarizes and analyzes the current state of resources and visitor use management at Kyger Open Space. It serves as the foundation for the vision, goals, and recommendations presented later in this Strategy. The challenges and opportunities presented in each resource section were generated through the project questionnaire, site visit and stakeholder interviews, and review of existing conditions.

History of the Property

The Town of Windsor acquired the property in 2013 for augmentation of Windsor's non-potable water supply. No water rights were acquired with the property and the filling of the reservoir has been reliant on free river conditions annually.

The reservoir is a pit that was formed from extracting gravel and then lined with clay. It was originally constructed with side slopes that have a three-feet (3') horizontal to one-foot (1') vertical pitch. A pump station that is in the southwest portion of the site takes water out of the Poudre River, fills the reservoir via a pipe, and pumps it back into the river when needed for uses downstream. The Town's water resources team has been tasked with securing water that can be stored in Kyger and has recently acquired some shares that helped increase reservoir levels in a year that virtually had no free river.

In 2021 the property opened with new paved and unpaved trails around the reservoir and a small parking lot.



A wooden fence and metal gate leading to an unpaved trail

The 2022 Master Plan for Kyger Open Space created a vision and concept plan for how this property could be developed for additional recreational activities and reservoir access while protecting wildlife and habitat values.

In 2025, access improvements were made for fishing and reservoir access for non-motorized boating. The improved parking lot was opened in May 2025 and the reservoir opened to the public on June 30, 2025. Improvements were made possible in part through a $140,000 Fishing is Fun Grant from Colorado Parks and Wildlife (CPW). The remainder was funded by the Towns dedicated funding source for new parks, the Park Improvement Fund.

Setting

This parcel is located in west Windsor. It is bordered on three sides by State Highway 392/Main Street, Colorado Boulevard, and Larimer County Road 32E, which is the extension of Jacoby Road. Colorado Boulevard will eventually be realigned, and a wide City of Thornton water line easement runs through the site along its eastern edge parallel to the existing road. The west side is bordered by Larimer County's River Bluffs Open Space.

The Town of Windsor has experienced steady population growth over the last 30 years. The population grew steadily from approximately 6,400 in 1995 to 21,300 in 2017, then the town experienced accelerated growth between 2020 and 2025, resulting in the approximate 45,000 residents today (U.S. Census Bureau 2024; Town of Windsor 2024). Windsor's rapid growth has transformed the Town into a largely suburban community, anchored by the historic downtown. Current population projections for 2041 range from 61,206, reflecting low growth, up to 89,389, reflecting high growth (Town of Windsor 2024).

Visitors typically travel to the property via personal vehicle (57%) or by bike (32%), according to the project questionnaire.



Right: An dirt path through an area with trees in Kyger Open Space

Natural and Cultural Resources

Wildlife

The area around Kyger Open Space is in one of the less developed areas compared to much of the Town of Windsor. Kyger Open Space is adjacent to the Poudre River, River Bluffs Open Space and Frank State Wildlife Area (SWA) and near Three Bells Private Conservation Easement. However, habitat fragmentation is still a concern as the region is increasingly developed. Additionally, proximity to State Highway 392 increases habitat fragmentation and disturbance to wildlife.

CPW has identified areas with high rates of mule deer (Odocoileus hemionus) and white-tailed deer (Odocoileus virginianus) highway crossings on the southwest edge of Kyger Open Space across State Highway 392. Kyger Open Space is located within the winter and overall ranges for both Mule Deer and White-tailed species.

Other wildlife species occurring in the open space include coyotes (Canis latrans), rabbits, foxes (Vulpes vulpes fulva), voles, mice, prairie dogs (Genus Cynomys), snakes, waterfowl, and other reptiles. The Poudre River, immediately adjacent to the open space, is mapped as Native Aquatic Species Conservation waters. The value of Kyger Open Space, Frank SWA, River Bluffs, and Three Bells is their connection to the Poudre River. The river provides cover, space, and forage for hundreds of native species, including Migratory birds, and on occasion, mountain lions, bears, moose, and elk. The Poudre River Corridor is known to provide habitat for over 100 species of birds and 10 bat species.

Although low-elevation riparian environments comprise only about 3% of Colorado's land, 80% of avifauna (local bird species) use riparian areas sometime during their life cycle (Colorado Bird Atlas Partnership 2016). Within 1 mile of Kyger Open Space, CPW has documented several raptor nests, including three red-tailed hawks (Buteo jamaicensis), one American kestrel (Falco sparverius), one bald eagle (Haliaeetus leucocephalus), one great horned owl (Bubo virginianus), and 21 nests within 3 miles of the open space for these species as well as a Swainson's hawk (Buteo swainsoni) nest. The Kyger Open Space also includes bald eagle roost sites and winter concentration and winter forage area, Canada goose (Branta canadensis) foraging, winter concentration, and brood concentration areas, wild turkey (Meleagris gallopavo) production area, and white pelican (Pelecanus erythrorhynchos) foraging area.

The varying water levels at Kyger Reservoir may increase the pollutant concentrations in the water, which could have negative impacts to aquatic and terrestrial wildlife. However, lower reservoir levels also provide some bird species with additional areas of habitat. According to the 2022 Kyger Open Space Master Plan: "Shallow areas at the edges and within the reservoir become exposed when the water is low, providing safe areas for waterfowl to rest without disturbance from people and dogs." Other bird species in the Open Space includes a pair of bald eagles with a nearby nest, which use a tree at the northwest corner for roosting. Some bird species remain throughout the year, including the bald eagle pair, and Canada geese. Kyger Reservoir contains bass and other warm water fish species. It is not currently stocked by CPW. Concerns with water fluctuations may limit stocking.

Challenges:

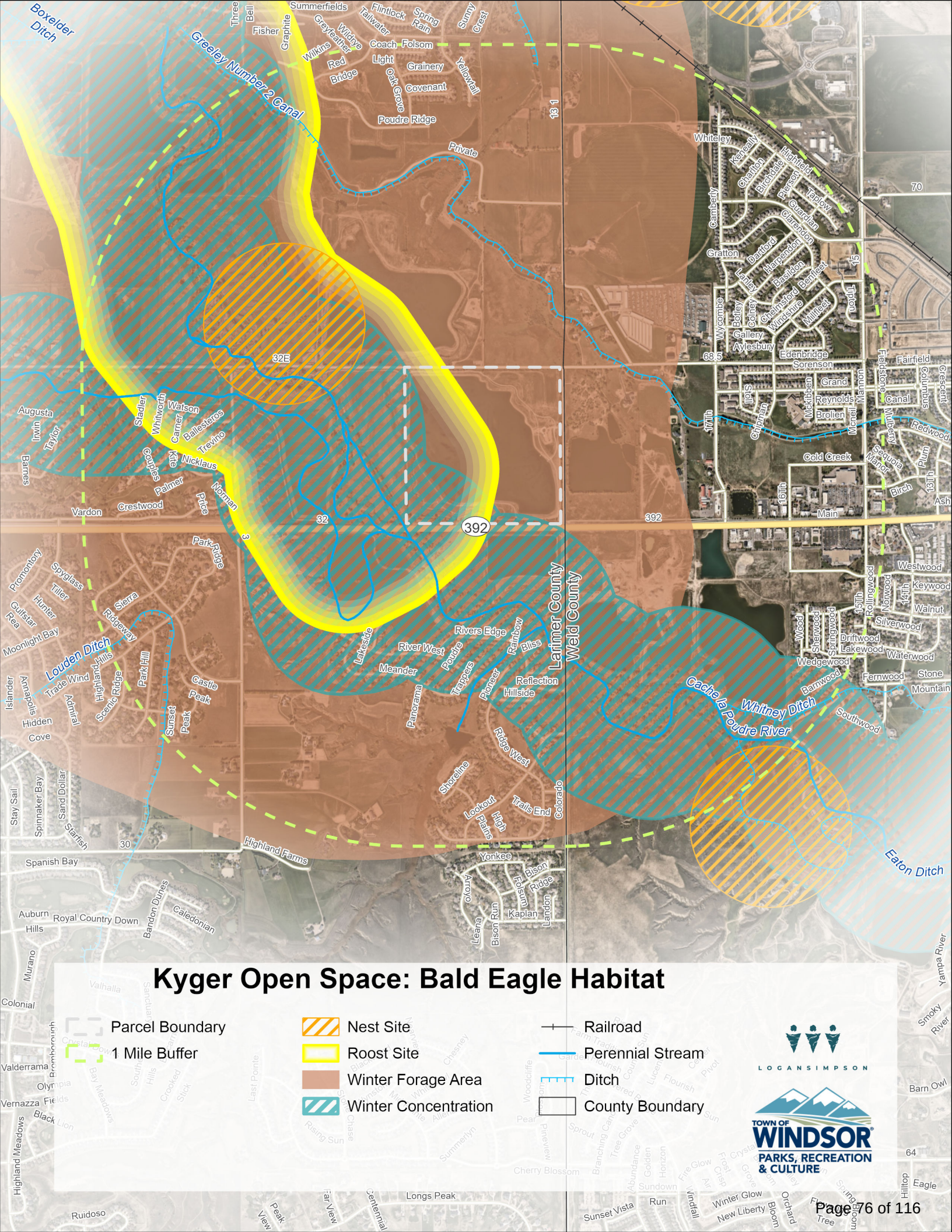
- Habitat fragmentation from increased development
- Disturbance of wildlife from recreation
- Introduction of aquatic nuisance species from boating activities
- Issues with dogs off leash impacting wildlife

Opportunities:

- Habitat restoration within and around the reservoir
- Investigate opportunities for fish stocking depending on water levels and water temperatures
- Logs/habitat structures in the lake to attract waterfowl and provide fish habitat
- Creating sight and physical barriers through native vegetation restoration along the Poudre River and western boundary of Kyger Open Space



Right: A bald eagle's nest in a tree


Kyger Open Space: Bald Eagle Habitat
Parcel Boundary
1 Mile Buffer
Nest Site
Roost Site
Winter Forage Area
Winter Concentration
Railroad
Perennial Stream
Ditch
County Boundary
LOGANSIMPSON
TOWN OF WINDSOR
PARKS, RECREATION & CULTURE
Boxelder Ditch
Greeley Number 2 Canal
Larimer County
Weld County
Cache la Poudre River
Whitney Ditch
Eaton Ditch
Louden Ditch
392
32E
32
Highland Farms
Private
Poudre Ridge
Coach
Folsom
Grainery
Covenant
Lakeside
River West
Meander
Rivers Edge
Rainbow
Bliss
Reflection
Hillside
Ridge West
Shoreline
Lookout
Trails End
Colorado
Yonkee
Bison
Ridge
Kaplan
Landon
Bison Run
Leana
Arroyo
Highland Hills
Park Hill
Castle Peak
Sunset Peak
Park Ridge
Sierra
Ridgeway
Scenic Ridge
Trade Wind
Admiral
Hidden Cove
Annapolis
Islander
Moonlight Bay
Gulfstar
Promontory
Spyglass
Tiller
Hunter
Sand Dollar
Spinnaker Bay
Stay Sail
Starfish
Spanish Bay
Auburn Hills
Royal Country Down
Bandon Dunes
Caledonian
Murano
Colonial
Valderrama
Olympia
Vernazza Fields
Black Lion
Highland Meadows
Ruidoso
Longs Peak
Sunset Vista
Run
Winter Glow
New Liberty
Bloom
Orchard
Tree
Hilltop
Eagle
Barn Owl
Smoky River
Yampa River
Whiteley
Kenealy
Charlton
Birchdale
Highfield
Pierson
Taplow
Guardian
Clarendon
Camberly
Gratton
Dartford
Harpendon
Basildon
Benfleet
Lanley
Chelmsford
Windshire
Millfleet
Tipton
Wycombe
Botley
Colney
Gallery
Aylesbury
Edenbridge
Sorenson
Fairfield
Fieldstone
Columbus
Crescent
Grand
Reynolds
Brolien
Mannon
Mcneil
Canal
Redwood
Mulberry
Sequoia Manor
Plum
Birch
Ash
Cold Creek
Main
Westwood
Keywood
Walnut
Silverwood
Driftwood
Lakewood
Waterwood
Wedgewood
Barnwood
Fernwood
Stone Mountain
Southwood
Rollingwood
Norwood
Wood
Sherwood
Springwood
Stoll
Chipman
Mckibben
Stadler
Whitworth
Watson
Carner
Ballesteros
Trevino
Nicklaus
Kite
Couples
Palmer
Norman
Price
Crestwood
Vardon
Augusta
Irwin
Taylor
Barnes
Three Bell
Fisher
Graphite
Summerfields
Greyfeather
Wildrye
Wilkins
Red Bridge
Flintlock
Tailwater
Spring Rain
Sunny Crest
Yellowtail
Oak Grove
Light
13 1
70
15
68.5
17Th
16Th
13Th
14Th
15Th
30
3
64



Kyger Open Space: Big Game Habitat

- Parcel Boundary
- 1 Mile Buffer
- White-tailed Deer Highway Crossing
- Mule Deer Highway Crossing
- Mule Deer Winter Range
- White-tailed Deer Concentration Area
- White-tailed Deer Winter Range
- Perennial Stream
- Ditch
- Railroad
- County Boundary

LOGANSIMPSON

TOWN OF WINDSOR PARKS, RECREATION & CULTURE

Note: The entire map extent is within mule deer overall range.

Vegetation

The areas adjacent to the open space are minimally developed with many significant water features. According to the USFS LANDFIRE data, some central mixedgrass prairie grassland and western great plains shortgrass prairie vegetation remain in the open space (LANDFIRE 2022). Upland vegetation is primarily native and introduced grasses and forbs. However, much of the vegetation is degraded and contains invasive and non-native species. Siberian elm (Ulmus pumila), Russian olive (Elaeagnus angustifolia), Russian thistle (Salsola tragus), leafy spurge (Euphorbia esula), and salt cedar (Tamarisk spp.) are of particular concern. There are some trees and forbs along the edges of the open space parcel, but no trees or other sources of shade along the shoreline. Vegetation in the area is disturbed but contains some areas of intact vegetation and wetlands.

Challenges:

- Management of invasive and noxious species
- Minimal shade

Opportunities:

- Restore wetland and native vegetation
- Encourage planting of pollinators around the lake
- Encourage planting of vegetation around the lake to direct reservoir access to designated locations
- Plant trees to increase shade



Right: Vegetation growing above the shoreline

Hydrology

The Reservoir is filled with water from the Poudre River via a pump station in the southwest portion of the open space parcel. The pump also removes water from the Reservoir when needed downstream and moves it back into the river. Kyger Reservoir is also filled by spring snowmelt. Kyger Open Space is entirely within the Coalbank Creek-Cache la Poudre River Hydrologic Unit Code-10 watershed (NHD 2022). It is also completely within the 100-year floodplain (1% probability of flooding in a year) as delineated by the Federal Emergency Management Agency (FEMA) (2025). Flooding is a major concern for management.

Water Uses and Quantity

Kyger Reservoir is a 90-acre water storage reservoir that was previously a gravel mine. It has 1,257 acre-feet of non-potable water storage and is used for augmentation for Parks, the School District, Kern return flow obligations, and irrigation.

The major management focus for water at Kyger Reservoir is water quantity. Water levels are highest after the Reservoir receives water from spring runoff and then decreases through the summer and fall as water is pumped out to meet downstream needs. The lowest water elevation that still allows for water pumping is 4,784 feet above mean sea level (amsl) while the highest water level that occurs is 4,793 feet amsl. When the water level recedes, steep gravel and silt shorelines and small islands are exposed, providing areas for waterfowl to congregate away from people and dogs.

Low water levels delayed the grand opening of the access to water recreation for its inaugural season in 2025 and will continue to be a determining factor in recreational access. During droughts, the Reservoir is likely to continue to face water level issues that will negatively impact recreation use and wildlife habitat.

Wetlands

According to the 2022 Kyger Open Space Master Plan: "Wetlands occur where there are drainage swales and where the topography is depressed along the west and south edges of the site. Riparian vegetation is beginning to grow at the edges of these swales and depressions and is predominantly willows and cottonwood trees. Some riparian vegetation is emerging near the north shoreline in areas where there is enough water from seeps that come from nearby irrigation ditches or other sources, and a few areas have cattails."

Water Quality

Water quality monitoring does not occur at Kyger Reservoir because there was no recreational access until 2025, and swimming will not be permitted. However, non-motorized boating activities at the reservoir can result in members of the public occasionally making direct contact with the water, such as with paddleboarding and belly boats. Therefore, water quality monitoring in the future should be a priority. Water quality is impacted by pollutants from stormwater runoff and inputs from nearby agricultural and developed areas; however, this is a minor concern as there is not direct run off from adjacent or piped storm systems. Lower water levels also impact water quality by increasing the concentration of pollutants and sediment in the water in the reservoir.

Challenges:

- Decreased reservoir levels increase the impact of pollutant loading to the reservoir and reduce the number of days the reservoir can be open to the public.
- Although no algae blooms have been documented at Kyger Reservoir yet, algae blooms are also likely to become an increasing risk. As climate change progresses and water temperature increases, water conditions will continually promote algae growth. Some species of algae produce harmful cyanotoxins that at high enough concentrations can make people and wildlife sick or can even be fatal. Algal blooms can also deplete the dissolved oxygen of waterbodies, which kill fish. As the surrounding population increases, stormwater runoff contributes to more nutrient loading, which can influence algae growth.

Opportunities:

- Install natural stormwater filtration systems like bioswales to filter stormwater before it enters the reservoir.

Geology, Soils, Paleontology

The reservoir is lined with bentonite clay to prevent water absorption and promote storage. The soil surrounding the reservoir is primarily loam and clay loam (NRCS 2024). According to the soil K factors (susceptibility to water erosion) and Wind Erodibility Groups, susceptibility to erosion for the soil to the north and west of the reservoir is moderate while soils to the south and east have moderately low susceptibility (NRCS 2024). However, other factors in addition to soil type can increase the risk and rate of erosion, including stormwater runoff, increased development in the area, and loss of vegetation along the shore, all of which are concerns for Kyger Reservoir. The presence of vegetation decreases the risk of erosion as root systems stabilize soil and absorb some of the impacts from water and wind action.

While hard shoreline infrastructure is often installed with the intention of lessening or slowing the erosion process, it can contribute to erosion and other shoreline issues (Michigan Department of Environmental Quality n.d). Hardened shoreline infrastructure includes sea walls, rip rap, boat ramps, and other installations. When waves hit hard infrastructure, the energy is reflected downwards, increasing erosion under the infrastructure, at the reservoir bottom, and to the side, displacing the erosive forces to neighboring areas (Michigan Department of Environmental Quality n.d.). Scouring the reservoir bottom can also contribute to cloudy water and algae blooms. Riprap can negatively affect submerged aquatic vegetation. Intact aquatic vegetation can reduce erosion by slowing water to allow for sediment settlement and increase dissolved oxygen and nutrients (National Centers for Coastal Ocean Science 2015). In contrast, soft shorelines absorb and disperse energy from water, increasing shoreline resilience. Natural materials used in soft infrastructure can also remove pollutants from stormwater runoff and other reservoir water input sources when designed with pollutant removal in mind (National Resources Defense Council 2022). Soft shoreline infrastructure includes beach nourishment, native shoreline vegetation restoration, and softscape materials like jute and coir matting for shoreline stabilization (University of Victoria n.d.).

Challenges:

- Shoreline erosion and destabilization

Opportunities:

- Consider integrating green infrastructure to manage erosion while also promoting water quality and additional habitat

Below: A person jogs on a paved path near the Reservoir





Kyger Open Space: Soil Classifications

- Regional Active Transportation Corridor
- Trail
- Parcel Boundary

Soil Classification

- Aquepts, loamy
- Caruso clay loam, 0 to 1 percent slope
- Loveland clay loam, 0 to 1 percent slopes
- Table Mountain loam, 0 to 1 percent slopes

- Perennial Stream
- County Boundary

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TOWN OF WINDSOR PARKS, RECREATION & CULTURE

Cultural Resources

Kyger Reservoir sits on the ancestral homelands of the Ndé Kónitsąąíí Gokíyaa (Lipan Apache), hinono'eino' biito'owu' (Arapaho), Núu-agha-tʉvʉ-pʉ (Ute), Tséstho'e (Cheyenne), and Očhéthi Šakówiŋ (Native Land Digital 2025).

The Lipan Apache people experienced confrontation and displacement by Anglo settlers in the early 1800s. By 1880, the tribe had scattered—some of them went to live with tribes in New Mexico and Oklahoma and the U.S. government forced some onto reservations (The Lipan Apache Tribe 2025).

The Arapaho people experienced intense confrontation with White invaders after the discovery of gold near Denver in 1858. Many bands traditionally wintered in the sheltered Denver/Boulder area. A treaty in 1861 attempted to remove the southern branch of the Tribe to a small area along the Arkansas River, but the treaty was never ratified by representatives of the Tribe. As conflict turned violent, a peaceful band of Arapaho and Cheyenne camped along Sand Creek in southeastern Colorado in 1864. They were attacked without warning, despite white flags of truce, and brutally massacred by Colorado militia. The Sand Creek Massacre touched off widespread conflict throughout 1864-1865. Treaties were finally signed in 1867 and 1869 which resulted in the Southern Arapaho moving to west-central Oklahoma, where they remain to this day (The Arapaho Project n.d.)

For the Cheyenne people, the period from 1830 to 1870 was generally characterized by a series of treaties with the U.S. government, punctuated by episodes of warfare. After 1869 Southern Cheyenne bands and families assembled on their assigned reservation in Indian Territory. Fort Reno housed the soldiers who guarded them, and the town of El Reno grew up as a service center for the reservation and the fort (Oklahoma Historical Society n.d.).

Considering that Kyger Reservoir did not contain water until 2013, there are no historical uses of the water body. However, the Poudre River water that supplies Kyger Reservoir has a long history with a variety of native tribes. The Lipan Apache, Arapaho, and Cheyenne people lived along the banks of the Cache la Poudre River for thousands of years.

The Northern Arapaho tribe specifically used the region by the river for clan gatherings, ceremonies, and food gathering more than 100 years before European settlers made their way to the valley (Cache La Poudre River National Heritage Area 2009).

Opportunities:

- Include historical and cultural information on interpretive signage
- Collaborate with the Windsor History Museum on events promoting education on local history including from Indigenous perspectives

A sculpture near the parking lot



Recreation Facilities and Infrastructure

In 2025, new infrastructure opened the reservoir for recreation. Non-motorized paddle craft such as kayaks, bellyboats, paddleboards, and canoes are now allowed on the reservoir. The reservoir can be accessed via a boat slide on the east side of the reservoir. An expanded parking lot with 56 parking spaces, a boat slide for non-motorized boat access, a fixed fishing pier, ramp for a floating pier, porta potty and enclosure, and new kiosks, and art.

A soft surface crusher fine trail loop runs around the entire perimeter of the reservoir and other areas are paved with concrete. The trail is typically 10-12 feet in width except in areas where it is also a maintenance road, where the width increases to more than 15 feet. Paved trail runs along the north, northeast, and east sides of the reservoir and connects to the parking lot. From the southeast corner of the site, trail users can access with the Poudre River Trail one-quarter mile to the south along Colorado Boulevard or one-quarter mile northwest, as well as the No. 2 Ditch Trail that runs to the east along State Highway 392.

A wide gravel trail along the west and south edges of the reservoir offers a natural and slower-paced outdoor experience with opportunities to view birds and wildlife. There is a one-mile loop singletrack experience for hiking, running, and mountain biking that includes several wood bridge crossings.

Signage for Kyger Open Space Nature Trail



Challenges:

- While the official Poudre River Trail will continue to run through River Bluffs Open Space, it's entry point to Kyger Open Space, it is highly likely taking the path around the eastern part of the reservoir will be favored. Mitigating potential conflicts with the users of the Poudre River Trail and users of Kyger Open Space must be considered to avoid accidents between pedestrians and high-speed bicyclists.
- Water fluctuations will limit when the reservoir can be open to the public.
- Limited access from the west side of the property.
- Minimal staffing to manage boat permits and enforce rules/regulations/ticket for violations.
- Identifying when or if boating is having a negative impact on wildlife.

Opportunities:

- Potential demand for rentals but limited storage and no staffing

Visitation

While trail access has long been open to the public, reservoir use was only opened in June 2025. Therefore, there is minimal visitation data for Kyger. Based off the report for permits purchase during the Summer of 2025, 517 permits were sold (including annual, daily, and Kyger Reservoir specific permits). Of the 517 permits, 14 were Kyger Reservoir specific permits.

All non-motorized boats must show the applicable permit when they access the water. Boating regulations are provided in the Implementation Chapter.

Responses to the Kyger Open Space Questionnaire on visitation are summarized below.

Opportunities

- Monitor and work to conduct visitation counts for walkers/bikers, anglers, and non-motorized boats as use increases.

Kyger Open Space Nature Trail



PATTERNS OF USE AT KYGER OPEN SPACE

60% VISIT AT LEAST ONCE PER MONTH

23% VISIT MULTIPLE TIMES PER WEEK

46% VISIT WITH THEIR FAMILY

32% BY THEMSELVES

61% *OF THOSE WHO VISIT WITH OTHERS* VISIT WITH JUST ONE OTHER PERSON

USERS VISIT KYGER OPEN SPACE TO...

76% HIKE, BIKE, OR RUN

50% VIEW WILDLIFE

39% PADDLE (SUP, KAYAK, CANOE)

30% TRAVEL THROUGH ON REGIONAL TRAILS

36% ACCESS REGIONAL TRAILS

25% GO FISHING

Recreation Trends

According to the Outdoor Industry Association's 2024 Outdoor Participation Trends Report, participation in outdoor recreation across the U.S. grew by:

- Approximately 15% across a five-year period between 2018 and 2023
- Approximately 10% between 2020 and 2023
- Approximately 4% across the year-long period between 2022 and 2023

Although the number of U.S. outdoor recreation participants has increased significantly, the number of outdoor outings per participant (i.e., frequency of participation) has fallen significantly. Between 2013 and 2023, the average number of outdoor outings per person decreased by 26.1%. Between 2022 and 2023, number of outdoor outings per person decreased by 11.4%.

According to the 2025–2029 Colorado Statewide Comprehensive Outdoor Recreation Plan (SCORP):

- Colorado's population is projected to number 7.5 million people by 2050, compared to the current population of just over 6 million. 88% of that growth is predicted to occur along the Front Range.
- Colorado experienced a 24.6% growth in outdoor recreation economic compensation between 2022 and 2023, which is a strong indicator that outdoor recreation participation also increased.
- Seven of the top 10 most popular outdoor recreation activities in Colorado are primary activities supported at Windsor. These activities include walking, picnicking, swimming, biking, playground activities, running, and fishing.
- 72% of Coloradans recreate outdoors once a week or more, and 96% engage in outdoor activities annually.

Water-based recreation participation specifically is projected to increase if people in the U.S. continue to react to global warming induced temperature changes the same way they have in the past. In more detail, a study estimating the effects of climate change on outdoor recreation participation in the US found that if the climate warms by 1 degree Celsius, participation in outdoor recreation activities will increase by 88 million trips annually, and by 401 million trips annually if the climate warms by 6 degrees Celsius (Willwerth et al. 2023). These projected increases in trips are largely driven by participation in water sports. In fact, the study found that excluding water-based recreation participation from the forecast model and including only non-water based recreation activities actually projected decreases in future outdoor recreation participation.

In addition to state and national reports on trends, peer community interviews were completed to understand local reservoir/lake-based recreation trends and opportunities for future management. Three departments participated in a 1-hour interview as part of this task: (1) The City of Boulder (Boulder Reservoir), (2) The City of Longmont (Union Reservoir), and (3) The City of Fort Collins (Arapaho Bend Natural Area) (Table 1). An overview of each of the departments' water management units is included in the table to the right, followed by key findings from the interviews, organized by theme. It should be noted that a brief email interview was conducted with the City of Berthoud (Berthoud Reservoir).

The peer interview anecdotal data suggest that future recreation trends might be dependent on local population growth and forthcoming management strategies (e.g., wake policies, permit fees). The statewide and countrywide trends research suggest that visitation to outdoor recreation sites is increasing and is likely to continue to do so in the future. This data could also suggest that there are fewer repeat visitors at recreation sites.

In the peer exchange interview, managers at both Boulder Reservoir (City of Boulder) and at Arapaho Bend Natural Area (City of Fort Collins) noted that there has been a decline in boat use (motorized and non-motorized) on their waters over the last five years. Boulder Reservoir attributed this trend to (1) increasing fees for boat use and (2) visitors having less disposable income. Arapaho Bend Natural Area attributed this trend to "return to normal" conditions following the COVID-19 pandemic boom in paddleboard use.

Union Reservoir, on the other hand, noted that they are experiencing increasing use patterns. They attribute the increasing trend to local population growth in Longmont, and also believe that they are the preferred spot for paddleboarders because of their full-time wakeless boating policy.

Table 1. Peer Community Water Management Units

Department	Body of Water	Size of Water	Primary Recreation Use Types	Fees
City of Boulder	Boulder Reservoir	700 acres	• Motorized and non-motorized boating • Fishing • Rec path use (i.e., walking/ running/biking) • Beaching • Swimming • Dogs prohibited from main shoreline area during the summer season	Park entrance fee + watercraft fee. Only seasonal passes are available. See fee structure here.[4]
City of Longmont	Union Reservoir	736 acres	• Non-motorized boating • Wakeless motorized boating • Fishing • Beaching • Swimming • Playground • (No rec path)	Park entrance fee + watercraft fee. Daily and seasonal pass options available. See fee structure here.
City of Fort Collins	Arapaho Bend Natural Area	Beaver Pond is 36 acres	• Non-motorized boating • Fishing • Rec path use (i.e., walking/ running/biking/dog walking)	Not required

4 Boulder Reservoir is considering lowering their annual motorized permit fees to reduce complaints about high fees, and because the Reservoir capacity and safety procedures allow for it.

Peer Community Challenges and Opportunities

The following challenges and opportunities were generated through the project questionnaire, site visit and stakeholder interviews, and review of existing conditions.

Parking

- Demand for parking at Beaver Pond in Arapaho Bend Natural Area exceeds supply, so people park along the roadside. To improve safety and the visitor experience, managers have blocked off parking on the roadside opposite to the water (to prevent users from crossing the road to access the water) and plan to build a new parking lot.
- Beaver Pond (Arapaho Bend Natural Area) is visible from a main road and has quick and easy access from parking areas to the pond. Managers express that easy access typically makes a body of water a preferable and popular option for paddleboarders.
- The City of Boulder has worked to build ample striped parking to accommodate parking demand, partially in an effort to minimize complaints from surrounding residents.

Water access (e.g., hours, seasons, and locations)

- Boulder Reservoir recently adapted boating hours (that apply to motorized and non-motorized boats) that end an hour earlier before the park's formal closure time. This allows adequate time for boat users to get off the lake and exit the park before the overall park closure.
- Union Reservoir water access is open from March through end of November. While there are not many paddleboarders on the reservoir in October and November, fishing activity is still abundant.
- For summer 2025, Union Reservoir managers are focused on closing access to the reservoir completely when the park is near its parking capacity on busy weekends and holidays. They hope that this preventative management approach improves cleanliness, safety, and the visitor experience.
- Beaver Pond (Arapaho Bend Natural Area) has dozens of informal water access points for paddleboarders. To improve safety and ecological health, and to reduce visitor conflicts, managers expressed the need for reducing and formalizing water access points.

Efforts to reduce motorized and non-motorized boating conflicts

- To reduce user conflicts on the water, the Boulder Reservoir has scheduled no-wake, limited-wake, and full-wake times throughout each day.
- In the future, Boulder Reservoir may ban the use of Class 5 boats[5] because they have negative impacts to other reservoir users, aquatic nuisance species, and cause erosion on the shoreline.
- Union Reservoir has a wakeless policy for motorized boats. This policy reduces the presence of large boats, but increases the number of paddleboarders. On busy weekends and holidays, there can be anywhere between 200-400 paddleboarders on the 736-acre body of water.

Ranger Programs

- Triggers for creating a natural areas ranger program include:
  - Inability to manage recreation use, especially in environmentally sensitive areas (City of Fort Collins).
  - There was a sustained period of rule violations and disruptive behavior by visitors. Due to Boulder Reservoir's remote location relative to the city, response times from police were often delayed and individuals involved in the incidents were gone by the time law enforcement arrived. Additionally, the nature of the reservoir's enforcement needs typically ranked low in priority compared to city-wide public safety concerns. This led to a growing perception among visitors that there were no real consequences for breaking rules, which contributed to a decline in overall compliance and visitor experience (City of Boulder).

- The City of Longmont has had a ranger program for over 30 years, with an emphasis on ranger presence at water recreation sites. The program expanded recently due to public requests for ranger presence in parks, open spaces, and trails for management of issues like dogs off-leash and resource impacts from people experiencing homelessness.

- Strategies, roles, and enforcement techniques include:
  - Rangers are authorized by the police department to respond to violations specific to natural areas, parks, and open spaces. Rangers conduct patrols (rather than operating via dispatches). Ranger operating procedures mirror those of the police department, but with several limitations, such not being armed (City of Fort Collins).
  - Senior rangers carry tasers, pepper spray, and batons, but not firearms (City of Longmont).
  - Two full-time rangers are stationed at Boulder Reservoir, and they have limited law enforcement commissions, allowing them to issue citations and actively enforce rules on-site. However, they prioritize education over enforcement to foster communication and understanding amongst visitors.
  - There is no natural area ranger program in the City of Berthoud. Enforcement is deferred to the Larimer County Sheriffs, CPW, or local code enforcement staff.
- Funding sources include:
  - Personnel and operating costs are funded through ballot-initiated sales tax (City of Fort Collins).
  - In the City of Boulder, the ranger program is primarily funded through the Parks and Recreation department, a subset of which is funded via watercraft permit fees.

Signage and Education

- Arapaho Bend Natural Area managers emphasized that visitors ignore signage. Tabling or enforcement are much more effective for ensuring compliance and safety.
- Boulder Reservoir managers emphasized that despite signage and onsite education efforts, it took about four years for visitors to acknowledge and respect their formalized watercraft access points.
- The City of Berthoud notes that one of the biggest challenges they face at Berthoud Reservoir is fishermen trespassing into the water treatment plant area despite extensive signage.

Operations Structure, Staffing, and Budget

Kyger Open Space's operating budget is a portion of the Open Space Division's annual budget for trail maintenance, vegetation management, mowing, and other costs associated with managing the property around the reservoir. Capital improvements, when needed, are funded from separate sources such as grants . For example, grants have historically included Get Outdoors Colorado and CPW Fishing is Fun grants.

Non-motorized boating permits were only available as of 2025. Revenue from these permits is collected by the Aquatics Division and added to the General Fund budget. With the opening of the reservoir to paddle craft, Aquatics Division staff now monitors for permits compliance. Larimer County has increased patrols to complete trail checks, fishing license checks, answer questions, and give warnings for paddleboards without personal flotation devices (PFDs) or whistles.

Collected permit fees are as follows:

- Kyger Reservoir Only Daily Permit: $10 resident; $15 non-resident
- Kyger Reservoir Only Annual Permit: $40 resident; $55 non-resident
- Windsor Lake and Kyger Reservoir Annual Permit: $70 resident; $85 non-resident

Costs of doing business at Kyger Open Space primarily include staffing to manage the open space and trails around the lake. Additional staff for permit and safety enforcement will be needed as visitation to the property increases.

All municipal parks and recreation departments subsidize the cost of providing services to the public at community facilities like Kyger Open Space. Many communities determine the level of subsidy, or cost recovery, based on the level of importance of the service or program being run. Some communities define a program's importance by the level of benefit to the community versus individuals. Amenities that provide an individualized benefit, such as boat rentals or motorized access, should cover the full cost of that service. Other amenities that provide a large community benefit, such as trails, beach access, or general open space/ park area, typically have a lower percentage of cost recovery.

Participants of the project questionnaire had a mix of responses for fee structure at Kyger Open Space. Most respondents (33%) prefer to keep the same daily rates. Similar numbers of respondents want an annual permit increase by allowing access to both Kyger Reservoir and Windsor Lake (21%) compared to keeping the same annual rates with a permit specific to Kyger Reservoir (24%). Other responses included:

- Keep it free at both properties and/or at Kyger Open Space
- A lower rate for a combined pass
- Offer both a combined pass and lake specific passes at the current rate

Challenges

- Staff, especially seasonal staff, do not have the training or the directive to complete the role of enforcement.
- Issues with paddle board safety – need ranger support to ensure permits, PFDs on each paddle craft, noise making devise, as well as dogs off leash, e-bikes, and wildlife conflicts.
- Needed enforcement/focus on wildlife and natural resource infractions not just the serious infractions.
- Full authority needed to enforce all regulations identified in the municipal code.
- Staffing amounts and/or timing should be adjusted to meet cost recovery goals.

Opportunities

- Need to collect data on violations and use patterns to inform staffing.

Right: Vegetation along the shoreline







VISION & GOALS

VISION AND GOALS

The vision and goals for Kyger Open Space guide the desired future conditions and is the foundation upon which the site is managed. They come from a combination of current site conditions, opportunities and constraints, desired outcomes of management, and community values and needs.

Community Values and Needs

During the community-wide questionnaire, respondents provided their input for what they value most about Kyger Open Space. These values helped guide the development of the vision and goals for Kyger Open Space.

The questionnaire also asked respondents to provide any additional thoughts on resource and recreation management that may not have been covered. Table 2 summarizes the most frequent topics mentioned in answer to this question, with habitat quality (14), connections to nature (11), and additional amenities (11) occurring the most frequently. Note that some commenters spoke about more than one topic.

Why do people visit Kyger Open Space?

COMMUNITY VALUES

KYGER OPEN SPACE RESPONDENTS

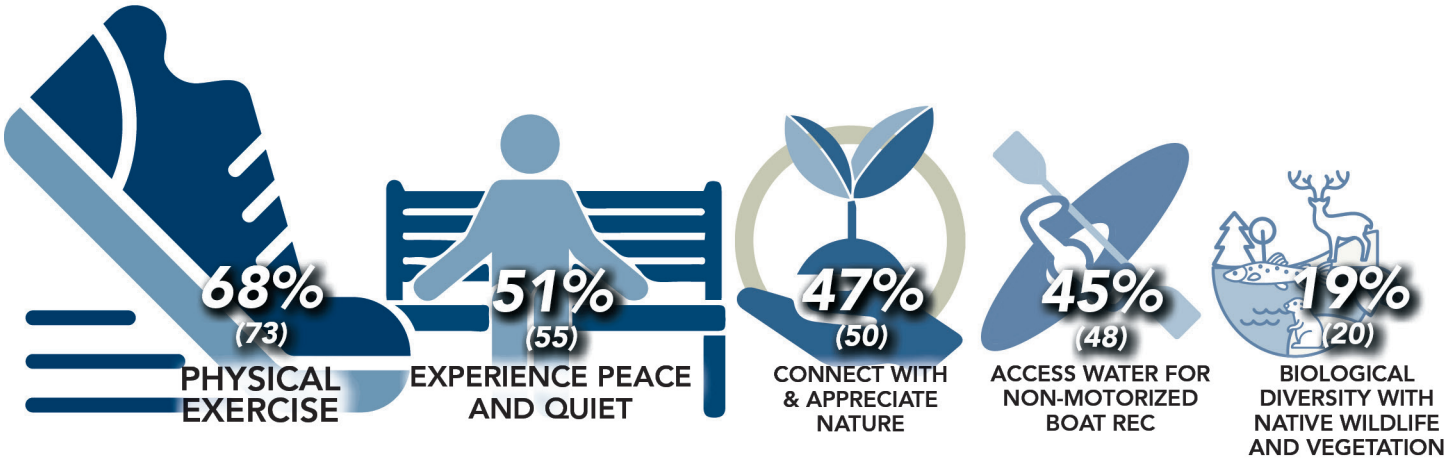

Table 2. Frequent Questionnaire Topics and Example Comments

Summarized Topics	Count	Example Comments
Habitat Quality	14	"Improve wetland and native grassland/sagebrush habitat"
Connections to Nature	11	"Like the quiet and natural, less crowded space"
Additional Amenities	11	Drinking water, permanent restrooms, benches, picnic structures
Shade	8	"A bit more shade in natural (see cottonwoods) variety in logical spots would be nice."
Education	8	"Interpretive signage to provide education about the flora and fauna."
Trails	7	"My favorite place ever for jogging--don't lose the dirt track!"
Fishing	6	"Sign says "Fishing in designated places"; I did not see any signs indicating where those designated spaces are. During the hour I was walking, people were fishing on east and west side, north and south side, tramping through vegetation to get to the spot they wanted."
General Support	6	"This area has been beautifully done and maintained. Thank you!"
Non-motorized Boating	6	"I really like the addition of non-motorized boating (paddle boarding) at the reservoir."
Fees and Permits	5	"A permit should be cheaper than the Windsor Lake as there are fewer amenities."
Scenic Quality	4	"The cell tower in the parking lot is an eyesore. The Town must have some involvement in its placement as it is on town land. Could it be replaced with something that looks like one of those fake pine trees? Or any other ways to make it not so ugly? It detracts greatly from the Area."
Maintenance	4	"I also was concerned to not see any fishing line disposal cans; birds are harmed and sometimes die because of fishing line left in the water, on the ground, in the parking lot, etc."
Water Quality or Quantity	3	"Is there a way to ensure water levels will be maintained? Any considerations to try and minimize impacts of algae blooms?"
Safety and Accessibility	2	"Public safety on and around water"
General Critique	2	"I like the vision. But CURRENTLY, it hasn't fulfilled the vision."

Vision

The following vision ensures that the community's intentions for Kyger Open Space are reflected in the goals and recommendations:

Kyger Open Space will be a treasured natural and recreational sanctuary that balances ecological preservation with meaningful outdoor experiences. This open space will protect critical wildlife habitat, support biodiversity, and maintain the integrity of its water resources, while offering residents and visitors opportunities for low-impact recreation, environmental education, and scenic enjoyment.

Goals

The following goals guide the visitor use management and long-term health of Kyger Open Space.

Visitor Experience

- Provide and preserve a peaceful, nature-based lake environment that supports passive, leisurely, and non-motorized recreation.
- Foster opportunities for visitors to connect with the natural landscape in a serene and sustainable setting.

Surrounding Land Use

- Manage the open space and surrounding areas as a nature-based destination that supports connective habitat and promotes ecological integrity across the landscape.
- Enhance access through connected regional trails that link people and places across the broader landscape.

Access and Circulation

- Provide safe and convenient access that effectively manages use in a way that protects and preserves the area's natural resources for current and future generations.

Education and Interpretation

- Develop and manage recreation experience that promotes passive recreation that is respectful of nature and highlights the natural landscape.
- Implement an education and stewardship program that enhances visitors' understanding and sense of responsibility for protecting the environment.

Natural and Cultural Resource Protection

- Manage recreation in a way that supports wildlife viewing opportunities, protects critical habitat areas, and preserves biodiversity for the long-term health of the ecosystem.
- Maintain water levels for aquatic habitat and visitor use enjoyment.
- Maintain safe water quality for health of wildlife/ecosystem.
- Evolve as a model of sustainable stewardship—connecting people to nature while safeguarding the natural character for future generations.

Partnerships

- Collaboratively manage the open space via ongoing coordination and partnerships.
- Continuously connect with visitors and neighbors to gather feedback that informs adaptive and responsive management strategies.



Right: A gravel path along the Reservoir





MANAGEMENT PLAN

MANAGEMENT PLAN

This section outlines strategic recommendations to direct the future management, development, and preservation of natural resource, and provisioning of appropriate recreation opportunities at Kyger Open Space. Building upon existing conditions, community input, and environmental considerations, the following actions are designed to enhance visitor experiences, support sustainable use, and protect natural and cultural resources. Each recommendation aligns with the overarching vision and goals. The management plan also outlines the funding, staffing, and revenue structure needed to achieve the recommendations. Together, these actions provide a framework for thoughtful implementation and adaptive management.

Regulations

Kyger Open Space incorporates the following regulations pertaining to boating and park use in order to protect the natural resources and enhance visitor safety and experience while visiting.

Below: A group walks along the pier



Boating Regulations

The following 16 regulations are the boating-related regulations for Kyger Open Space:

1. All crafts on the reservoir must have a current Town of Windsor Permit to use the reservoir.
2. No remote-control boats allowed on Kyger Reservoir.
3. All crafts must have Coast Guard approved life jackets for every person on board, and children 12 years of age and younger are required to wear a Coast Guard approved PFD while boating on Kyger Reservoir.
4. Swimming or diving from any watercraft is prohibited.
5. No alcohol or mind-altering substances will be permitted in or around boating activities.
6. Safe boating must be a priority to all users.
7. Boating privileges can be revoked for individuals in violation of rules or regulations or if a staff member deems necessary.
8. No boating of any kind allowed before daylight or after dark.
9. No boating when ice is present.
10. An inspection of your boat by any Parks, Recreation and Culture Department staff member or police may be done at any time during the boating season.
11. Low water levels should be checked before launching vessels.
12. Due to the water fluctuation levels, please watch for debris.
13. When lightning is a 30 second count distance away, it is recommend to get off of the water.
14. This reservoir is used for recreational purposes and agricultural irrigation supply. As in any natural body of water, microorganisms are present, which may cause illness if ingested.
15. Buoys and logs may shift throughout the year, please be vigilant and safe at all times.
16. Windsor Parks and Recreation Areas are smoke and vape free – this includes Kyger Reservoir.

Park Regulations

Park Regulations Park regulations can be found in Windsor's Municipal Code Chapter 10, Article 9 at: https://library.municode.com/co/windsor/codes/charter_and_municipal_code?nodeId=WI_CH10GEOF_ARTIXREAPCOPETONEPATROPSP_S10-9-40PR

General regulations include:

1. Park hours: 5 a.m. to 10 p.m.
2. Glass containers prohibited
3. Smoking and vaping prohibited
4. Portable charcoal grills prohibited
5. Propane-fueled cooking devices are limited to 300 square inches and 16.4-ounce containers
6. Tents prohibited after 6 p.m.
7. Littering prohibited
8. Horses prohibited
9. Golfing prohibited
10. Vehicles prohibited off-road
11. Dogs off-leash are prohibited, unless in designated off-leash areas
12. No pet snakes permitted in parks
13. Clean up after pets
14. Full strength beer and wine permitted in parks.

Operations and Management Recommendations

Over the next 10 years, Windsor staff may implement the following operational and management recommendations to maintain the outlined vision and goals. Recommendations include a variety of policies, capital improvements, initiatives, and guidance. Maintaining the character of Kyger Open Space is important to providing quality outdoor recreational experiences for visitors. Short- and long-term recommendations are identified where applicable to inform adaptive management and provide flexibility as conditions change.

Passive Recreation Management - Recreation Experience and Visitor Use Management

Short Term Recommendations:

Primary allowable uses at Kyger Open Space currently include non-motorized boating, wildlife viewing, hiking, running, biking, and fishing. According to the visitor questionnaire, there is interest and support for each of these activities, which suggests that managers are not mis-allocating resources to make these use types available to the public. These allowable uses are also compatible with Kyger Open Space's primary goals and desired conditions, which focus on providing a tranquil and nature-based environment. Use types that are more socially oriented (e.g., loud and less nature-based), such as beaching, motorized boating, swimming, and picnicking, do not necessarily support Kyger Open Space's desired conditions, and managers should not consider expanding allowable use types to include activities that fall into the same vein as these.

Water Quality Monitoring.

If there is a suspected algal bloom outbreak, test the water and notify the public with signs and digital messaging. Signage and education could be posted to inform visitors that regular monitoring does not occur, no full body contact allowed.

Water Levels for Public Access.

Maintain adequate water levels for recreation access and close recreational access when water levels drop below 4,787 feet amsl. Water levels are maintained at 4,782 feet amsl as the lowest elevation water can be pumped back to the river; however, the water level can drop lower. Shallow areas appear at 4,785 feet amsl creating muddy sand bars, which would create safety concerns if paddle craft were to get stuck. Further, the lowest floating fishing dock can be deployed is 4,787 feet amsl. This means even if recreation access was allowed at lower levels the fishing dock would be closed. Maintaining a minimum water level is also desired for aquatic habitat.

Long-term Recommendations:

To ensure that current allowable uses at Kyger Open Space continue to align with desired conditions and goals, staff should continuously monitor natural resource, crowding, and operational indicators as recommended in the Table 3 in the Implementation section of this report. If they find that certain indicator measurements are exceeding established thresholds, then the continuation of allowable use types potentially influencing these indicator measurements should be re-evaluated.

Public Access and Education

Short-term Recommendations:

Public Access.

There are no notable issues with the current parking lot capacity at Kyger Open Space, and there is no justification for expanding the lot. The newly constructed parking lot was designed to accommodate new reservoir access. Further, many visitors travel through Kyger Open Space as part of a larger trip that connects multiple recreation paths via bike or foot and park at other trailheads or travel from residential areas.

Reservoir Access - Season of Use.

Establish reservoir access season of use with the caveat that the reservoir will not open until water levels are met and may close at varying times as well (see above for additional guidance on water levels). Unless staffing changes, the season of use should be consistent with Windsor Lake, primarily from Memorial Day Weekend through Labor Day.

Education.

Continue to post new and maintain existing signage and manage tabling events yearly. Signage can help properly communicate messages and can establish grounds for officers to enforce posted rules. As mentioned by multiple lake/reservoir management departments in the local front range area that participated in the peer exchange interviews, signage alone isn't always effective. Kyger Open Space staff should consider using volunteers to manage tabling events as a method to educate and minimize unwanted behaviors.

According to the visitor survey, suggestions for signage/tabling topics could include local history, wildlife, and water quality.

Other lake/reservoir management departments in the local front range area that participated in the peer exchange interviews noted that direct enforcement strategies (e.g., ticketing) are much more effective than signage and tabling efforts for education. Both Union Reservoir and Boulder Reservoir, which are notably larger than Kyger Open Space, are overseen by ranger programs to support enforcement efforts.

Because Kyger Open Space supports a relatively low amount of visitor use and is seeking to provide a more tranquil visitor experience, a dedicated ranger program is considered excessive for this area for the time being. Staffing recommendations are provided below.

Long-term Recommendations:

Visitor Parking.

Continuously monitor the number of vehicles at one time in the parking lot, especially during peak hours of the day, to see if the lot starts to reach capacity more consistently, which could serve as justification for expanding the size of the lot. Parking along County Roads adjacent should also be monitored as this creates additional resource and safety hazards.

Public Access.

Preserve existing connectivity links (e.g. with the Poudre River Trail) and complete planned opportunities to better connect the Kyger Open Space Trail with other nearby trails. Many users value the trail connectivity provided by Kyger Open Space.

Below: Regulatory signage



Infrastructure and Facilities

Short Term Recommendations:

Life Jacket Loaner Station.

Create a checkout process for life jackets and seek out a life jacket sponsor to provide and sustain the supply of life jackets. Maintain and expand loaner stations for personal flotation devices. Demand for the current Life Jacket Loaner Station will continue to increase as non-motorized use visitors increases.

Additional seating.

Add benches at various points around the reservoir. Current seating opportunities are limited to the west side of the reservoir.

Fishing line receptacles.

Add fishing line receptacles near fishing piers, in order to limit the amount of fishing line litter.

Paddle Board Cleaning stations.

Install paddle board cleaning stations to educate visitors about cleaning paddleboards between visiting different water bodies.

Additional Signage.

Add signage stating no motorized boats (including trolling motors) are not allowed. Also highlight the connection between boat use and the introduction Aquatic Nuisance Species.

Long Term Recommendations:

Environmental Education Program Shelter.

Construct a shelter dedicated to environmental education programming. As outline in the Kyger Open Space Master Plan, a nature center program shelter could be developed on the eastern side of the lake, to the north of the parking area.

Camouflage Cell Tower.

The cell tower next to the parking area could be improved through fixed structure camouflage best practices. This could include painting the structure in a way that blends in with the surrounding landscape.

Permanent restrooms.

Consider upgrading the existing portable toilets to permanent pit toilets. Consider addng adding water utilities in the future.

Natural Resource Management

Short Term Recommendations:

Historic and Cultural Resource Education.

Include historical and cultural information on interpretive signage and expand programming with partners. Collaborate with the Windsor History Museum and local Indigenous groups on events promoting education on local history including from Indigenous perspectives, such as educational events focused on native knowledge of and practices with natural resources.

Signage.

Ensure signage blends in with the natural landscape and encourages visitors to become conservation stewards.

Control Shoreline Erosion.

Restore wetland and native vegetation around shoreline. More robust vegetation can discourage fishing access in inappropriate locations while also increasing shoreline stability and wildlife habitat. Integrate green infrastructure into the shoreline, such as softscape materials like jute and coir matting.

Restoration Projects.

Implement restoration projects over time related to invasive weed removal, vegetation planting, bank stabilization, habitat creation, and wetland vegetation establishment. Plant native trees to increase shade.

Wildlife Monitoring.

Monitor the natural environment, including plant and animal diversity, including aquatic and vegetative nuisance species. Work with CPW to implement.

Aquatic Nuisance Species.

Add language promoting best practices around aquatic nuisance species (clean, drain, dry) to boating regulations and additional signage at the open space. Non-motorized boaters should be informed of clean, drain, dry practices, as the spread of aquatic nuisance species becomes a statewide concern across all boating types.

Fish Stocking and Habitat Creation.

Coordinate with CPW to investigate fish stocking opportunities. To begin stocking a body of water, the reservoir must comply with fish stocking regulations. Integrate logs and other habitat structures in the lake to provide fish habitat. These structures could also attract waterfowl. Only conduct stocking of fish if appropriate water levels and water temperatures are maintained.

Long Term Recommendations:

Volunteer Program.

Coordinate with local volunteer restoration groups (e.g. Wildlands Restoration Volunteers) to host restoration projects such as invasive weed removal, vegetation planting, bank stabilization, habitat creation, wetland vegetation establishment).

Bird Counts.

Coordinate a bird count program with local birding and bird conservation groups (e.g. Bird Conservancy of the Rockies, Audubon Society, etc.). Other species counts could also serve as an indicator of wildlife health at the Reservoir, through a volunteer program or through citizen science methods e.g. tracking iNaturalist observations.

Restoration Projects.

Implement restoration projects over time related to invasive weed removal, vegetation planting, bank stabilization, habitat creation, and wetland vegetation establishment. Projects should include monitoring plans to ensure project goals are being met in the long term.

Emergency Response Planning

Safety Related Signage. Safety related signage could be placed in key areas to help prevent the need for emergency responses.

Develop an Emergency Action Plan (EAP). Create a written plan that outlines potential situations, determines correct actions, and identifies clear communication protocols for emergencies. Partner with Windsor-Severance Fire Rescue, Larimer County Department of Natural Resources, and Windsor Police Department.

Shade. Additional shade, provided via trees and/or human-made sculpture/style coverings, could improve the safety of the site. Additional shade would protect visitors from harmful UV rays and lower heat-related illnesses like heatstroke and exhaustion.

Larimer County Intergovernmental Agreement (IGA). Update the IGA with Larimer County Department of Natural Resources to recognize changes in management needs with the opening of the reservoir to water recreation. Clarify roles, responsibilities, season of use, and funding structure, as well as triggers for updates if Windsor staffing situation should change.

Programming

Short Term Recommendations:

Interpretive programs. Continue to work with PRC staff to provide environmental education and interpretation programs (e.g. nature walks, night sky talks, etc.) on a regular basis for school groups, summer camps, organizations, and other interested members of the public.

Junior ranger nature-based program. A Junior Ranger program could be established to engage young visitors in stewardship practices.

Volunteer opportunities. Continue to expand volunteer opportunities on a consistent basis throughout the year. These volunteer opportunities could include restoration projects like invasive weed removal, vegetation planting, bank stabilization, habitat creation, and wetland vegetation establishment.

Staffing Recommendations

Per the Open Space and Trails Strategic Plan, it was recommended that staffing should increase consistent with acres of managed open space and miles of regional trail corridors (including maintenance operations technicians, environmental education, outreach, planners, and seasonal crews). While Kyger Open Space is not a new property acquisition, opening the reservoir to water recreation creates new challenges and staffing needs.

Short-term recommendations:

Seasonal Boat Ramp Staff. Until filled by a ranger role, add additional Aquatics staff to manage permitted uses.

Volunteer/Partnership Coordinator. Hire part-time Volunteer/Partnership Coordinator for the PRC Department to focus on water recreation safety and natural resources/wildlife education.

Long Term Recommendations:

Additional staff will be needed if agreements change, new facilities are provided, parking continually exceeds capacity, or visitor use conflicts occur.

Ranger program. Develop a PRC Department ranger program that patrols all open spaces, trailheads, trails and also monitors and manages visitor use and resource protection. Provide more ranger patrols in high-use areas, during high-use periods to assist Aquatics staff, check permits when no Aquatics staff on duty, and in areas with special resource protection needs. Enable rangers, through Town regulation and peace officer certification, to provide education, warnings, citations, and arrests while patrolling. A dedicated PRC Department Ranger Program would provide a proactive and visible presence to protect natural resources, enhance visitor experiences, and ensure sustainable management, including completing basic maintenance activities. See Table 3 for types of rangers, their training, and typical duties.

- The ranger program should provide full time coverage during the boating season and part time coverage in the off season across all parks and open spaces.

Funding and Revenue Structure Recommendations

The resources required to implement this Strategy should be considered, along with the parties responsible for implementation and the effectiveness of each recommendation. Providing high quality outdoor recreation experiences attracts recreational demand and visitor use, which may necessitate the expenditure of additional funding associated with additional staffing. Dedicating resources that can be used for enforcement and education will help support the Kyger Open Space's vision and goals.

Short Term Recommendations:

Open spaces typically do not have specific cost recovery goals given that activities like hiking and biking visitation do not require a fee and they provide broad community benefits to a large number of people. As the first year with non-motorized permits being sold for Kyger Reservoir, individual revenue was not collected at the property level.

Increase Boat Permit Rates.

Increase non-motorized annual permits to $65-75 for residents and $75-85 for non-residents to cover both Windsor Lake and Kyger Open Space.

Value of an Open Space Ranger:

- Keeps law enforcement officers focused on high priority town-wide safety concerns: Response times from police were often delayed in responding to calls at open spaces and nature of the reservoir's enforcement needs typically ranked low in priority compared to city-wide public safety concerns. Reduces a perception among visitors that there were no real consequences for breaking rules, which contribute to a decline in overall compliance and visitor experience.
- Enforce local and state regulations: Commissioned rangers are often able to cite Title 33 (State of Colorado wildlife and parks statutes) which are highly relevant to the Town. Should County or Town personnel write these citations, the penalty assessment for the citations are returned to the local municipality/county as opposed to the state. Violations with points (wildlife) can be submitted by the local personnel to CPW, and suspension/point enforcement will still be applied.
- Prevents costly resource damage: Unchecked off-trail use, illegal dumping, and habitat destruction can require costly restoration projects. Rangers can deter and address these activities before they escalate. Early detection of invasive species or erosion issues prevents remediation expenses that can grow exponentially if left unmanaged.
- Prevents costly infrastructure damage: Regular ranger patrols prevent vandalism, ensure timely repairs, and extend asset life. With growing recreation demand, unmanaged use risks long-term environmental damage and reduced visitor satisfaction.
- Supports enforcement of open space values regulations: Rangers can act as ambassadors, fostering positive relationships with community groups, volunteers, and partner organizations to inform the public of the value of the natural resources for which these areas were preserved. Presence supports enforcement of permits, seasonal closures, and management plans, improving compliance with minimal conflict.

Table 3. Comparison of Types of Rangers

Type of Enforcement	Duties	Training
Non-commissioned Ranger	• Check boat permits • Basic maintenance activities • Community interaction • Write notices of infraction	• Ranger Excellence School (recommended, not required) • Natural Resource Background (recommended, not required)
Partially commissioned Ranger	• Check boat permits and boat inspections (ANS) • Basic maintenance activities • Community interaction (patrol) • Enforce local regulations (municipal code) • Emergency response • Wears body camera (recommended)	• Commissioned as a code officer by Police Department • Ranger Excellence School (recommended, not required) • Natural Resource Background (recommended, not required)
Fully Commissioned Ranger (officially a police officer)	• Check boat permits and boat inspections (ANS) • Community interaction (patrol) • Enforce local and state regulations, including drug and alcohol infractions • Use of force, carry a firearms, arrest and detention • Emergency response • Wears body cameras (state requirement)	• Peace Officer Standards and Training (POST) Certified • Ranger Excellence School (recommended, not required) • Natural Resource Background (recommended, not required)





IMPLEMENTATION

IMPLEMENTATION

To meet the identified Vision and Goals, implementation of this Strategy will require annual review of monitoring indicators and establishing an adaptive management plan to adjust to evolving management issues.

Monitoring Indicators

This section of the report includes a list of recommended indicators for monitoring at Kyger Open Space. The indicators reported in this section can be used to define specific and easily measurable conditions that can be monitored in order to infer conditions in relation to the reservoir's natural resources, crowding, and operations. All indicators should be attached to corresponding thresholds, which define the minimum acceptable condition for each indicator. It is the responsibility and privilege of staff to identify thresholds that align with their vision and goals. Since Kyger Open Space is a relatively new area for water-based recreation and there is not a lot of existing data for which to use as a basis for developing thresholds, Kyger staff should begin monitoring selected indicators as soon as possible.

The process of selecting indicators and corresponding thresholds for monitoring supports an adaptive management approach, where targeted management actions at Kyger Open Space can be made in response to the results of indicators monitoring.

A workshop was conducted with park staff in July 2025 to identify potential indicators to include in the park's Strategy. Potential indicators that were discussed during this workshop, and indicators recommended by the project team, are included in the Table 4.

Table 4. Recommended indicators for conditions monitoring at Kyger Open Space

Indicator Type	Recommended Indicator	Rationale
Natural Resources	Days below desired water level	Water level is an important indicator for enjoyment of recreational users as well as the health of the fishery. While fluctuations are expected, the reservoir will close when water levels are too low during boating season.
	Number of informal paddleboard put-ins	The number of informal paddleboard put-ins can be used to quantify the severity of visitor-caused damage to and trampling of shoreline vegetation and soil resources surrounding Kyger Reservoir, which can have negative impacts on both water quality and wildlife habitats.
	Number of fish	The number of fish in Kyger Reservoir could be a reliable indicator of water quality, as fish are sensitive to shifts in temperature, pH, dissolved oxygen levels, the presence of pollutants, and food resources. For that reason, changes in fish abundance could signal a change in water quality that should be further analyzed. It should be noted that this type of data monitoring could be feasibly collected in partnership with CPW.
	Number of different types of bird species observed	The number of bird species is an important indicator for natural resource monitoring because different species play different roles within environments, (e.g., pest control, pollination, seed dispersal, and nutrient cycling). Furthermore, birds are highly sensitive to environmental changes, and their species' presence or population fluctuations can signal changes in availability of resources like food, water, and habitats. It should be noted that birds are relatively easy to observe and identify, so monitoring efforts and/or resources would be low.

Indicator Type	Recommended Indicator	Rationale
Crowding	Hourly VAOT in the parking lot	The hourly number of vehicles-at-one-time (VAOT) in the Kyger Open Space parking lot can be used as indicator of transportation and access quality. Instances in which parking lot capacities are exceeded can be indicative of vehicle congestion, negative visitor experiences, and concerns for impacts to safety conditions, natural resources, and the surrounding neighborhood.
	Number of non-motorized boats on the reservoir at-one-time	Monitoring non-motorized boats-at-one-time provides a reasonable basis upon which both safety and the quality of visitors' experiences on the reservoir can be inferred.
	Number of people encounters on trails	Crowding on trails can adversely affect the visitor experience, so monitoring the number of people encounters per circuit of the Kyger Open Space Trail could help infer the quality of visitors' experiences on the rec path.
Operations	Number of reported violations	A high number of reported violations typically correlates to increased visitor risk and potential for incidents or accidents. As such, a high number of reported violations could signal the need for improved education and enforcement strategies.
	Monitor resource damage and user conflicts	A high number of incidents impacting natural resources, such as off-trail use, illegal dumping, wildlife harassment, and habitat destruction can negatively impact the visitor use experiences and values for which the property was conserved.



Adaptive Management

Immediate actions, recommendations, and policies will be initiated to ensure the vision and goals are met and address current health and safety concerns. However, not all recommendations need to be implemented in the short term. Long-term recommendations are also listed in the section above. These long-term recommendations may only need to be implemented if desired conditions are not met in the future, conditions change, or community sentiment changes. This is called adaptive management.

A brief annual indicator report will be produced to track key monitoring indicators. Alternatively, a dashboard could be set up on the website, providing quick access to information and links to other online data. Annual indicator reports should be designed to evaluate and document trends to make informed management decisions. These annual snapshots should be summarized and presented to other technical working groups and public forums.

If monitoring indicators in the Strategy exceed the desired threshold for multiple years, additional strategies may be implemented. Based on the indicator report, the Aquatics and Open Space and Trails Divisions will work together to identify a work plan to be submitted with the Town budget every year. The work plan may include staffing, funding, or management changes to be implemented to meet the monitoring indicators. As various actions or changes in management are completed and/or new best practices, technology, and information become available, the work plan may include adaptive management actions that are not listed.

When and How to Update this Strategy

This Strategy will be living, allowing it to adapt to changes. Annual monitoring enables the ability to react quickly. While additional or more stringent actions may not be the most desired outcome, they may be necessary for progress toward the desired result. Regular review and updates will allow the addition of current data, removal or additional monitoring, and the incorporation of completed actions. The Strategy should be updated if and when:

- There are significant changes to staffing structures
- There are significant changes to funding structures
- Adaptive management requires new strategies and/or monitoring indicators
- Changes in use are implemented

Even if there are no significant changes and monitoring indicators are met, the Strategy should be updated at least every ten years. A more extensive public process should ensure the Strategy always meets the community wide vision for Kyger Open Space. Regular, informed, and focused updates to the Strategy will allow the community to affirm its values and identify new implementation strategies. The ten-year update should be a community effort built on the lessons learned through the annual indicator reports.

Below: A panorama across Kyger Reservoir




Reservoir
Y IT SAFE
THESE RULES & GUIDELINES
KETS REQUIRED
ust have a Coast Guard approved life jacket of
ze, and fit for everyone on board.
ars and younger must wear a Coast Guard approved
oper types, size and fit at all times.
RODUCING DEVICE
ust have a sound producing device (whistle or
ard.
ating only.
uipment; such as Drones, RC Cars, Boats etc. are
Kyger Reservoir.
ermitted.
n-motorized watercraft is available from sunrise to
no ice is present.
in designated areas only. State issued fishing
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REFERENCES

REFERENCES

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