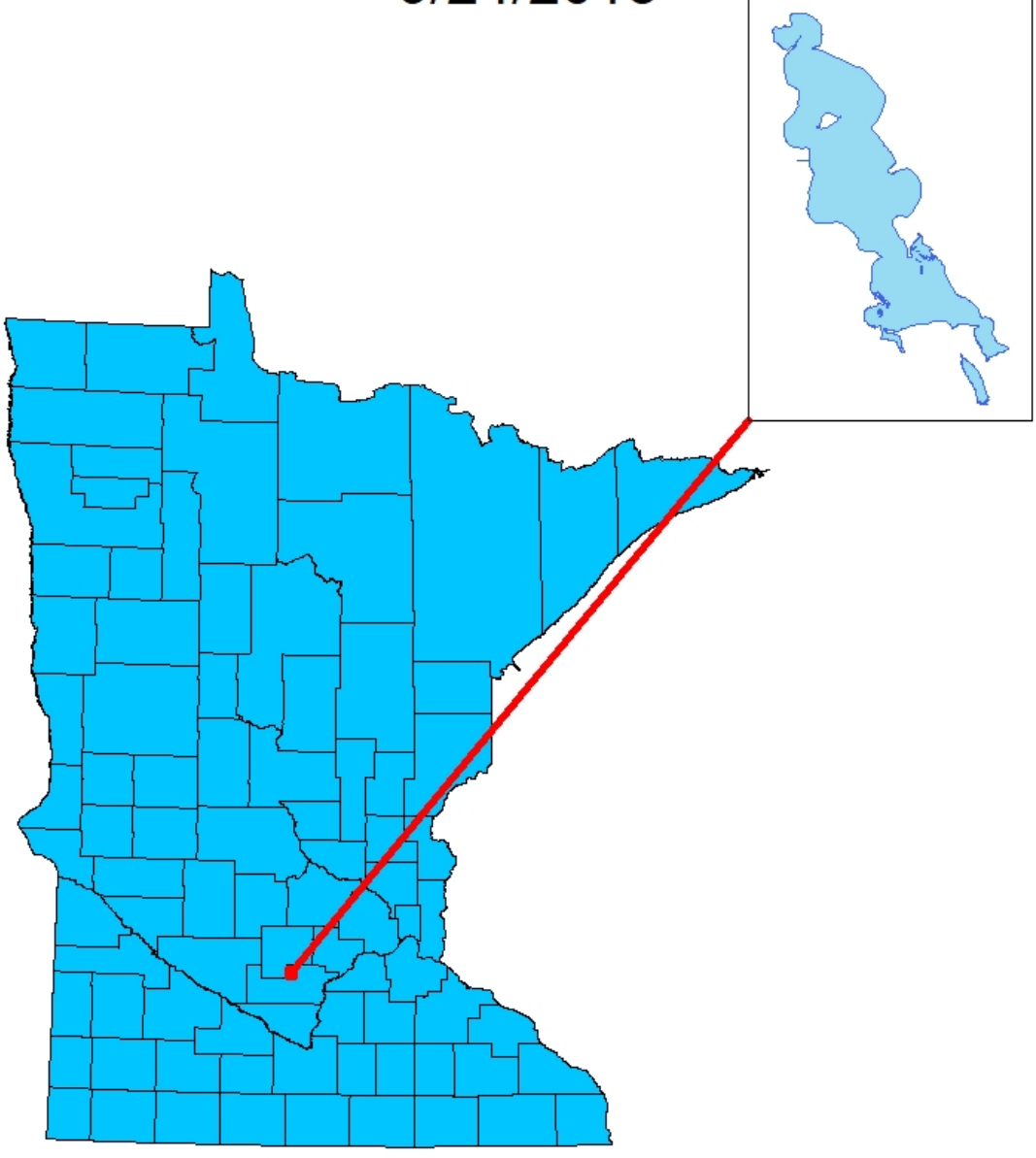
DEPARTMENT OF NATURAL RESOURCES

Minnesota DNR Management Plan
High Island Lake - Sibley County
New Auburn Township
9/24/2018



Minnesota DNR Cooperative Shallow Lake Management Plan for High Island Lake

September 28, 2018

High Island Lake (DOW #72005000)

High Island Lake is located in New Auburn Township in Sibley County, Minnesota near the town of New Auburn. High Island Lake lies within the Minnesota River (major) and High Island Creek (minor) watershed.

- Lake Size: 1,634 acres
- Shoreline: High Island Lake contains 17 miles of shoreline. Most of the shoreline borders agricultural crop fields or pasture and some is developed and has single family homes. The town of New Auburn borders the lake on the west shore.
- Access: There is one state-owned public water access present on High Island Lake. The access is located on the northwest shore in the town of New Auburn, north of the High Island Conservation Club Park.
- Watershed:
    - Watershed size: 13 square miles (8,320 acres) (USGS StreamStats) (Figure 3)
    - Watershed to lake ratio: ~5:1; backflow conditions increases watershed to lake ratio to 47:1
    - Inlets: High Island Lake Creek, located east of High Island Lake, flows southwest and enters the west side of the south most bay. An unnamed stream flows westerly and enters the west side of the north most bay.
    - Land use in the vicinity is primarily agricultural with row crops dominating. There is some pasture land as well as residential development surrounding the lake.
- Depth: At normal water levels, average depth is approximately 5.5 feet and maximum depth is about 8.3 feet.
- Outlet: There is a variable-crest water control structure located on an unnamed stream downstream of High Island Lake on an outlet on the west side of the southwest bay. This water control structure was constructed in 1941; a supplemental temporary drawdown outlet structure was installed in 2010. The supplemental structure is a 24 inch dual wall culvert including a stop log structure with a 31 inch weir. Water from High Island Lake flows into High Island Creek which flows southeast into the Minnesota River. When stage in High Island Creek exceeds the lake level, the creek will overtop the structure and backflow into High Island Lake.
- The runout elevation for High Island Lake is 992.54 ft.
- The Ordinary High Water Level for High Island Lake is 993.5 ft, NGVD 1929 datum.
- Water level readings: see graph below.

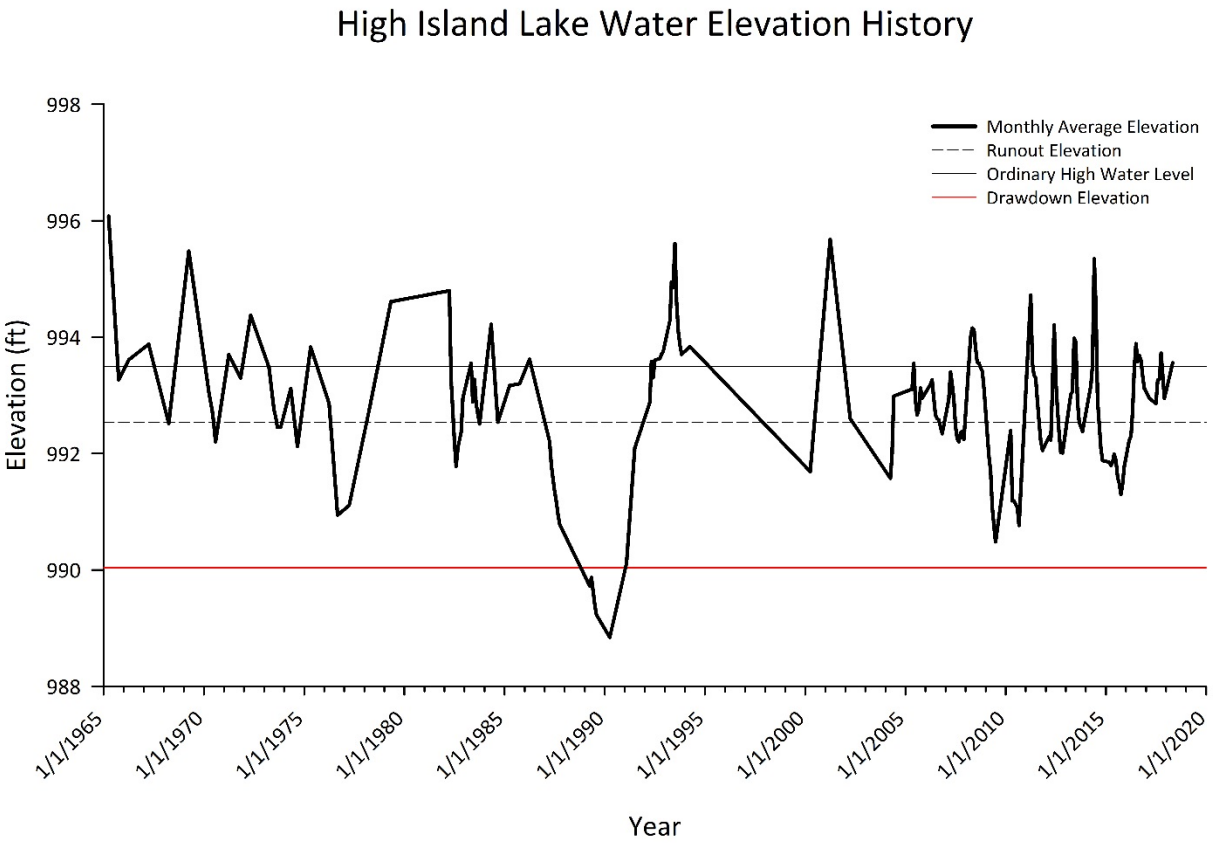


Figure 1. High Island Lake water level readings. Drawdown elevation is noted in red. The sill of the current outlet (assuming no stoplogs in place) is noted in the dashed line.

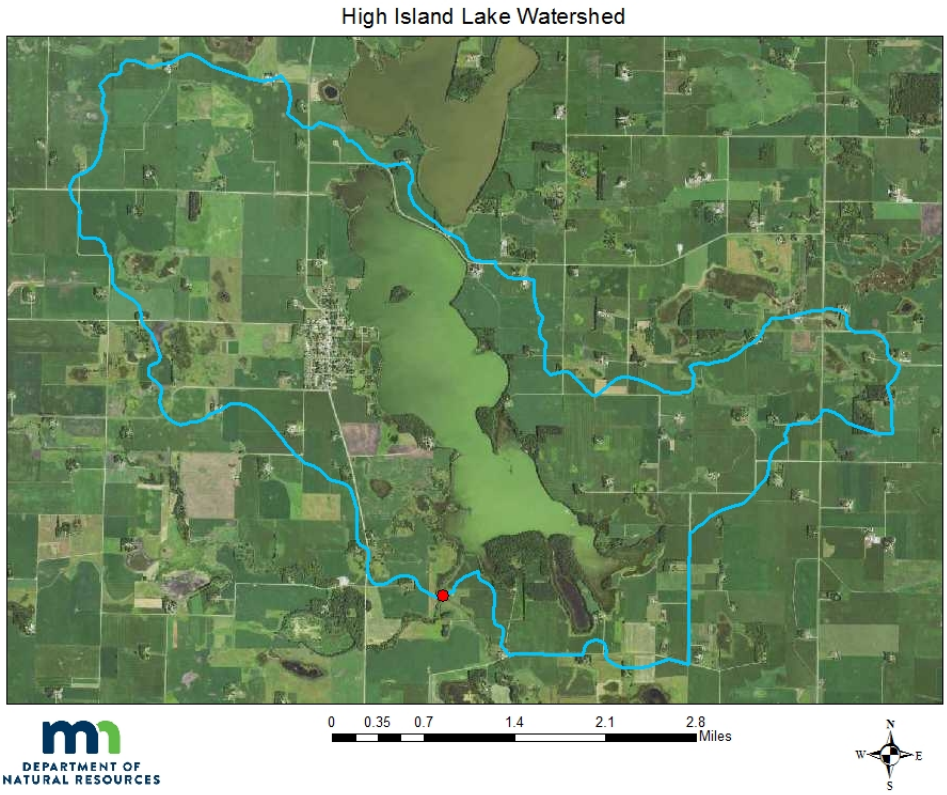


Figure 2. High Island Lake proper and minor watershed. Water level dam and stoplog structure noted by the red dot.

Water Quality

A watershed assessment done by Minnesota Pollution Control Agency (MPCA) in 2017 found that High Island Lake had phosphorus levels as high as 380 ug/L which would be 3 to 4 times higher than acceptable MPCA levels (daily recorded values available by request from MPCA). Throughout the assessment nutrients rarely came close to falling below the impairment threshold and High Island Lake is currently considered impaired by the MPCA.

High Island Lake is located within the Western Corn Belt Plains of Minnesota. Impairment thresholds for nutrients in this area are set at Total Phosphorous >90 ug/L, Chlorophyll a >30 ug/L and water transparency <2.3 feet. High Island Lake currently does not meet these standards.

Fish and Wildlife Habitat

High Island Lake lies within the Northern Tall-grass Prairie Ecoregion. Other shallow lakes in the watershed include Round Grove Lake to the west, and Silver Lake to the southeast. There are several State Wildlife Management Areas (WMAs) and Waterfowl Production Areas (WPAs) in the vicinity as well. High Island and Hahn Lake WPAs are located west of High Island Lake. Proehl's Woods and Severance Lake WMAs are located east of High Island Lake and Bob Gehlen

WMA is located northwest of High Island Lake. Historically, High Island Lake would have the potential to provide quality habitat for migrating and brood rearing waterfowl.

Currently, water quality and habitat conditions on High Island Lake are exceptionally poor. This degraded state is due to sustained high water levels, undesirable fish and lack of aquatic vegetation. (See recent lake surveys).

A 2002 DNR wildlife survey found limited waterfowl habitat. Sago pondweed, a preferred food for waterfowl was found at only 22% of sample stations.

Flooding in June of 2014 washed out a dam on High Island Creek near Arlington that was installed by MN DNR Fisheries on private property (Sibley County, T113N, R26W, S19) in June 1958 to control the movement of common carp. Sampling above and below the dam in 2009 showed common carp on both sides, although the dam was working as a barrier to native fish passage. Federal Emergency Management Agency funding was used to restore the dam site to a natural channel design in 2015.

In the past the response of emergent plants to low water conditions has been limited. In a review of historical photographs comparing current conditions to those shortly after the drought conditions of the late 1980's, cattails did not expand greatly during the drought despite the low water levels in the lake

As indicated above, trends in water clarity and the presence/absence of submersed aquatic vegetation can directly influence all fish and wildlife species. When the lake is turbid and algae growths dominate the plant community, the diversity of wildlife declines and most use is limited to a few species of piscivorous birds. When rooted aquatic plants are common, wildlife diversity increases to include a variety of waterfowl, coots, other waterbirds, and aquatic furbearers.

Fish Summary

From 1927 to 1969, a variety of fish species including bass, crappie, sunfish, yellow perch, and northern pike at various life stages were introduced by the DNR to provide angling opportunities.

A fall netting survey was conducted October 21-23, 1980. One gill net and five trap nets were set for two days. The single gill net sampled one (1) green sunfish, 12 black bullhead, one (1) yellow perch, and seven (7) white sucker. Five trap nets sampled ten (10) black bullhead and three (3) white sucker.

A spring trap net survey was conducted in May 2002. A total of 2,213 fish were sampled in eight (8) trap nets. Composition of species sampled included white sucker (72%), black bullhead (25%), creek chub (2%), green sunfish (1%), and central mudminnow (<1%). Smaller fish species such as minnows and shiners are generally small enough to swim through the ¾ inch trap net

meshes. Minnow traps, used by bait dealers, were observed with small numbers of fathead minnows and crayfish.

Since 2010, MN DNR Fisheries has used High Island Lake as a "boom and bust" walleye rearing pond and fishery. MN DNR Fisheries is interested in removal of young-of-year fall fingerlings and yearlings to meet local and statewide walleye stocking quotas. Carryover fish, age 2 and older, are popular with anglers. High Island was first stocked with walleye fry as a rearing pond in 2011, producing 4,641 pounds of yearlings in 2012 before benthivorous and planktivorous fish abundance increased. A strong winter in 2013-2014 produced a winterkill that re-opened a niche for walleye and the 2014 fry stocking produced 844 pounds of fingerlings in 2014 and 4,370 pounds of yearlings in 2015. By 2016, benthivorous and planktivorous fish were again abundant, but MN DNR crews were able to remove 2,331 pounds of fingerlings before the lake was largely inoperable from bycatch in 2017. Benthivorous and planktivorous fish observed in High Island in 2016 and 2017 include white sucker, black bullhead, shorthead redhorse, common carp, and gizzard shad. Other fish species observed in 2016 and 2017 include shortnose gar, yellow perch, black crappie, bluegill, northern pike, and green sunfish.

A subset of Inland Commercial Fish Removal reports, from October 2002 to October 2003, indicated in addition to abundant black bullhead and white sucker, that crappie, bluegill, pumpkinseed, and green sunfish were also present in low numbers. Historical commercial fish removal records indicate small quantities of carp were removed from High Island Lake as recently as 2000 (15 pounds), 1995 (15 pounds), and 1994 (10 pounds). Larger quantities of carp were removed prior to 1994 including but not limited to 1,705 pounds in 1993, 2,310 pounds in 1992, and 342,000 pounds in 1969. Buffalo were also removed from the High Island Lake/Creek system from 1952 to 1960.

Low dissolved oxygen levels over winter prompted Fisheries to open High Island Lake for "promiscuous" or unlimited fishing approximately 28 times over 67 years (1947 to 2014). Winterkill frequency and severity was not documented though High Island Lake was frequently opened for unlimited fishing. The most recent low dissolved oxygen reading was 1.0 ppm in February of 2014; readings in 2015, 2016, 2017, and 2018 have all been high enough to support tolerance levels of the fish community for that respective year.

Considering High Island Lake's size and average depth, average winter ice thickness, and history of low dissolved oxygen levels, it is not a candidate for aeration. Aeration could conceivably enhance over-winter survival of bullheads, fathead minnows, and central mudminnows to the detriment of other species.

As previously noted, management of High Island Lake has been limited to periodic fish stocking and commercial removal of undesirable fish species in the past. The Civilian Conservation Corp installed a dam with stop logs in 1938. The location of the dam is noted in Figure 2. However, water levels have not been manipulated since 2010. Water level manipulation occurring between 1938 and 2010 is unknown.

A compilation of past and present fish and wildlife data indicate that High Island Lake is in the "turbid water condition" in shallow lake ecology terms. The turbid water condition characterized by high algal concentrations, poor water clarity and limited submerged aquatic vegetation. These conditions limit fish and wildlife abundance due to the lack of suitable habitat. Shallow lakes with good fish and wildlife habitat have clear water, abundant submerged vegetation and abundant invertebrates. In addition, experience and research from Minnesota and elsewhere has shown that shallow lakes can be managed to improve lakes from a turbid water condition to a clear water condition.

Wildlife Summary

In addition to providing critical migratory and breeding habitat for waterfowl and other waterbirds, quality shallow lakes are important habitats for furbearers, including: muskrat, mink, beaver, and otter. They are also important for non-game wildlife, including several rare and threatened species. According to the DNR, at least 20 species of greatest conservation need use shallow lake habitats.

Unfortunately, wildlife use has diminished substantially on High Island Lake over the years due to turbid water and lack of aquatic vegetation. As suggested above wildlife and waterfowl use fluctuates with the presence/absence of submersed aquatic vegetation.

Aquatic Vegetation

Lack of plants is indicative of an unhealthy, turbid water condition in a shallow lake. A shallow lake without aquatic vegetation typically has few invertebrates and contains poor wildlife habitat and is generally compromised of tolerant fish species that further perpetuates poor water quality and marginal lake habitat.

Aquatic vegetation is crucial to a shallow lake ecosystem for several reasons:

1. Plants help maintain a clear water state by stabilizing the bottom sediments in a basin and reducing the impact of wind action, thus increasing water clarity and thereby improving the probability of aquatic vegetation germination which in turn should lower turbidity.
2. Aquatic plants further serve to maintain a clear water state through uptake of nutrients from the water column and thereby removing nutrients that would otherwise be available for algal production;
3. Waterfowl and other wildlife utilize submerged aquatic plants as a direct food source. In addition, this vegetation provides habitat for invertebrates that are an important protein source for waterfowl;
4. Invertebrates found in aquatic vegetation are grazers of excess algae, which aids in improving water clarity by reducing phosphorus;
5. Emergent vegetation, such as bulrush, reduce resuspension of sediment by wave and wake action, protect shorelines, and provide breeding and nesting cover for waterfowl and other fish and wildlife. Many non-game species of birds also nest in dense stands of emergent vegetation and are dependent on them for food and cover;

6. Presence of aquatic vegetation will improve fish and wildlife habitat.

Management Goals and Objectives

Goal: Improve water quality and clarity in High Island Lake by reducing undesirable fish populations and stimulating the growth of submersed aquatic vegetation.

Specific Objectives to Achieve Goal

Objective 1: Restructure the fish community through use of lake level drawdown.
Objective 2: Continue current water quality monitoring program utilizing local citizens to collect data.
Objective 3: Increase utilization of conservation best management practices and programs and reduce nutrient loading.
Objective 4: Increase the abundance of submerged aquatic vegetation to improve water clarity and lake habitat conditions.
Objective 5: Utilize the lake as a walleye-rearing pond and harvest fall fingerlings and yearlings for stocking other waters.
Objective 6: Allow an opportunistic boom and bust fishery of carry-over walleyes. With this style of management, aeration will not be permitted.

Proposed Management Actions to Achieve Objectives

Action 1: Hold legal authority, per Minnesota Statutes 103G.408, for temporary drawdown and water level management to improve water quality.
Minnesota statutes and rules provide options for public processes to facilitate the use of temporary drawdowns to improve water quality and aquatic habitats for lakes. Minnesota Statute 103G.408 allows drawdowns to improve water quality and aquatic habitat when the public water is a shallow lake to be managed for fish, wildlife, or ecological purposes by the Commissioner of the Department of Natural Resources after giving notice and holding a public hearing. Other public entities may also obtain legal authority for temporary drawdowns if they also gain permissions from at least 75% of the riparian landowners. Management and permitting will be based on an approved, comprehensive management plan.

Action 2: Conduct a major drawdown to approximately 990.3 (NGVD 1929) (sill elevation of current structure), removing about 2.25 feet of surface waters.
The drawdown could be completed in several different scenarios by DNR Fisheries with assistance from Wildlife staff. Upon starting drawdown, DNR staff will measure water levels on a monthly basis until the target water elevation is met, whereafter monitoring will shift to being triggered by a precipitation event (required operation in compliance with M.R. 6115.0221 subp. 3). The start date, duration (how long levels are kept low), and extent (to what level) of the drawdown can all be manipulated to produce varying results.
*Growing season drawdown is necessary to produce increased vegetation for improved water quality and habitat.
* Winter season drawdown is necessary to achieve the best fish kill possible. Water levels would be held low throughout the winter when dissolved oxygen levels are typically low.

Drawdowns followed by fish stocking have worked very well for both a shift in water quality and a start of a desirable fish community. Habitats and water quality is improved and competing fish communities are reduced. This serves as a perfect set-up for stocking. Stocked fish can also create conditions for additional improvements to the water quality. Precipitation and flows in High Island Creek obviously will affect the success or failure of a drawdown. Water backing up from High Island Creek will preclude drawdown. During times of high runoff or heavy precipitation, backflow conditions increase the watershed to lake ratio to 47:1 and a drawdown would become impractical.

A drawdown will be initiated in fall and maintained through the winter in order to encourage a fish kill. If a kill appears imminent, spring runoff (snow melt) would be captured in early spring to facilitate refilling of the basin. If a kill does not occur following the first winter, drawdown conditions would be held through the open water period and the following winter to give a better chance at a kill and to stimulate aquatic plant growth. A drawdown during the growing season is necessary for most emergent plants to germinate from seed. Water will not be continuously drawn down longer than two winters. The drawdown will be managed to be sensitive to downstream water levels and flows. The timing and duration of the drawdown will be considered to provide optimum opportunities for displaced wildlife to find new homes.

It must be emphasized that under any drawdown scenario, returning water levels to "normal" depends on precipitation. A watershed to lake ratio of 6:1 is generally considered adequate to allow the lake to refill with normal precipitation. The outlet will be managed to protect new growth of aquatic vegetation while expediting refilling to the degree practical when the plan targets a return to normal water levels. However, some years can produce virtually no run off. The lake could remain low for an additional summer season during drought conditions. Conversely, an effective drawdown could be jeopardized with above normal precipitation and flooding. Management will be adjusted for environmental conditions. Additional low water may actually benefit water quality and vegetation. However, fish stocking may be required in back-to-back years. Certainly, permits to control nuisance vegetation will be viewed in light of the condition of the whole basin. Public acceptance of the long-term goal is vital (consolidating sediment, stimulating aquatic plant growth, improving water clarity, and increasing aquatic invertebrate and walleye production). Having lower water levels in the lake following drawdown is an important social concern.

Action 3: Stock walleye fry in the first spring following a significant winterkill.

The lake will be stocked with fry and used as rearing pond after a significant fish kill, hopefully induced by drawdown during 2018-2019. Assuming there will be periods with consecutive years of carryover through summer and winter without winterkill, an opportunistic walleye fishery may be provided. The primary fish management objective is to maintain a simple fish community with limited number of species present. The fish community should ideally be comprised of a highly abundant top-level predator (walleye) and with a very low abundance of fishes that feed on zooplankton and other invertebrates. Abundant small walleye are likely to feed on small fishes (e.g., fathead minnows) that feed on zooplankton. Zooplankton help

sustain water clarity by grazing on algae. This management approach requires relatively frequent winterkill events to help suppress benthivorous fishes that help create turbid water conditions by rooting in the substrates. Benthivorous fish like common carp and black bullhead can dominate a fish community over time.

Action 4: Collaborate on programs and work in the watershed to reduce nutrient loading.
A reduction in nutrient loading in addition to aforementioned in-lake management strategies (i.e. lake drawdown, significant winterkill, and walleye rearing pond management) will provide long-term cumulative benefits in a shorter time frame. A reduction in external nutrient loading must include, but may not be limited to, correcting and properly maintaining septic systems, increasing filtration and adsorption of nutrients in the watershed by restoring wetlands and floodplain connectivity, developing and implementing a storm water management plan for New Auburn, and employing conservation beneficial management practices (BMPs, e.g. conservation tillage, crop residues, and buried tile intakes) and programs (e.g. Conservation Reserve Program, Permanent Wetland Preserve, and Reinvest in Minnesota) in the watershed. The High Island Creek Watershed Implementation Project is working on encouraging residents to adopt best management practices with the help of existing programs. These programs are voluntary. Increasing the use of BMPs in the watershed will improve the water quality of the runoff entering High Island Lake and are an important aspect in the overall strategy to improve water quality in High Island Lake

Action 5: **Conduct additional temporary drawdowns as needed to maintain water quality and aquatic habitats**
Nature is not static, invariably, the system will become perturbed and drawdown/restocking will need to be repeated. Several ecological and other factors cause nutrient rich shallow lakes to shift to more turbid conditions. Additional water management will be needed to maintain improved water quality and habitat conditions. A managed lake drawdown is the temporary lowering of lake water levels, in this case via removal of outlet structure stoplogs. Drawdowns are used to mimic natural droughts, which occur less frequently than in the past. The ecological functions of shallow lakes and wetlands have adapted to periods of low water or drought, and such systems often deteriorate during periods of high water or absence of drought. Essentially, a temporary drawdown will reset the ecological clock and beneficial functions of a degraded shallow lake basin. As prairies depend on fire for health and vigor, prairie shallow lakes depend on drought and fluctuations in water levels to promote diverse healthy plant and invertebrate communities. Drawdowns are an effective tool used to manage shallow lakes and wetlands for improved fish and wildlife habitat and water quality.

Temporary drawdowns on shallow lake basins enhance the abundance and diversity of aquatic vegetation. Bottom sediments hold a large, viable seed bank from aquatic plants that the lake has supported in the past. The life history of most species of emergent aquatic vegetation requires a period of drying before seeds will germinate. Bottom sediments are consolidated and organic material is broken down during a drawdown, which can provide a more suitable substrate for a greater diversity of aquatic plants. A temporary drawdown may also reduce or eliminate the existing undesirable fish community. Increased abundance of submersed aquatic

plants should also increase aquatic invertebrate abundance. An abundant and diverse aquatic plant community along with increased numbers of invertebrates will improve water clarity and provide quality habitat for a variety of fish and wildlife species.

Important Legal Considerations: A drawdown is a temporary lowering of lake water levels. Water levels will be returned naturally to the managed full service levels following water level management. Managed drawdowns could extend up to two consecutive years per Minnesota Rule (M.R.) 6115.0271. Drawdowns would not, according to M.R. 6115, be done at times that would cause any downstream flooding damage to private property or roads.

Any drawdown or installation of new outlet structure requires a permit from the Minnesota DNR Division of Ecological and Water Resources (EWR). The Division of Fish and Wildlife will work with EWR to meet all permit requirements written in M.R. Chapter 6115. All drawdown techniques will be contingent on existing habitat conditions, precipitation patterns, and downstream flooding conditions. The lake would not be drawn down during periods when the area is experiencing flooding or high water. As proposed the existing normal or full service elevation and/or outlet capacity is not being changed. Water level elevations can be managed and artificially lowered via removable stop-logs. There should be no adverse impacts to upstream or downstream landowners as a result of this project. Drawdowns would be conducted in a manner to minimize adverse impacts to non-target species including native species dependent on these shallow lake habitats. Initial drawdown to elevation 990.3 ft. (NAVD 88) would be implemented as soon as conditions permit.

Ongoing and Long Range Procedures and Management Thresholds

Shallow lake conditions are not static. Additional management will be needed to maintain good water quality and aquatic habitats. The following procedures are recommended to maintain improvements attained through initial actions. Thresholds are identified below that would trigger additional actions.

Drawdown

Under this scenario, High Island Lake would be drawn down to the maximum extent possible on or after November 30th and then gradually refilled in the spring (Estimated timeline, November 30, 2018 to April 1, 2019), following a successful kill. If a kill was not achieved following the first winter, low water levels would be maintained through the open water season and into a second winter, in order to give a better chance at a kill. This management action would be used to restructure existing fish populations in High Island Lake and to help maintain and improve habitat and water quality conditions in the lake. Full winter drawdown would be the primary tool used for enhancing lake conditions.

While it's not anticipated, if hybrid cattail becomes overly abundant due to drawdown activities project managers and riparian landowners can pursue necessary DNR plant management permits and consider available tools to help control it. Tools may include mechanical removal

and/or approved chemical treatments. Landowners would also have the ability to pursue individual Aquatic Plan Management (APM) permits to gain access to open water.

During drawdown, the lake will be open to liberalized fishing, with start and end dates set to ensure public safety. Signs will be posted at the public access that list the open and close dates and announcements will be made in the local newspaper and through the DNR Section of Fisheries Central office in St. Paul.

A project advisory team comprised of Minnesota DNR, Friends of High Island, High Island Lake Association, High Island Conservatioin Club, High Island Watershed District, City of New Auburn and other stakeholders will coordinate as needed to discuss ongoing management objectives and goals of the project. This group will ultimately help guide future water level management actions on High Island Lake.

Active water level management will be considered when at least two of the following criteria are met; most of these criteria are tied to MPCA ecoregion lake standards for impairment. Samples will be collected as needed to determine present conditions.

- Summer Secchi disk reading <1 foot
- Summer Total Phosphorous levels exceed 90ug/L
- Summer Chl-a levels exceed 30ug/L
- Submersed aquatic plant coverage: at less than 35% lake wide coverage using present day systematic point sample stations
- Presence of common carp

Desired Water Quality Outcomes:

- Average summer Secchi disk reading >2.3 feet
- Average summer Total Phosphorous levels <90ug/L
- Average Summer Chl-a levels <30ug/L
- Submersed aquatic plant coverage: at least 65% lake wide coverage using present day systematic point sample stations

➢ Note: The term ug/L refers to micrograms per liter and is a measure of a concentration. It is more commonly known as parts per billion (ppb). One part per billion equals 1 part in 1,000,000,000 parts.

Adaptive Management

At this time the High Island Lake project partnership consists primarily of staff from Minnesota DNR, High Island Watershed District, Friends of High Island, High Island Lake Association, High Island Conservation Club, Sibley County, and City of New Auburn. This partnership will establish a structure whereby clear lines of communication between all parties can occur effectively to successfully implement and manage the project. Adaptive management will require the right resources being coupled at the right time in support of the plan to improve water quality along

with fish & wildlife habitat. Proper coordination of management actions will be necessary for this project to be successful.

Stakeholder and Partner List

Riparian Landowners
Lake Users
Friends of High Island
High Island Lake Association
High Island Conservation Club
High Island Watershed District
Sibley County
City of New Auburn

Monitoring

When conditions fall below the outlined thresholds, the proposed management actions will be considered and implemented. Vegetation will be monitored when degradation is suspected by conducting shallow lake surveys in cooperation with MN DNR Fisheries and Wildlife Shallow Lakes program personnel, using systematic point sampling, calculating aquatic plant distribution, diversity and abundance. Water clarity and water quality parameters will be monitored periodically using an approved water quality sampling regime as well as citizen Secchi readings, and fish population composition will be verified by periodic test netting. In addition to pre-drawdown sampling, these efforts will be duplicated and tracked following all drawdowns to determine success. MN DNR will install a water level gauge on High Island Lake to closely monitor and record water levels and measure downstream conditions during any drawdown period (stipulated by M.R 6115.0221). Upon starting drawdown, DNR staff will measure water levels on a monthly basis until the target water elevation is met, whereafter monitoring will shift to being triggered by a precipitation event.

Management Plan Revisions

The management plan will be revisited every 10 years to assess effectiveness and determine if changes or updates need to be made. Modifications to this management plan would be made in cooperation with the Minnesota DNR, High Island Watershed District, Friends of High Island, High Island Lake Association, High Island Conservation Club, Sibley County, and the City of New Auburn.

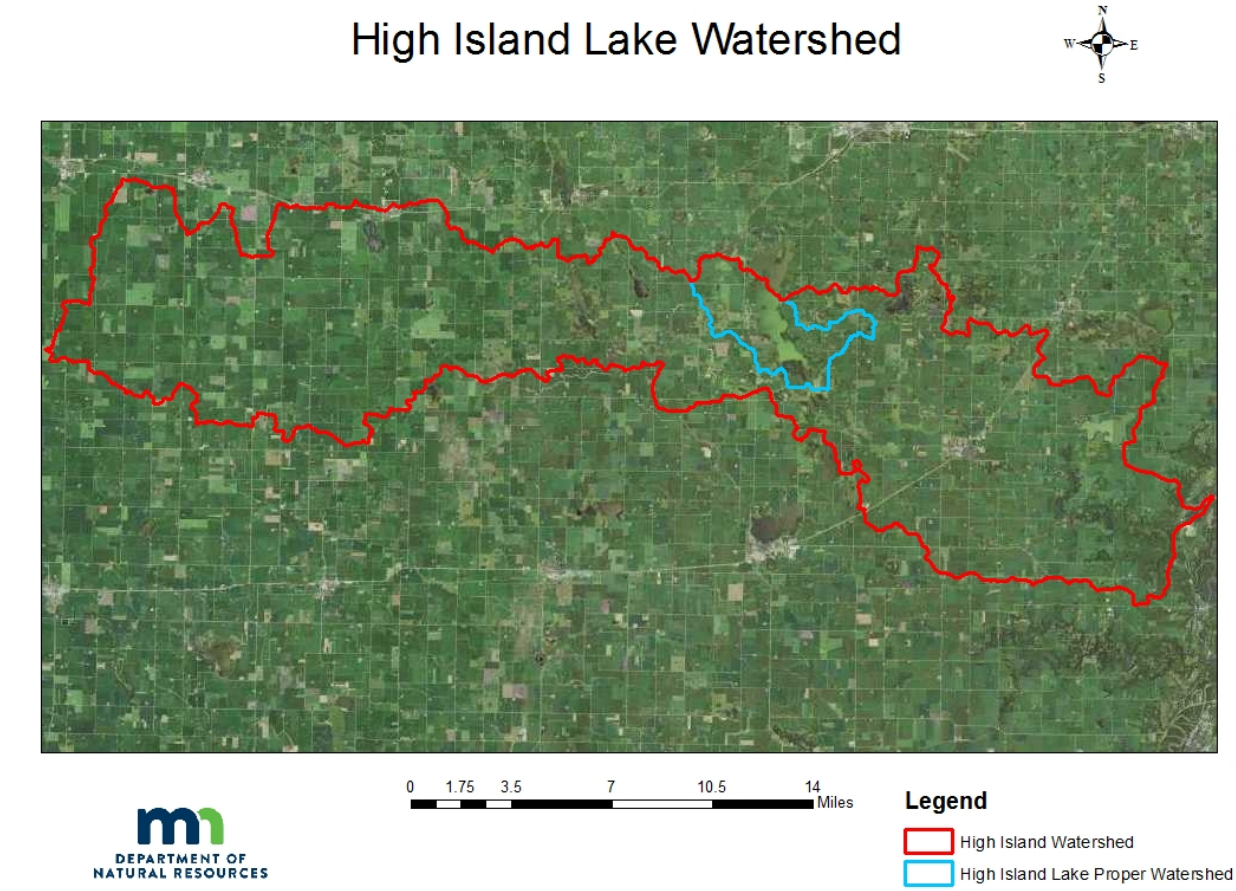


Figure 3. High Island Creek Watershed and High Island Lake Watershed, in red and blue outline, respectively.

High Island Lake, Sibley County

DOW# 72005000

MANAGEMENT PLAN (SEPTEMBER 28, 2018)
SIGNATURE/APPROVAL SHEET

Jack Lauer Date 10/10/2018

Regional Fisheries Manager, Jack Lauer

David Trauba Date 10/11/2018

Regional Wildlife Manager, David Trauba

Rob Collett Date 10/11/2018

Regional Ecological and Water Resources Manager, Rob Collett