DAVISBURG STATE WILDLIFE AREA MASTER PLAN

Michigan Department of Natural Resources
Wildlife Division
www.michigan.gov/dnr

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Mission and Statements

Michigan Department of Natural Resources (DNR) Mission Statement

The Michigan Department of Natural Resources is committed to the conservation, protection, management, use and enjoyment of the state's natural and cultural resources for current and future generations.

Michigan Natural Resources Commission Statement

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For information or assistance with this publication, contact the Southeast Region Management Unit Supervisor, 1801 Atwater St., Detroit, MI. 48207 USA; phone (313-396.6890 or contact the Michigan Department of Natural Resources (DNR), Wildlife Division, PO Box 30444, Lansing, MI, 48909-7944 USA; phone: (517)-284.9453; facsimile (517) 373-6705.

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This publication is available in alternative formats, upon request.

Strategic Plan

The Davisburg State Wildlife Area was initially purchased for Fisheries Division for the purpose of trout rearing, but once that was proven unsuccessful; the area was turned over to Wildlife Division.

The Davisburg State Wildlife Area is located in northwestern Oakland County, which is in the Wildlife Division's Southeast Region (Figure 1). The area totals approximately 109.7 acres, centered in Springfield Township, Township 04N, and Range 08E, Northwest ¼ of section 16

This Area provides hunting and fishing opportunity in a highly populated area within an hour's drive of the Detroit Metropolitan Area. This area provides habitat for many plant and animals species including many wetland plants and is part of the Shiawassee preserve. It is adjacent to lands owned by Oakland County Parks and Springfield Township that make up the I-75 Woods/Long Lake natural areas. The fen in this area because of the size and quality has been identified by the Nature Conservancy as rare within its range and, and globally significant.

Acquisition History

This Property was purchased in 1948 by the State of Michigan from the Ballard Brothers of Davisburg, Michigan for $6,500. The purchase price of $6,500 was funded by the Game and Fish Fund of which Wildlife Divisions share was 15/65's of the total. The land was administered by the Fisheries Division of the Department of Natural Resources. This land was purchased as part of the program to acquire trout ponds in Southern Michigan for the public under special regulations (NRC memo, May 21, 1948).

In 1976, Wildlife Division suggested that the area be considered as a mini game area because of the variety of wildlife habitat found on the property. In 1978, Springfield Township officials made a request to have the property turned over to them for development as a township park. In February 1982, township officials met with DNR personnel in Lansing and agreed that the property remain in DNR ownership and be dedicated as a mini game area.

This area has changed name several times between being referred to as a mini-game area, game area, and wildlife area.

Cover Type

This area was last cover-typed in 1986. The area consists of 60% (66 acres) open water, marsh, fen, and lowland brush. Upland brush and open upland comprise 17% (19 acres). Upland hardwoods comprise 17% (19 acres) and the remaining 5% is tamarack (6 acres). The area consists of rare plant communities as reported by the Michigan Natural Features Inventory (MNFI). A prairie fen and wet meadow complex (identified 1998) is located directly west of the dam on the gently sloping hillside. Marl seeps are common along the hillside and small white lady's slipper (State threatened) exists here. This habitat is also preferred by the Eastern Massasauga Rattlesnake. MNFI has also identified a Southern Dry Mesic Forest (identified in 1981), and Oak Barrens on the south side of the area next to the RR tracks. In this area lupine is common on the south facing slopes.

There are no known archaeological or historic sites on this wildlife area. Cultural resources are part of Michigan's natural resources that the Wildlife Division is committed to conserving. When there are

cultural sites present on DNR lands, we consult the State Historical Preservation Officer (SHPO) to determine the best way to manage wildlife resources while protecting the integrity of the cultural site.

Fish and Wildlife Resources

Though small in size, Davisburg SWA supports a variety of game and non-game species including wild turkey, white-tailed deer, rabbits, squirrels, raccoons, fox, muskrat, mink, beaver, skunk, opossum, woodchuck etc. The area also supports non-game wildlife such as songbirds, hawks, as well as reptiles and amphibians. Though there are no reported occurrences of the eastern massasauga rattlesnake (due to no surveys conducted here), the area contains preferred habitats for this species, and it should be assumed that they exist in the project area. There have been numerous occurrences of the eastern massasauga rattlesnake reported on the adjacent property owned by Springfield Township.

The northern area along Davisburg Road contains several homes which create a large safety zone area on the north end of the project area that hunters have to be conscientious of. This area only receives light hunting pressure due to its small size but turkey and deer hunters as well as fishermen do utilize the area.

Waterfowl use of the area is limited due to the small size of the impoundment and high sediment load in the water which is exacerbated by the dam. The majority of waterfowl use comes from the dabbling species. Species observed on this area include mallards, wood ducks, blue wing teal, and Canada geese.

Water Control

The Davisburg Trout Pond Dam was constructed in 1951 for the Fisheries Division of the Michigan Department of Conservation. This dam created a 12.5 acre impoundment of an unnamed headwater tributary to the Shiawassee River. Note: At the time this dam was constructed, the negative effects of dams in general, especially those at the headwaters, was unknown**.** During the 1950's and 1960's the impoundment was stocked and managed for brook trout and Rainbow Trout. However, by 1969-70 changes in the aquatic environment led to discontinuation of trout management and the impoundment was converted to a warm-water fishery. See appendix A for more history and discussion on the dam.

Endangered, threatened, and Special Concern Species

There have been no recent MNFI surveys for rare species at this site. MNFI did conduct an extensive survey of rare communities as part of the Shiawassee & Huron Headwaters Resource Preservation Project (March 2000). This site was determined to be part of a larger complex referred to at the I-75 Corridor Natural Area (see maps in appendix). This area is also adjacent to what's known as the Long Lake Complex. In 2002 MNFI has identified one State Threatened plant on this area, Small White Lady's Slipper and special concern species, tamarack tree cricket. There are also several rare communities that have been identified including Prairie fen, alkaline shrub/herb fen, Southern Dry Mesic Forest. The potential exists for, eastern box turtles, marsh hawks, and red-shouldered hawks. Several rare plants and animals have been found on adjacent land just outside of the state land boundary, including

Richardson's sedge (ST), Poweshiek Skipper (ST), Blanding's turtle (SC), Eastern massasauga rattlesnake (SC and federal candidate) to name a few, there is a high probability they exist or utilize the game area.

Land issues

Trespass has been an issue at this area, mainly because of its small size, and distance from the office, it is not monitored frequently. Neighbors along the north end of the property along Davisburg Road have encroached onto state land in the past. In 2001 we contracted to have a fence installed along this property boundary to try to minimize the trespass issues. This fence created a visible state land boundary to satisfy our users as well as our neighbors, by clearing marking the public land boundary.

Strategic Direction Explained

What follows is the strategic direction for Davisburg SWA. This plan describes the **goals** or desired future condition for the area, the **objectives** under each goal, and the **actions** associated with each objective. For the purposes of this master plan, the following definitions will be used:

Goal – A desired future condition of the area.

Objective – A management approach or strategy that the best science suggests can be used to move the area toward the Goal. An objective is a quantifiable input to be completed within a defined timeframe that contributes towards accomplishing the goal.

Action – An operational means to accomplish an objective. An action is a step needed to complete an objective and is described in sufficient detail to inform planning. An action is a quantifiable input to be completed within a defined timeframe that contributes towards accomplishing the objective.

It is expected to take approximately ten years to complete all the objectives.

Desired Future Conditions

Goal I: Maintain and improve quality Prairie Fen

Rationale: Prairie Fens are considered a rare wetland community dominated by sedges. The fens occur where cold calcareous ground water fed springs, "spring" out of the ground and reach the surface often leaving marl deposits on the surface. They are found mainly in Southern Michigan. Because the water is rich in calcium and minerals only a select group of plants can survive there, many plant species associated with fens are endangered, threatened, or special concern. Many of the plant species have survived in these areas for thousands of years. The fens vegetation in turn, shelter and provides habitat for wildlife that thrive in these habitats. Because fens never freeze, they provide crucial over wintering habitat for reptiles and amphibians, especially the eastern massasauga rattlesnake. The major threat to these systems is the disruption to natural hydrology which alters the composition of the fen. The hydrology at this site was negatively impacted by the construction of the dam which currently exists here (see

more information on the history of this dam in the appendix). This dam disrupted the natural hydrology and destroyed much of the rare plant communities that were present here. The fen that is currently at this site is high quality. Other threats to this system are spread of invasive species, habitat fragmentation, and water quality deterioration due to runoff. Fens provide habitat for Wild Turkey, White Tailed Deer, small mammals such as voles, migratory bird, and insects, especially butterflies.

This goal addresses the following strategies in the GPS: 1.2.1-6, 1.3.1, 2.1.1-6, 3.2.1-3, 4.4.2, 4.5.1-3, 6.1.1-2, 9.3.1

Metrics: Staff observation, inventory and evaluation by MNFI, evaluation by partners including Springfield Township and Oakland County Parks and Feedback from hunters and other users.

Objective A: Maintain and improve quality of prairie fen and monitor for any negative impacts, including invasive species

Action 1 - Work with the Michigan Natural Features Inventory staff to identify rare plant and animal species.

Action 2 - Monitor for invasive species such as Purple Loosestrife, glossy buckthorn, Phragmites, and autumn olive that impact fen quality and remove using hand cutting and herbicide as needed. Purple loosestrife occurs within the fen, along the stream, within the adjacent sedge meadow, and along the edge of the pond.

Action 3 - Monitor for encroachment of woody vegetation along upland edges (especially autumn olive and glossy buckthorn) and remove as needed

Action 4 - Reintroduce fire as a management tool to maintain diversity of fen and include sedge meadow and adjacent uplands in fire routine. Coordinate fire regime with adjacent Springfield Township burns to burn on a more landscape level.

Action 5 - Work with local township staff for assessment on population levels of Turkey and Deer

Objective B: Restore natural hydrology

Action 1 - Monitor for any change to hydrology including negative impacts from beaver and address if necessary.

Action 2 - Monitor the dam to insure flow is not impeded and keep brush off dike.

Action 3 - Continue to monitor structural issues with dam for any further deterioration which could lead to failure

Action 4 - Meet with Springfield Township and Oakland County Parks to discuss future removal of the dam to restore natural hydrology. Acknowledge that at the time of installation (in the 50's) it was unknown that there were such negative impacts to placing a dam along the headwaters.

Action 5 - Develop a plan and direction for dam removal, which includes follow up monitoring and future management issues (i.e. invasive species) and how to address these.

Action 6 - Identify potential funding sources for dam removal

Action 7 - Discuss and get input from local landowners through a public meeting prior to commencing with any plans

Goal II Maintain oak barrens

Rationale: Oak barrens are a fire dependent savanna type habitat dominated by oaks. The Oak barrens at Davisburg SWA are degraded consisting of gravelly kame dominated by white and black oak in the overstory and oak, black cherry, red maple, and autumn olive with a ground cover of *carex* and wildflowers such as lupine. The barrens are adjacent to the railroad on the south end of the game area. This area was probably maintained through burning caused by the railroad. Oak barrens support a variety of rare plant, animal and invertebrate species and should be maintained where they still exist. Mature oak trees provide critical structure for wildlife including den trees and acorns provide a valuable food source for many species of wildlife including wild turkey and deer.

This goal addresses the following strategies in the GPS: 1.1.1, 1.1.5, 1.2.3-6, 2.1.1-6, 4.4.3, 4.5.2.

Metrics: Staff observation, inventory and evaluation by MNFI, evaluation by partners including Springfield Township and Oakland County Parks.

Objective A: Maintain quality of oak barrens and monitor for negative impacts

Action 1 - Work with the Michigan Natural Features Inventory staff to identify rare plant and animal species.

Action 2 - Monitor for invasive species such as autumn olive and work to remove as staff time allows.

Action 3 - Since this is a fire dependent habitat attempt to reintroduce fire to maintain diversity. Coordinate burns with adjacent Springfield Township burn plans to attempt to manage on a more landscape level.

Action 4 - Monitor the property boundary along railroad annually for any garbage removal or damage along the right of way.

Action 5 - Work with local township staff for assessment on population levels of Turkey and Deer.

Goal III Maintain public access

Rationale: The Davisburg State Wildlife Area is within an hour's drive from the busy Detroit metropolitan area. We would like to encourage legitimate use of the area by hunters, birders and other wildlife enthusiasts.

This goal addresses 4.4.2, 4.4.3, 4.4.4,4.5.2,4.5.3

Metrics: Staff observations

Objective A: Maintain access to area

Action 1 - Inspect parking lots monthly and pick up trash

Action 2 - Ensure parking lots are accessible.

Action 3 - Monitor for unauthorized use such as ORV's

Action 4 - Monitor for trespass and resolve trespass issues through the trespass resolution process

Action 5 - Maintain boundary and informational signs

Action 6 - Work cooperatively with law division to maintain access, control trespass, and discourage dumping.

Goal IV Maintain infrastructure

Rationale: The Davisburg State Wildlife Area has a large dam, and walkway that need to be maintained safe and operable until efforts for long term use are decided.

Metrics: Staff Observations

Objective A: Maintain Davisburg trout Pond dam

Action 1 - Inspect dam bi-monthly for maintenance needs

Action 2 - Work with dam safety and review reports

Action 3 - Monitor for beaver activity and remove any debris that limits flow of water

Action 4 - Continue to work with Division and local governments on future direction for this dam

Recreational and Commercial Uses

Recreational and commercial uses on the area that are not incidental to our management for the purposes described above are generally not allowed. These uses can be allowed, however, under the following circumstances:

The uses must not interfere or conflict with the wildlife conservation purposes of the area described above.

The DNR has no obligations to determine if requested uses would conflict or interfere; the burden of determining must remain with those requesting the uses.

The requested uses cannot be exclusive of other allowable uses and must not result in the DNR losing management control of any portion of the area.

A lack of a specific prohibition in rules and regulations for the area does not constitute approval of the activity.

The DNR always reserves the ability to disallow activities previously allowed as wildlife conservation needs dictate.

The DNR will continue to monitor existing commercial and recreational uses for interference with the intended purposes of the area as described in this plan.

Acquisition and Disposal

Addition of land to the project area would allow for increased public use of the area. Public use and access to the area would be greatly increased if enough land could be acquired to allow another point of access. It is unlikely that any land adjacent to the project area will become available for purchase in the next 10 years.

This game area is adjacent to Springfield Township Parks, to the north and west, Oakland County Parks to the southwest, and The Golden preserve (Six Rivers Land Conservancy) to the southeast. This general area is referred to as the Shiawassee Basin Preserve, and is part of what MNFI refers to as the I-75 Woods Natural Area.

In 1997 Springfield Township joined together with 6 communities to form the Shiawassee and Huron Headwaters resource preservation project. The contracted with MNFI to inventory and identify unique natural features on an ecosystem approach. This area was determined to be a large high quality, high diversity wetland complex, with over 95 native species identified. The threats to this complex include spread of invasive species, disruption of natural hydrology, habitat fragmentation, and water quality deterioration. Since this time, Springfield Township has been actively managing and maintaining this area, through extensive large scale prescribed burns, removal of non-native vegetation etc. Most of this has been done through federal and state funding such as WHIP, and CSWG.

Several factors make this property a consideration for future disposal, including the small size of this game area, minimum hunting opportunities, extensive wetland habitat, difficulty in getting prescribed burns completed on state land, and the mere fact that this area is part of this larger system currently being managed aggressively by the local government, are all reasons we could consider that this area

might be better suited to be managed by local government. Both Springfield Township and Oakland County Parks have expressed interest in management at Davisburg SWA. There is the potential for future discussions with both of these public landowners to look at future partnerships in managing this SWA.

This parcel did not come up for PHASE II review since it was still categorized in LOTS as a Fish Division project not wildlife. Fish Division projects are not included in Phase II review. PHASE II land review is where the state can consider if a parcel owned by the state would be better managed by Local government, or should be disposed of either a direct exchange or direct sale. Any type of disposal of this land would come with the stipulation that the land remain open and accessible for hunting and the major emphasis remain wildlife restoration.

It is likely more discussion will take place over the course of this strategic plan to address the future of this game area.

STATE OF MICHIGAN - DEPARTMENT OF NATURAL RESOURCES

DAVISBURG STATE GAME AREA

- General Map -

Oakland County

Area headquarters: Wildlife Office in the Southfield DNR Service Center
26000 West Eight Mile Road, Southfield, MI 48034 ; phone 248- 359-9040

For more information on this or other areas, contact DNR offices, visit the DNR online at www.michigan.gov/dnr or scan this QR-block.

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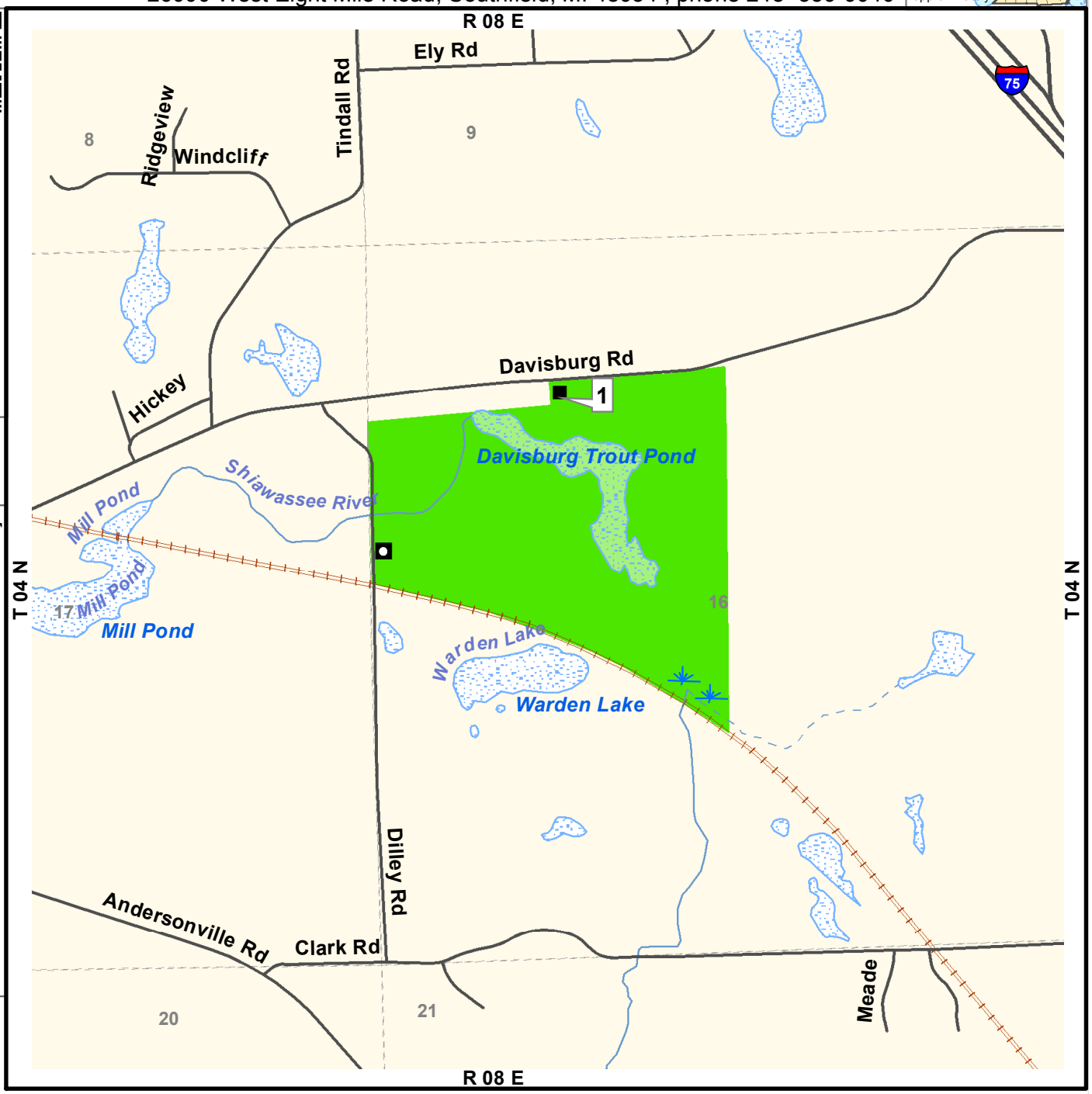

Legend:

State Land: Wildlife/Game Area
Parking: Prepared Lots; Rustic or Shoulder-side Parking
Boating: NO Prepared Ramp; NO Rustic or Drop-in; Marsh in Area
Roads: Highways or Paved; Gravel or Dirt Roads, Two-Tracks, Trails
Water: Lakes, Ponds; Rivers, Streams; Seas. Streams, Drains
Political: Town-Range-Section Lines (labelled 1-36, near center of block)
Other: Railroads; Power Lines, Pipes

N 0 0.15 0.3 0.6 Miles

Important!: 150 yards or 450 feet Safety Zones (No Shooting!) are enforced around all buildings and structures at all times. Be Safe! Always be careful around water and ditch/dikes for deep water!

Look for Watchable Wildlife viewing area signs in this area, for locations and more information about trails or features.

GPS coordinates at flagged point (white box near point):
[1] parking off south side of Davisburg Rd Lat.42°45'18.8"N, Long.83°31'20.7"W

Hunter Monies Help Make This Area Possible

Map Revised 03/15/2016 - Wildlife Div./MLS

Appendix A:

History of Trout Pond Dam

The Trout pond was stocked and managed for brook and rainbow trout in the 1950's and 60's. Survival of the trout species indicates the presence of a cold water thermal fish habitat. However, by 1969-70 changes in the aquatic environment led to the discontinuation of trout management. Comments from fisheries surveys from this time indicate the increased sediment accumulation, marginal water temperatures, increased nutrient loading, accelerated growth of aquatic species, and lack of accessibility led to the decision to discontinue their trout management at this location. The last fisheries survey was conducted in 1977 and no trout species were collected. Fish species present at the time were northern pike, largemouth bass, bluegill, pumpkinseed, lake chub sucker, common shiner and flathead minnows. These species are likely are representative of the impoundments current inventory. Presently recreational fishing on the impoundment is minimal and restricted to isolated shore locations primarily at the dam.

Beaver dams have caused some problems with maintaining water flow through the dam. Beaver continuously try to dam the water right at the dam as well as other areas. Beaver bafflers have been in place at the dam for several years to help keep water flowing even when the beavers try to dam it up. The dam is checked regularly to control the problem. The beaver also has caused problems with a private landowner to the west. We have sent staff out on several occasions to assist in removing dams when private property is being flooded. We encourage local trappers to help control beaver numbers in this area.

The Dam itself is referred to as the Davisburg Trout Pond Dam, Dam ID 693 and has routinely been inspected. Dams in Michigan are regulated by Part 307 and Part 315 of The Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. In 2001 the dam was identified as having some deterioration that will need to be addressed. The report noted deterioration along the right abutment wall due to seepage, and efflorescence (leaching of calcium compounds from within the concrete), along the wingwall and both abutment walls. This efflorescence was first observed in 1997. The walkway is also showing age and deterioration. The overall integrity of the wall has not been compromised.

Current research shows that dams can cause changes in water hydrology, temperature, sediment load, alter stream flow patterns, increase evaporation, accelerate erosion, fragment habitat, prevent the downstream transport of important vegetative structure, and reduce habitat diversity and productivity. Dams along headwaters are extremely deleterious. Given our current knowledge of dam's effects on streams, the department believes the positive environmental benefits of returning the tributary to a natural state far outweigh the cost to remove the structure. Since there is national recognition on removing dams all across the county, governmental funding may be available for removal.

In 2002 a work item proposal was submitted and approved to have engineering contracted to give cost estimates both for repairing the dam as well as removal of the entire structure. This information is available in the files. After further input from MNFI and Fisheries Divisions it was determined that the long-term goal should be to remove the dam, therefore repairs would not be required to be made, while the DNR would pursue funds for removal of the dam. This will require further discussion and

cooperation with both Springfield Township and Oakland County Parks to move forward with any type of removal, and to insure minimizing impacts downstream. A public meeting would be needed to address any local concerns by residents to removal. If the dam were to be removed, monitoring and removal of any non-native/invasive species will be the biggest management challenge especially the first several years after removal. In Consulting with MNFI botanists, they believe this area; over time will return to fen expanding the existing rare fen present at this site.

Public Input

This plan was available for public review and comment on the DNR website between June 1, 2016 and June 30, 2016. In addition, a public meeting was held on October 17, 2016. Copies of the comments received during the public review and at the public meeting can be made available upon request.

This plan is available the DNR website, and will be reviewed again within 10 years of the approved date.

Approvals