

# SANILAC PETROGLYPHS HISTORIC STATE PARK

## ezhibiigaadek asin

(Knowledge Written on Stone)

### DRAFT PHASE 2 GENERAL MANAGEMENT PLAN

#### LONG RANGE ACTION GOALS

Long range management guidance focused on the specific natural resources, historic/cultural resources, recreation opportunities and education/interpretation opportunities of Sanilac Petroglyphs Historic State Park.



Michigan Department of Natural Resources  
Parks and Recreation Division  
06/30/2022

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**Sanilac Petroglyphs Historic State Park Phase 2 General Management Plan Approvals:**

_____	_____
Tribal Chief, Saginaw Chippewa Indian Tribe of Michigan	Date
_____	_____
Chief, Planning & Infrastructure Section	Date
_____	_____
Chief, Field Operations Section	Date
_____	_____
Chief, Parks & Recreation Division	Date



Pedestrian bridge crossing the North Branch of the Cass River

## PLAN APPROVAL RECOMMENDATIONS:

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Braden Beaver, Park Supervisor

Scott Cook, Regional Field Planner

Josh Pellow, District Supervisor

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Stacy Tchorzynski, DNR Archaeologist and Park Historian

Marcella Hadden, Saginaw Chippewa Indian Tribe of Michigan Tribal Historic Preservation Officer

William Johnson, Zibiwing Center of Anishinabe Culture & Lifeways Curator /Office Manager

*Reviewed and approved by:*

Parks and Recreation Division Section Chiefs

*Presented for information to:*

MSPAC – STEWARDSHIP SUBCOMMITTEE

NRC – MICHIGAN STATE PARK ADVISORY COMMITTEE



Sandstone outcropping

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# 1. Introduction

Sanilac Petroglyphs Historic State Park is located in Michigan's Thumb area just east of M-53, 10 miles from Cass City in Sanilac County, Michigan. The property was donated to the State by the Michigan Archeological Society in 1971 and established as a park for the purposes of protecting and interpreting the largest known collection of petroglyphs in Michigan. These carvings in stone, or petroglyphs, represent the collective memory of the Great Lakes Anishinabek (Original People) ancestors. The park is 240 acres in size and managed jointly with the Saginaw Chippewa Indian Tribe of Michigan (SCIT). The petroglyphs exist in sandstone outcroppings that are rare for lower Michigan. A 2-mile interpretive hiking trail loops through the park crossing the Cass River twice. The park is popular with school groups, hikers, Anishinabek people and visitors interested in the park's cultural resources.

The General Management Plan (GMP) guides the future long-term management of Sanilac Petroglyphs Historic State Park and is based on the mission of the Parks and Recreation Division (PRD): "to acquire, protect and preserve the natural and cultural features of Michigan's unique resources, and to provide access to land and water public recreation and education opportunities".

## 1.1. Planning Objectives

The objective of the GMP is to bring together PRD staff, the SCIT, representatives from other divisions of the Department of Natural Resource (DNR), stakeholders and the public into a planning process that directs management decisions and implementation strategies for the park.

The Phase 1 GMP for Sanilac Petroglyphs Historic State Park, approved in 2012, established a 20-year management zone plan and defined the purpose and significance of the park. The supporting analysis included in the Phase 1 GMP provides important background information on the park such as park setting, area demographics, history, land ownership, legal mandates, and existing cultural, natural and recreation resources. This Phase 2 GMP builds upon the previous planning efforts and identifies 10-year action goals to accomplish in the park as a whole and in each of the management zones. These are implementation items for park staff and partners, addressing infrastructure, park management, and operations that impact resource protection and visitor experience at the park.

## 1.2. Planning Process Overview

The Sanilac Petroglyphs Historic State Park planning team met periodically over a ten-month period, beginning in fall of 2021. For this Phase 2 GMP, the first step was to review the Phase 1 GMP to ensure that no conditions have changed that would result in the need to amend the overall guiding document.

Input was sought from stakeholders and the public throughout the planning process to ensure the DNR is responsive to its partners and visitors. Stakeholders were invited to provide input early in the planning process through a workshop designed to identify strengths, challenges, and opportunities at Sanilac Petroglyphs Historic State Park. The planning team used this information to guide the development of the draft Phase 2 GMP. The public was invited to review and comment on the draft plan through the project

website or at a virtual public input meeting. The planning team reviewed all the comments received before recommending the final plan for adoption.

### 1.3. Planning Team

This Phase 2 GMP was developed with valuable input and expertise of the planning team which included the individuals listed below.

NAME	TITLE	DIVISION
Braden Beaver	Unit Supervisor	Parks and Recreation Division
Debbie Jensen	Management Plan Administrator	Parks and Recreation Division
Matt Lincoln	Lands Program Manager/Plan Administrator	Parks and Recreation Division
Greg Norwood	Stewardship Ecologist	Parks and Recreation Division
Robb McKay	Historical Architect	Parks and Recreation Division
Josh Pellow	District Supervisor	Parks and Recreation Division
Scott Cook	Regional Field Planner	Parks and Recreation Division
Greg Kinser	Northern Lower Peninsula Trail Coordinator	Parks and Recreation Division
Marcella Hadden	SCIT Tribal Historic Preservation Officer	Saginaw Chippewa Indian Tribe
William Johnson	Ziibwing Center Curator/ Office Manager	Saginaw Chippewa Indian Tribe
Paul Dunn	Fire Officer	Forest Resources Division
Tammy Giroux	Wildlife Biologist	Wildlife Division
Peter Rose	Geologist	Minerals Management
Chris Maher	Lieutenant	Law Enforcement Division
Stacy Tchorzynski	Archaeologist and Park Historian	Michigan History Center
Jeffrey Jolley	Fisheries Biologist	Fisheries Division

### 1.4. Public Input Overview

#### Stakeholder Meeting

A stakeholder meeting was held on February 2, 2022, in a virtual format using Microsoft Teams, to guide the Phase 2 GMP for Sanilac Petroglyphs Historic State Park. Participants were invited to provide their input, identifying strengths, challenges and opportunities related to the park. A total of 19 participants represented government, business and tourism, and non-profit organizations from around the region. The meeting began with a short presentation of the Phase 1 GMP that was completed in 2012 and a review of the planning process for this Phase 2 Plan. A full report of the meeting is provided in Appendix B.

Strengths identified by stakeholder representatives in attendance included the petroglyphs, the maintained trail system, hiking, DNR staff, co-management with the SCIT, interpretive signs, unique landscape, natural beauty, and the spiritual significance of the park.

Challenges for the park identified by stakeholders in attendance included the remote location, aging protective structure, accessibility, parking, poor restroom facilities and limited window for school groups to visit the petroglyphs.

Opportunities identified included an expanded parking area for school groups, replacing the aging protective pavilion over the petroglyphs, improved restroom facilities, increased programming and historic interpretation and revising the National Register of Historic Places nomination for the park.

### Virtual Public Input Meeting

A virtual public input meeting was held online via the GoToWebinar application on [INSERT DATE AND TIME HERE] at 6:00pm to review the Phase 2 General Management Plan and solicit comment on the 10-year action goals. The draft Phase 2 Plan was also posted on the DNR's website and comments were invited via e-mail and an online survey. A press release went out 3 weeks in advance of the meeting to [NUMBER] recipients of the GovDelivery system, including 37 stakeholders associated with the park. A total of [NUMBER] people attended the virtual public meeting and provided comments on [INSERT COMMENT SUMMARY HERE] Full public input data and comments are provided in Appendix B.

## **2. Overview of Phase 1 General Management Plan**

The Phase 1 GMP for Sanilac Petroglyphs Historic State Park was approved on July 16, 2012. The following information summarizes the significance statements and management zones for the park, which were defined in the Phase 1 GMP.

### **2.1. Significance Statements**

Sanilac Petroglyphs Historic State Park was determined to be significant for the following reasons (these statements contain minor corrections made by the Phase 2 planning team without changing the original meaning or intent).

- Contains the most extensive group of petroglyphs known in Michigan.
- Contains rare bedrock outcropping of Marshall Sandstone.
- The petroglyphs are a sacred site for regional Anishinabek with significance to a broader population.
- The park is an active sacred site for current cultural practices by the Anishinabek.
- The park landscape has cultural significance due to historic and current uses.
- In addition to the petroglyphs, the park contains other features of archaeological significance (e.g., logging camp and old Cass Road).
- Natural features include remains of a white pine that dates back to the big fire of the late 1800's.
- The unique state-tribe partnership provides education and interpretation.
- The South Fork of the North Branch of the Cass River is an important asset to the park, as it is used for cultural practices by the Anishinabek, and the river's floodplain provides an important habitat for plants and wildlife.

In addition to these statements, the team also determined the park to be significant for the following reasons:

- The park is jointly managed with the Saginaw Chippewa Indian Tribe of Michigan through a Memorandum of Understanding. This is Michigan's first state park formally comanaged with a tribe.



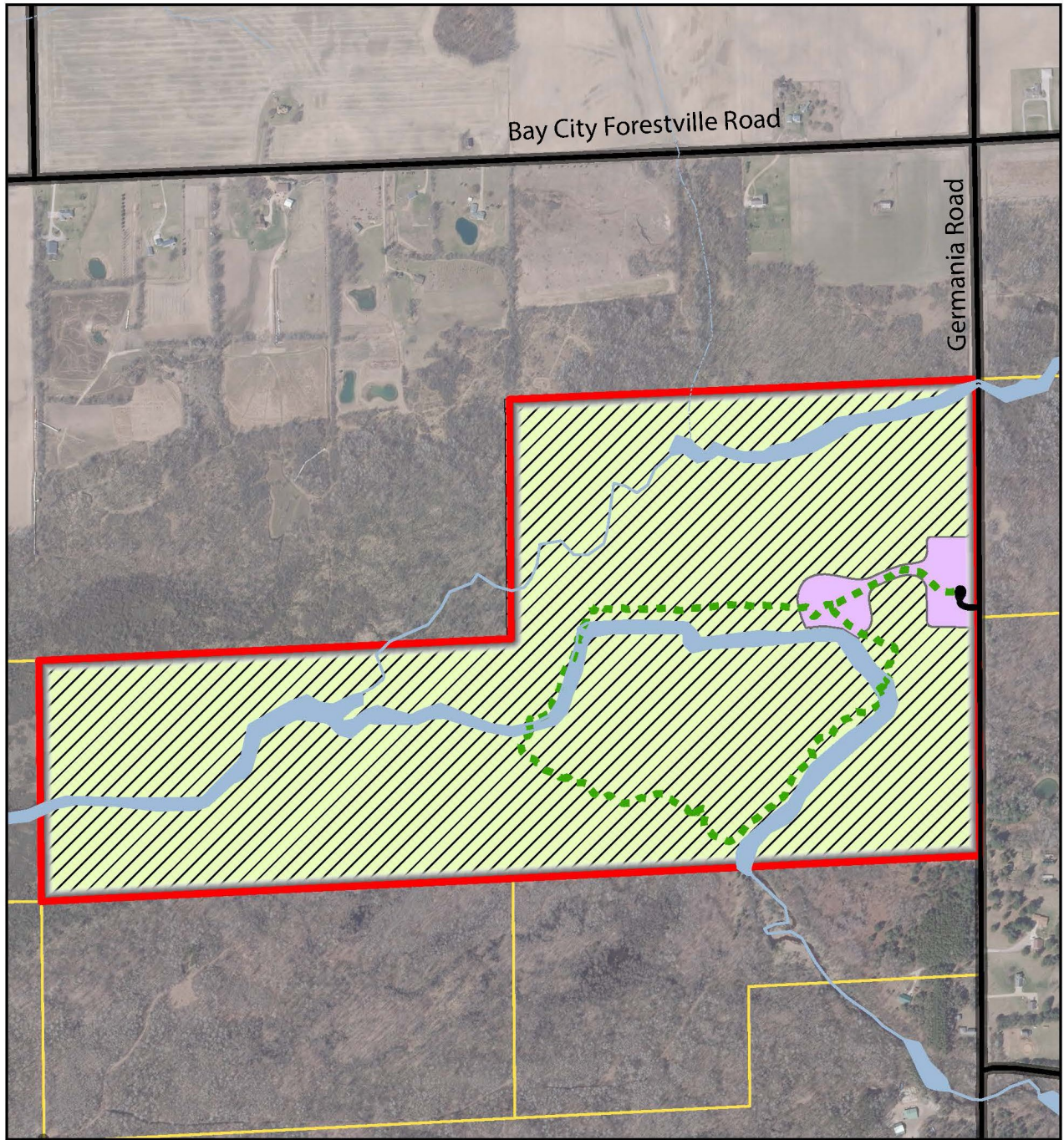
## 2.2. Management Zones

The Phase 2 GMP planning team reviewed the zoning map developed in the Phase 1 Plan and determined no significant changes were necessary. A condensed review of the management zones along with the zoning map follows. A thorough description of each management zone can be found in the Phase 1 GMP.

- Primitive Zone includes most of the park at 234 acres, or 97% of the park. This zone consists of the Cass River floodplain and hiking trail. This area allows dispersed and low-frequency use for low-impact recreational purposes (foot traffic only).
- History Education Zone includes 6 acres, or 3%, of the park. This zone includes the parking lot area, the covered petroglyphs area, interpretive kiosks, vault toilet, storage shed and the connection between them. The emphasis of this zone is to provide protection for, and educational awareness of, the petroglyphs. Cultural resources are restored and interpreted for visitor understanding. High level of development is common in this zone for management/control of people and traffic, protection of the resources, and historical interpretation.
- Cultural Landscape Overlay Zone encompasses all 240 acres of the park. This zone addresses the overall setting of the park where cultural resources are identified. Guidance of the underlying zones still apply.




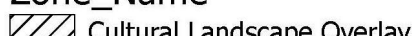
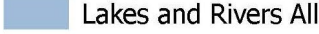
Students learning about Anishinabek culture and the petroglyphs



MICHIGAN DEPARTMENT OF NATURAL RESOURCES



## Sanilac Petroglyphs Historic State Park - Management Zones

- |  |   |
|--|---|
|  Road                       |  Primitive                 |
| <b>Zone_Name</b>   |  Michigan DNR Parcels     |
|  Cultural Landscape Overlay |  Designated Hiking Trails |
|  History Education          |  Lakes and Rivers All     |



## 2.3. Changes Since Previously Approved Phase 1 General Management Plan

### Annual Visitation

The number of visitors between Memorial Day and Labor Day has steadily increased from 5,717 in 2009 to 6,959 in 2021.

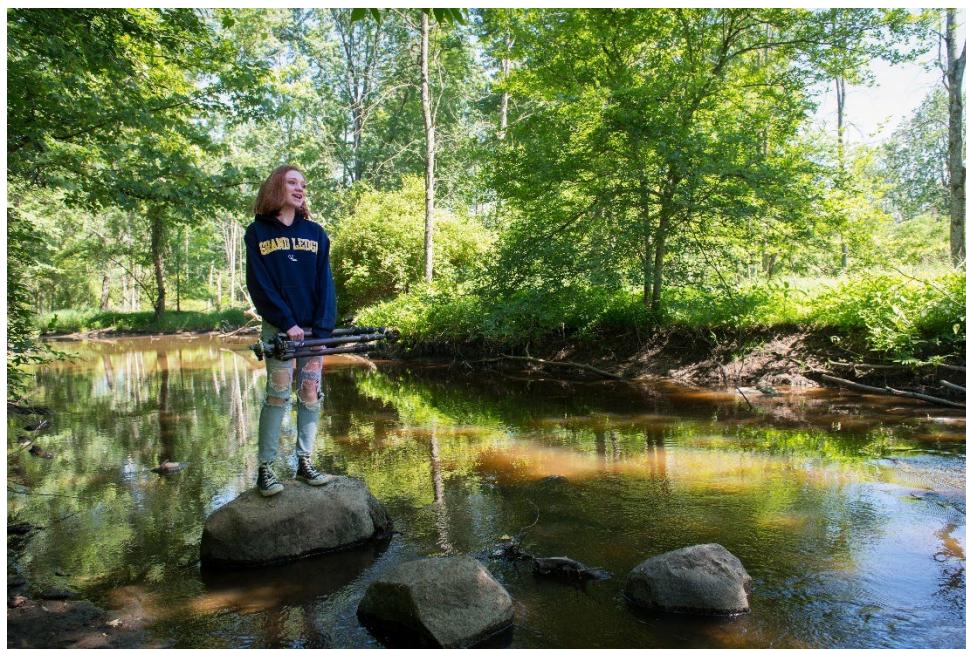
### Infrastructure Improvements/Planning

The following projects have been completed since the original Phase 1 GMP was approved:

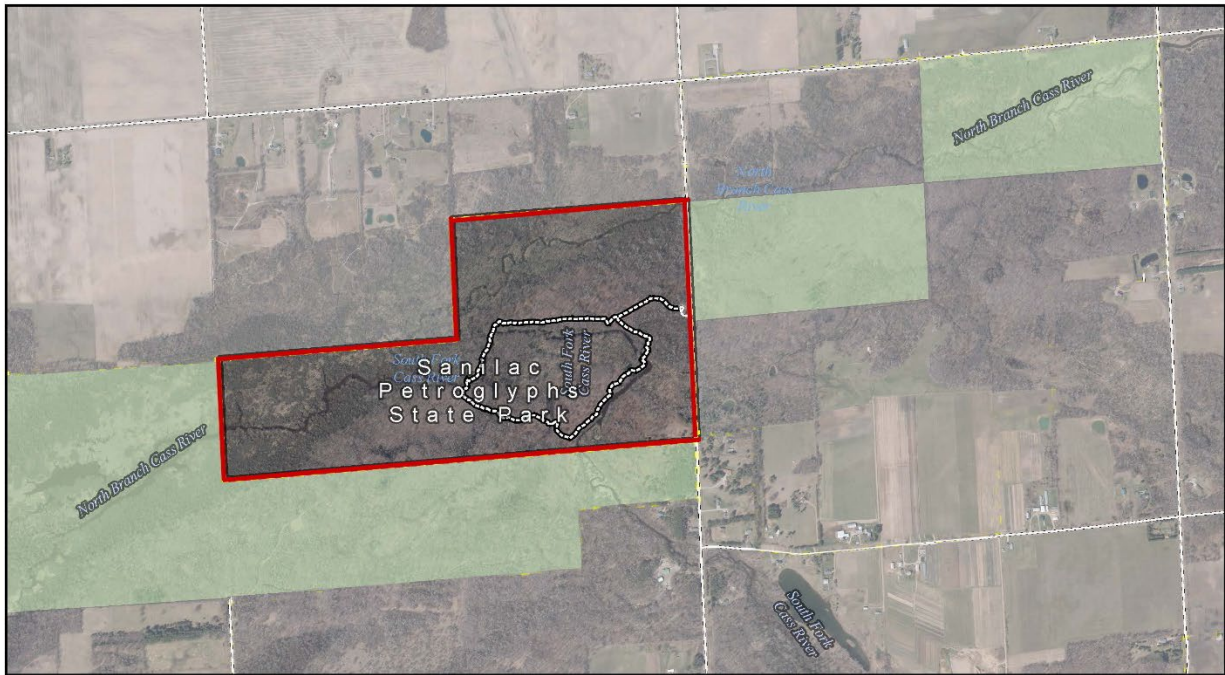
1. Intellectual Property Issues in Cultural Heritage project (2016)
2. Additional interpretive signs installed (2017)
3. Petroglyphs conservation assessment completed (2017)
4. Replaced two foot bridges over the Cass River (2018)
5. Terrestrial LiDAR and close-range photogrammetry recordation of petroglyphs (2018)
6. Memorandum of Understanding with the SCIT executed (2019)

### Project Boundary

A project boundary is a geographic area reflecting the future desired park boundary and may not follow the existing park boundary. The DNR has an interest in acquiring property within this boundary on a willing seller/willing buyer basis in order to better align the park with the DNR mission. The planning team reviewed and concurred with the 2020 project boundary, approved by the Natural Resources Commission, along with the recommended project boundary from the Phase 1 GMP, which did not recommend any changes to land ownership.



Student research taking place on the river



MICHIGAN DEPARTMENT OF NATURAL RESOURCES

**Sanilac Petroglyphs State Park - Park Boundary**

- NRC 2020 Approved Project Boundary and Park Boundary
- Road
- Wildlife Division Lands
- Trail



**2.4. Supporting Documentation Updates**

Threatened and Endangered Species

The following is the list of rare species and important natural communities found at the park according to the Michigan Natural Features Inventory.

Common Name	Scientific Name	State Status
Calico crayfish	<i>Faxonius immunitis</i>	state special concern

Legal Mandates

Legal mandates that impact Sanilac Petroglyphs Historic State Park have been updated and are included in Appendix A of this plan for reference.

Mineral Ownership

According to DNR Real Estate Services, the State of Michigan does not own the mineral rights beneath Sanilac Petroglyphs Historic State Park property.

DNR has no record of any actions or claims of mineral interest occurring at Sanilac Petroglyphs Historic State Park in the past 20 years.

### Geology

The Sanilac Petroglyphs are carved into outcrops of sandstone bedrock known as the Marshall Sandstone, or Marshall Formation. About 340 million years ago, this area was a large river channel. Sand, mud, and lime deposited by the water over thousands of years hardened to form the Marshall Formation. During the last Ice Age, continental glaciers up to one mile thick covered much of Michigan, and as the ice melted away, they often deposited thick packages of sediment. The Marshall Formation is exposed in outcrops here because glacial sediments are very thin in this area compared to most of the rest of the Lower Peninsula. Numerous outcrops of the Marshall Formation can be seen as you follow the trail through the park. Aside from in the western Upper Peninsula, natural bedrock outcrops are rare in Michigan.

About 16,000 years ago, glacial ice was melting and retreating to the north. Glacial meltwater in this area formed a riverbed several miles wide called the Ugly Channel. Here in the park, the channel was about one mile wide. Water flowed westward in the channel, creating what is now the Cass River valley, and emptied into glacial Lake Saginaw. Rocks and sediment trapped in eddies scoured out the “potholes” that are visible in some of the sandstone outcrops.

As the glaciers disappeared, the rushing water in the Ugly Channel subsided and the Cass River was formed with its headwaters a few miles east of here. The Cass River now flows into the Shiawassee River, which merges with the Tittabawassee River to form the Saginaw River that then empties into Saginaw Bay.

The sandstones of the Marshall Formation played a historically significant role in Michigan’s economy. Grindstone City, a ghost town at the tip of Michigan’s “Thumb”, is named for the industry that began utilizing the quartz-rich sandstone from the Marshall Formation in Huron County in the mid-1800s. At one time, the region supplied material across the country for the grindstone industry and was known for the best abrasive stone in the nation. In addition, the Marshall Formation has been mined in the Jackson area for landscape and dimension stone since the late 19<sup>th</sup> century. The Marshall Formation also serves as an important freshwater aquifer for much of the southern Lower Peninsula, providing drinking water to many citizens and irrigation water for agriculture.

### Interpretive Resources

After reviewing the supporting analysis, the planning team identified the following interpretive resources associated with the park in addition to the resources identified in the Phase 1 GMP.

- Natural Features
- Military Road
- Harris Homestead

### Funding Sources

All parcels associated with Sanilac Petroglyphs Historic State Park were a gift by the Michigan Archaeological Society with the following restrictions:

- (1) To preserve the aboriginal petroglyphs and develop said premises for the benefit of mankind from the present to distant future generations as a cultural and educational facility (as distinguished from a

sports or recreational facility) for promoting a better appreciation of man's natural and cultural heritage and of his continuing relationship to his environment.

- (2) Except as it may be, both a part of and incidental to a display, a demonstration, or a research project in furtherance of aforesaid purposes, no part of said premises, nor the product thereof, shall be used for private or public economical gain. Entrance or admission fees to the areas may be charged by the Michigan Department of Natural Resources or its successors as deemed necessary.



Students hiking on the trail

### 3. 10–Year Action Goals

The action goals proposed for Sanilac Petroglyphs Historic State Park have been developed by the planning team in response to stakeholder and public input and in context of the core values and guiding resources discussed in the Phase 1 GMP. The action goals for Sanilac Petroglyphs Historic State Park generally focus on the preservation and viewing of the petroglyphs. In addition, access and the protection of the park’s use as a sacred site by the Anishinabek is also recognized as a priority. These goals are supported by the recommendations of the major planning efforts guiding recreation in Michigan, including the Michigan Statewide Comprehensive Outdoor Recreation Plan (SCORP).

The planning team has developed 10-year action goals that it believes are necessary to guide management and development within the designated management zones in order to achieve the desired user experience. Action goals are categorized under two types: Management and Operations or as Infrastructure and Development, which is further broken down to small projects and capital outlay projects. These categories align with the PRD Strategic Plan as well as the annual Capital Outlay funding process. Action goals are recommended to address the following criteria:

- Natural resources
- Cultural resources
- Recreation opportunities
- Education/interpretation opportunities
- Management focus
- Development

A separate Natural Resource Stewardship Plan will be developed that will identify conservation targets, goals and threats to those conservation targets for the park. The Stewardship Plan will also identify and define strategies to reach the goals for Sanilac Petroglyphs Historic State Park.

Management plans are based on known needs, funding realities and sound investment policies, but do not guarantee future PRD funding to achieve the actions identified. PRD will seek internal funding, alternative funding sources, partnerships and other potential mechanisms for implementing the desired future conditions defined in this plan. On an annual basis, PRD districts determine priorities for project planning and project capital outlay. Each district’s top projects are then evaluated at a state-wide level for available funds.

As future improvements are evaluated, renewable energy, resiliency, sustainability, EV charging and efficiency will be considered. Specifically, at Sanilac Petroglyphs Historic State Park, opportunities may exist to incorporate EV charging stations in the parking lot.

The following 10-year action goals are categorized in terms of priority based on health, safety, and welfare, as well as ease of implementation (cost, ability to implement with own staff, partnerships, etc.). Priority Level 1 projects indicate those that should be addressed within the next 2 years. Priority Level 2 projects include those that should be addressed within 2-5 years. Priority Level 3 projects are desired, but can be tackled in the next 5-10 years, once funding has been identified. The “Program Input From” column identifies the project coordinators for each goal with a project lead identified in bold. Opinion of probable costs have been

developed for each capital outlay action goal identified (see Appendix C) and these projects will be included in the statewide master project list.

### Management and Operations

Action Goals	Priority	Management Zone	Program Input From
Develop and finalize a Natural Resource Stewardship Plan	1	All	<b>Stewardship Ecologist</b> SCIT
Control invasive species as information is obtained in accordance with the park's Stewardship Plan detection	Ongoing	All	<b>Park Supervisor</b> Stewardship Ecologist Volunteers/ Partners
Review all proposed earthwork activities for potential impact on cultural resources	Ongoing	All	<b>DNR Archaeologist</b> Regional Planner Park Supervisor SCIT
Continue to complete and comply with annual safety inspections and plans	Ongoing	All	<b>Park Supervisor</b>
Review and update Wildfire Plan and Emergency Plan	Ongoing	All	<b>Park Supervisor</b> Stewardship Local Emergency Services
Continue strengthening co-management and communication between the DNR and SCIT	Ongoing	All	<b>Park Supervisor</b> DNR Archaeologist SCIT
Incorporate Anishinabe culture and language, geology and ecology into interpretation, signage, audio and virtual tours, and education including docent training	Ongoing	All	<b>SCIT</b> DNR Archaeologist DNR Geologist Park Supervisor
Encourage regional tourism on the park websites	Ongoing	All	<b>Park Supervisor</b> Communication Specialist Michigan History Center
Define and post expected trail conditions on park kiosks, social media outlets and text alerts	Ongoing	All	<b>Park Supervisor</b>
Explore fundraising opportunities for park improvements and interpretation	Ongoing	All	<b>DNR Archaeologist</b> SCIT Park Supervisor



## Management and Operations (Continued)

Action Goals	Priority	Management Zone	Program Input From
Continue to monitor and protect sandstone outcroppings from vandalism	Ongoing	Primitive	<b>Park Supervisor</b> SCIT LED
Remove and camouflage graffiti	Ongoing	All	<b>Park Supervisor</b> SCIT DNR Archaeologist
Develop a baseline inventory document of all cultural resources	1	All	<b>DNR Archaeologist</b> SCIT Park Supervisor
Create MOU with MDOT to continue digital imaging of petroglyphs	1	History Education	<b>DNR Archaeologist</b> SCIT MDOT
Incorporate digital imaging into petroglyph education and interpretation	1	History Education	<b>DNR Archaeologist</b> SCIT
Revise 1971 National Register of Historical Places nomination	1	All	<b>DNR Archaeologist</b> SCIT
Coordinate and implement park clean-up day	1	All	<b>Park Supervisor</b> SCIT
Investigate Land Use Order prohibiting pets within the petroglyphs structure	1	History Education	<b>Park Supervisor</b> Policy Specialist
Explore the potential for scheduled tours and educational materials for school groups outside the official use season	2	History Education	<b>Park Supervisor</b> SCIT DNR Archaeologist
Survey river for rare species	2	Primitive	<b>Stewardship Ecologist</b> Fisheries Biologist
Develop virtual and audio self-guided tours	3	All	<b>DNR Archaeologist</b> Park Supervisor SCIT

LED – Law Enforcement Division

MOU – Memorandum of Understanding

SCIT – Saginaw Chippewa Indian Tribe of Michigan

DNR – Michigan Department of Natural Resources

MDOT – Michigan Department of Transportation

### Infrastructure and Development: Capital Outlay Projects

Action Goals	Priority	Management Zone	Program Input From
Design and engineer a solution to protect the petroglyphs, provide viewing opportunities, provide a surrounding gathering space for groups and meet tribal needs while also incorporating other park improvement goals	1	History Education	<b>Regional Planner</b> Park Supervisor DNR Archaeologist Stewardship Architect SCIT
Improve restroom access in the park (e.g., additional vault toilets or composting restroom facility)	2	History Education	<b>Regional Planner</b> Park Supervisor
Improve parking lot circulation and accessibility to provide turn-around space for large vehicles	2	History Education	<b>Regional Planner</b> Park Supervisor
Provide a natural space for large tour groups to congregate and sit	2	History Education	<b>Regional Planner</b> Park Supervisor SCIT

### Infrastructure and Development: Small Projects

Action Goals	Priority	Management Zone	Program Input From
Eliminate bat and bird roosting in pavilion to reduce degradation of petroglyphs	1	History Education	<b>Park Supervisor</b> DNR Archaeologist Stewardship Ecologist Wildlife Bat Specialist
Install National Register of Historic Places Land Acknowledgement plaque	1	History Education	<b>SCIT</b> Park Supervisor Regional Planner DNR Archaeologist
Complete update of interpretive signage along the trail	1	All	<b>DNR Archaeologist</b> SCIT Stewardship Ecologist DNR Geologist
Install a bulletin board at the parking lot to provide real time park information and cultural practices that take place at the park	1	History Education	<b>SCIT</b> Park Supervisor Regional Planner

**Infrastructure and Development: Small Projects (Continued)**

Action Goals	Priority	Management Zone	Program Input From
Apply for Michigan Historical marker and install	2	History Education	<b>DNR Archaeologist</b> Historical Architect SCIT Park Supervisor Regional Planner
Provide ADA access to the river near the petroglyphs	2	Primitive	<b>Regional Planner</b> Park Supervisor SCIT
Mark park boundary between park and state game area	2	All	<b>Park Supervisor</b> Land Liaison WLD

SCIT – Saginaw Chippewa Indian Tribe of Michigan  
DNR – Michigan Department of Natural Resources  
WLD – DNR Wildlife Division



Cass River interpretive sign along hiking trail

## 4. Implementation Strategy

This chapter of the GMP provides guidance for implementation of the action goals and maintaining the plan so it remains relevant in the long term. These guidelines will also help the park align the action goals with park, district, SCIT and statewide annual funding processes and annual tasks outlined in the PRD's Strategic Plan or other planning documents. Although the implementation of the GMP will require commitment from staff at every level, it will be the primary responsibility of the Unit Supervisor/Manager to oversee plan implementation.

A long-range plan such as this must maintain a degree of flexibility in order to be responsive to changing circumstances or opportunities that cannot be foreseen. The planning team recognizes that some goals may be accomplished in a short time frame, while others may carry over through multiple years. It will be important to track progress so that the plan remains a relevant park management tool. The GMP will be reviewed every five years to ensure it remains viable.

All proposed changes in the park should be reviewed to ensure they are in compliance with the approved Management Zones.

### 4.1. Implementation Toolbox

The following is a list of items to consider when reviewing and prioritizing the implementation of action goals identified in the GMP.

#### Coordination/ Communication

- Meet regularly with the SCIT, Regional Field Planner and District Supervisor to coordinate and prioritize large capital projects for capital outlay requests.
- Maintain an open dialogue with local partners and stakeholders to coordinate community-related projects as identified in the action goals.
- Follow-up regularly on progress for action goals that are not the primary responsibility of the Unit Supervisor/Manager with the responsible program position.

#### Funding

- Estimated costs for capital outlay projects are included in the Opinion of Probable costs section. These costs will be refined and adjusted by the Regional Field Planner as designs and studies are completed.
- Identify potential funding sources for each project/task. Liaise with the SCIT and PRD grants coordinator as appropriate.
- Align potential funding sources with the annual capital outlay funding requests.
- Request District Small Project funding through the District Supervisor for small projects identified in the 10-year action goals.

#### Scheduling

- Further prioritize projects based on need, funding, staffing and other constraints and opportunities.
- Incorporate project/task assignments into annual staff performance objectives

## **4.2. Documentation of Changes**

The Unit Supervisor/Manager should keep a record of any major changes to the park since approval of the GMP and note potential updates that may be required in the future. Documenting these changes will assist in the 5-year plan review or when the GMP is updated. Changes may include:

- New user requests or conflicts
- Emerging recreation, funding or partnership opportunities
- Changes in land management
- Land transactions or changes to the Approved Project Boundary
- Major infrastructure projects or removal of structures

Changes may be documented by marking up the park's copy of the GMP or maintaining a log that is kept with the GMP. In reviewing the action goals for changes, document goals that may become irrelevant or are no longer viable, as well as proposed new action goals, including justification.

The park zoning is intended to be a long-term document. Changes will only be considered with adequate justification and are subject to a formal review and approval process.

## **4.3. Documentation of Accomplishments**

As action goals are completed, the Unit Supervisor/Manager should mark them as such in the park's copy of the GMP, including the completion date. This will also help to maintain a log of accomplishments for district and division-wide reporting purposes, including PRD's strategic plan.

## **4.4. Five-year Review Process**

General management plans are reviewed every five years from the date of approval of either the Phase 2 plan or the complete GMP. The planning team for the 5-year review is made up of the Park Management Plan Administrator, Unit Supervisor/Manager, Regional Field Planner, District Supervisor and a representative of the SCIT, with other team members included as may be necessary. A 5-Year Review Form will be used to record all changes to the plan within the past 5 years. Upon reviewing the GMP and the documented changes, the planning team will determine whether the changes warrant a complete update of the plan.

If there are no major changes required in either the zoning or the action goals, the planning team will complete the 5-Year Review Form and attach it as a supplement to the existing GMP. If zoning changes are needed, the GMP will be revised or updated following the established planning process led by the Park Management Plan Administrator. If changes to the action goals only are required, the Phase 2 GMP planning process will be implemented.

# APPENDIX A – LEGAL MANDATES UPDATE

For all park general management plans, legal mandates are identified that serve to further guide the development of the general management plan and subsequent action plans. For our planning purposes, the term “Legal Mandates” refers not only to federal and state law, but also the administrative tools of “Policy” and “Directive” of the Natural Resource Commission, the Department, and the Parks & Recreation Division. Examples include Orders of the Director, Park and Recreation Areas State Land Rules and all other laws, commission orders, and rules or directives that apply to the park.

Legal Mandates were listed in the phase 1 plan. However, due to omissions and updates, a complete updated list of legal mandates impacting Sanilac Petroglyphs State Park follows.

## FEDERAL STATUTE

<b>ENDANGERED SPECIES ACT, 1973</b>	
This Act authorizes the determination and listing of species as endangered and threatened, and prohibits unauthorized taking, possession, sale and transport of endangered species	
<b>BALD AND GOLDEN EAGLE PROTECTION ACT, 1940 AND AMENDMENTS</b>	
This Act prohibits anyone, without a permit issued by the Secretary of the Interior, from "taking" bald eagles, including their parts, nests, or eggs. The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." “Disturb” includes actions that may result in injury to the eagle, a decrease in its productivity or nest abandonment.	
<b>NATIONAL HISTORIC PRESERVATION ACT, 1966 AS AMENDED</b>	
This is the primary federal law governing the preservation of cultural and historic resources in the United States. The law establishes a national preservation program and a system of procedural protections which encourage the identification and protection of cultural and historic resources of national, state, tribal and local significance. This act applies to any projects with federal undertaking.	

## STATE STATUTE

<b>NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT (NREPA) AND AMENDMENTS</b>	
<b>PA 451 of 1994, Part 5</b>	Gives the DNR authority to make rules to support its mission. This includes State Land Rules, Land Use Orders, Wildlife Conservation Orders, Fisheries Orders and Watercraft Control.

<b>PA 451 of 1994, Part 31 Water Resources Protection</b>	Provides authority to EGLE to require a permit for any occupation, construction, filling, or grade change within the 100-year floodplain of a river, stream, drain, or inland lake.
<b>PA 451 of 1994, Part 301 Inland Lakes and Streams</b>	Requires a permit from the state (EGLE) to undertake certain activities relating to inland lakes and streams, such as dredging, fill, marinas, structures, alteration of flow, etc.
<b>PA 451 of 1994, Part 303 Wetlands Protection</b>	Requires a permit from the state (EGLE) to undertake certain activities in regulated wetlands, such as, dredging, fill, construction or drainage.
<b>PA 451 of 1994, Part 351 Endangered Species Protection</b>	The law governs those acts necessary for the conservation, protection, restoration and propagation of endangered and threatened species of fish, wildlife and plants in cooperation with the Federal Government.
<b>PA 451 of 1994, Part 741 State Park System</b>	The department shall create, maintain, operate, promote, and make available for public use and enjoyment a system of state parks to preserve and protect Michigan's significant natural resources and areas of natural beauty or historic significance, to provide open space for public recreation, and to provide an opportunity to understand Michigan's natural resources and the need to protect and manage those resources.
<b>PA 451 of 1994, Part 761 Aboriginal Records and Antiquities</b>	The state reserves the exclusive right and privilege to all aboriginal records and other antiquities including those found on the bottomlands of the Great Lakes.

## ORDERS

The following Orders apply to Sanilac Petroglyphs State Park.

### Land Use Orders of the Director

#### **5.1 State Parks and recreation areas, certain conduct prohibited:**

Order 5.1 A person shall not do any of the following in any SP or RA:

- (1) Have more than 1 horse for each registered camper at any designated horsemen's campground without first obtaining proper written permission from the department.
- (2) Enter, use or occupy a designated mountain bike trail when posted closed except with written permission from an authorized representative of the department.
- (3) Operate an electric bike in conflict with MCL 324.72105.
- (4) Use, in any way, a sky lantern.

(a) "Sky lantern" means an unmanned hot air balloon made of paper or other lightweight material that is launched into the atmosphere and has a flame inside the balloon.

(5) Operate an unmanned aircraft in conflict with the unmanned aircraft system act (PA 436 of 2016),

and as follows:

- (a) In a manner that knowingly and intentionally interferes with department employees and their designees performing official duties.
- (b) In a manner that interferes with department staff when conducting search and rescues.
- (c) Within 100 yards of a cultural or historical site or structure.
- (d) Upon or over the viewing platform at Tahquamenon falls.
- (e) Over an occupied beach area.
- (f) Over an equestrian facility.
- (g) Over a campground.
- (h) Over a restroom or open-air changing court.
- (i) Over an area subject to an aerial right-of-way.
- (j) For a commercial purpose without first obtaining written permission from an authorized representative of the department.

#### **5.12 Certain state parks and recreation areas, requirements for use, certain conduct prohibited.**

Order 5.12 The following conduct shall apply to use of Michigan SPs and RAs:

(15) Sanilac petroglyphs historic SP, prohibited conduct. A person shall not do any of the following at the Sanilac petroglyphs historic SP: (a) Enter into the fenced area containing the petroglyph rock when the entry gate is closed. (b) Walk upon or otherwise come into contact with the petroglyph rock within the fenced area.

#### **Wildlife Conservation Orders**

Wildlife is owned by all the people of the state of Michigan, and protection is administered and managed by the Michigan DNR. Hunting and trapping regulations including methods of take, bag limits, license quotas, and season dates are established by the Natural Resources Commission (NRC) and are described in the Wildlife Conservation Orders.

#### **7.1 Hunting or trapping in state parks or game refuges; designating where permissible; permits; hunting or trapping in state recreation areas.**

Sec. 7.1 (1) Except as otherwise provided in this chapter or by permit issued by the director, no person shall trap or hunt with firearms or dogs or in any other manner in any state park, state game refuge, or other lands under the control of and dedicated by the department as a game refuge or wildlife sanctuary.

(2) Except as otherwise provided in this chapter, state recreation areas shall be open to hunting and trapping during established seasons.



### **Deed Restrictions**

The site was given as a gift to the DNR from the Michigan Archaeological Society (MAS). The deed spells out restrictions on the property's use. This property is conveyed for the use by the public and under the following conditions:

(1) To preserve the aboriginal petroglyphs and develop said premises for the benefit of mankind from the present to distant future generations as a cultural and educational facility (as distinguished from a sports or recreational facility) for promoting a better appreciation of man's natural and cultural heritage and of his continuing relationship to his environment.

(2) Except as it may be, both a part of and incidental to a display, a demonstration, or a research project in furtherance of aforesaid purpose, no part of said premises, nor the product thereof, shall be used for private or public economical gain. Entrance or admission fees to the areas may be charged by the Michigan Department of Natural Resources or its successors as deemed necessary.

(3) If the property is not used for the intended purpose by the Michigan Department of Natural Resources, or its successors, within a reasonable time hereafter, or if thereafter it ceases to be so used, then in that event it shall revert to the party of the first part, its successors or assigns.

# APPENDIX B – STAKEHOLDER AND PUBLIC INPUT SUMMARY

Over the duration of the Phase 2 General Management Plan development process, the Planning Team ensured a variety of opportunities for stakeholder and public input and feedback.

## Stakeholder Meeting

A stakeholder meeting was held on February 2, 2022, in a virtual format using Microsoft TEAMS, to guide the phase 2 general management plan for Sanilac Petroglyphs Historic State Park. Participants were invited to provide their input, identifying strengths, challenges and opportunities related to the park. A total of 19 participants represented government, business and tourism, and non-profit organizations from around the region. The meeting began with a short presentation of the phase 1 general management plan that was completed in 2012 and a review of the planning process for this phase 2 plan. Input gathered at the meeting is listed below:

## **STRENGTHS**

### Recreation

- Trail and birding
- Maintained trail system
- Hiking

### Management

- Attentive DNR staff
- Low cost to visit
- (4) Tribal Co-management
- Active Tribal Representatives
- Co-management! Chi Miigwetch!

### Education

- Signage
- (2) New interpretive signage
- Community cultural teachings by SCIT
- Petroglyphs have been interpreted
- Strong balance of highlighting natural features & cultural interpretation
- Tells the story about the land and it's uses
- The petroglyphs and ability to show the interlinkage and importance between cultural beliefs and the natural world.
- Education potential for culture, history and environment
- Education
- Fostering student curiosity and wonder

### Natural Resources

- Flowers blooming in Spring
- Natural resources
- Old growth white pine
- Unique landscape for Sanilac County
- Undeveloped nature area
- Cass River runs through it
- Beauty and nature
- Pristine forest

### Cultural Resources

- History
- Amazing history
- Culture
- (2) Historical and sacred location
- Culture preservation
- The amazing petroglyphs
- Seeing the petroglyphs in the original context
- Historical significance
- Representation of Anishinaabemowin language
- Indigenous cultural representation
- Cultural resources
- Indigenous stories
- Sacred and spiritual area
- Only petros in Michigan
- Unique cultural resource
- Horizontal petroglyphs instead of vertical petroglyphs
- Providing space for Anishinaabe perspective
- Cultural resources important to native people

### Other

- Strong community interest
- Positive relationships with stakeholders
- Unique to Michigan site
- Inspiration
- Flexibility for special programming
- Interconnections between culture, the environment, history and preservation

## CHALLENGES

### Location

- Rural location
- Difficult (remote) access to the park
- Distance from metro areas
- Remoteness can be a weakness but also a strength. Things worth seeing are worth traveling to.
- Lack of nearby amenities may deter some from visiting (not me though!)

### Facilities/Amenities

- Rugged trail
- Aging protective structure
- Lack of interpretive center
- Access difficult for Elders
- Size of parking
- Existing metal bridge structure, although sturdy, does not fit with the setting
- Structure for school groups to gather, even more picnic tables
- Lack of modern restroom facilities
- Need more signage identifying the plants
- Bathroom access
- (2) Accessibility
- Few locations for large groups to congregate (i.e. students to discuss what they have learned, process their experiences)
- More signage telling/showing how the petroglyphs were used historically
- Need visitor center
- Wheelchair accessibility

### Management/Maintenance

- Bats above the petroglyphs
- Keeping vandals and natural deterioration from continuing to degrade the petroglyphs
- Erosion damage to the 'glyphs
- Protect the sandstone outcrops (graffi/vandalism and not only inside the enclosure)
- Preservation of the petroglyphs
- Limited hours/no hours much of the year
- Preservation concerns – delicate cultural resources
- Let the petroglyphs return to the land and do not stop the natural process
- Covid-19 Limitations
- Staffing
- Need 77-year preservation plan (Anishinaabe philosophy to think 7 generations ahead)
- Interpreters available on a regular basis
- Very limited window of open dates for schools to schedule trips
- Improve public access to the petroglyphs (dates/hours)

- Docent interpretation
- Conservation and preservation of the petroglyphs, boosting visitorship and visibility, sufficient funding for maintenance and interpretation of the park, preservation of vandalism
- Allowance for Anishinaabe preservation (re-etching through ceremonial use)

#### Communication

- Public awareness of the site
- Public knowledge of location, cultural/historical importance, stewardship
- Cultural tourism opportunities
- Protocols, staffing, programming for school groups, community groups, public

#### Threats

- All things will return to mother earth
- River health
- Petroglyphs are naturally eroding as natural process
- Balance between access and cultural respect
- Seasonal challenges
- Funding constraints
- Development risks cultural and natural setting

### **OPPORTUNITIES**

#### Facilities/Amenities

- River access for recreation and cultural needs
- Plan for replacing aging pavilion that honors Tribal needs and site use
- Visitor center
- Expand and pave parking lot
- Non-destructive observation of the petroglyphs
- Bathroom all the way!
- Build a bathroom facility that makes visiting safer and more enjoyable
- Adding a bathroom with running water so basic needs can be met while visiting the petroglyphs
- I think the bathroom is the #1 opportunity to improve the center
- Increase accessibility to the park/trails
- Additional seating for elders
- Consideration of visitor center for interp, small meetings, and shelter for staff in dangerous weather

#### Funding

- Funding allocations for improvements
- Start capital campaign for preservation
- Sharing costs for improvements
- State license plate program to honor the site and to help raise additional funds for its perpetual maintenance
- Increased visibility and visitorship helps make the case for more funding

## Education

- Cultural and historic interpretation
- Increased programming to provide greater understanding of the importance of Anishinaabe culture
- More events or signage/etc. to emphasize it being a secret Anishinaabe site relevant to them still today, not just in the past
- Guided hikes
- Increase signage including pictures, diagrams, and words
- QR Code or app interpret
- Pre-recorded and downloadable guided tours
- Chance for better representation of Anishinaabe history and teachings
- Online distance interpret and education
- More indigenous representation in interpretation
- Trail interpretive signage
- Consider more digital resources for those that cannot bring students/other groups to the site
- Expanded geology interpretation
- Teachers who bring school groups to the site should lead the school groups and not depend on park staff to provide an interpreter
- Public education on a variety of cultural and environmental topics
- Education of the importance of archeological and cultural sites as part of history; heighten awareness of Michigan's Native peoples and their beliefs

## Partnerships

- Marketing partnership with the Thumb Octagon Barn
- Trail and park clean-up days with local partners
- Docent interpretive training
- Invite more tribes to sponsor teachings
- Fund indigenous artists and elders for creation of interpretive signs and materials
- Establish community service days
- Consider virtual tribal-led tours
- Integrate more Anishinaabe preservation processes
- Continued partnerships with school partners to create more educational resources for the site

## Management/Maintenance

- More opportunities for group visits
- Update the National Register listing
- Revise National Register nomination to include Tribal knowledge
- Add additional hours to allow for more schools to visit
- More bandwidth
- Special programs and events
- Space and expertise that is available to create signage and self-guided tours
- Model for Tribal-State co-management – use for other sites/parks

Communication

- Connecting park to other Thumb attractions so people who travel know how much there is to visit in wider area
- Traditional cultural property
- Interpretation of the site should be in different languages
- Cultural diversity awareness
- Increased interest in Michigan’s cultural resources
- Tours and interpretation in Anishinaabemowin

Natural Resources

- Enjoy quiet natural area
- Opportunities for quiet reflection

**Planning Team Attendees:** Matt Lincoln (Park Planner/Land Liaison), Debbie Jensen (Management Plan Administrator) Scott Cook (Regional Field Planner), Braden Beaver (Unit Supervisor), Greg Kinser (Northern Lower Region Trail Coordinator), Greg Norwood (Stewardship Ecologist), Josh Pellow (District Supervisor) Peter Rose (Geologist), Stacy Tchorzynski (Archeologist)

**Stakeholder Meeting Attendees**

Name	Stakeholder Affiliation
Adam Hellebuyck	University Liggett School
Frank Boston	MDOT
Carl Osentoski	Huron County Economic Development Consortium
Chris Hemler	MDOT
David Cusack	Michigan Archaeological Society
Dawn Malek	Sanilac County Historic Society
Don Beavers	Park Interpreter
Brian Fish	MDOT
Michael Hambacher	SHPO
Karen Currie	Huron County Intermediate School District
Marcella Hadden	THPO, Saginaw Chippewa Indian Tribe
Trevor Edmonds	Saginaw Basin Land Conservancy
William Johnson	Saginaw Chippewa Indian Tribe

Name	Stakeholder Affiliation
Alan Parather	Michigan State University
Scott Whipple	Huron County Intermediate School District
Shannon Martin	Saginaw Chippewa Indian Tribe
Sarah Surface-Evans	SHPO
Tammi Hensley	Thumb Octagon Barn Agricultural Museum
Alyssa Winter	Blue Water Conservation District

SHPO = State Historic Preservation Office, THPO = Tribal Historic Preservation Office, MDOT = Michigan Department of Transportation

**Virtual Public Input Meeting (To be completed)**

A virtual public input meeting was held online via GoToWebinar application on [DATE] at 6:00pm to review the draft Phase 2 General Management Plan and comment on the draft 10-year action goals. The Phase 2 Plan was also posted on the DNR’s website and comments were invited via e-mail and an online survey. A press release went out 3 weeks in advance of the meeting to [NUMBER] recipients of the government-delivery system, including 30 associated with the park.

The press release for the meeting, analytics gathered at the meeting, a list of attendees, comments received, as well as survey results are provided below.

[INSERT PRESS RELEASE HERE]

A total of [NUMBER] people attended the virtual meeting. A short presentation about the General Management Plan process was followed by a presentation of the Phase 1 GMP, approved in 2012 and the primary elements of the phase 2 draft plan. After the presentation, a question and answer session was facilitated through the GoToWebinar online application.

**Virtual Public Meeting Attendees**

**DNR Employees Present**



**Questions and Comments Collected During Webinar**

Question Asked	Answer Given

**Project Website**

A webpage was maintained through the duration of the planning process and was updated with maps, meeting information and the draft plan. Contact information was provided for members of the public to submit comments or ask questions.

**E-mailed/Mailed Comments**

**Post Meeting Survey**

Meeting attendees were asked to review and help prioritize action goals by completing an online survey. The survey was also shared on the park website. [NUMBER] responses were collected. The total number of votes for each goal, and associated comments, are illustrated in the following survey results.

[INSERT SURVEY SUMMARY HERE]

# APPENDIX C – CAPITAL OUTLAY PROJECTS OPINION OF PROBABLE COST

## State Park Funding

The primary funding sources for state park improvement and development projects are Recreation Passport sales (motor vehicle registration fee), the Park Endowment Fund (generated from royalties from oil, gas and mineral extraction on public land) and the Park Improvement Fund (from camping and other state park user fees). One-time appropriations from the state General Fund may also be ear marked for specific needs but are not guaranteed. The annual capital outlay budget for state parks varies significantly from year to year, as illustrated by the table below. The state park system is 100 years old and much of the infrastructure is aging. Identified infrastructure needs across the state park system (excluding Belle Isle Park, trail infrastructure, and state waterways infrastructure) is currently estimated to be over \$278 million.

Fiscal Year	Total Annual Capital Outlay Project Budget**	Identified Infrastructure Needs
FY20	\$ 15,845,000	\$ 278,159,950
FY19	\$ 18,925,000	\$ 273,498,836
FY18	\$ 14,520,000	\$ 264,089,912
FY17	\$ 10,400,000	\$ 285,513,487
FY16	\$ 8,661,000	\$ 312,594,557
FY15	\$ 6,051,500	\$ 303,808,685

*\*\*Capital Outlay funds dedicated to funding state park projects; excluding funds for Belle Isle Park, major emergency repairs, District Major Maintenance Projects, etc.*

With such a large gap between financial need and budget, all projects are carefully analyzed to look at innovative solutions to increase efficiencies or downsize assets.

## Estimated Cost of Proposed Developments

The following table provides an estimate of probable cost for each capital outlay development project proposed at Sanilac Petroglyphs Historic State Park over the next ten years. Management and operations actions and small projects, which are funded out of district or park funds, are not included in this list but may have additional financial implications. The costs are based on information available at the time and will be refined as conceptual and detailed designs are completed. Where noted, the costs may only include studies or project planning, which will provide direction for development costs if determined appropriate. The costs are based on 2021 prices and should be adjusted according to the consumer price index and the market at the time of implementation.

The following action goals are ranked in terms of priority based on health, safety, and welfare, as well identified need and ease of implementation (cost, ability to implement with own staff, partnerships etc.).

Priority Level 1 projects indicate those that should be addressed within the next 2 years. Priority Level 2 projects include those that should be addressed within 2-5 years. Priority Level 3 projects are desired but can be tackled in the next 5-10 years once funding has been identified.

PRD will seek future internal funding, alternative funding sources, partnerships and other potential mechanisms for implementing the desired future conditions defined in this plan, however the costs listed below do not guarantee funding and will likely be effected by the COVID-19 crisis. On an annual basis, PRD districts determine priorities for project planning and project capital outlay. Each district's top projects are then evaluated at a state-wide level for available funds.

<b>INFRASTRUCTURE &amp; DEVELOPMENT: CAPITAL OUTLAY</b>		
<b>Action Goals</b>	<b>Priority</b>	<b>Opinion of Probable Costs*</b>
Design and engineer a solution to protect the petroglyphs, provide viewing opportunities, provide a surrounding gathering space for groups and meet tribal needs while also incorporating other park improvement goals	1	\$200,000
Improve restroom access in the park (e.g., additional vault toilets or composting restroom facility)	2	\$20,000-\$350,000 depending on type
Improve parking lot circulation and accessibility to provide turn-around space for large vehicles	2	\$30,000
Provide a natural space for large tour groups to congregate and sit	2	\$50,000
<b>**TOTAL OPINION OF PROBABLE COSTS (10 YEARS)</b>		<b>\$630,000</b>

*\*Does not guarantee funding.*

*\*\*Excludes costs yet to be identified by studies to determine best way to proceed and costs associated with projects that are already funded.*

# **APPENDIX D – RESOURCE MAPS**

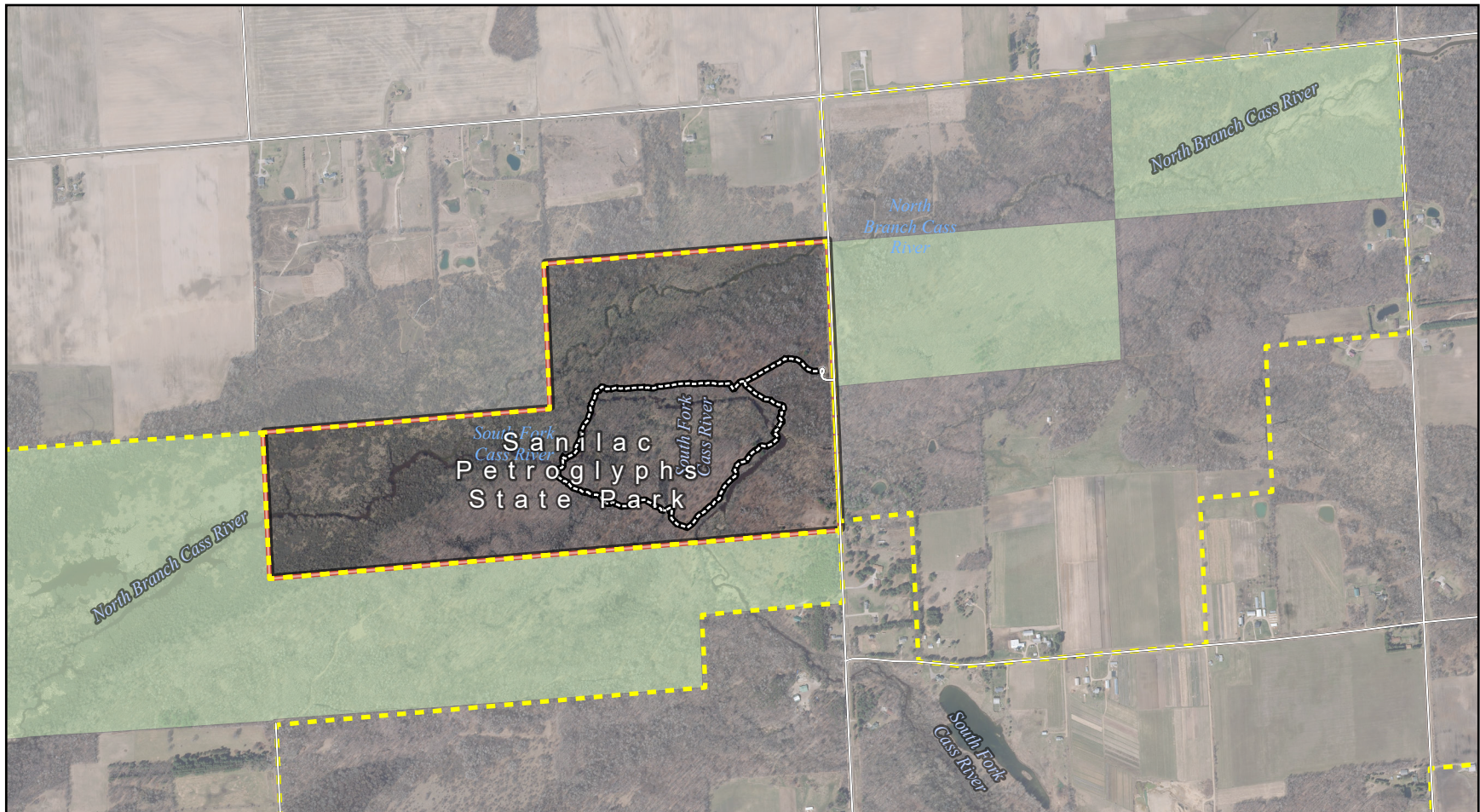
**Park Boundary**

**Soils**

**Wetlands**





**Land Cover, 1800's**

**Forest Stands and Land Cover**



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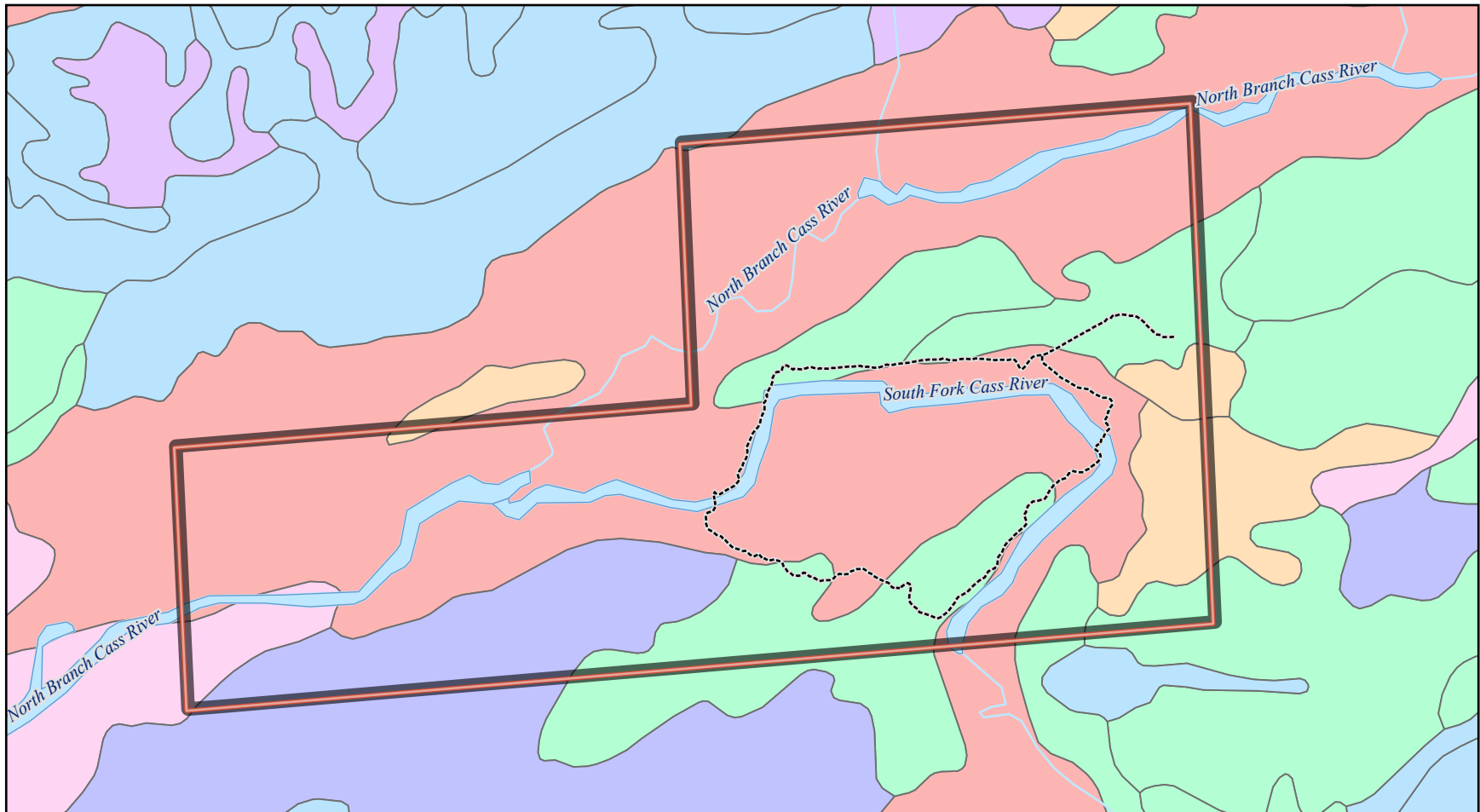
## Sanilac Petroglyphs State Park - Park Boundary

-  NRC 2020 Approved Project Boundary\*
-  Road
-  Wildlife Division Lands
-  Trail

Updated: 11/18/2021

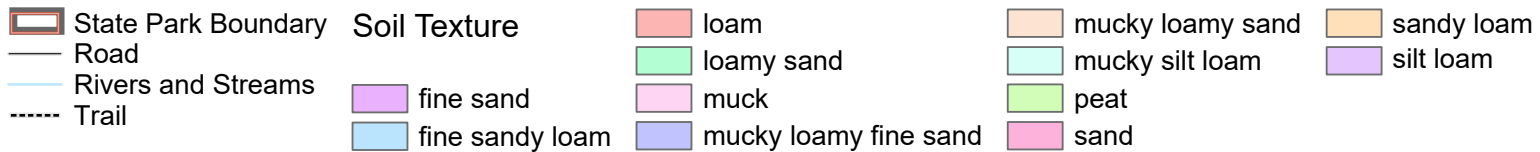
\*A project boundary is a geographic area in which the DNR is seeking to acquire property that supports the mission of the DNR on a willing buyer / willing seller basis, approved by the Natural Resources Commission in May 2004





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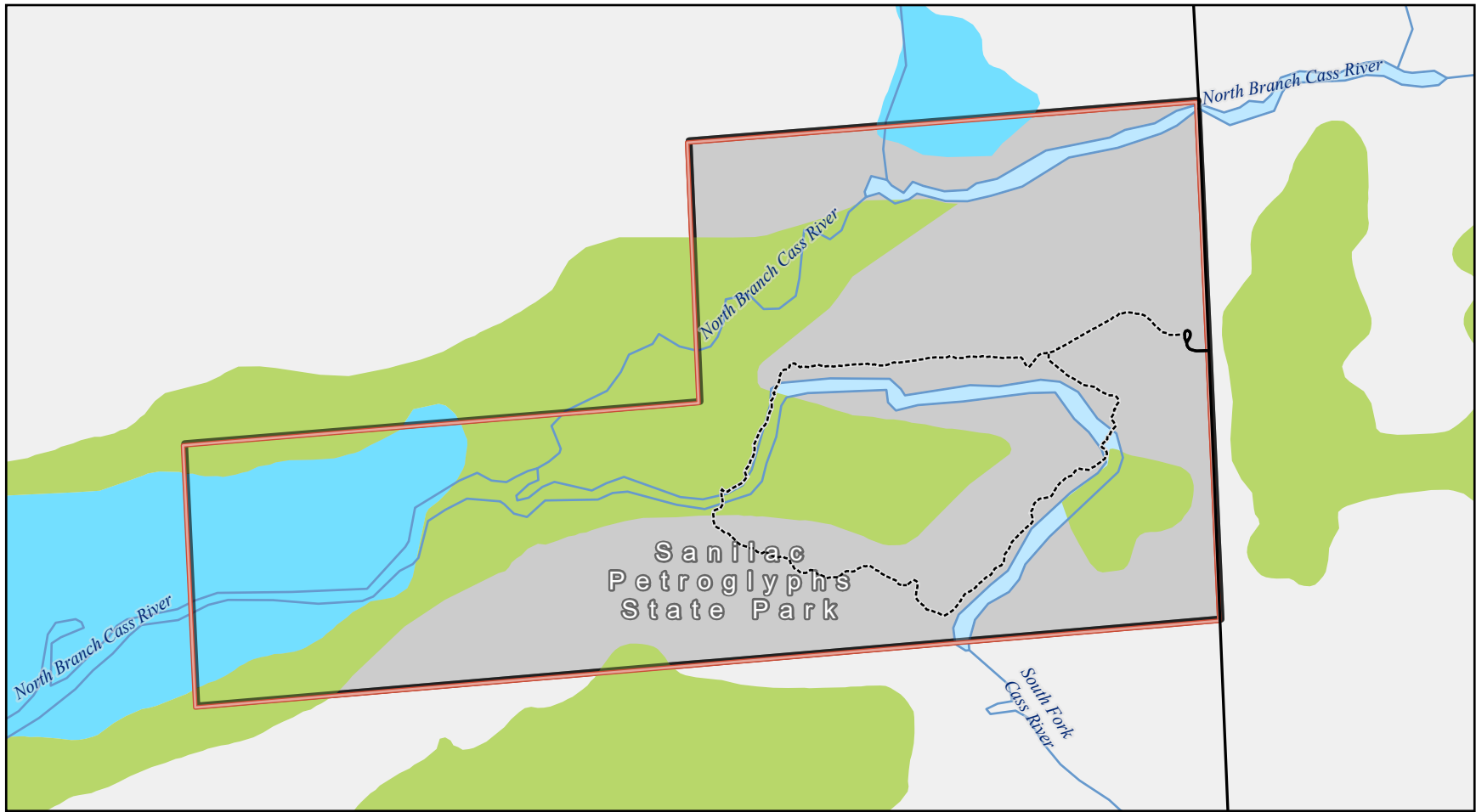
## Sanilac Petroglyphs State Park - Soils



Updated: 11/18/2021

\*Natural Resource Conservation Service (NRCS) Map Sheets, Soil Survey Geographic (SSURGO) Database, 2000





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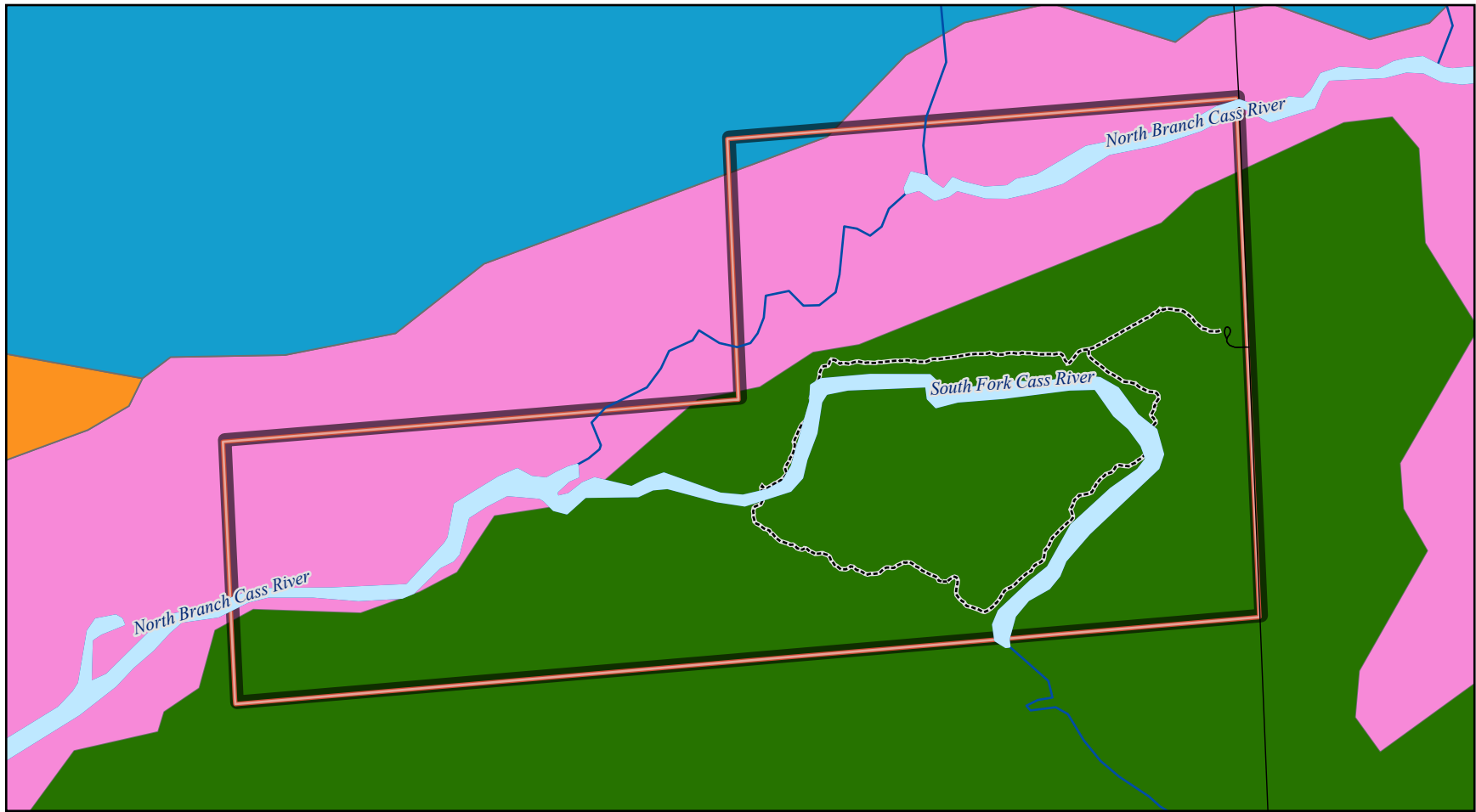
## Sanilac Petroglyphs State Park - Wetlands

- |                     |                                   |
|---------------------|-----------------------------------|
| State Park Boundary | Wetlands*                         |
| Road                | Freshwater Emergent Wetland       |
| River/Stream        | Freshwater Forested/Shrub Wetland |
| Lake/Pond           | Trail                             |

Updated: 11/18/2021

\*The National Wetlands Inventory (NWI) dataset (2012)





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## Sanilac Petroglyphs State Park - Land Cover, 1800s

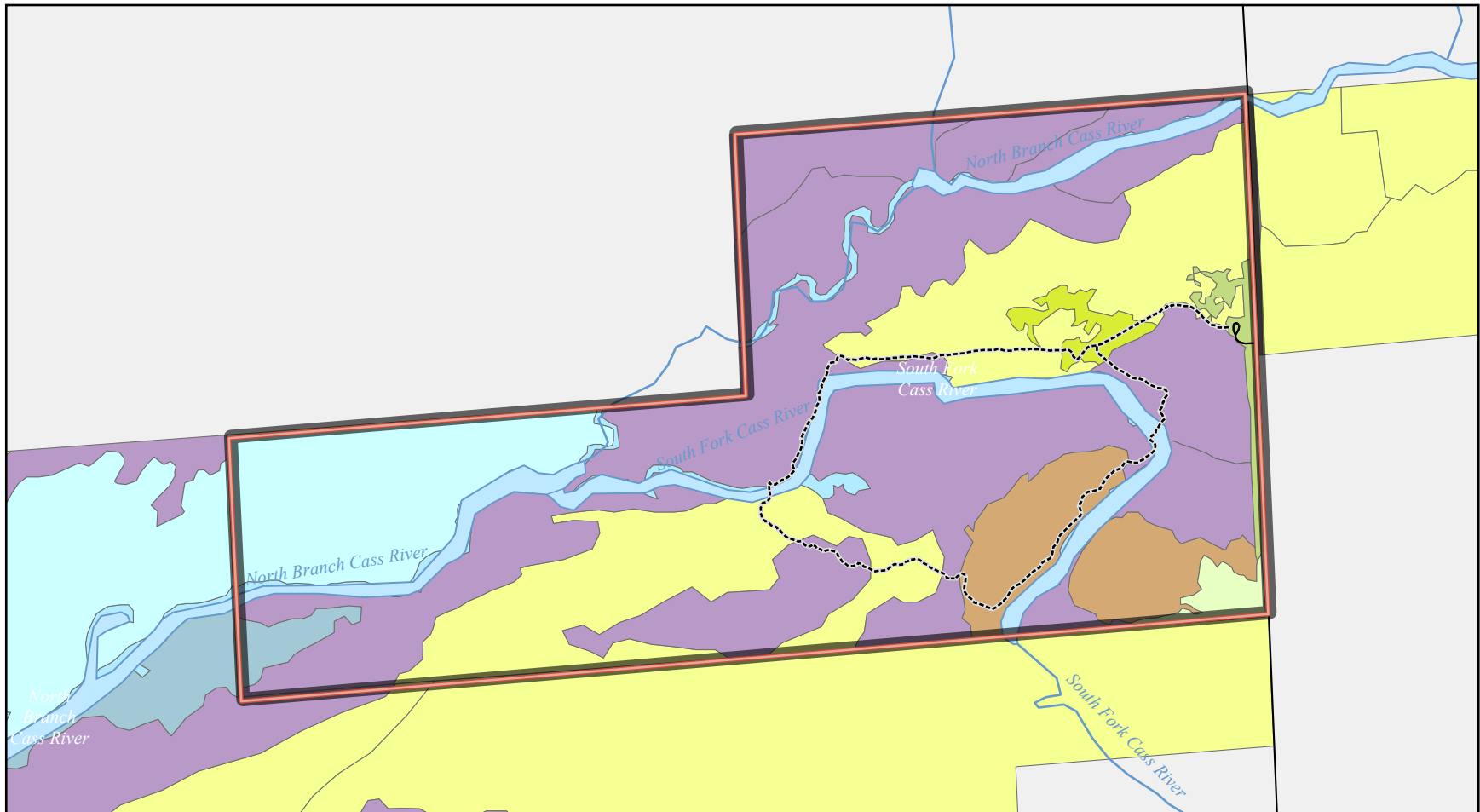
- |                 |             |                            |            |                   |
|-----------------|-------------|----------------------------|------------|-------------------|
| — River/Stream  | Land Cover* | Orange                     | Hemlock    |                   |
| - - - - - Trail | Green       | Beech/Hemlock              | Pink       | Low Conifer Swamp |
| — Road          | Blue        | Beech/S Maple/B Wood/R Oak | Light Blue | Lake/Pond         |



Updated: 11/18/2021

\*Mapping derived from original notes of the State of Michigan General Land Office Survey conducted in the early to mid-1800s





MICHIGAN DEPARTMENT OF NATURAL RESOURCES

### Sanilac Petroglyphs State Park - Forest Stands and Land Cover



- |                     |                          |                                |                           |                        |
|---------------------|--------------------------|--------------------------------|---------------------------|------------------------|
| State Park Boundary | <b>Stand Covertypes</b>  | 611 - Lowland Deciduous Forest | 310 - Herbaceous Openland | 500 - Water            |
| Road                | <b>Forest Covertypes</b> | <b>Non-Forest Covertypes</b>   | 320 - Upland Shrub        | 622 - Lowland Shrub    |
| River/Stream        | 411 - Northern Hardwood  | 122 - Roads/Parking Lot        | 330 - Low Density Trees   | 623 - Emergent Wetland |
|                     | 413 - Aspen Types        |                                |                           |                        |



Updated: 11/01/2021

\*Forest Stand Covertypes as determined by DNR forest stand examiners during the DNR's forest inventory process