



Resource Management Plan Sweets Knoll State Park



Adopted by the DCR Stewardship Council **Month**, 2023

Massachusetts Department of Conservation and Recreation
Division of Conservation and Resource Stewardship
Office of Cultural Resources

Purpose

Resource Management Plans (RMPs) are foundational documents that identify a park, forest, or reservation's defining natural, cultural, and recreational resources and identify potential threats and opportunities to guide DCR's continued stewardship of the property and to inform future decisions about the property in a way that celebrates and preserves its identity.

RMPs are prepared for "all reservations, parks, and forests under the management of the department." (M.G.L. Chapter 21: Section 2F) These plans "shall include guidelines for the operation and land stewardship of the aforementioned reservations, parks and forests, shall provide for the protection and stewardship of natural and cultural resources and shall ensure consistency between recreation, resource protection, and sustainable forest management." DCR finalizes RMPs following a public process and adoption by the DCR Stewardship Council.

Maura T. Healey, Governor

Kimberley Driscoll, Lieutenant Governor

Rebecca L. Tepper, Secretary

Brian M. Arrigo, Commissioner

The Massachusetts Department of Conservation and Recreation (DCR), an agency of the Executive Office of Energy and Environmental Affairs, oversees 450,000 acres of parks and forests, beaches, bike trails, watersheds, dams, parkways, and over 100 National Register listed properties. The agency's mission is to protect, promote, and enhance our common wealth of natural, cultural, and recreational resources for the well-being of all.

DCR honors Indigenous communities for their care, throughout many generations, of the land that DCR now stewards on behalf of the people of the Commonwealth. DCR embraces this legacy of stewardship, fostering a sense of shared responsibility by all people for protection of the waters, lands and living things for the enjoyment and appreciation of all.

To learn more about the DCR, its facilities, and programs please visit us www.mass.gov/dcr. Contact us at mass.parks@state.ma.us.



Sweets Knoll State Park

South Region

South Coast District

Fall River Heritage Complex

PARK OVERVIEW

| | |
|---------------------------------|---------|
| Date Established | 2009 |
| Location | Dighton |
| Landscape Designation (acres) | |
| Parkland | 54.0 |
| Reserve | 0.0 |
| Woodland | 0.0 |
| Park Size (acres) | 54.0 |
| Boundary Length (miles) | 5.0 |
| Annual Attendance (2020) | Unknown |
| Regulatory Designations (acres) | |
| Priority Habitat (MESA) | 3.1 |
| Environmental Justice (acres) | 0.0 |

LONG-TERM AGREEMENTS

| | |
|----------------------------------|-----------|
| Taunton River Watershed Alliance | Exp. 2020 |
|----------------------------------|-----------|

CONCESSIONS

| | |
|------|-----|
| None | N/A |
|------|-----|

PARTNERS & FRIENDS

[Taunton River Watershed Alliance](#)

FEATURES OF INTEREST

- Taunton River access and scenic views
- Two-mile-long former railroad bed/future multi-use trail

ACTIVITIES

- Dog walking, on-leash
- Fishing
- Hiking/Walking
- Hunting
- Nature study/photography
- Running/Jogging
- Wildlife viewing

Contact Info:

1387 Somerset Ave, Dighton, MA 02715

| NATURAL RESOURCES | | RECREATION RESOURCES | |
|--|-----------|----------------------------------|------|
| Elevation (feet above sea-level) | 4.5–62.9 | Picnic Area | 1 |
| Water Resources | | Taunton River | 1 |
| Watershed(s) | Taunton | Trail System | 1 |
| Rivers and Streams (miles) | 1.1 | ROADS & TRAILS | |
| Open Water (acres) | 0.7 | Roads (miles) | |
| Wetlands (acres) | 8.4 | Unpaved | 0.0 |
| Certified Vernal Pools (#) | 0 | Paved | 0.0 |
| Potential Vernal Pools (#) | 0 | Forest Roads (miles) | |
| Threatened & Endangered Species | | Unpaved | 0.9 |
| State-Listed (# Regulatory Species) | 2 | Paved | 0.0 |
| State-Listed (# Non-Regulatory Species) | 3 | Trails | |
| Federally Listed (#) | 1 | Unpaved (miles) | 2.1 |
| Forest Cover (acres) | 33.3 | Paved (miles) | 0.0 |
| Known Invasive Plants (# species) | | Unauthorized Trails (miles) | 0.1 |
| Aquatic | 1 | Trail Density (miles/acre) | 0.06 |
| Terrestrial | 7 | Area of Impact (acres) | 53.2 |
| CULTURAL RESOURCES (#) | | PARKING | |
| Archaeological | 2 | Lots (#) | 1 |
| Historic (total #) | 1 | Parking Spaces (#) | 6 |
| National Register Listed | 0 | Accessible (HP) | 0 |
| National Historic Landmark | 0 | Other | 0 |
| CLIMATE CHANGE (By 2070) | | INTERPRETIVE PROGRAMMING | |
| Increase in annual days over 90° F | >30 | (#PROGRAMS/#CONTACTS) | |
| Change in annual maximum daily rainfall (inches) | >10 | Formal Programming (2019) | |
| Massachusetts Coastal Flood Risk | | DCR | 0/0 |
| Model area of inundation (acres) | 30.0 | | |
| NATURAL HAZARDS (ACRES) | | | |
| Flood (1.0%–0.2%-chance) | 19.9–25.2 | | |
| Hurricane Inundation (Cat. 1–4) | 11.3–31.4 | | |
| FOREST MANAGEMENT | | | |
| (OBJECTIVE AND ACRES MANAGED, SINCE 2012) | | | |
| N/A | 0.0 | | |

INTRODUCTION

Sweets Knoll State Park (Sweets Knoll or the Park) is located in the Town of Dighton, on a strip of land between the Taunton River (the Taunton) and Route 138. Sweets Knoll is approximately 34-miles south of Boston and 15-miles east of Providence, Rhode Island. Primary access is from Route 138 (Somerset Avenue), with secondary access from points along the abandoned railbed that passes through the Park. Major highways near the Park are Routes 44 and 24. The Park lies on the west bank of the Taunton River, which defines much of Sweets Knoll's eastern boundary. The confluence of the Segreganset and Taunton Rivers is within the Park. Adjacent land use is primarily residential, notable exceptions include the Town of Dighton's town offices and athletic fields along the Park's northwest boundary and Bristol County Agricultural High School's facilities along the Park's northeast boundary.

Sweets Knoll is one of four DCR properties located along the Taunton River, a Wild and Scenic River that extends 40 miles from its headwaters in Bridgewater to its outlet at Mount Hope Bay. The other DCR properties along the Taunton are Massasoit State Park (16.5 miles upriver), Dighton Rock State Park (1.0 miles downriver), and Fall River Heritage State Park (9.0 miles downriver). All four parks are within the Bristol Lowlands/Narragansett Lowlands Ecoregion.

The Park is on land shaped by generations of Indigenous and non-Indigenous inhabitants. Past and present Indigenous residents embody fluid, relational connections to the places and spaces now known as Sweets Knoll State Park. Indigenous groups and individuals including peoples known as the Pokanoket and the Wampanoag are recorded in available documentation as having relationships to this place over seasons and generations (Native Land Digital 2023). The Dighton area is believed to have been the site of a large Native American population, with the majority of settlement to the south and west of the Park (Massachusetts Historical Commission (MHC) 1981). The hill after which the Park is named is located just outside the Park and was the site of a small Native American camp with more than 200 artifacts documented (Robbins et al. 1955). Following Native American dispossession, the Town of Dighton was incorporated in 1735 (MHC 1981). Sweets Knoll was acquired by the Department of Conservation and Recreation (DCR) in 2009. The Park's establishment was part of a broad pattern of public and private land protection efforts taking place along the Taunton in the early 2000s. These efforts accompanied the Taunton being proposed for Wild and Scenic River status (Taunton River Wild and Scenic Study Committee 2005, National Park Service 2007). The Taunton received that status in March 2009 and Sweets Knoll was acquired three months later to preserve the open character of the river and the area's rich historic and archaeological resources.

The park's wide grassy trails lead to the river's edge and expansive views of the Taunton. Visitors come here to picnic, fish, kayak, or enjoy scenic vistas within and outside of the Park. A small former residence, currently used as office space by the Taunton River Watershed Alliance, or TRWA, is within Park bounds.

PARK IDENTITY AND SIGNIFICANCE

Sweets Knoll's signature features are the Taunton River and a an approximately 2.0-mile stretch of former railroad bed. The Park protects significant natural and cultural resources associated with the Taunton, while providing public access to the river for passive recreation. The former railroad bed is one component of an anticipated hard-surface, multi-use trail that is envisioned to extend from Taunton to Somerset. (See <http://www.tauntonpathways.org/taunton-river-trail.html> for additional information on the Taunton River Trail outside the Park.) This trail will increase passive recreation opportunities in the region, provide another way for visitors to enjoy the river, and increase connectivity between Sweets Knoll, nearby communities, and additional recreational and cultural opportunities. Future uses and development of Sweets Knoll should be consistent with its identity as a riverside park that protects rare aquatic species, natural communities, and archaeological resources while allowing for passive recreation consistent with the Park's residential context.

Sweets Knoll is significant for the following reasons:

- Sweets Knoll provides public access to a beautiful, quiet portion of the Taunton for passive recreation purposes.
- Sweets Knoll protects tidal freshwater marshes.
- It protects two pre-Contact Native American sites along the Taunton River.
- It is located along the path of the proposed 22-mile-long Taunton River Trail.

DEFINING RESOURCES AND VALUES

Resources that define the Park are associated with the Taunton River and its history of human occupation. They include:

- The Park's location along the west bank of the Taunton River. From this location "one has an excellent view of the river and the bay to the south, and to the east across the river to the highlands of Berkley and Assonet which were heavily occupied in" Native American times (Robbins et al. 1955).
- The former New York, New Haven, and Hartford railroad bed that will be converted into a multi-use trail along the river.
- The millennia-long history of Native American presence along the river, and artifacts from a nearby site dating to prior to 1200 A.D.
- The Park's location within a residential neighborhood.

INTERPRETIVE THEME

Nestled on the banks of the Taunton River, Sweets Knoll State Park's natural and cultural landscapes provide opportunities to experience glimpses of Southeastern Massachusetts' varied history through agricultural fields, stone walls, and remnants of a railroad and trestle.

VISITOR EXPERIENCE

Sweets Knoll State Park provides nature-based visitor experiences, including the following:

- **Virtual Visitor Experience.** Potential visitors will find little information about Sweets Knoll State Park on DCR's web site. The "Find a Park" tool (<https://www.mass.gov/info-details/find-a-park>) identifies the Park's location and lists Hiking/Walking as activities that visitors may enjoy here. There is no additional information to help potential visitors plan a trip.
- **Entering the Park.** From the road (Somerset Avenue) Sweets Knoll appears to be just another residence along a road lined with residences. Only its Main Identification Sign, set back over 100 feet from the road, indicates to visitors that they have arrived at a state park. Entering the Park via the driveway, visitors proceed to a small parking lot adjacent to the former residence. There is no central kiosk. A multi-partner "Pathways to the Taunton" sign is located approximately 100 feet from parking and is visible from the lot.
- **Trail-based passive Recreation:** The Park's main path leads from the parking lot down to the river. Visitors may choose to head directly to the river or walk the former railroad bed to the north or south. All authorized trails provide scenic views of the Taunton.
- **Water-based Recreation:** The river is navigable by canoe or kayak. Visitors may carry their boats approximately 1,200 feet from the parking lot to the riverbank and launch them in the Park. However, easier river access is provided one-half mile upstream at an Office of Fishing and Boating Access car-top boat launch in the Town of Berkley. Because of this, boat launching is uncommon at Sweets Knoll.
- **Fishing.** With easy access to the river, the Park attracts visitors who come to fish the Taunton.
- **Picnic Tables:** Individual picnic tables are located at multiple sites near the river where visitors may sit and enjoy a meal while taking in scenic views of the Taunton.

THREATS AND OPPORTUNITIES

The following information identifies potential threats to the park's natural and cultural resources and identifies opportunities to enhance their protection and stewardship. Although not considered a resource under statute (M.G.L. Part I, Title II, Chapter 21, Sections 2F), recreation is also included below because it is an important part of the park-going experience, helps define a park's values, and is a key part assessing the consistency of activities taking place in the Commonwealth's forests, parks, and reservations.

Threats and opportunities identified below are used to inform the development of management recommendations. Potential recommendations must meet prioritization criteria to be included in the Priority Recommendations table, page 17.

Natural Resources

Threats

- Approximately 37% of the Park is within the 1.0%-chance flood zone and 47% is within the 0.2%-chance flood zone.
- The Park's location along the estuarine portion of the Taunton River exposes it to sea level rise and hurricane inundation.
- A state and federally Endangered aquatic animal uses the adjacent Taunton River. Activities within the Park that negatively affect water quality or quantity in the river may negatively affect this animal.
- Freshwater tidal marshes and stream banks along the Taunton River provide habitat for a state Endangered plant. This plant is believed to be negatively affected by changes in hydrologic regime, sedimentation associated with changes in adjacent land use, and loss of habitat due to invasive species.
- Common reed (*Phragmites australis*), an invasive wetland grass, is abundant along the river's edge.
- Current mowing practices may be exacerbating the spread of terrestrial invasive species present on site.
- Identified impairments in the section of the Taunton River adjacent to Sweets Knoll include low Dissolved Oxygen, Fecal Coliform, and Total Nitrogen (Massachusetts Department of Environmental Protection (DEP) 2021). These impairments led to this stretch of the river being classified as not supporting Fish, other Aquatic Life and Wildlife.
- The rail corridor is almost 2 miles long, abuts approximately 30 properties, and is not monitored regularly; encroachment may be occurring.

Opportunities

- The TRWA, which is based at Sweets Knoll, is actively engaged in river clean-ups, improving water quality, providing educational programming, and turtle conservation. Opportunities exist to increase their involvement at DCR properties along the Taunton.
- During public meetings for the proposed Taunton River Trail segment through the Park, members of the public have indicated that the state-Threatened northern diamond-backed terrapin nests within the Park. However, the NHESP database contains no records of this species in, or adjacent to, Sweets Knoll. An opportunity exists to ensure that protection of this species is considered in regulatory review by encouraging members of the public and the TRWA to report rare species observations to NHESP for all terrapins observed in the Park.
- Maintaining a vegetated buffer along the bank of the Taunton River would help prevent sediments and chemicals from the Park flowing into the river and degrading rare species habitat.
- Removing invasive species, seeding with pollinator seed mix as part of DCR's Growing Wild Massachusetts initiative, and installing bird boxes could enhance habitat for multiple native species.
- Reducing mowing activity between the building and Somerset Avenue, if appropriate for the Park's residential context, could greatly improve pollinator habitat.

- Establishing partnerships with schools in the region, such as UMass Dartmouth and Bristol County Agricultural High School, could encourage research into, and management of, the Park's natural resources.
- Increased boundary marking and monitoring along the rail corridor could identify and deter encroachments into Sweets Knoll.

Cultural Resources

Threats

- The banks of the Taunton River are considered to be highly sensitive for the potential occurrence of Native American sites and burial grounds. Sweets Knoll is known to have two pre-Contact sites but has not been systematically surveyed for archaeological resources. Any sub-surface disturbances may impact additional resources in the Park.
- An archaeological sensitivity assessment identified developed areas, maintained lawns, and fields as Highly Sensitive (Public Archaeology Lab (PAL) 2022). Activities within these areas may impact archaeological resources. Further archaeological investigations, including intensive (locational) archaeological surveys with subsurface testing would help identify, and avoid impacting, potentially significant resources.
- Erosion along the riverbank may expose cultural resources to unauthorized collection.
- The rail corridor has not been inventoried as a historic resource, or for individual components that might qualify as historic resources.

Opportunities

- This landscape is abundant in sensitive resources; systematically surveying the property would allow DCR to better understand and conserve the history of the site.
- Consultation with the Massachusetts Historical Commission, Massachusetts Board of Underwater Archaeology, Dighton Historical Commission, and other potential consulting parties could help avoid impacts to archaeological Resources (PAL 2022).
- Educating the public on DCR regulations as they pertain to cultural resources and the need to leave historic and archaeological resources in place would enhance resource protection.
- Existing historic resources along the railroad bed are excellent candidates for preservation and interpretation.

Recreation

Threats

- There is limited official information available on Sweets Knoll. DCR's web page does not include information on the Park, making it difficult for potential visitors to become aware of the property and its recreational opportunities.
- The Park has an identification sign but lacks a Welcome Wayside. Visitors to the Park are provided no information on its resources or recreation opportunities.
- The Park's appearance from Somerset Street is residential and does not convey that this is a state park.
- Parking is poorly defined, insufficient for the number of visitors, and not universally accessible.
- There is no kiosk to orient visitors to the Park and its resources.
- The fenced-in area behind the house is informally used as an off-leash dog park.
- Trails are poorly marked, grown-in at many sections, and not universally accessible, decreasing visitor access and usability.
- Visitors seeking fishing access have created multiple trails to, and access points along, the Taunton.
- Encroachment is believed to be occurring along the former railroad bed but is hard to monitor due to its length.

- The railroad bridge over the Segreganset River is in poor condition and cannot be used.
- Sweets Knoll's location along the tidal portion of the Taunton River exposes it to potential impacts of floods. Approximately 37% of the Park is exposed to the 1.0%-chance flood. This is primarily restricted to the wetlands along the Taunton and Segreganset Rivers. Approximately 0.3 miles of trails and 0.4 miles of railroad bed are within this area. Approximately 47% of the Park is exposed to a 0.2%-chance flood, including lower elevation uplands above the river. An additional 0.08 miles of railroad bed and 0.05 miles of trails are included in this area.
- Exposure to hurricane inundation varies with storm severity, from 20.9%–58.1% of the Park. Only the headquarters/former residence, adjacent fields, and railroad bed, from adjacent to the residence to one-quarter mile south of the northern terminus of DCR property, are outside of this area of exposure.

Opportunities

- Adding information about Sweets Knoll to DCR's web page would allow potential visitors to become aware of the Park, its resources, and associated recreation opportunities.
- Establishing a formal entrance that is sensitive to the Park's residential context would help identify the property as a state park.
- Creating a sign for the Park's building/former residence indicating that it is the headquarters of the TRWA would inform the public that the building is neither a residence nor the Park's headquarters.
- Increasing parking and establishing a dedicated visitor parking lot can increase visitation and awareness of the property.
- Adding universally accessible parking, accessible picnic opportunities, and accessible trails would allow visitors of all abilities to enjoy the Park.
- Installing a Welcome Wayside at the parking lot would welcome and orient visitors and provide them with site information.
- Creating an accessible multi-use path along the former railroad bed would create recreation opportunities within the Park and be an important anchor for the Taunton River Trail.
- A proposed Taunton River Trail parking area and trailhead, located on Town of Dighton property along Somerset Avenue, would provide increased access to the south end of the Park and to the Taunton and Segreganset Rivers.
- A proposed parking area and trailhead, located on Town of Dighton property at the Dighton Town Hall, would provide increased access to the north end of the Park.
- The planning process for the Taunton River Trail within the Park also identified improvements to the park gateway, parking, signs, and river access. This information may be used to inform implementation of related recommendations in this RMP.
- Providing accessible picnic tables along accessible routes would help expand the visitor experience.
- A formal car-top boat launch would increase recreational opportunities at the Park and eliminate boat-related erosion into the riverbank.
- Installation of a Main, or Cantilevered, Identification Sign along the river would make the Park identifiable to recreationists on the Taunton.
- Designating a few official fishing access points along the river bank and discouraging the creation and use of unauthorized trails to the water would help maintain a vegetated buffer along the Taunton.
- Preparing a management plan for trails-related maintenance activities with 200 feet of the Taunton River and submitting it for environmental review would enhance protection of the river.
- Developing a partnership with Bristol County Agricultural High School, or another local school, would allow students to become involved with trail maintenance, water quality research, water quality monitoring, and provide students other educational opportunities.

- Increased engagement by the TRWA could provide interpretive programming at Sweets Knoll.

Climate Change

Climate change impacts nearly every aspect of DCR's properties, from ecosystem health, to infrastructure, to recreation. The Department is actively working to mitigate and adapt to current and future impacts through such actions as forest management, decarbonizing DCR's buildings and vehicles, protecting wetlands, and using nature-based solutions to minimize stormwater impacts. Information on these, and other, efforts is incorporated into RMPs as available and appropriate.

DCR manages its forests to provide a range of ecosystem services such as recreation, clean water, wood commodities, and wildlife habitat (DCR 2020). For ecosystems under its management, DCR carefully considers both their vulnerability to climate change and their ability to mitigate the effects of climate change by storing carbon in ecosystems and harvested wood products. Several approaches are used to monitor DCR forests and to design forest management strategies to adapt to climate change and provide ecosystem services. (See Swanston et al. (2016) for information on adaptation strategies and approaches associated with DCR's forest management.) Established in 1957, DCR's Continuous Forest Inventory System (CFI) uses a network of more than 2,000 permanent plots on which repeated measurements are taken on an ongoing basis. The CFI measures the status, size, and health of over 100,000 trees; other vegetation; down woody material; and the forest floor. (See DCR 2014 for additional information on the CFI System.) This information helps DCR understand at a strategic scale the current character, condition, and trends of forest ecosystems under its care. DCR also uses operational inventory to help plan specific treatments and evaluate their outcomes. Using these different scales of information, remotely sensed data, and local and regional external expertise, DCR plans projects that help its stands, forests, and other lands adapt to climate change and mitigate greenhouse gas emissions. For additional information on the relationship between DCR's forest management practices and climate change, please see pages 77–85 in *Massachusetts Forest Action Plan 2020* (DCR 2020) and *Managing Our Forests...For Carbon Benefits* (<https://www.mass.gov/info-details/managing-our-forests-for-carbon-benefits>).

The Department is actively assessing the vulnerability of its properties and facilities to the anticipated impacts of climate change. A Climate Change Vulnerability Assessment (CCVA) will be used by DCR to enhance park operations and maintenance, inform resilient investment, and provide a framework for hazard mitigation and climate adaptation for natural resources, cultural resources, buildings, facilities, and other infrastructure. Property-specific climate change information derived from the CCVA is included in the RMP dashboard (see Climate Change (by 2070)).

Climate Exposure

During the preparation of Resource Management Plans some resources may be identified as having particularly high exposure to the anticipated impacts of climate change. When this occurs, these resources are described in the RMP.

The Massachusetts Coastal Flood Risk Model is a probabilistic sea level rise and storm surge model (Woods Hole Group et al. n.d.). The model generates high-resolution inundation predictions based on a combination of sea level rise (through 2070) and storm surge. Approximately 55.6% of Sweets Knoll is exposed to inundation from coastal flooding. The area of exposure includes all of the Park's marshes and wetlands along the river, and adjacent upland areas. Within this area of exposure are trails, areas of high archaeological sensitivity, the bridge over the Segreganset River and its associated abutments, and the proposed location for a car top boat launch.

The Massachusetts Natural Heritage and Endangered Species Program has identified sea level rise among the threats to the persistence of Brackish (S2 Imperiled) and Freshwater (S1 Critically Imperiled) Tidal Marsh community types, such as those along this stretch of the Taunton (Swain 2020). A state Endangered plant associated with the Freshwater Tidal Marsh community type is known from the vicinity of Sweets Knoll and is sensitive to alterations in hydrologic regime such as those associated with climate change. Warming temperatures may impact the Segreganset River's identified coldwater fisheries resources.

It is the position of the Massachusetts Natural Heritage and Endangered Species Program that state-listed species and Priority Natural Communities are likely to be highly sensitive to the anticipated impacts of climate change and that all state-listed species will be negatively affected by hydrologic changes, changes in water, soil, and air temperature, and changes in forest composition.

Applied Land Stewardship Zoning

DCR assesses the appropriate uses and stewardship of its properties at two spatial scales: the landscape level and the property level.

Landscape Designation

In 2012, DCR engaged in a comprehensive system-wide assessment of lands managed by its Division of State Parks and Recreation, designating them as Reserve, Woodland, or Parkland. (See Landscape Designations for DCR Parks & Forests: Selection Criteria and Management Guidelines (DCR 2012) for details.) Multiple Landscape Designations may apply to parks with diverse resources and levels of development. All of Sweets Knoll State Park was designated Parkland. Identification of Land Stewardship Zones within Sweets Knoll was performed in the context of the Parkland Landscape Designation.

The following Land Stewardship Zoning is recommended to guide management and any future development. (See Land Stewardship Zoning map, page 14.)

Zone 1

Zone 1 areas have highly sensitive ecological and/or cultural resources that require additional management approaches and practices to protect and preserve these special features and their values (DCR 2012). The following areas of Sweets Knoll have been designated Zone 1.

- Areas of tidal marsh.
- Uplands within 100-feet of the Taunton River and east of the former railroad right-of-way, in order to provide a nutrient and sediment buffer between the Park's uplands and the Taunton River. The only exception to this is an existing 40-foot by 80-foot filled and altered area along the river bank; see Zone 3, below.
- Areas identified as having high archaeological sensitivity (PAL 2022).

Zone 2

Zone 2 areas provide for a balance between resource stewardship and recreational opportunities that can be appropriately sustained. They include stable yet important cultural and natural resources. These areas provide a buffer for sensitive resources, recharge areas for surface and groundwaters, and large areas where existing public recreation activities can be managed at sustainable levels (DCR 2012). The following areas of Sweets Knoll have been designated Zone 2.

- All portions of the park, except those designated as Zones 1 or 3.

Zone 3

Zone 3 areas include altered landscapes in active use and areas suitable for future administrative, maintenance, and recreation areas (DCR 2012). The following areas of Sweets Knoll are currently developed, appropriate for potential future development, or intensively used for recreation. They have been designated Zone 3.

- The TRWA headquarters, parking area, and adjacent areas of maintained lawn.
- An approximately 80-foot by 40-foot previously altered area extending into the Taunton River.

Significant Feature Overlay

Significant Feature Overlays provide precise management guidance to maintain or preserve recognized resources features regardless of the one in which they occur. The following Significant Feature Overlays were developed for Sweets Knoll:

- **Archaeological Resources Overlay.** This overlay includes altered landscapes in active use that have been identified as having high sensitivity for archaeological resources. (PAL 2022). Consult with the MHC, the Massachusetts Board of Underwater Archaeological Resources, the Dighton Historical Commission, and other consulting parties as appropriate regarding proposed impacts to cultural resources within this overlay, As project progresses, conduct further archaeological investigations that may be affected by the project (PAL 2022).
- **Multi-Use Path Overlay.** This overlay includes the existing railroad bed or hardened multi-use path, depending on stage of development, and adjacent vegetation within 10-feet of the railroad bed or edge of pavement. Areas within this overlay are managed for recreational purposes.

DCR Stewardship Map Tool

This RMP should be viewed in conjunction with DCR's Stewardship Map, a GIS-based tool that allows users to view a property's natural, cultural, and recreational resources. The Stewardship Map tool is dynamic, and information continues to be updated after adoption of an RMP. Guidance for using the tool, as well as Best Management Practices for resource stewardship, are located on the Stewardship Map site: <https://dcrgis-mass-eoea.hub.arcgis.com/>.

Because authorized trails are located within State-Listed Species Habitat on this property, managers should consult an additional GIS-based tool, the NHESP 2022 Guidance Codes for DCR Trail Maintenance Map. (<https://mass-eoea.maps.arcgis.com/home/item.html?id=cb252e8df40d408c81fe8fcf690e14f6>) This tool allows users to select specific trail segments and identify restrictions and regulatory review associated with performing 10 common trail maintenance activities on these segments. Because site-specific rare species information is confidential under Massachusetts law (M.G.L. c. 66 §17D), access to this tool is restricted.

Consistency Review

Resource Management Plans "shall ensure consistency between recreation, resource protection, and sustainable forest management" (M.G.L. Part 1, Title II, Chapter 21, Section 2F). For planning purposes, an activity is considered consistent with resource protection if it has no significant, long-term, adverse impact on resources. To this end, a series of indicators were developed to evaluate the impacts of recreation and forest management on natural and cultural resources.

Many activities with the potential to negatively affect resources are already subject to agency and/or regulatory review (e.g., forest management activities, projects within Priority Habitat). For these activities, compliance with state regulations, regulatory authority guidance, DCR policies and processes, and Best Management Practices (BMPs) is considered an indicator of consistency between park use and resource protection. New indicators were generated for activities not subject to agency or regulatory review, and are based on available data, information readily identifiable via aerial imagery or site visits, assessments by DCR subject matter experts, or the property manager's knowledge of park conditions and use. (See Consistency Assessment, page 15.)

Indicators are applied during the RMP planning process to ensure a standardized assessment of consistency across all properties in the DCR system. Inconsistencies identified via the application of indicators are used to inform the development of management recommendations.

The status of indicators (Yes, No, and N/A) were accurate at the time this RMP was prepared and were used for planning purposes. ***However, they represent a snapshot in time and may not reflect future conditions.*** In addition, the status of indicators will change as recommendations get implemented.

Management Recommendations

Ten priority management recommendations were developed for Sweets Knoll. They are presented in the table *Priority Recommendations for Sweets Knoll State Park*, page 17. All recommendations are of equal importance.

Priority management recommendations derive from Threats, Opportunities, and Consistency Assessment information presented in this RMP. For a recommendation to be considered a priority and listed in the table, it must meet one or more of the criteria listed below. Maintenance and management needs not meeting one or more of these criteria are not included in the table but are identified in the Threats and Opportunities sections.

The following types of recommendations are considered priority:

- Natural resource stewardship and restoration activities consistent with park identity and intended to improve ecological function and connectivity.
- Cultural resource management activities consistent with park identity and intended to prevent the loss of integrity of significant cultural resources.
- Improvements consistent with park identity that are needed to support intended park activities.
- Actions required for regulatory compliance or compliance with legal agreements.
- Activities that prevent or ameliorate threats to the health and safety of park visitors and employees.
- Activities that address inconsistencies among recreation, resource protection, and sustainable forest management, as identified through use of the Consistency Assessment checklist.

| CONSISTENCY ASSESSMENT | | | |
|--|-----|----|-----|
| <i>This assessment represents a snapshot in time and may not reflect future conditions.</i> | | | |
| | Yes | No | N/A |
| Landscape Designation | | | |
| G.1. All development and uses of the park since 2012, or currently planned for the park, are consistent with its Landscape Designation(s). | X | | |
| Natural Resources | | | |
| N1. All projects (normal maintenance activities, special projects, volunteer projects) conducted within Priority Habitat were reviewed and approved through DCR's internal review process and by NHESP for potential impacts to rare species and their habitats. | X | | |
| N2. All projects conducted within areas subject to state and/or federal wetlands or waterways regulations were reviewed and approved through DCR's internal review process; reviewed and approved through the appropriate, local, state, and/or federal review process; and were carried out in accordance with the terms of a valid permit. | | X | |
| N3. Sensitive resource areas, such as steep slopes, riverbanks, streambanks, pond and lakeshores, wetlands, and dunes are free of desire paths and other user-created trails. | | X | |
| N4. Aquatic areas adjacent to beaches, boat ramps and launches, roads, and hiking trails are free of eroded sediments. | | X | |
| N5. The extent of exposed soil in campground and/or picnic sites is stable or decreasing.* | X | | |
| N6. The extent of native vegetation in campground and/or picnic sites is stable or increasing.* | X | | |
| N7. Area of trail impacts in Reserves is less than 50% of total park area. (See Naughton (2021) for information on primary area of trail impacts.) | | | X |
| N8. Congregations of breeding, migratory, or wintering wildlife are protected from disturbance by temporary (e.g., seasonal) restrictions on recreational access. | | X | |
| N9. Geocaches, letterboxes, orienteering control locations, and other discovery destinations are located outside sensitive natural resource areas and their locations have been reviewed and approved by park personnel.* | | X | |
| N10. Zone I wellhead protection areas are free of vehicle parking, chemical storage, or concentrated recreation. | | | X |
| N11. All boat ramps and launches have cleaning stations and/or educational signs and materials on preventing the spread of aquatic invasive organisms.* | | X | |
| N12. For each barrier beach there is a current, approved Barrier Beach Management Plan and all beach-related activities are conducted in accordance with this plan. | | | X |
| Cultural Resources | | | |
| C1. All maintenance activities and projects with the potential to cause sub-surface disturbance are being reviewed by the DCR archaeologist for potential impacts to archaeological resources. | X | | |
| C2. All maintenance activities and projects affecting historic properties (buildings, structures, and landscapes over 50-years-old) are being reviewed by the Office of Cultural Resources to avoid adverse impacts. | X | | |
| C3. Historic buildings, structures, and landscapes are being used, maintained, and repaired in a manner that preserves their cultural integrity and conveys their historic significance to park visitors. | | X | |
| C4. Recreational activities such as hiking, biking, and boating are not eroding cultural properties such as archaeological sites or historic landscapes through creation of desire lines, rutting in the landscape, damage to historic built features, or excessive scouring (erosion) of coastal and shoreline areas. | X | | |
| C5. Geocaches, letterboxes, and other discovery destinations are located away from sensitive cultural resources, and their locations have been reviewed and approved by park personnel. | | X | |
| C6. Historic buildings, structures, landscapes, archaeological sites, and concentrations of historic resources are located outside of areas predicted to be subject to flooding, storm surge, or sea-level rise. | | X | |

Consistency Assessment continues on next page.

| CONSISTENCY ASSESSMENT <i>This assessment represents a snapshot in time and may not reflect future conditions.</i> | | | | Yes | No | N/A |
|---|--|--|--|-----|----|-----|
| Recreation | | | | | | |
| R1. Types of recreation, levels of recreational use, and types and extent of recreation infrastructure are consistent with the park's identity statement. | | | | | X | |
| R2. Trail density is consistent with the park's Landscape Designation(s). (See <i>Trails Guidelines and Best Practices Manual</i> (DCR 2019) for density thresholds.) | | | | | X | |
| R3. All authorized trail construction was performed in accordance with an approved Trail Proposal Form. | | | | X | | |
| R4. Over 90% of the park's official trails network is classified as being in Fair or better condition. | | | | | X | |
| R5. Recurring use by OHVs is restricted to authorized trails.* | | | | | | X |
| R6. There is a high level of compliance with dog leash regulations and policies.* | | | | | X | |
| R7. Athletic fields are free of recreation-caused impacts (e.g., bare spots) to turf.* | | | | | | X |
| R8. Water-based recreation is consistent with: "Uses Attained" designation as identified by Mass DEP in its most current list of integrated waters (e.g., DEP 2021); DPH fish consumption advisories; and/or water quality testing at waterfront areas. | | | | X | | |
| R9. Recreation facilities are located outside of areas subject to flooding, storm surge, or sea-level rise. | | | | X | | |
| Sustainable Forest Management | | | | | | |
| F1. Forestry activities are consistent with Landscape Designation and associated forestry guidelines. | | | | X | | |
| F2. Forestry activities are consistent with current Forest Resource Management Plan. | | | | | | X |
| F3. Tree cutting is performed in accordance with an approved cutting plan, if required under the Massachusetts Forest Cutting Practices Act (M.G.L. Ch. 132, Sections 40–46). | | | | | | X |

* As assessed by property manager.

Priority recommendations for Sweets Knoll State Park. All recommendations are of equal importance.

| Category | Recommendation | Implementation^a |
|--------------------|---|--|
| Natural Resources | Following appropriate review and permitting, implement the <i>Invasive Plant Management Plan: South Region</i> (BSC Group 2017) for aquatic and terrestrial invasive plants. Maintain actions as needed. | Office of Natural Resources , Park Operations, Partner |
| Cultural Resources | Consult with the Massachusetts Historical Commission, Massachusetts Board of Underwater Archaeological Resources, Dighton Historical Commission, and other potential partners, as appropriate, regarding all potential sub-surface impacts within archaeologically sensitive areas (i.e., Zone 1 areas and the Archaeological Resources Overlay). | Consultant, Office of Cultural Resources , Partner |
| Recreation | Establish a DCR web page for Sweets Knoll. | Interpretive Services |
| Recreation | Develop and install a Welcome Wayside. | Interpretive Services, Park Operations |
| Recreation | Develop a mowing plan for existing trails and seek and obtain regulatory approval for ongoing activities. | Office of Cultural Resources, Office of Natural Resources, Trails and Greenways Section |
| Recreation | Finalize the design plan for the park entrance, parking area, building area, and car-top boat launch access. | Contractor, Interpretive Services, Landscape Architecture Section |
| Recreation | As funding allows, implement the design plan for the park entrance, parking area, building area, and car-top boat launch access. | Contractor, Facilities Engineering, Landscape Architecture Section , Trails and Greenways Section |
| Recreation | Finalize the design plan for an accessible multi-use trail within the Park | Contractor, Trails and Greenways Section |
| Recreation | As funding allows, implement the design plan for the accessible multi-use trail within Sweets Knoll. | Contractor, Facilities Engineering , Partners, Trails and Greenways Section |
| Recreation | Incorporate an increased interpretive presence by the Taunton River Watershed Alliance at DCR parks along the Taunton River into their next permit agreement for use of the building at Sweets Knoll. | Interpretive Services, Office of the General Counsel, Park Operations , Partner |

a. The lead party responsible for implementation is identified in bold.

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