

**Natural Resource Inventory  
of the Montsweag Dam Preserve  
Wiscasset, Maine**

Submitted to: Ben Averill, Town Planner  
Office of Planning, Development & Codes  
Town of Wiscasset  
51 Bath Road  
Wiscasset, Maine 04578  
townplanner@wiscasset.org.

Submitted by: Stockwell Environmental Consulting, Inc.  
58 Hendricks Hill Road  
Southport, ME 04576  
(phone) 207-633-4417, (cell) 207-542-2421  
e-mail: stockenv@roadrunner.com, www.stockenv.com

November 28, 2016

## **INTRODUCTION**

Stockwell Environmental Consulting, Inc. was hired to conduct a natural resource inventory of the 22 acres Montsweag Dam Preserve for the Town of Wiscasset, Maine. Montsweag Brook flows north to south through the center of this parcel. The brook is dammed near the southern boundary and the stream is impounded upstream to the north. The southern portion of this property straddles the Wiscasset/Woolwich town line; the southwestern portion is located in in Town of Woolwich and the remainder in the Town of Wiscasset. Transmission corridors are found to the south and west. Forested land is found to the east between this parcel and another transmission corridor. Bradford Road is located to the north. The property was visited on seven occasions between early June and mid-October of 2016. Access was gained from Freedom Song Road. The entire parcel was walked and a species list of the vascular plants was made. The plant communities were characterized and classified in accordance with the Maine Natural Areas Program (MNAP) publication **Natural Landscapes of Maine: A Guide to Natural Communities and Ecosystems** (Gawler and Cutko, 2010). Existing information was researched and compiled. Knowledgeable individuals were contacted concerning the land use history. The type of surrounding landscapes was reviewed to assess how this property relates to the regional ecology.

## **RESULTS**

### **Collection of existing information**

- Aerial photographs  
The Knox-Lincoln Soil & Water Conservation District was visited to view aerial photographs of the Montsweag Dam Preserve. Unfortunately, the 1966 and 1996 aerial photographs of the area were missing from their records. Copies of 1940 and 1980

photos were made and are attached. The dramatic difference between these two photos is the dam and transmission lines; both were constructed after 1940 and before 1980. Otherwise, the development in the nearby watershed is quite similar. The watershed is forested except the agricultural fields near the intersection of Mountain Road and Bradford Road to the west of the preserve.

Google aerial photos were viewed. These images date back to 1997. Over this time period, more houses were constructed along the roads, but overall there has been little development in the area. The 12/30/2003 and the 9/27/2014 aeriels are attached because the winter and autumn photographs most clearly show the dominant forest communities. The Bing aerial was examined. Its date was not given, but it appears to be quite recent. It is not included because it does not show additional information.

Peter Tischbein of the Army Corp of Engineers was contacted concerning their aerial photographs. This agency has files of aeriels photographs taken along the coast, but none of this property.

- The topographic map of the area from MyTopo Terrain Navigator (Version 8.71) is attached.

Historic topographic maps were viewed (<http://docs.unh.edu/nhtopos/nhtopos.htm>). Portions of the 1893, 1944 and 1957 topographic map are attached. The 1944 map states that the survey was conducted in 1941. Note that the 1893 map does not show the impoundment or power lines to the south and east as do the later maps. The 1957 also differentiates forested and cleared lands. The land surrounding the preserve is forested except that on the western side near Mountain and Bradford Roads. The smaller transmission line just west of the preserve is not shown on any of the topographic maps, but is visible on the aerial photographic taken in 1980 and more recently.

- Maine Natural Areas Program (MNAP) information

MNAP was contacted for information on Rare Plant Species and Rare and Exemplary Natural Communities. The letter from Don Cameron Ecologist at the Maine Natural Areas Program (MNAP) dated June 27, 2016 is attached. The letter states that there are no rare botanical features documented specifically within the project area, but that this may indicate minimal survey efforts and lack of data rather than confirm the absence of rare botanical features. They sent a list of rare species known from the vicinity. Several grow in salt water habitats not found at this property. Special attention was given for three of the listed species: alpine rush (*Juncus alpinoarticulatus* ssp. *Americanus*), secund rush (*Juncus secundus*) and pale green orchis (*Platanthera flava* var. *herbiola*) which were deemed most likely to occur on this parcel. Alpine rush is found in wet shores and marshes and usually grows among cobbles on the lower portion of river shores. Secund rush is found in dry, open, sterile soil and in clearings. Pale green orchis is found in swampy woods, bottomlands, swales, and wet shores but is not known from river shores. Searches were conducted for all of these species and none were found. Andy Cutko of MNAP was also contacted. He is working on an Ecological Integrity Assessment for Maine, but it was not yet available when we spoke.

- MNAP Beginning with Habitat Focus Areas and Undeveloped Habitat Blocks & Conserved Lands

Focus areas contain exceptionally rich concentrations of at-risk species and natural communities and high quality common natural communities, significant wildlife habitats, and their intersection with large blocks of undeveloped habitat. The Beginning with Habitat website was visited ([http://www.beginningwithhabitat.org/aboutbwh/focus\\_areas.html](http://www.beginningwithhabitat.org/aboutbwh/focus_areas.html)). The Montsweag Dam Preserve is not contained within a Focus area but is located between the Kennebec Estuary and the Lower Sheepscot River Focus Areas. See attached map.

The map of Undeveloped Habitat Blocks & Conserved Lands was also reviewed. The preserve is at the western edge of a large habitat block of 521 acres. Other large blocks are located to the north (403 acres and 172 acres) and further west (5857 acres). To reach the other blocks, roads do need to be crossed. At this site, these roads are characterized as those with lesser traffic volumes defined as daily traffic volumes of less than 2000 vehicles per day. The threat of habitat fragmentation and animal mortality corresponds to traffic volume. Therefore, the habitat value of this parcel is of higher since the traffic volumes are lower.

- Review state website (<http://www.maine.gov/megis/catalog/>)

The state GIS website was visited to see Maine Department of Inland Fisheries and Wildlife (MDIF&W) mapped habitats such as deer wintering areas, and Inland Waterfowl and Wader habitats. Much of the property is mapped as a deer wintering area. I contacted Keel Kemper, MDIF&W Regional Biologist for more information about this mapped habitat. He emailed that “This deer wintering area has an “indeterminate” value rating. This basically means no formal surveys have been conducted, so it is not rated as a high or moderate value DWA.” The habitat has “very little to do with the actually wetland itself...it’s the softwood cover associated with the wetland that is the important habitat component.”

No other significant wildlife habitats are mapped on this parcel.

- Maine Department of Inland Fisheries and Wildlife information on Significant Wildlife Habitat and Fisheries Considerations (note for some species, especially rare species, this information is not publicly available).

John Perry, Environmental Review Coordinator, was contacted concerning this parcel. His letter dated September 2, 2016 is attached. It states that MDIFW databases do not indicate the presence of State-listed Endangered, Threatened, or Special Concern Species in the Montsweag Dam Preserve area. He did note that to their knowledge no formal surveys have been conducted. The letter also said that it is possible that several rare species may be resident or transient at the Montsweag Dam Preserve based on location, habitats present, and life history requirements including one or more species of bats (all eight species of bats in Maine are listed as Endangered, Threatened, or Special Concern); great blue heron (Special Concern); as well as spotted (Threatened) and wood (Special Concern) turtles. It is also possible that one or more rare species of migratory birds may be found in the area during spring and fall migrations.

- Natural Wetlands Inventory maps (<http://www.fws.gov/wetlands/Data/Mapper.html>)  
No wetlands are mapped in the preserve property on the NWI maps; only the open water of the impoundment is shown.
- Soil map from Natural Resources Conservation Service of USDA  
The soil map was downloaded and is attached. (<http://websoilsurvey.sc.egov.usda.gov/>).  
The soil on the southeastern side of the impoundment is mapped as Marlow, which is fine sandy loam that is very stony and typically well drained. This area is quite steep, mapped as mostly C (8 to 15%) slope with a small area of D (15 – 25%) slope. The soil on the northern end of the parcel, both east and west of the impoundment, is mapped as Scantic silt loam. Scantic soils are nearly level and poorly drained. The soil further south on the western side of the impoundment is mapped as Tunbridge-Lyman soil with a C slope. This soil unit is well drained. The southeastern portion of the property is mapped as Charlton very stony fine sandy loam with a C slope closest to the impoundment and as Hollis fine sandy loam with a C slope further west, mostly on land owned by the Titcomb.
- Maine Stream Habitat Viewer was viewed (<http://mapserver.maine.gov/streamviewer/index.html>).
- Portion of a NRPA application for Maine Power Reliability Program prepared by TRC provided by Anne Leslie, Conservation Commission. The portion provided and reviewed is not dated, but the photographs are dated 2009. According to this document, the dam was constructed in 1941 as a back-up water source for the nearby Mason Station. The pond is no longer used as for this purpose. The dam is described as a barrier to diadromous fish passage and its removal would provide fish passage and habitat to Atlantic salmon and other species such as American eels, alewives, sea-run brook-trout and brown trout.

Existing information is included in Appendix A.

## **Results of Field Work**

### **Wetlands**

The most obvious feature of the property is the upper Montsweag Dam, which impounds Montsweag Brook. Upstream of the dam is the impoundment. The impoundment is open water, but to either side is wetland that extends from the upland into the open water the entire length of the impoundment on the property. The impoundment ranges in width from less than 50 feet to more than 150 as measured on Google earth. The fringing marshes extend across most of the impoundment width except in the deeper waters in the center (see photographs 1 and 2 - 6). These wetlands are best described as the **Pickerelweed-Macrophyte Aquatic Bed Community**, which is referred to as PAB for this report. The dominant species is pickerelweed (*Pontederia cordata*). Three-way sedge (*Dulichium arundinaceum*) is also very common as are royal fern (*Osmunda regalis* v. *spectabilis*), tall meadow rue (*Thalictrum pubescens*), swamp candles (*Lysimachia terrestris*), creeping spikerush (*Eleocharis palustris*), bluejoint (*Calamagrostis canadensis*) and bulrush (*Scirpus* spp.). The floating aquatic vegetation found in slightly deeper water is dominated by waterlily (*Nuphar variegata*), burred (*Sparganium americanum*) and

pondweed (*Potamogeton natans*). A narrow band of wetland shrubs are found along the shore between the emergent wetland and forest communities. Common species include speckled alder (*Alnus incana* ssp. *rugosa*), steeplebush (*Spiraea tomentosa*) and meadow sweet (*Spiraea alba* v. *latifolia*).

Very little other wetland was found on the property. There are two wetland areas downstream of the dam that are associated with side channels of Montsweag Brook. In addition, there is a small intermittent stream with an associated wetland on the west side of the impoundment. GPS points taken along its location are 44 00.347 -069 42.073 and 44 00.350 -069 42.057. These wetlands are dominated by wetland shrubs such as speckled alder and herbaceous species including bluejoint, royal fern, sensitive fern (*Osmunda sensibilis*), sedges and bulrush. These wetlands are best described as the **Mixed Graminoid – Shrub Marsh Community**, referred to as MGS. There are also a series of gullies or swales that run into the impoundment, most located on the eastern side. These are not streams as defined by DEP and for the most part, the bottoms of the swales do not meet the wetland criteria. Likely these were formed over time as runoff water eroded and sculpted the land so that the topography today is corduroyed with a series of gullies. The GPS location of some of these swales on the eastern shore are: 44 00.468 -069 41.900, 44 00.394 -069 41.969, 44 00.300 -069 42.030, 44 00.255 -069 42.061, 44 00.242 -069 42.066 and 44 00.228 -069 42.072. This rugged topography makes walking more difficult.

Both the **Pickerelweed-Macrophyte Aquatic Bed Community** and the **Mixed Graminoid – Shrub Marsh Community** are ranked as S-5, which is the most abundant ranking and means that this community is “demonstrably secure”.

No pools of water that could be potential vernal pools were observed on the property. The only standing water is the stream/impoundment, which would not be considered vernal pool habitat even if any of the obligate vernal pools species were present.

### Uplands

The remainder of the parcel is forested. There are two upland forest communities identified on this parcel. One is the **Hemlock Forest Community** referred to as HF (see Photos 10 and 11). This community is best developed on the eastern side of the parcel, east of the brook. The dominant species in this community is Eastern Hemlock (*Tsuga canadensis*). The most common associated hardwood species are red oak (*Quercus rubra*), red maple (*Acer rubrum*) and white birch (*Betula papyrifera*). This forest has a closed canopy with hemlock comprising more than 50% of the cover. This species is evergreen and very little grows in the heavily shaded understory. Some species such as Canada mayflower (*Maianthemum canadense*) and star flower (*Lysimachia borealis*) were observed on the forest floor. The undulating topography with swales is largely located in this community.

The remainder of the forest is mixed woods. It is best described as **Oak-Pine Forest Community**, referred to as OPF. In places, the forest grades into the similar Oak-Northern Hardwood Forest Community. OPF is a closed canopy forest with red oak, beech (*Fagus grandifolia*) along with

white pine (*Pinus strobus*), red maple and hemlock the dominant tree species (see Photos 12 - 15). Some balsam fir (*Abies balsamea*) and red spruce (*Picea rubens*) do grow on the property. These species are more common at the northern end of the parcel where the soil is more poorly drained Scantic. The GPS point for where spruce and fir become more common is 44 00.457 - 069 41.984, which is very near the property boundary. Some forested wetland was noted north of the property line. Other tree species including the northern hardwoods, such as sugar maple (*Acer saccharum*), white ash (*Fraxinus americana*) and ironwood (*Ostrya virginiana*) were infrequently observed. These species are more common in the Oak-Northern Hardwood Forest Community. Striped maple (*Acer pensylvanicum*) is common as a subcanopy associate. Herbaceous species such as sarsaparilla (*Aralia nudicaulis*), Canada mayflower and starflower are common. All three of these forest communities have a State Rarity Rank of S4 or "Apparently Secure". Figure 1 is a map of the habitats drawn on the 2003 Google earth image.

A species list by habitat is included as Table 1. Vascular Plant List by Habitat for Montsweag Dam Preserve, Wiscasset, Maine. Nomenclature is in accordance Flora Novae Angliae (Haines, 2011). Species observed in small openings, such as along the access road to the dam, are included in the **Oak-Pine Forest** Community. All species were identified to species if possible and if not, they were identified to genus. Seven species were only identified to genus. For these plants, they either did not flower and/or fruit, or were not observed to do so, therefore species identification was not possible. A total of 219 taxa were observed. Of these, 36 are exotic, that is they are not native, but have become naturalized in Maine. Six of these are considered invasive by the state ([http://www.maine.gov/dacf/mnap/features/invasive\\_plants/invasives.htm](http://www.maine.gov/dacf/mnap/features/invasive_plants/invasives.htm)). The remainder of the observed plants are native.

### **Other features**

Several stone walls were noted on the property (see Photos 18 and 20) mostly on the western side of the impoundment. Several are shown on the survey, but some others were noted, such as one on the western side that crosses the GPS point of 44 00.404 -069 42.028. There is a steep bank on the eastern side of the impoundment that is very steep and covered with stones (see photo 21). Its GPS location is 44 00.430 -069 42.003. Downstream of the dam, there are stones and wooden beams, perhaps the remains of an old stream crossing (see Photo 19).

Some of the property pins were found. To the northwest, the GPS coordinate of one pin is 44 00.390 -069 42.036. To the northeast, the GPS point for the pin is 44 00.474 -069 41.899.

### **Rare Species**

MNAP was contacted for information on Rare Plant Species and Rare and Exemplary Natural Communities known to occur in the vicinity. Based on the habitats on the property, three species: alpine rush (*Juncus alpinoarticulatus* ssp. *Americanus*), secund rush (*Juncus secundus*) and pale green orchis (*Platanthera flava* var. *herbiola*) were deemed most likely to occur on this parcel. Special attention was made searching for these species, but no rare species were found. MDIF&W was contacted for information on Significant Wildlife Habitat and Fisheries

Considerations. Wildlife inventories were outside the scope of this study. However, a great blue heron, listed as special concern, was observed on one site visit.

### Invasive Species

Overall, the communities are remarkably free of invasive plant species. Seven invasive species were noted (see Photos 22 to 25). These include Japanese barberry (*Berberis thunbergii*), autumn olive (*Elaeagnus umbellata*), Morrow's honeysuckle (*Lonicera morrowii*), showy fly honeysuckle (*Lonicera x bella*), common buckthorn (*Rhamnus cathartica*), multiflora rose (*Rosa multiflora*) and Asiatic bittersweet (*Celastrus orbiculatus*) (see Table 2). Their occurrences are clustered in two locations. Both autumn olive and showy fly honeysuckle are found near the dam along the access road. These species were likely introduced during the construction or maintenance of the road and dam. The other location where most of the invasive plants were found is on the western shore of the impoundment in the approximate middle of the property. Here are apple trees and early successional species such as white pine in the area indicative of human activity. This area is near the stream and wetland. Some of the invasive species, such as the buckthorn and Morrow's honeysuckle, are found in both this wetland and in the adjacent upland forest. Others such as bittersweet are only found in the upland. Multiple stems/plants of some species, such as common buckthorn, are represented by single GPS locations. Outside of these two locals, no invasive species were noted.

Table 2. Invasive plant species with GPS coordinates

GPS location	Invasive Species	Common name
44 00.176 -069 42.101	<i>Elaeagnus angustifolia</i>	Russian olive
44 00.350 -069 42.073	<i>Elaeagnus angustifolia</i>	Russian olive
44 00.180 -069 42.103	<i>Lonicera x bella</i>	Hybrid honeysuckle
44 00.334 -069 42.068	<i>Lonicera morrowii</i>	Morrow's honeysuckle
44 00.350 -069 42.062	<i>Lonicera morrowii</i>	Morrow's honeysuckle
44 00.363 -069 42.053	<i>Lonicera morrowii</i>	Morrow's honeysuckle
44 00.339 -069 42.066	<i>Rhamnus cathartica</i>	Common buckthorn
44 00.339 -069 42.067	<i>Rhamnus cathartica</i>	Common buckthorn
44 00.350 -069 42.075	<i>Rhamnus cathartica</i>	Common buckthorn
44 00.373 -069 42.061	<i>Rhamnus cathartica</i>	Common buckthorn
44 00.340 -069 42.060	<i>Berberis thunbergii</i>	Japanese barberry
44 00.348 -069 42.067	<i>Berberis thunbergii</i>	Japanese barberry
44 00.350 -069 42.062	<i>Berberis thunbergii</i>	Japanese barberry
44 00.457 -069 41.984	<i>Berberis thunbergii</i>	Japanese barberry
44 00.373 -069 42.061	<i>Rosa multiflora</i>	Multiflora rose
44 00.373 -069 42.061	<i>Celastrus orbiculatus</i>	Oriental bittersweet

The project did not include a survey of invasive insects. However, during field work, no invasive insects were observed. The arrival of invasive species, such as the emerald ash borer (*Agilus planipennis*) and hemlock woolly adelgid (*Adelges tsugae*) whose range is spreading, could represent a potential threat to the natural communities.

### **Wildlife**

Wildlife inventories were outside the scope of this study. Observations of wildlife made during field work were noted (see Photos 22 to 29). Species either seen or their sign observed include white tailed deer, beaver, coyote, squirrel, chipmunk, bull frog, green frog, painted turtle, gray treefrog, American toad and garter snake. Birds seen or heard include hermit thrush, oven bird, robin, towhee, pileated woodpecker, red-breasted nuthatch, white-breasted nuthatch, chickadee, great blue heron, duck (mallard and/or black), crow, raven, hawk (sharp shin or coopers), black-throated green warbler, chestnut sided warbler, red-eyed vireo, cardinal, bluejay, great crested flycatcher, golden-crowned Kinglet, black bird and yellow throat warbler. In total, 11 species of wildlife plus 22 species of birds were observed. On one visit, an encounter was observed between a hawk, either a sharp shin or a coopers, and a raven, with both species making a racket. At a later visit, a dead raven was found in the vicinity.

### **Interviews**

**Jack Shaw** of Woolwich, a life-long resident and President of Jack A. Shaw & Sons, Inc. was interviewed. He remembered the property has being forested for as long as he could remember. He thought that the dam was installed in the 1940's to 1950's to provide water for the Mason Station and that his father may have been involved in construction of the dam, but was not sure. He remembered his father talking about a cable crossing to cross the stream prior to construction of the dam.

**William Hanson**, a life-long resident of Wiscasset and biologist formally with CMP and now with Biodiversity Research Institute, was contacted. He replied via email "I know that dam well. As a kid we would ride our bikes up there to swim. It's a small dam and only dams up a small section of the brook. It was built in the 40's for a water supply for the Mason station power plant in the harbor. There is a small pump house and a water line is buried under the powerline to Mason Station. Pickerel and some brook trout are found in the brook. We also used to catch eels there. No issues for anadromous fish but now that the lower dam has been removed eel movement will be improved. I think I remember a board section in the middle which can be removed to drop the brook flow back to natural levels. Very small impoundment which only backs up to the culvert on the Bradford road. When its drained no one notices."

**Dan Creek**, Chewonki's Project Manager for the removal of Lower Montsweag Brook Dam was contacted. He is a civil engineer. He sent me some vegetation information collected by Linda Flaccus from the lower dam site. Based on a quick review of the data, the community found along the stream at the lower site prior to that dam removal was not predominantly the Pickerelweed-Macrophyte Aquatic Bed Community found at this site. Therefore, it is hard to make predictions of vegetation change if the dam was removed at this site based on this data set.

**Larry Gordon**, a past Selectman and local realtor was contacted. He moved into the town in 1961. As Selectman, he had talked to some old timers about the Town history and was aware of the dam's existence, but other than that did not have any specific information.

**Anne Leslie**, a member of the Conservation Commission and a longtime resident, provided information, such as a portion of the NRPA application, a 2015 Draft Management Plan for the Preserve and names of knowledgeable local people.

**Ed Kavanaugh** of the Lincoln County Historical Society was sent an email, which he forwarded to Phil Di Vece.

**Phil Di Vece**, News Correspondent for the Wiscasset Paper sent a copy of his news story 'Montsweag Dam's future still murky' dated November 7, 2015. This story states that the dam was constructed in 1941 as a backup water source for the CMP-owned Mason Station. The article outlined the dam ownership history and results of an inspection of the dam and spillway conducted by Wright-Pierce Engineering of Topsham. It notes that currently the pond helps provide fire protection and quotes the fire chief who said that about a quarter of the town would benefit from the water created by the dam if it were needed in a major fire. The article concludes that selectmen still need to weigh the costs of making improvements versus the expense of removing it entirely.

**Ron and Shirley Titcomb**, long-term residents of Woolwich on the Mountain Road, who own land on the Woolwich side of the preserve. They had bought land on the west side of the impoundment from Cromwell International to increase the size of their woodlot on their adjacent land in about 1980. When CMP went to donate this land as mitigation as part of the Power Reliability Project, there was a question of ownership. It was determined that CMP owns the land directly adjacent to the impoundment, but that they own upper portion of hill including land in Woolwich and a small portion in Wiscasset. They manage this land as part of their forest management plan. Selective cutting was done on the upper portion of their parcel around 1990. As an interesting side note, they found the grave of Captain George Seavey west of power line on land that their surveyor said was included in their parcel. I did ask if they knew anything about the portion of the preserve with apple trees where most of the invasive species were found. Ron said that since they have owned the property, the apple trees have been there. He thought that they must have been planted by previous owners as part of their farm.

**Larry Barnes**, a real estate agent and a member of the Wiscasset Conservation Commission. He grew up in Wiscasset and frequented this spot as a child, swimming, fishing, and maybe hunting. He was emailed, but at the time of this report had not responded.

**Jeremy Bell**, aquatic habitat restoration manager with The Nature Conservancy of Maine was interviewed by phone. He noted that the Montsweag Brook System is modeled as a Gulf of Maine Atlantic Salmon Distinct Population Segment on Maine State Stream Habitat Viewer (<http://mapserver.maine.gov/streamviewer/index.html>). He commented streams like Montsweag can be productive for their size for sea-run species. He said that if there are brook trout as noted by Bill Hanson, that this species is an indicator of good water quality. He thought that there could be eel, but probably not alewife spawning in pond. He also said that he would look in his office for a more site-specific report.

**Buck Rines**, head of the Wiscasset sewage treatment plant, and president of the local snowmobile club was contacted via email as suggested by Anne Leslie. At the time of this report, I had not yet heard back from him.

**Todd Souza**, director of Wiscasset Parks & Recreation was contacted. He said that he had spoken with Buck Rines, president of the local snowmobile club. This property is used in the winter by snowmobilers. They access the property from the powerlines, mostly from the Bradford Road, and cross the impoundment when it is frozen. Because there is not a lot of access, the area gets little other use.

**Walter Armstrong**, retired Forester. Recommended by Ron Titcomb as someone with much local knowledge. I called and left message 442-7450

**Garrison Beck**, watershed protection specialist with Midcoast Conservancy based in Wiscasset was interviewed. He had no specific information on this property, but has worked extensively with the Atlantic Salmon Federation to improve fish passage in Sheepscot River watershed. In the last 5 years, the Atlantic Salmon Federation has funded and taken lead on a variety of dam removal projects. Some of the projects he mentioned included the Cooper Mills Dam in Whitefield, the Headtide dam in Alna and Branch Mill Pond in Palermo. He felt that removal of Montsweag Dam would fit into this goal of improving the ecology of the Sheepscot River watershed.

## CONCLUSIONS

A natural resource inventory was conducted of the 22 acres Montsweag Dam Preserve for the Town of Wiscasset, Maine. Montsweag Brook flows north to south through the center of this parcel. This stream is dammed and the impoundment has Pickerelweed-Macrophyte Aquatic Bed Community (PAB) that extends for most of its length across most of the impoundment width except in the deeper waters in the center of the brook. A few other wetlands occur on the property. These are located downstream of the dam in side channels and along a tributary stream located on the western shore. The vegetation in these wetlands and are best described as Mixed Graminoid – Shrub Marsh Community. Both wetland communities found are ranked S-5 or “demonstrably secure”. No potential vernal pools were found on the property.

Upland forest is found on either side of the brook. Hemlock Forest Community, dominated by hemlock trees, is located primarily on the eastern side of the brook. Mixed woods described as Oak-Pine Forest Community is best developed on the western side of the brook. The forest communities have a State Rarity Rank of S4 or “Apparently Secure”.

A list of all observed vascular plants by community is given in Table 2. A total of 219 taxa were observed. Of these, 36 are exotic, that is they are not native, but have become naturalized in Maine. The remainder of the observed plants are native. Seven of the exotic species are considered invasive by the state. All the invasive species were observed in one of two locals, along the access road to the dam and on the western shore of the impoundment in the approximate middle of the property near the tributary stream and where there are apple trees and more recent signs of human activity. The remainder of the preserve is remarkably invasive-plants species free. No rare species or exemplary botanical features were found on the property.

According to a variety of sources, the dam was constructed in 1941 as a back-up water source for the nearby Mason Station. This is corroborated by the 1940 aerial photograph which did not show the impoundment or transmission lines and the 1944 topographic map based on 1941 survey information that does show these features.

The land use in the vicinity has remained remarkable constant since the turn of the last century. Only a few houses have gone in along Mountain and Bradford Roads since the 1893 topographic map was made. Most of the area has remained forested since the 1940's; the extent of cleared land is about the same on the 1940's aerial as it is today with the addition of the transmission line corridors. Everyone interviewed remembered the land along the brook as forested. The Titcomb did have some selective cutting done on the southwestern portion that they thought was part of their woodlot. No one asked had any specific information on the land use of the portion of the property on the western side where most of the invasive species occur. This area has apple trees and white pine, which is an early successional tree species, suggesting more recent human disturbance. Seed of invasive species may also have washed in from the tributary stream.

Stone walls found on the property indicate that the land was once cleared. According to *Reading the Forested Landscape* (Wessels, 1997), by 1840 most of the landscape in New England had been cleared, with the vast majority cleared for sheep pasture. Stone walls were built to contain the sheep. Due to a variety of economic pressures starting in the mid-1800's, much of the pasture land was abandoned at this time and allowed to revert to forest. It is likely that the forests found in and around the Montsweag Dam Preserve date back to the mid-1800's. Erosion of the land when it was pasture may help explain the series of steep gullies on the eastern shore.

Despite being a short drive from busy Route 1, the feel of the property is of relatively undisturbed wilderness. The Montsweag Dam Preserve is located in the Rural District on the Wiscasset Land Use Map. Much of the preserve is mapped as a deer wintering area, one of the significant wildlife habitats. According to Keel Kemper, MDIF&W Regional Biologist no formal surveys for deer have been conducted. Based on Hemlock Forest habitat and the amount of deer sign including bones, scat and rubs, the property is extensively used by deer.

Although it is not mapped as a Focus Area by Beginning with Habitat, it is located at the western edge of a large habitat block of 521 acres. Other large blocks of forest are located to the north (403 acres and 172 acres) and further west (5857 acres). To reach the other blocks, roads do need to be crossed. At this site, these roads are characterized as those with lesser traffic volumes. The threat of habitat fragmentation and animal mortality corresponds to traffic volume. Therefore, this parcel is of higher value since the traffic volumes are low. Casual observations were made of 11 species of wildlife plus 22 species of birds. A great blue heron, listed as special concern by MDIF&W, was observed on one site visit.

Fisheries was outside the scope of this inventory. The dam on the property does represent an obstacle to fish passage. Restoring fish passage and stream connectivity is a goal of the National Marine Fisheries Service and many conservation organizations including local ones such as the

Midcoast Conservancy. Should the dam be removed, the impoundment would revert to a stream habitat rather than the pond-like habitat found today. The Pickerelweed-Macrophyte Aquatic Bed Community would likely be replaced by more woody wetland vegetation. Changes in water regime and plant community would likely have some impact on wildlife, favoring some species over others. As noted in the Wiscasset Newspaper, it is up to the Selectmen to balance costs with benefits such as fire protection and improving fisheries habitat.

---



STATE OF MAINE  
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY

93 STATE HOUSE STATION  
AUGUSTA, MAINE 04333

PAUL R. LEPAGE  
GOVERNOR

WALTER E. WHITCOMB  
COMMISSIONER

June 27, 2016

Lauren Stockwell,  
Stockwell Environmental Consulting  
58 Hendricks Hill Road  
Southport, ME 04576

Via email: [stockenv@roadrunner.com](mailto:stockenv@roadrunner.com)

Re: Rare and exemplary botanical features in proximity to: Montsweag Dam Preserve, Wiscasset and Woolwich, Maine

Dear Ms. Stockwell:

I have searched the Natural Areas Program's Biological and Conservation Data System files in response to your request received June 26, 2016 for information on the presence of rare or unique botanical features documented from the vicinity of the project in Wiscasset and Woolwich, Maine. Rare and unique botanical features include the habitat of rare, threatened, or endangered plant species and unique or exemplary natural communities. Our review involves examining maps, manual and computerized records, other sources of information such as scientific articles or published references, and the personal knowledge of staff or cooperating experts.

Our official response covers only botanical features. For authoritative information and official response for zoological features you must make a similar request to the Maine Department of Inland Fisheries and Wildlife, 284 State Street, Augusta, Maine 04333.

According to the information currently in our Biological and Conservation Data System files, there are no rare botanical features documented specifically within the project area. This lack of data may indicate minimal survey efforts rather than confirm the absence of rare botanical features. You may want to have the site inventoried by a qualified field biologist to ensure that no undocumented rare features are inadvertently harmed.

If a field survey of the project area is conducted, please refer to the enclosed supplemental information regarding rare and exemplary botanical features documented to occur in the vicinity of the project site. The list may include information on features that have been known to occur historically in the area as well as recently field-verified information. While historic records have not been documented in several years, they may persist in the area if suitable habitat exists. The enclosed list identifies features with potential to occur in the area, and it should be considered if you choose to conduct field surveys.

This finding is available and appropriate for preparation and review of environmental assessments, but it is not a substitute for on-site surveys. Comprehensive field surveys do not exist for all natural areas in Maine, and in the absence of a specific field investigation, the Maine Natural Areas Program cannot provide a definitive statement on the presence or absence of unusual natural features at this site.

MOLLY DOCHERTY, DIRECTOR  
MAINE NATURAL AREAS PROGRAM



PHONE: (207) 287-8044  
FAX: (207) 287-8040  
WWW.MAINE.GOV/DACF/MNAP

Letter to Lauren Stockwell  
Comments RE: Montsweag Dam, Wiscasset/Woolwich  
June 27, 2016  
Page 2 of 2

The Natural Areas Program is continuously working to achieve a more comprehensive database of exemplary natural features in Maine. We would appreciate the contribution of any information obtained should you decide to do field work. The Natural Areas Program welcomes coordination with individuals or organizations proposing environmental alteration, or conducting environmental assessments. If, however, data provided by the Natural Areas Program are to be published in any form, the Program should be informed at the outset and credited as the source.

Thank you for using the Natural Areas Program in the environmental review process. Please do not hesitate to contact me if you have further questions about the Natural Areas Program or about rare or unique botanical features on this site.

Sincerely,

A handwritten signature in blue ink, appearing to read "Don Cameron", with a long horizontal flourish extending to the right.

Don Cameron | Ecologist | Maine Natural Areas Program  
207-287-8041 | [don.s.cameron@maine.gov](mailto:don.s.cameron@maine.gov)

**Rare and Exemplary Botanical Features within 4 miles of  
Project: Montsweag Dam Preserve, Wiscasset and Woolwich, Maine**

Common Name	State Status	State Rank	Global Rank	Date Last Observed	Occurrence Number	Habitat
<b>Alpine Rush</b>						
American Sea-blite	SC	S3	G5T5?	1932-07-27	8	Non-tidal rivershore (non-forested, seasonally wet)
	T	S2	G5	2011-10-06	15	Tidal wetland (non-forested, wetland)
	T	S2	G5	2011-10-05	16	Tidal wetland (non-forested, wetland)
<b>Estuary Bur-marigold</b>						
Hemlock Forest	SC	S3	G4	1937-08	9	Tidal wetland (non-forested, wetland)
	<null>	S4	G4G5	1998-06-12	1	Conifer forest (forest, upland),Hardwood to mixed forest (forest, upland)
<b>Pale Green Orchis</b>						
	SC	S2	G4T4Q	1923-07-24	18	Non-tidal rivershore (non-forested, seasonally wet),Open wetland, not coastal nor rivershore (non-forested, wetland)
<b>Salt-hay Saltmarsh</b>						
	<null>	S3	G5	2011-10-06	44	Tidal wetland (non-forested, wetland)
	<null>	S3	G5	2009	6	Tidal wetland (non-forested, wetland)
<b>Secund Rush</b>						
	T	S1	G5?	1916-09-15	6	Rocky summits and outcrops (non-forested, upland)

## STATE RARITY RANKS

- S1** Critically imperiled in Maine because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extirpation from the State of Maine.
- S2** Imperiled in Maine because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.
- S3** Rare in Maine (20-100 occurrences).
- S4** Apparently secure in Maine.
- S5** Demonstrably secure in Maine.
- SU** Under consideration for assigning rarity status; more information needed on threats or distribution.
- SNR** Not yet ranked.
- SNA** Rank not applicable.
- S#?** Current occurrence data suggests assigned rank, but lack of survey effort along with amount of potential habitat create uncertainty (e.g. S3?).

**Note:** **State Rarity Ranks** are determined by the Maine Natural Areas Program for rare plants and rare and exemplary natural communities and ecosystems. The Maine Department of Inland Fisheries and Wildlife determines State Rarity Ranks for animals.

## GLOBAL RARITY RANKS

- G1** Critically imperiled globally because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extinction.
- G2** Globally imperiled because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.
- G3** Globally rare (20-100 occurrences).
- G4** Apparently secure globally.
- G5** Demonstrably secure globally.
- GNR** Not yet ranked.

**Note:** **Global Ranks** are determined by NatureServe.

## STATE LEGAL STATUS

**Note:** State legal status is according to 5 M.R.S.A. § 13076-13079, which mandates the Department of Conservation to produce and biennially update the official list of Maine's **Endangered** and **Threatened** plants. The list is derived by a technical advisory committee of botanists who use data in the Natural Areas Program's database to recommend status changes to the Department of Conservation.

- E** ENDANGERED; Rare and in danger of being lost from the state in the foreseeable future; or federally listed as Endangered.
- T** THREATENED; Rare and, with further decline, could become endangered; or federally listed as Threatened.

## NON-LEGAL STATUS

- SC** SPECIAL CONCERN; Rare in Maine, based on available information, but not sufficiently rare to be considered Threatened or Endangered.
- PE** Potentially Extirpated; Species has not been documented in Maine in past 20 years or loss of last known occurrence has been documented.

## ELEMENT OCCURRENCE RANKS - EO RANKS

Element Occurrence ranks are used to describe the quality of a rare plant population or natural community based on three factors:

- **Size:** Size of community or population relative to other known examples in Maine. Community or population's viability, capability to maintain itself.
- **Condition:** For communities, condition includes presence of representative species, maturity of species, and evidence of human-caused disturbance. For plants, factors include species vigor and evidence of human-caused disturbance.
- **Landscape context:** Land uses and/or condition of natural communities surrounding the observed area. Ability of the observed community or population to be protected from effects of adjacent land uses.

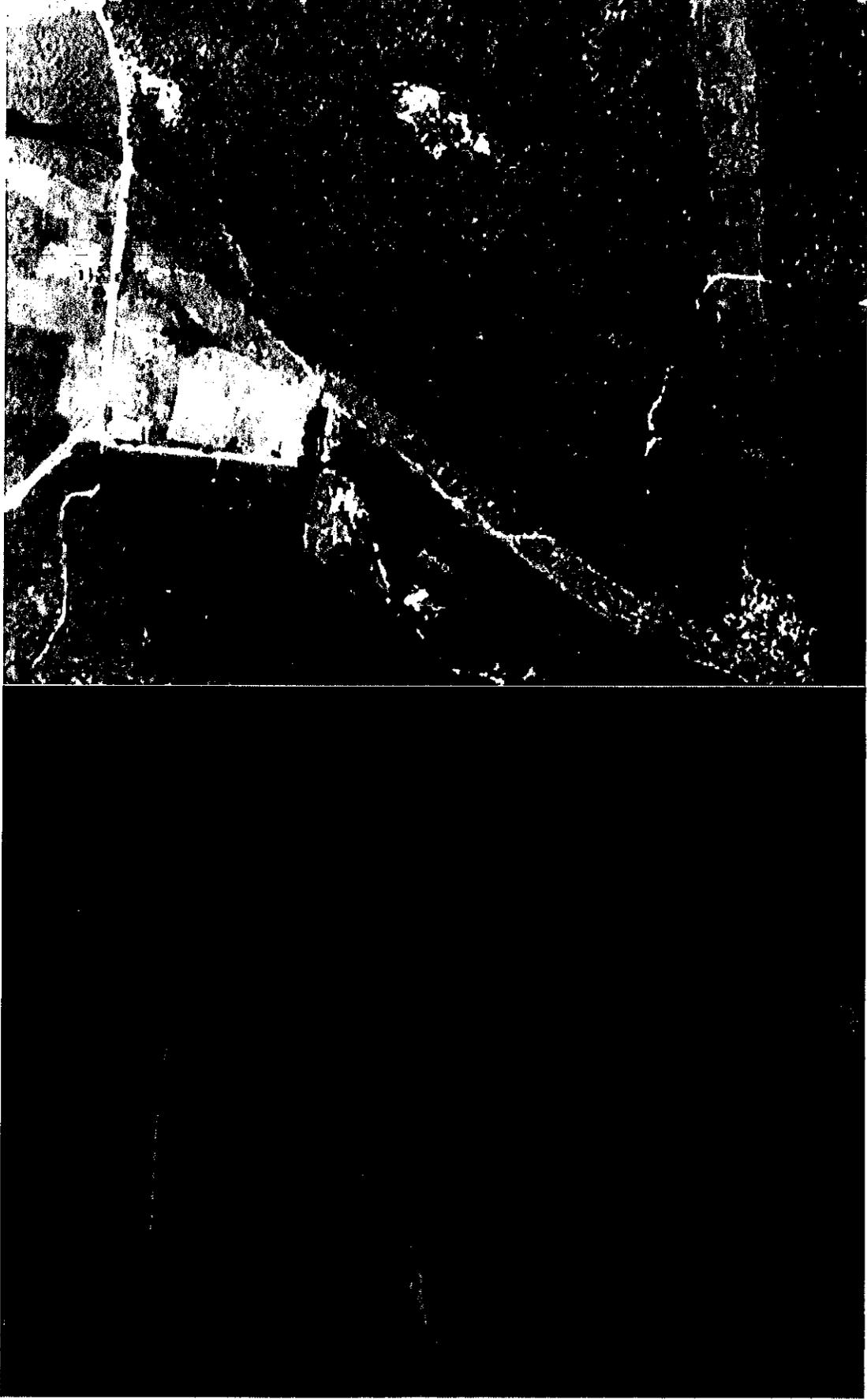
These three factors are combined into an overall ranking of the feature of **A**, **B**, **C**, or **D**, where **A** indicates an **excellent** example of the community or population and **D** indicates a **poor** example of the community or population. A rank of **E** indicates that the community or population is **extant** but there is not enough data to assign a quality rank. The Maine Natural Areas Program tracks all occurrences of rare (S1-S3) plants and natural communities as well as A and B ranked common (S4-S5) natural communities.

**Note:** **Element Occurrence Ranks** are determined by the Maine Natural Areas Program for rare plants and rare and exemplary natural communities and ecosystems. The Maine Department of Inland Fisheries and Wildlife determines Element Occurrence ranks for animals.

Visit our website for more information on rare, threatened, and endangered species!  
<http://www.maine.gov/dacf/mnap>



APPENDIX A. EXISTING INFORMATION



Wiscasset 1940 aerial before the dam was built compared with the 9-9-1980 aerial.  
Source: Knox-Lincoln Soil & Water Conservation District. Note that they were missing the 1966 and 1996 aerial photos for this vicinity.

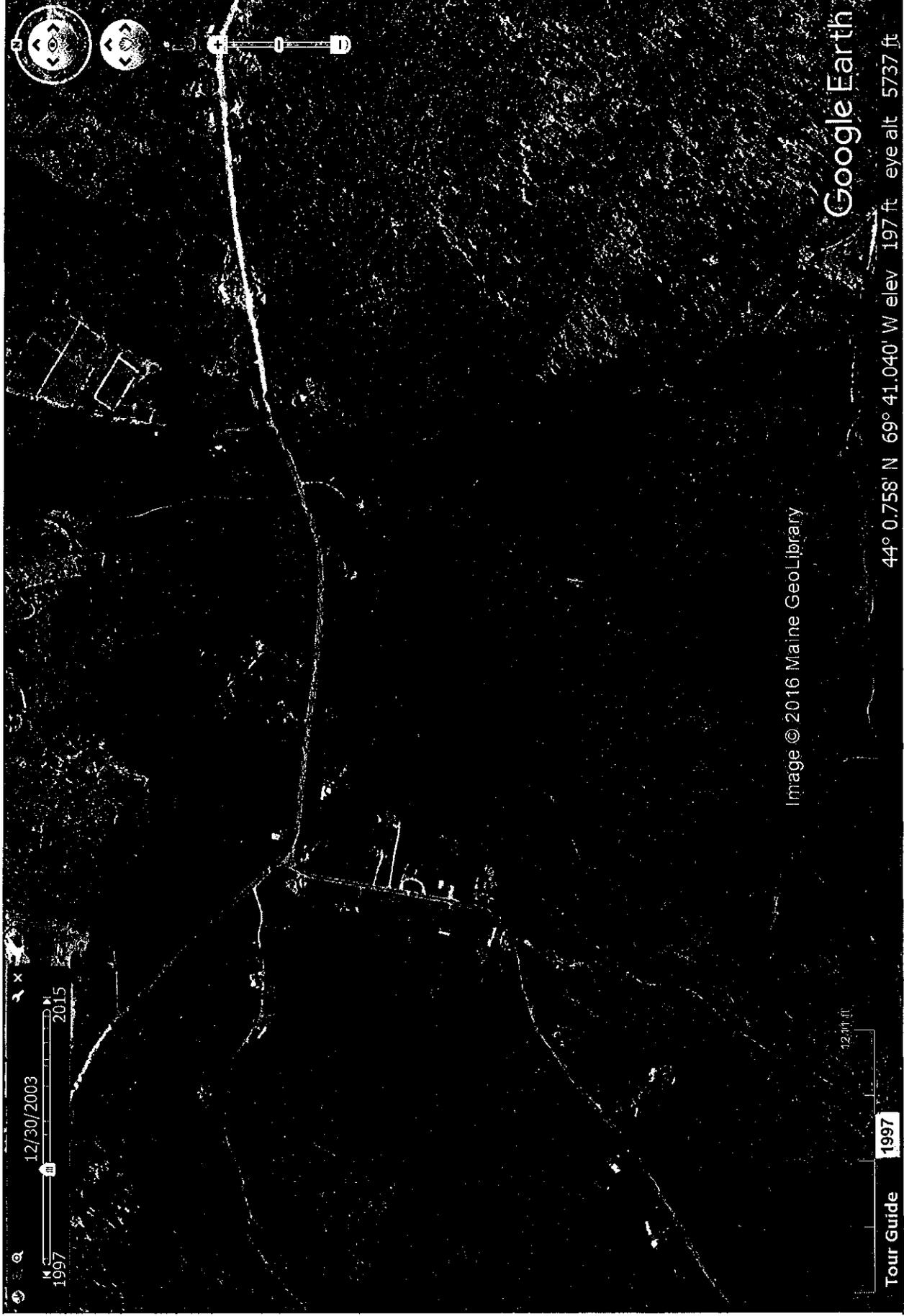


Image © 2016 Maine GeoLibrary

Tour Guide 1997

Google earth image taken in winter on 12/30/2003

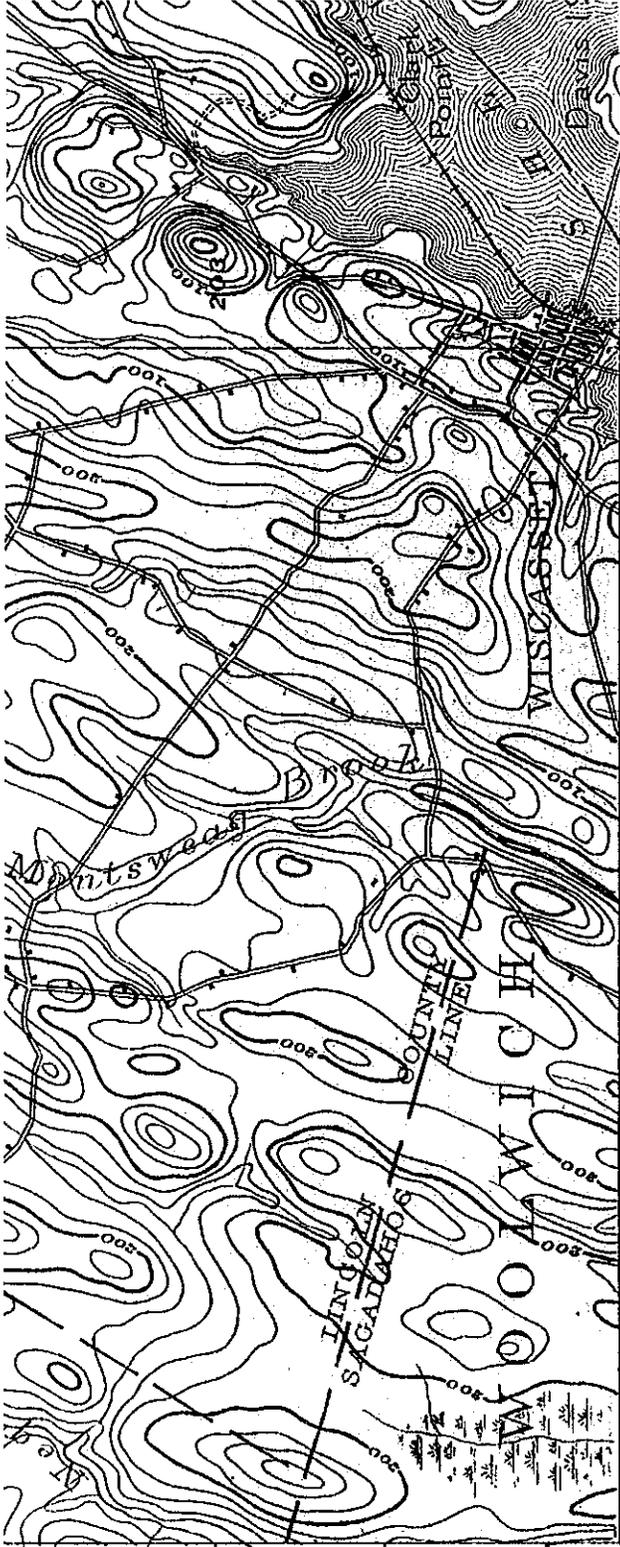
9/27/2014

Google Earth

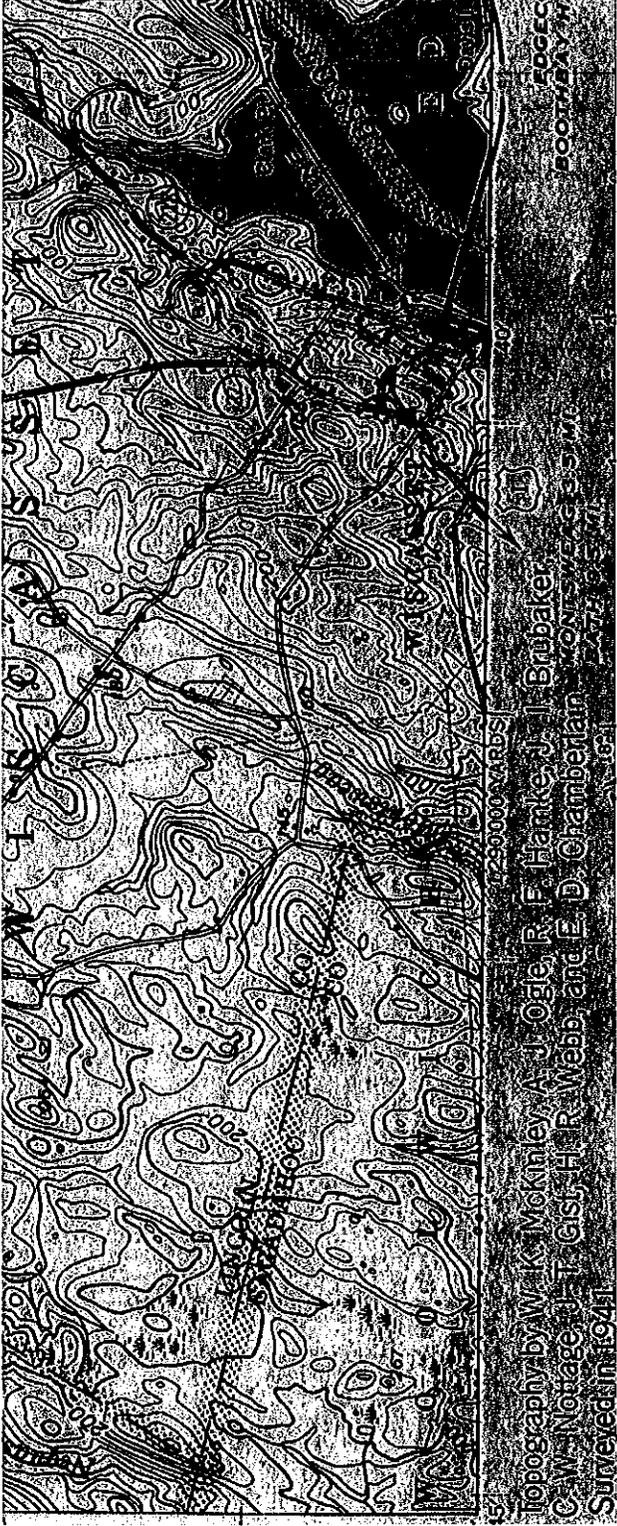
Imagery Date: 9/27/2014 44° 0.440' N 69° 41.849' W elev 189 ft eye alt 5737 ft

Tour Guide 1997

Google earth image taken in fall 9/27/2014



Portion of the 1893 topographic map. Note that this must be before the dam since Montsweag Brook appears as a narrow blue line.

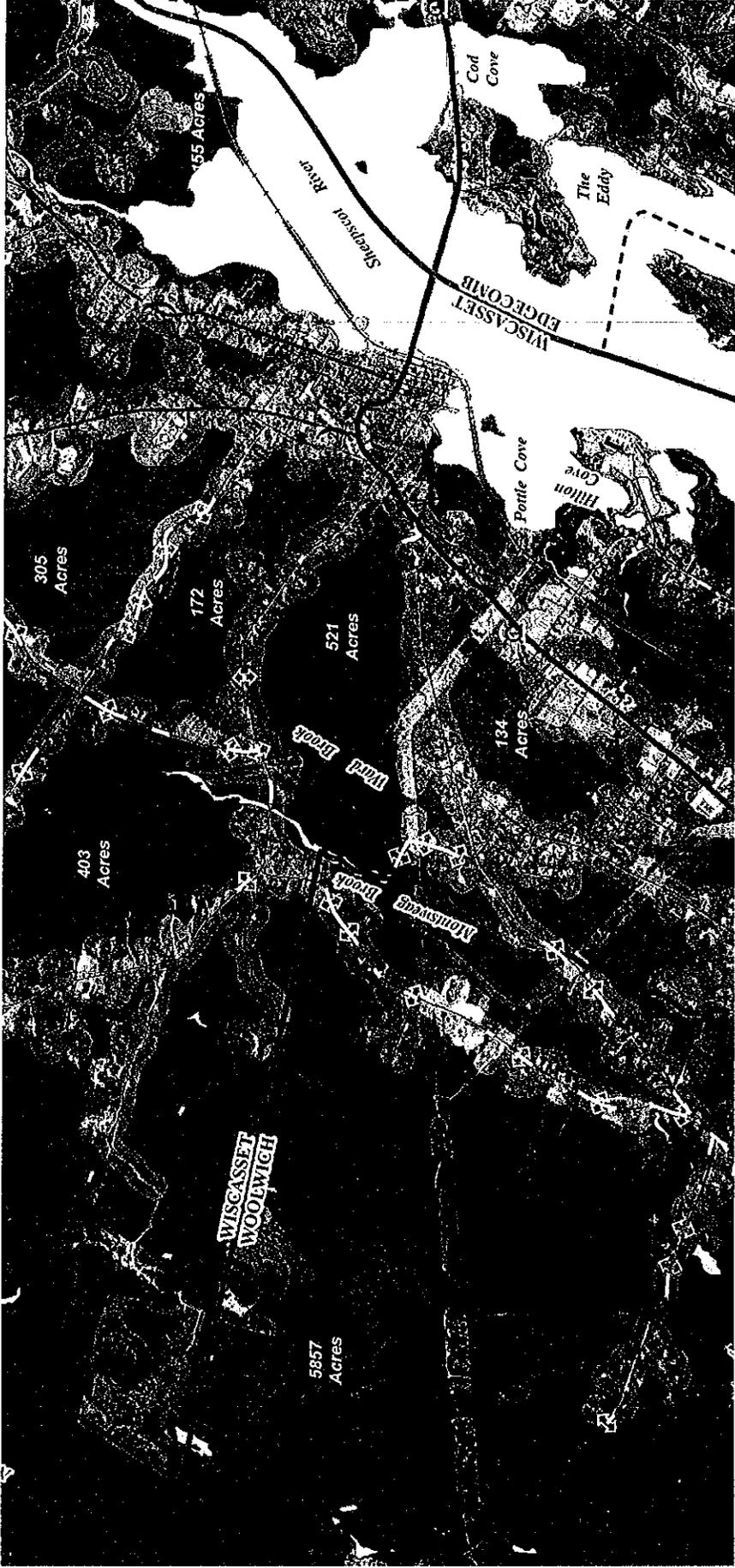


Portion of the 1944 Topographic map of the area. Note that it says it was "Surveyed in 1941". This survey must have been after the dam was constructed since Montsweag Brook is impounded and looks fatter and that the powerlines to the south and east are shown as dotted lines.

Topography by W.K. McKinley, A.J. Ogle, R.F. Hanke, J.I. Brubaker,  
 C.W. Norage, J.F. Gist, H.R. Webb, and E.D. Chamberlain  
 WISCONSIN TOPOGRAPHIC SURVEYS  
 Surveyed in 1941



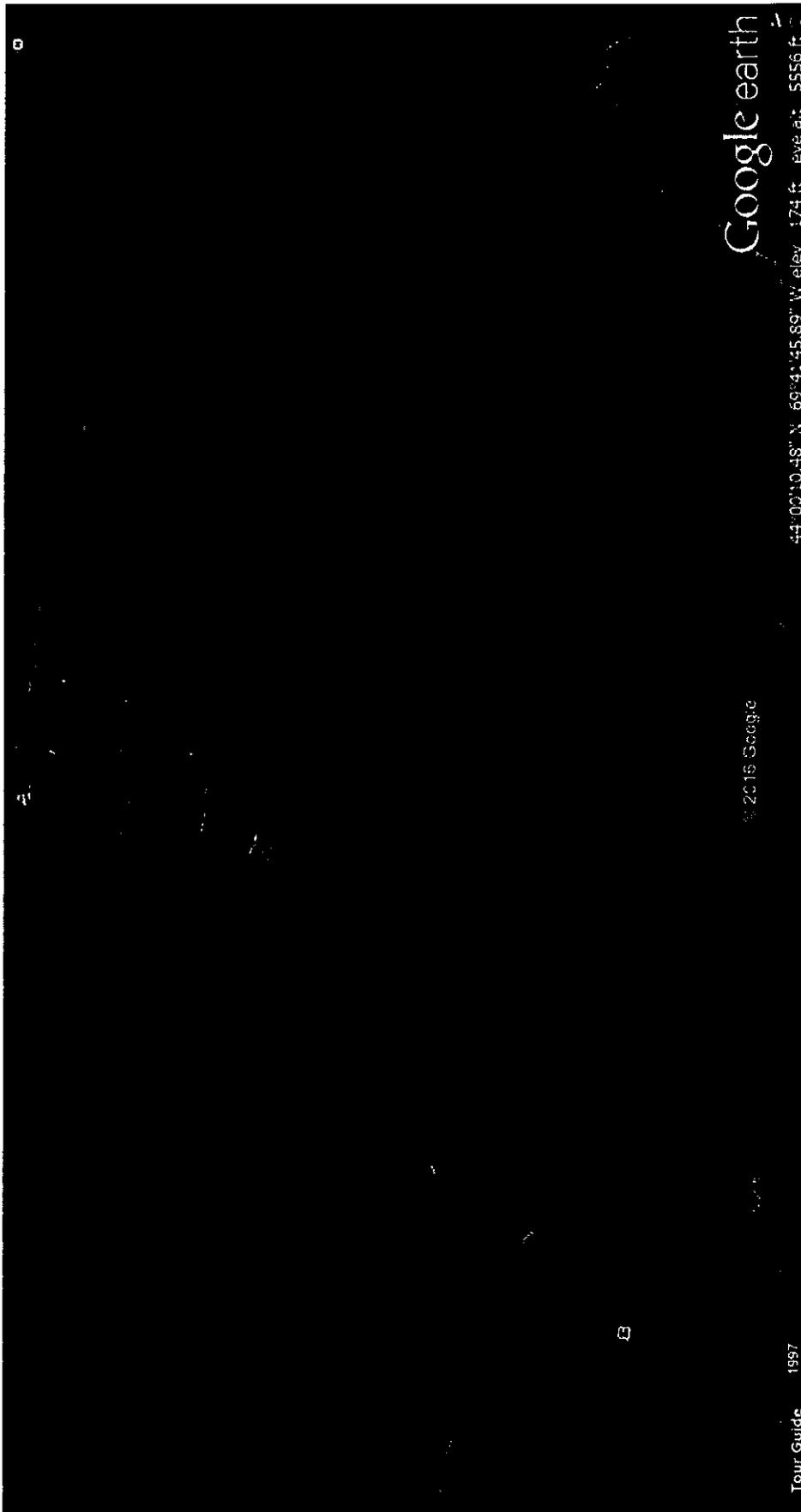
1957 USGS topographic map showing impoundment in Montsweag Dam Preserve. Cleared vs. forested land is clearly differentiated.



Beginning with Habitat Undeveloped Habitat Blocks & Conserved Lands Map ([http://www.beginningwithhabitat.org/the\\_maps/status-w.html](http://www.beginningwithhabitat.org/the_maps/status-w.html))



Beginning with Habitat Focus Areas of Statewide Significance

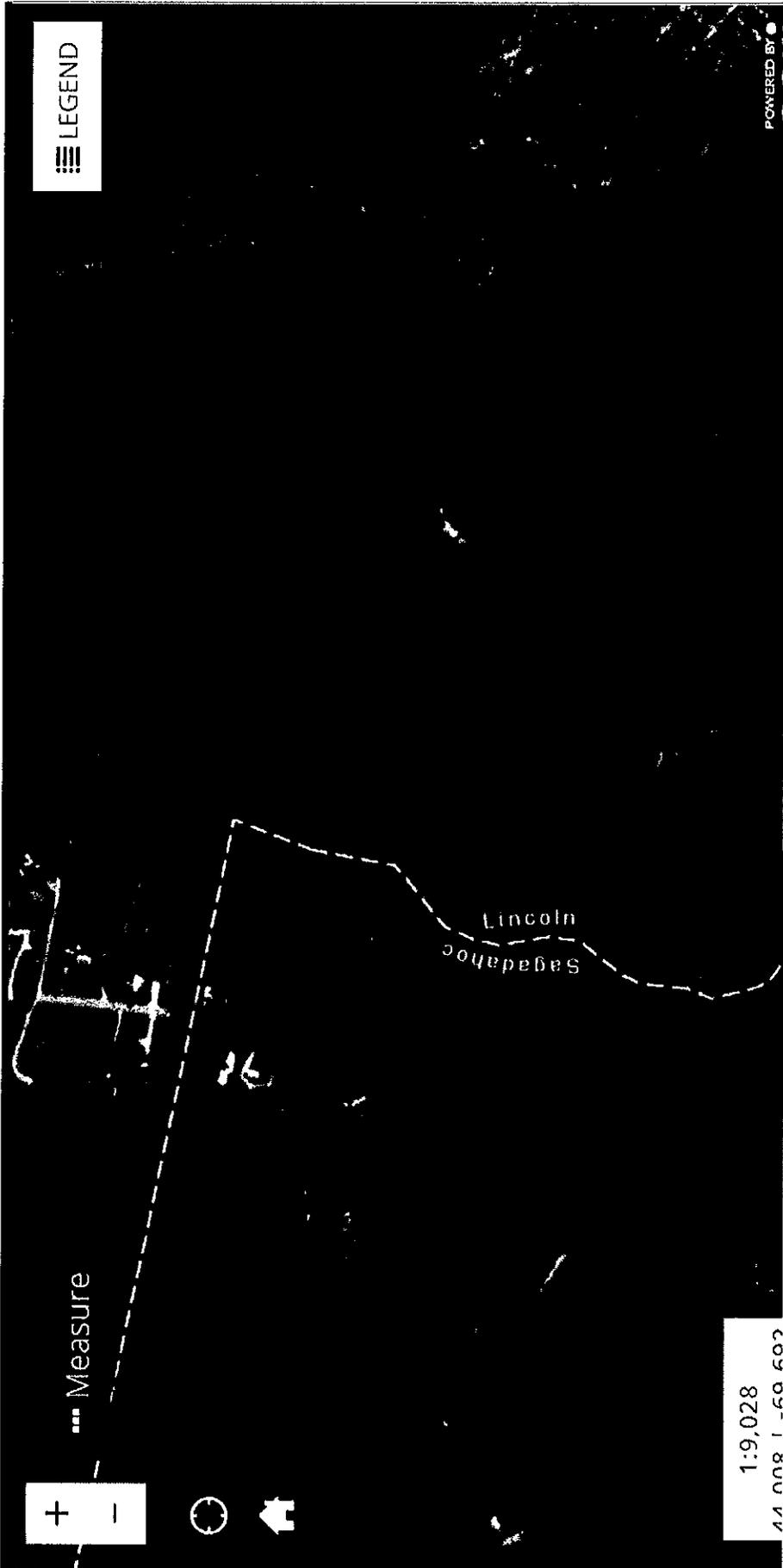


Google earth

44°00'10.48" N 69°41'45.89" W elev. 174 ft eye alt. 5856 ft

Tour Guide 1997

Mapped deer wintering area (<http://www.maine.gov/megis/catalog/>)



POWERED BY

LEGEND

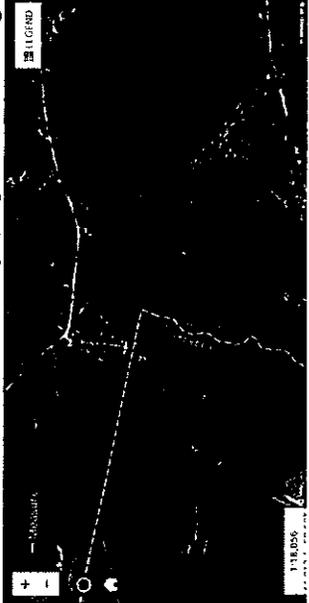
Measure

1:9,028

44.008.1-50.692

Sagadahoc Lincoln

National Wetlands Inventory (<https://www.fws.gov/wetlands/data/mapper.HTML>)

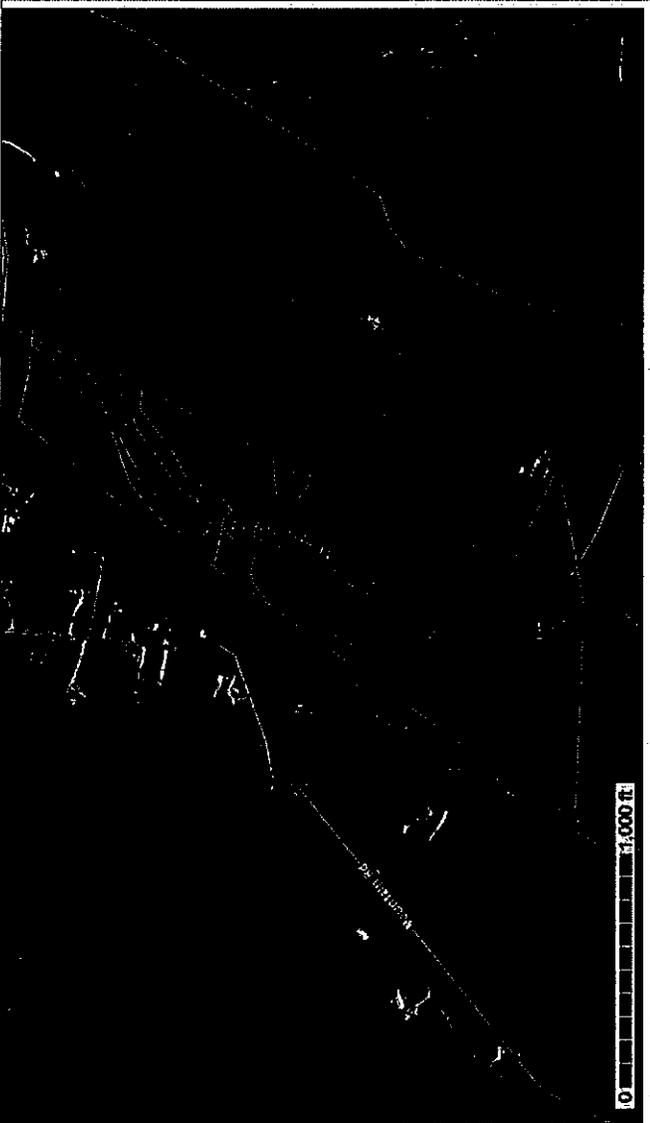


LEGEND

Measure

WETLANDS

Androscoggin and Sagadahoc Counties, Maine (ME606)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
ChC	Charlton very stony fine sandy loam, 8 to 15 percent slopes	9.9	24.5%
HfC	Hollis fine sandy loam, 8 to 15 percent slopes	6.0	14.8%
HsC	Hollis very rocky fine sandy loam, 8 to 15 percent slopes	0.1	0.4%
Subtotals for Soil Survey Area		16.1	39.7%
Knox and Lincoln Counties, Maine (ME601)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
MsC	Marlow fine sandy loam, 8 to 15 percent slopes, very stony	15.7	38.8%
MsD	Marlow fine sandy loam, 15 to 25 percent slopes, very stony	0.5	1.2%
Sc	Scantic silt loam, 0 to 3 percent slopes	4.7	11.7%
TrC	Tunbridge-Lyman complex, 8 to 15 percent slopes, rocky	1.6	3.8%
W	Water bodies	1.9	4.8%



**Warning: Soil Map may not be valid at this scale.**

You have zoomed in beyond the scale at which the soil map for this area is intended to be used. Mapping of soils is done at a particular scale. The soil surveys that comprise your AOI were mapped at scales ranging from 1:15,800 to 1:20,000. The design of map units and the level of detail shown in the resulting soil map are dependent on that map scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Soils map (<http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>)



# Maine Stream Habitat Viewer

## Maine Stream Connectivity Work Group and Maine Office of GIS



- Home
- Use the Viewer
- How To
- Contacts
- About Barriers
- Training
- Barrier Surveys
- Partners

- Measure Area
- Identify
- Clear Selection
- Build a Query
- Bird's Eye View

**Catalog**

- Dams
- Barrier
- Potential Barrier
- Natural Barriers
- Impassable Waterfalls
- High Interest Habitats
- Atlantic Salmon
- Documented
- Potential
- Habitat Recovery Units
- Alewife
- Sea-Run Rainbow Smelt
- Wild Eastern Brook Trout
- Tidal Marshes
- Supplemental Habitat Layers
- Base Layers

Maine Stream Habitat Viewer: portion of the Wiscasset area (<http://mapserver.maine.gov/streamviewer/index.html>). Montsweag Brook System is modeled as a Gulf of Maine Atlantic Salmon Distinct Population Segment



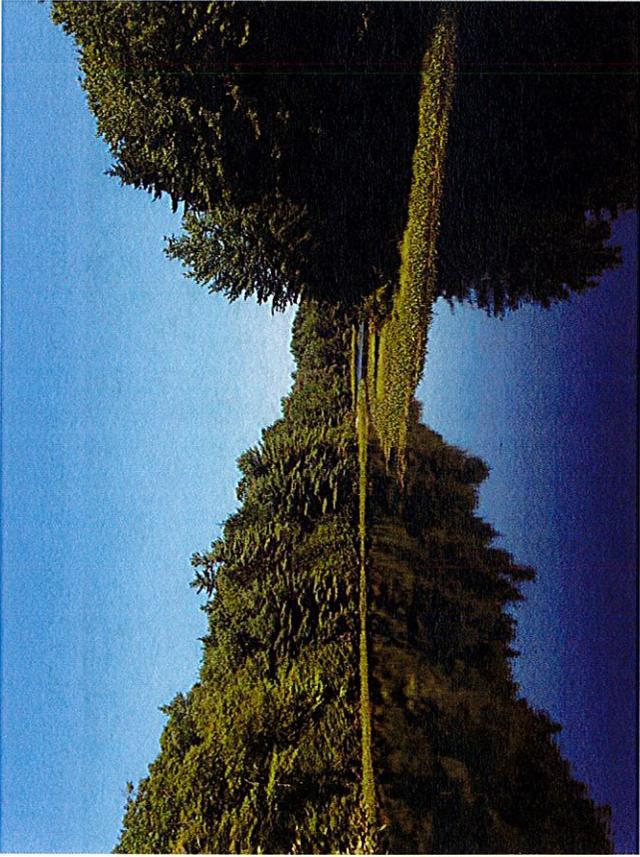


Photo 1. Impoundment upstream of dam



Photo 2. Dam and Montsweg Brook downstream of dam

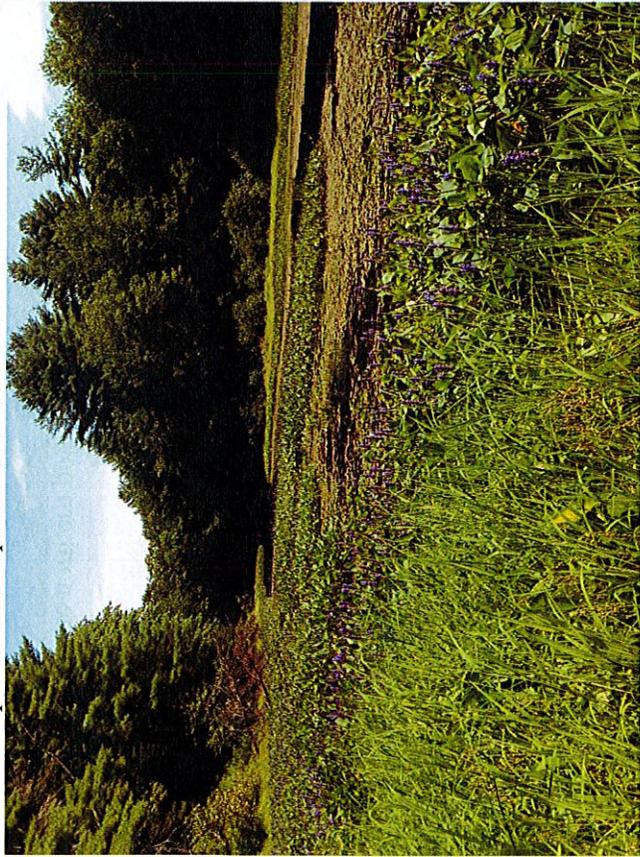


Photo 3. Pickerelweed-Macrophyte Aquatic Bed (PAB) Community



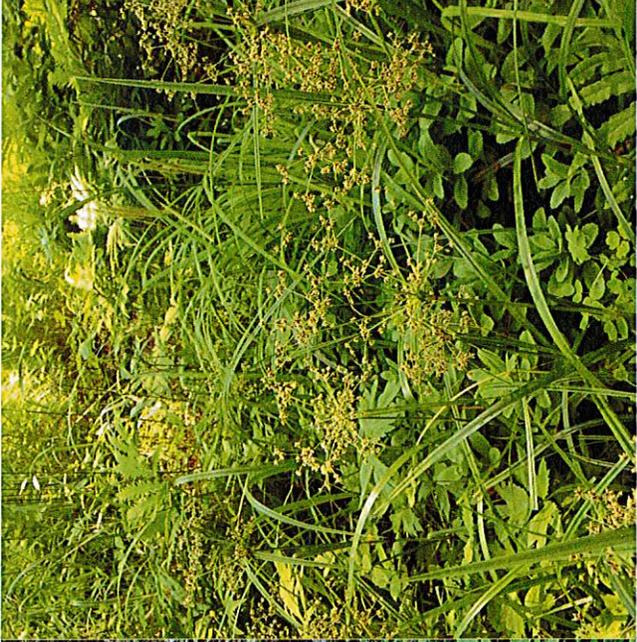
Photo 4. Another view of the PAB community



Photo 5. PAB at the northern portion of the impoundment



Photo 6. Another view of the PAB community



Photos 7, 8 and 9. Mixed Graminoid – Shrub Marsh (MGS) Community



Photo 10. Hemlock Forest (HF) Community



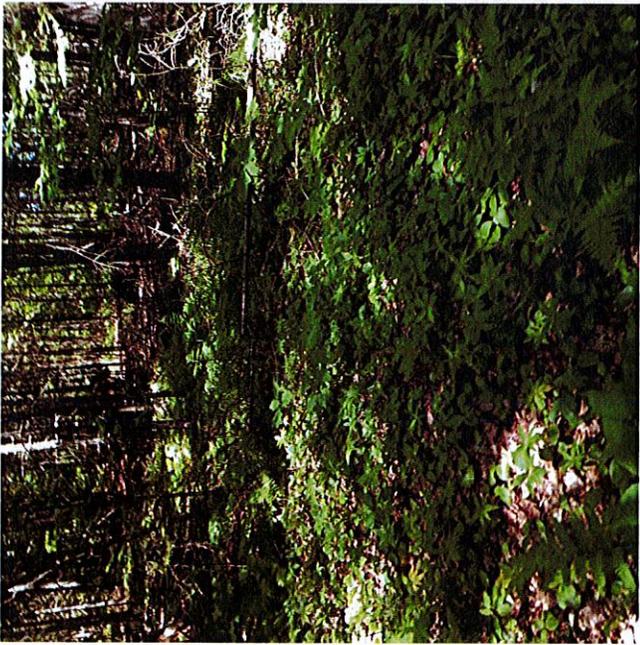
Photo 11. Swale in hemlock forest



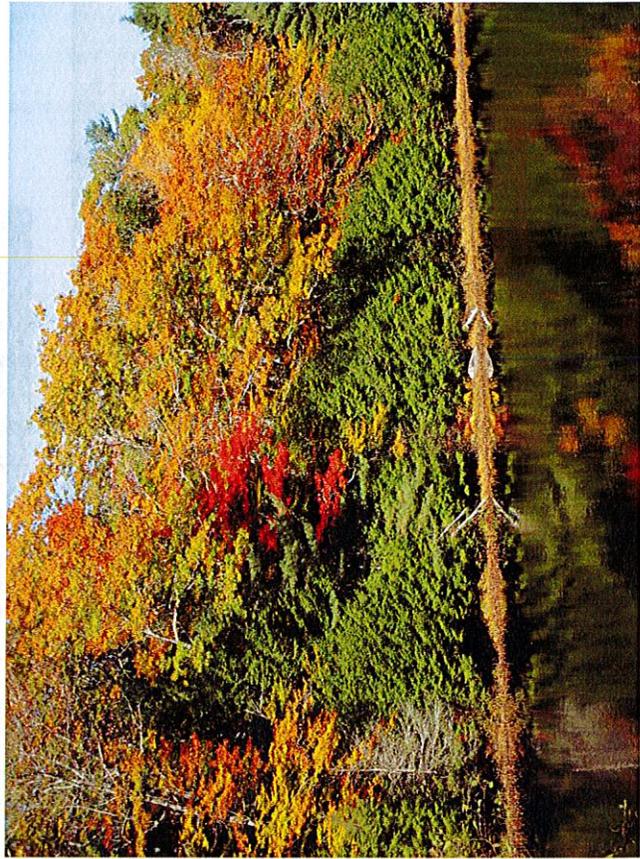
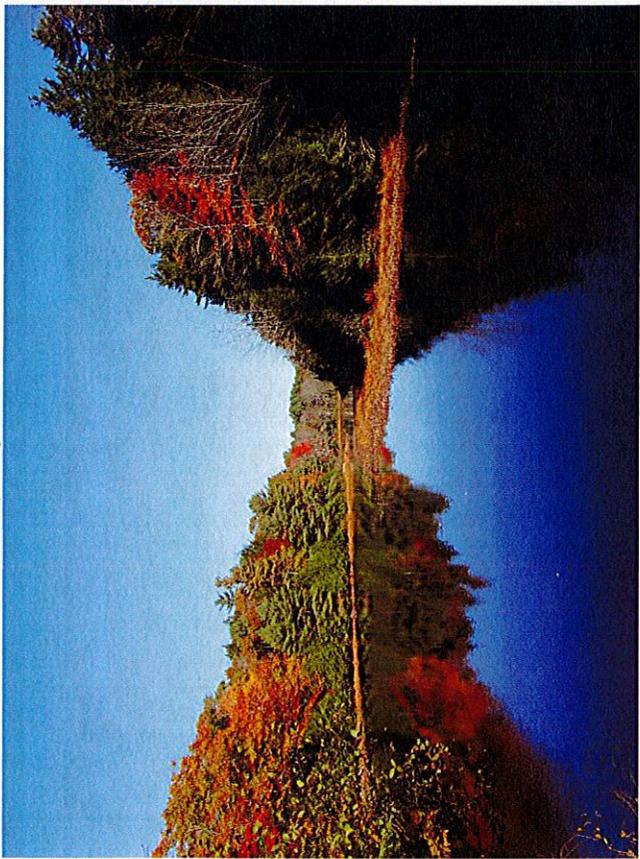
Photo 12. Oak-Pine Forest (OPF) Community



Photo 13. Understory of the OPF



Photos 14 and 15. Understory vegetation found in the Oak-Pine Forest



Photos 16 and 17. Views upstream of the dam in October showing PAB community along the shore and OPF community in the upland.

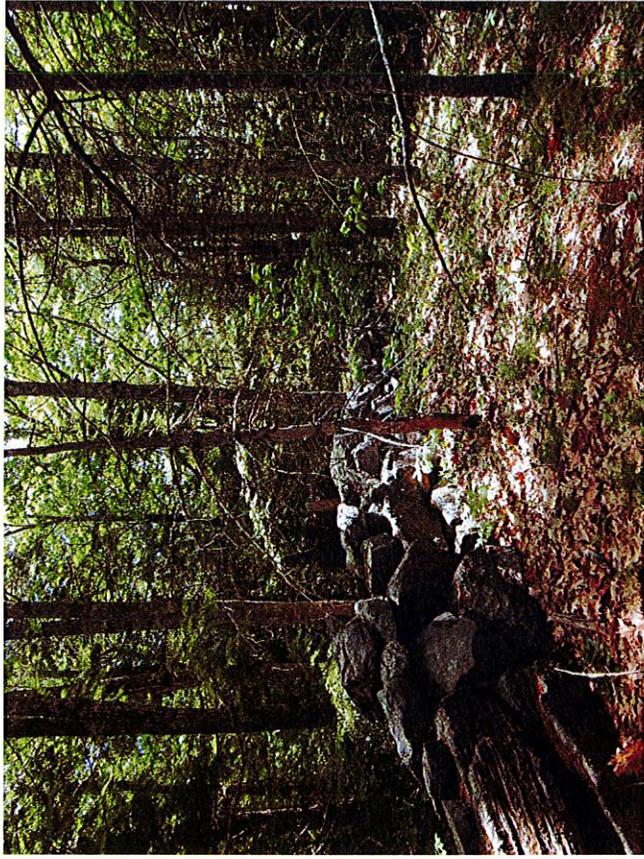


Photo 18. Stone wall on the southwestern part of the property.



Photo 19. Stone and wood beams downstream, perhaps an old crossing.



Photo 20. Another stone wall on the western side.



Photo 21. A steep stone embankment on the western shore.

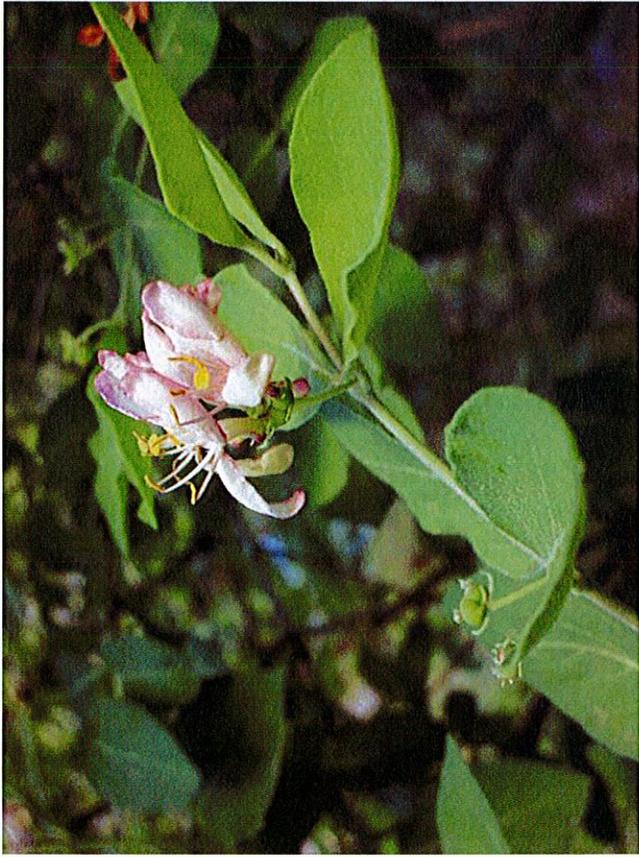


Photo 22. Showy fly honeysuckle (*Lonicera x bella*)

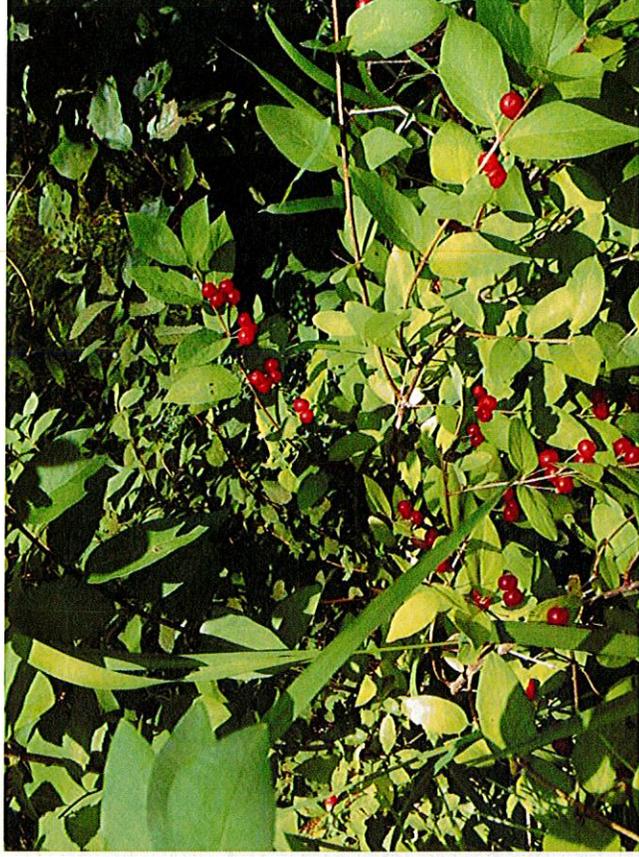


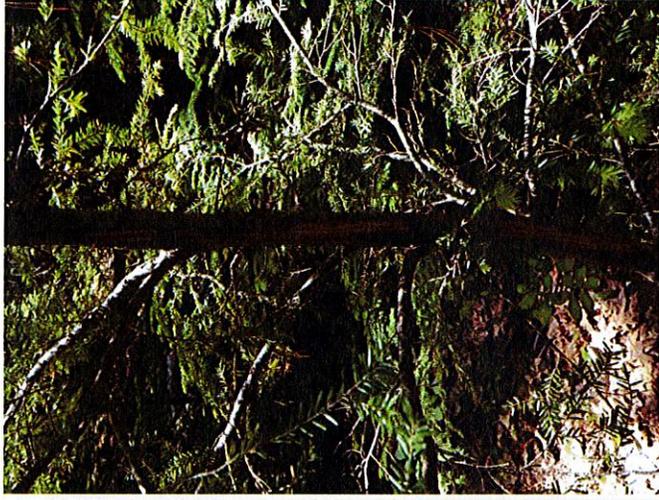
Photo 23. Morrow's honeysuckle (*Lonicera morrowii*)



Photo 24. Common buckthorn (*Rhamnus cathartica*)



Photo 25. The area just north of the stream with multiple invasive species.



Photos 26 to 33. Pileated woodpecker holes. Signs of deer: bones

Dead raven

and rubbings



Beaver sign



Gray treefrog



Eastern Towhee



Painted turtle



Table 1. Vascular Plant List by Habitat for Montsweag Dam Preserve, Wiscasset, Maine

SCIENTIFIC	COMMON	N/E/I	PAB	MGS	OPF	HF
<i>Abies balsamea</i>	Balsam fir	N			X	X
<i>Acer pensylvanicum</i>	Striped/Moose maple	N			X	
<i>Acer rubrum</i>	Red maple	N			X	X
<i>Acer saccharum</i>	Sugar maple	N			X	
<i>Achillea millefolium</i>	Yarrow	*			X	
<i>Actaea sp.</i>	Baneberry	N			X	
<i>Agromonia gryposepala</i>	Common agrimony	N			X	
<i>Agrostis perennans</i>	Upland bent	N			X	
<i>Agrostis scabra</i>	Rough bentgrass	N		X	X	
<i>Agrostis stolonifera</i>	Creeping bentgrass	*		X	X	
<i>Alnus incana ssp. rugosa</i>	Speckled alder	N		X		
<i>Amphicarpaea bracteata</i>	Hog-peanut	N		X	X	
<i>Anemone quinquefolia</i>	Wood anemone	N			X	
<i>Anthoxanthum odoratum</i>	Sweet vernal grass	*			X	
<i>Apocynum androsaemifolium</i>	Spreading dogbane	N			X	
<i>Aralia nudicaulis</i>	Wild sarsaparilla	N		X	X	X
<i>Arisaema triphyllum</i>	Jack in the pulpit	N	X			
<i>Asclepias syriaca</i>	Common milkweed	N			X	
<i>Eurybia macrophylla</i>	Large-leaved aster	N			X	
<i>Athyrium angustum</i>	Lady fern	N			X	
<i>Berberis thunbergii</i>	Japanese barberry	**			X	
<i>Betula alleghaniensis</i>	Yellow birch	N			X	
<i>Betula papyrifera</i>	White/paper birch	N			X	
<i>Bidens frondosa</i>	Devil's beggar ticks	N	X			
<i>Boehmeria cylindrica</i>	False nettle	N		X		
<i>Brachelytrum aristosum</i>	Long-awned wood grass	N			X	X
<i>Calamagrostis canadensis</i>	Bluejoint	N	X			
<i>Cardamine pensylvanica</i>	Pennsylvania bitter-cross	N		X		
<i>Carex arctata</i>	Drooping wood sedge	N			X	
<i>Carex crinita</i>	Fringed sedge	N	X			
<i>Carex debilis</i>	White-edged sedge	N			X	X
<i>Carex digitalis</i>	Slender woodland sedge	N			X	
<i>Carex echinata</i>	Star sedge	N			X	
<i>Carex intumescens</i>	Bladder sedge	N				X
<i>Carex leptalea</i>	Bristle-stalk sedge	N			X	
<i>Carex leptonevria</i>	Nerveless woodland sedge	N			X	X
<i>Carex lucorum</i>	Blue Ridge sedge	N			X	
<i>Carex lupulina</i>	Hop sedge	N		X		
<i>Carex lurida</i>	Sallow sedge	N		X		
<i>Carex novae-angliae</i>	New England Sedge	N			X	
<i>Carex pallescens</i>	Pale sedge	N			X	X
<i>Carex scoparia</i>	Pointed broom sedge	N				
<i>Carex stipata</i>	Awl-fruited sedge	N				
<i>Carex stricta</i>	Tussock sedge	N	X			

SCIENTIFIC	COMMON	N/E/I	PAB	MGS	OPF	HF
Carex vulpinoidea	Fox sedge	N	X			
Celastrus orbiculatus	Oriental bittersweet	**			X	
Chelone glabra var dilatata	White turtlehead	N	X			
Chrysosplenium americanum	Golden-saxifrage	N		X		
Cicuta bulbifera	Bulblet-bearing water hemlock	N	X			
Circaea alpina	Dwarf enchanter's-nightshade	N				X
Clintonia borealis	Bluebead lily/Clintonia	N		X		X
Coptis trifolia	Goldthread	N				
Cornus alternifolia	Alternate-leaved dogwood	N			X	
Corylus cornuta	Beaked hazelnut	N			X	
Crataegus sp.	Hawthorn	N*			X	
Cypripedium acaule	Pink lady's slipper	N				
Cystopteris tenuis	Mackay's brittle fern	N				
Dactylis glomerata	Orchard grass	*			X	
Danthonia compressa	Wild oat grass	N			X	
Daucus carota	Queen Anne's lace	*			X	
Dendrolycopodium dendroideum	Prickly tree clubmoss	N			X	
Dendrolycopodium hickeyi	Hickey's tree clubmoss	N			X	
Dendrolycopodium obscurum	Tree clubmoss/Princess pine	N			X	X
Dennstaedtia punctilobula	Hayscented fern	N			X	X
Deschampsia flexuosa	Wavy hairgrass	N			X	
Desmodium canadense	Showy/Canadian tick-trefoil	N			X	
Dichanthelium acuminatum	Woolly panic grass	N			X	
Diervilla lonicera	Bush honeysuckle	N			X	
Doellingeria umbellata	Fiat-topped white aster	N		X		
Drosera rotundifolia	Round-leaved sundew	N	X			
Dryopteris carthusiana	Spinulose wood fern	N			X	
Dryopteris cristata	Crested wood fern	N	X			
Dryopteris intermedia	Evergreen wood/fancy fern	N			X	
Dryopteris marginalis	Marginal wood fern	N		X		
Dulichium arundinaceum	Three-way sedge	N	X			
Elaeagnus angustifolia	Russian olive	**			X	
Eleocharis acicularis	Needle spike-rush	N	X			
Eleocharis palustris	Creeping spikerush	N	X			
Epilobium coloratum	Eastern willow-herb	N	X		X	
Epilobium sp.	Willow-herb	N	X		X	
Equisetum arvense	Field horsetail	N				
Equisetum sylvaticum	Wood horsetail	N	X		X	
Erigeron strigosus	Lesser daisy flea-bane	N			X	
Eurybia macrophylla	Large-leaved wood aster	N			X	
Fagus grandifolia	Beech	N			X	
Festuca filiformis	Fine-leaved sheep fescue	*			X	
Festuca rubra	Red fescue	N			X	
Fraxinus americana	White ash	N			X	
Fraxinus pennsylvanica	Green ash	N			X	
Galeopsis bifida	Splitlip hempnettle	*			X	

SCIENTIFIC	COMMON	N/E/I	PAB	MGS	OPF	HF
<i>Galium aparine</i>	Cleavers	N			X	
<i>Galium tinctorium</i>	Clayton's bedstraw	N	X	X		
<i>Gaultheria procumbens</i>	Wintergreen	N			X	
<i>Geum sp.</i>	Avens	N		X		
<i>Glyceria striata</i>	Fowl mannagrass	N	X			
<i>Hamamelis virginiana</i>	Witch-hazel	N			X	
<i>Hieracium aurantiacum</i>	Orange hawkweed	*			X	
<i>Hieracium caespitosum</i>	Field hawkweed/King devil	*			X	
<i>Hieracium sp.</i>	Hawkweed				X	
<i>Houstonia caerulea</i>	Bluets/Quaker ladies	N		X		
<i>Hydrocotyle americana</i>	Marsh pennywort	N		X		
<i>Hytotelephium telephium</i>	Orpine	*	X			
<i>Hypericum boreale</i>	Northern St. Johnswort	N	X			
<i>Hypericum ellipticum</i>	Pale St. Johnswort	N	X			
<i>Ilex verticillata</i>	Winterberry	N	X	X		
<i>Impatiens capensis</i>	Jewelweed/Touch-me-not	N	X	X		
<i>Ionactis linariifolius</i>	Stiff aster	N			X	
<i>Juncus effusus</i>	Soft rush	N	X	X		
<i>Juncus tenuis</i>	Path Rush	N			X	
<i>Juniperus communis v. depressa</i>	Common/Pasture juniper	N			X	
<i>Lechea intermedia</i>	Pinweed	N			X	
<i>Leucanthemum vulgare</i>	Ox-eye daisy	*			X	
<i>Lobelia inflata</i>	Indian tobacco	N			X	
<i>Lonicera morrowii</i>	Morrow's honeysuckle	**		X		
<i>Lonicera x bella</i>	Hybrid honeysuckle	*			X	
<i>Ludwigia palustris</i>	Water purslane	N	X			
<i>Luzula acuminata</i>	Hairy wood rush	N	X		X	
<i>Luzula luzuloides</i>	Oak-forest wood rush	*	X		X	
<i>Lycopus americanus</i>	American water-horehound	N		X		
<i>Lycopus uniflorus</i>	Northern bugleweed	N	X			
<i>Lyonia ligustrina</i>	Maleberry	N	X			
<i>Lysimachia borealis</i>	Starflower	N			X	X
<i>Lysimachia quadrifolia</i>	Whorled loosesrife	N			X	
<i>Lysimachia terrestris</i>	Swamp candle	N	X			
<i>Maianthemum canadense</i>	Canada mayflower	N			X	X
<i>Maianthemum racemosum</i>	False Solomon's seal	N			X	
<i>Malus sylvestris</i>	Apple	*			X	
<i>Medeola virginiana</i>	Indian cucumber-root	N			X	
<i>Melampyrum lineare</i>	Cowwheat	N			X	
<i>Melilotus albus</i>	White sweet clover	*			X	
<i>Mitchella repens</i>	Partridgeberry	N			X	
<i>Monotropa uniflora</i>	Indian pipe	N			X	
<i>Nabalus trifoliolatus</i>	Gall of the earth	N			X	
<i>Nuphar variegata</i>	Bullhead pond-lily	N	X			
<i>Oclemena acuminata</i>	Whorled aster	N			X	X
<i>Onoclea sensibilis</i>	Sensitive fern	N	X	X		

SCIENTIFIC	COMMON	N/E/I	PAB	MGS	OPF	HF
<i>Oryzopsis asperifolia</i>	Rough-leaved rice grass	N			X	X
<i>Osmunda claytoniana</i>	Interrupted fern	N			X	
<i>Osmunda regalis v. spectabilis</i>	Royal fern	N	X			
<i>Osmundastrum cinnamomea</i>	Cinnamon fern	N	X	X		
<i>Ostrya virginiana</i>	Eastern hophornbeam	N			X	
<i>Oxalis stricta</i>	Common wood-sorrel	N			X	
<i>Parathelypteris noveboracensis</i>	New York fern	N			X	X
<i>Persicaria hydropiper</i>	Water-pepper	N	X			
<i>Persicaria sagittata</i>	Arrow-leaved tearthumb	N		X		
<i>Phalaris arundinacea</i>	Reed canarygrass	N	X	X		
<i>Phegopteris connectilis</i>	Northern/Long beech fern	N			X	X
<i>Phleum pratense</i>	Timothy	*			X	
<i>Picea rubens</i>	Red spruce	N			X	X
<i>Pinus strobus</i>	Eastern white pine	N			X	X
<i>Plantago major</i>	Common plantain	*			X	
<i>Poa compressa</i>	Canada bluegrass	*			X	
<i>Poa sp.</i>	Bluegrass				X	
<i>Polystichum acrostichoides</i>	Christmas fern	N			X	X
<i>Pontederia cordata</i>	Pickereelweed	N	X			
<i>Populus grandidentata</i>	Big tooth aspen	N			X	
<i>Populus tremuloides</i>	Quaking aspen	N			X	
<i>Potamogeton natans</i>	Floating pondweed	N	X			
<i>Potentilla simplex</i>	Old-field cinquefoil	N			X	
<i>Prunella vulgaris</i>	Selfheal/Heal-all	*			X	
<i>Prunus serotina</i>	Black cherry	N			X	
<i>Prunus virginiana</i>	Choke cherry	N			X	
<i>Pteridium aquilinum v. latiusculum</i>	Bracken fern	N			X	
<i>Quercus rubra</i>	Northern red oak	N			X	X
<i>Ranunculus acris</i>	Tall buttercup	*	X			
<i>Ranunculus caricetorum</i>	Swamp crowfoot	N		X		
<i>Rhamnus cathartica</i>	Common buckthorn	**		X		
<i>Ribes glandulosum</i>	Skunk currant	N		X		
<i>Rosa multiflora</i>	Multiflora rose	**			X	
<i>Rubus allegheniensis</i>	Common blackberry	N			X	
<i>Rubus hispidus</i>	Swamp/Trailing dewberry	N	X			
<i>Rubus idaeus</i>	Raspberry	*			X	
<i>Rubus pubescens</i>	Dwarf raspberry	N				X
<i>Rubus sp.</i>	Bramble				X	
<i>Rudbeckia hirta v. pulcherrima</i>	Black-eyed Susan	N			X	
<i>Sagittaria latifolia</i>	Common arrowhead	N	X			
<i>Schedonorus pratensis</i>	Meadow rye grass	*			X	
<i>Scirpus atrocinctus</i>	Black-girdled woolgrass	N	X			
<i>Scirpus cyperinus</i>	Wool-grass	N	X	X		
<i>Scirpus hattorianus</i>	Black bulrush	N	X	X		
<i>Scirpus microcarpus</i>	Barber-pole bulrush	N	X	X		
<i>Scutellaria galericulata</i>	Hooded skullcap	N	X			X







PAUL R. LEPAGE  
GOVERNOR

STATE OF MAINE  
DEPARTMENT OF  
INLAND FISHERIES & WILDLIFE  
284 STATE STREET  
41 STATE HOUSE STATION  
AUGUSTA ME 04333-0041

CHANDLER E. WOODCOCK  
COMMISSIONER

September 2, 2016

Lauren Stockwell  
Stockwell Environmental Consulting, Inc.  
58 Hendricks Hill Rd.  
Southport, ME 04576

**RE: Information Request - Montsweag Dam Preserve, Wiscasset**

Dear Lauren:

Per your request received August 11, 2016, we have reviewed current Maine Department of Inland Fisheries and Wildlife (MDIFW) information for known locations of Endangered, Threatened, and Special Concern species, as well as for designated Essential and Significant Wildlife Habitats, within the vicinity of the *Montsweag Dam Preserve* in Wiscasset.

Our Department has not mapped any Essential Habitats in the vicinity of the Montsweag Dam Preserve.

***Endangered, Threatened, and Special Concern Species***

MDIFW databases do not indicate the presence of State-listed Endangered, Threatened, or Special Concern Species in the Montsweag Dam Preserve area; however, to our knowledge no formal surveys have been conducted. That said, it is possible that several rare species may be resident or transient at the Montsweag Dam Preserve based on location, habitats present, and life history requirements including one or more species of bats (all eight species of bats in Maine are listed as Endangered, Threatened, or Special Concern); great blue heron (Special Concern); as well as spotted (Threatened) and wood (Special Concern) turtles. It is also possible that one or more rare species of migratory birds may be found in the area during spring and fall migrations.

***Significant Wildlife Habitat***

**Significant Vernal Pools**

At this time, MDIFW Significant Wildlife Habitat (SWH) maps indicate no known presence of SWHs within the Montsweag Dam Preserve, which include Waterfowl and Wading Bird Habitats, Deer Wintering Areas, Seabird Nesting Islands, Shorebird Areas, and Significant Vernal Pools. However, a comprehensive statewide inventory for Significant Vernal Pools has not been completed so it is possible that this habitat could be present in the area.

Letter to Lauren Stockwell  
Comments RE: Wiscasset, Montsweag Dam Preserve  
September 2, 2016

Please feel free to contact my office if you have any questions regarding this information, or if I can be of any further assistance.

Best regards,

A handwritten signature in blue ink, appearing to read "John Perry". The signature is stylized with a large initial "J" and a long horizontal stroke.

John Perry  
Environmental Review Coordinator