Notice of Intent (NOI) for coverage under Small MS4 General Permit

Part I: General Conditions

General Information

Name of Municipality or Organization: Town of Chatham State: MA

EPA NPDES Permit Number (if applicable): MAR041101

Primary MS4 Program Manager Contact Information

Name: Robert Duncanson, Ph.D. Title: Director of Health & Natural Resources

Street Address Line 1: 261 George Ryder Road

Street Address Line 2:

City: Chatham State: MA Zip Code: 02633

Email: rduncanson@chatham-ma.gov Phone Number: (508) 945-5165

Fax Number: (508) 945-5163

Other Information

Stormwater Management Program (SWMP) Location (web address or physical location, if already completed):

Eligibility Determination

Endangered Species Act (ESA) Determination Complete? Eligibility Criteria (check all that apply): ☐ A ☐ B ☐ C

National Historic Preservation Act (NHPA) Determination Complete? Yes Eligibility Criteria (check all that apply): ☒ A ☐ B ☐ C

☑ Check the box if your municipality or organization was covered under the 2003 MS4 General Permit

MS4 Infrastructure (if covered under the 2003 permit)

Estimated Percent of Outfall Map Complete? *(Part II, III, IV or V, Subpart B.3.(a.) of 2003 permit)* 90%

If 100% of 2003 requirements not met, enter an estimated date of completion (MM/DD/YY): 06/30/19

Web address where MS4 map is published:

If outfall map is unavailable on the internet an electronic or paper copy of the outfall map must be included with NOI submission (see section V for submission options)

https://www.chatham-ma.gov/storm-water-management. Data on the stormwater mapping has been compiled, but integration into GIS system is scheduled for this upcoming year.

Regulatory Authorities (if covered under the 2003 permit)

Illicit Discharge Detection and Elimination (IDDE) Authority Adopted? *(Part II, III, IV or V, Subpart B.3.(b.) of 2003 permit)* No

Effective Date or Estimated Date of Adoption (MM/DD/YY): 06/30/19

Construction/Erosion and Sediment Control (ESC) Authority Adopted? *(Part II,III,IV or V, Subpart B.4.(a.) of 2003 permit)* Yes

Effective Date or Estimated Date of Adoption (MM/DD/YY): 05/11/04

Post- Construction Stormwater Management Adopted? *(Part II, III, IV or V, Subpart B.5.(a.) of 2003 permit)* Yes

Effective Date or Estimated Date of Adoption (MM/DD/YY): 05/11/04

Notice of Intent (NOI) for coverage under Small MS4 General Permit

Part II: Summary of Receiving Waters

Please list the waterbodies to which your MS4 discharges. For each waterbody, please report the number of outfalls discharging into it and, if applicable, the segment ID and any impairments.

Massachusetts list of impaired waters: *Massachusetts 2014 List of Impaired Waters-* http://www.mass.gov/eea/docs/dep/water/resources/07v5/14list2.pdf

Waterbody that receives flow from the MS4 and segment ID if applicable	Number of outfalls into receiving water segment	Chloride	Chlorophyll-a	Dissolved Oxygen/ DO Saturation	Nitrogen	Oil & Grease/ PAH	Phosphorus	Solids/ TSS/ Turbidity	E. coli	Enterococcus	Other pollutant(s) causing impairments
(MA 96-48) Chatham Harbor	3	☐	☐	☐	☒	☐	☐	☐	☐	☐	Category 2
(MA 96-10) Crows Pond	1	☐	☐	☐	☒	☐	☐	☐	☐	☐	Category 2
(MA 96-79) Cockle Cove Creek	1	☐	☐	☐	☒	☐	☐	☐	☐	☒	Category 4a: Enterococcus, Fecal Coliform
(MA 96-49) Frost Fish Creek	4	☐	☐	☐	☒	☐	☐	☐	☐	☐	Category 4a: Fecal Coliform, Total Nitrogen
(MA 96-31) Mill Creek	1	☐	☐	☐	☒	☐	☐	☐	☐	☐	Category 4a: Fecal Coliform
(MA 96-52) Mill Pond	3	☐	☐	☐	☒	☐	☐	☐	☐	☐	Category 4a: Estuarine Bioassessments, Total Nitrogen
(MA 96-51) Muddy Creek	2	☐	☐	☐	☒	☐	☐	☐	☐	☐	Category 4a: Fecal Coliform, Total Nitrogen
(MA96-45) Oyster Pond	2	☐	☐	☐	☒	☐	☐	☐	☐	☐	Category 4a: Estuarine Bioassessments, Fecal Coliform, Total Nitrogen
(MA 96-46) Oyster Pond River	1	☐	☐	☐	☒	☐	☐	☐	☐	☐	Category 4a: Estuarine Bioassessments, Fecal Coliform, Total Nitrogen
(MA 96-50) Ryder Cove	4	☐	☐	☐	☒	☐	☐	☐	☐	☐	Category 4a: Estuarine Bioassessments, Fecal Coliform, Total Nitrogen
(MA 96-11) Stage Harbor	1	☐	☐	☐	☒	☐	☐	☐	☐	☐	Category 4a: Fecal Coliform
(MA 96186) Lovers Lake	2	☐	☐	☐	☐	☐	☐	☒	☐	☐	Category 5: Secchi Disk Transparency
		☐	☐	☐	☐	☐	☐	☐	☐	☐	
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Click to lengthen table

Notice of Intent (NOI) for coverage under Small MS4 General Permit

Part III: Stormwater Management Program Summary

Identify the Best Management Practices (BMPs) that will be employed to address each of the six Minimum Control Measures (MCMs). For municipalities/organizations whose MS4 discharges into a receiving water with an approved Total Maximum Daily Load (TMDL) and an applicable waste load allocation (WLA), identify any additional BMPs employed to specifically support the achievement of the WLA in the TMDL section at the end of part III.

For each MCM, list each existing or proposed BMP by category and provide a brief description, responsible parties/departments, measurable goals, and the year the BMP will be employed (public education and outreach BMPs also requires a target audience). **Use the drop-down menus in each table or enter your own text to override the drop down menu.**

MCM 1: Public Education and Outreach

BMP Media/Category (enter your own text to override the drop down menu)	**BMP Description**	**Targeted Audience**	**Responsible Department/Parties** (enter your own text to override the drop down menu)	**Measurable Goal**	**Beginning Year of BMP Imple-mentation**
Web Page	Provide easy access to information on proper management of stormwater for new construction and industrial facilities	Developers (Construction)	Department of Natural Resources	Update web page with new material at least twice per permit term and spaced at least a year apart.	2019
Brochures/Pamphlets	Proper use and disposal of grass clippings and proper use of slow-release fertilizers.	Residential and Business/ Commercial/Institution	Department of Natural Resources	Annually in the Spring (April/May)	2019
Brochures/Pamphlets	Proper management of pet wastes, noting any existing ordinances where appropriate. Describe detrimental impacts of improper management of pet waste.	Residential and Business/ Commercial/Institution	Department of Natural Resources	Annually in the Summer (June/July)	2019
Brochures/Pamphlets	Proper disposal of leaf litter and proper maintenance of septic systems discharging to water bodies impaired for bacteria or pathogens	Residential and Business/ Commercial/Institution	Department of Natural Resources	Annually in the Fall (August/September/ October)	2019

Regional Educational Program	Continue participation in developments efforts for a Cape Cod stormwater collaborative to develop and implement a coordinated, unified educational program.	Residents and businesses/institutions/	Department of Natural Resources	Work toward development of a coordinated educational Program	2019

Notice of Intent (NOI) for coverage under Small MS4 General Permit

Part III: Stormwater Management Program Summary (continued)

MCM 2: Public Involvement and Participation

BMP Categorization	Brief BMP Description (enter your own text to override the drop down menu)	Responsible Department/Parties (enter your own text to override the drop down menu)	Additional Description/ Measurable Goal	Beginning Year of BMP Imple-mentation
Public Review and Participation	SWMP Review	Department of Natural Resources	llow annual review of stormwater management plan and posting of stormwater management plan on website. Also allow the public to comment on the SWMP annually	2019
Public Participation	Citizen Water Quality Monitoring	Department of Natural Resources	Continue working with Chatham Water Watchers and Pleasant Bay Alliance to meet program goals.	2018
Public Participation	Household Hazardous Waste Collections	Department of Natural Resources	Continue to hold household hazardouis waste collections days 6 times per year	2018
Public Review	Annual Report Review	Department of Natural Resources, Department of Public Works, Board of Selectm	Allow the public opportunity to review the Annual Report.	2018
Public Participation	Partnership - Advocacy Groups	Department of Natural Resources	Continued partnership with the Pleasant Bay Alliance	2018
Public Participation	Cleanups - Shoreline/Waterbody	Department of natural Resources, Friends of Chatham's Waterways	Continue to hold yearly cleanup days. Continue to hold yearly cleanup days	2018

Notice of Intent (NOI) for coverage under Small MS4 General Permit

Part III: Stormwater Management Program Summary (continued)

MCM 3: Illicit Discharge Detection and Elimination (IDDE)

BMP Categorization (enter your own text to override the drop down menu)	**BMP Description**	**Responsible Department/Parties** (enter your own text to override the drop down menu)	**Measurable Goal** (all text can be overwritten)	**Beginning Year of BMP Imple-mentation**
SSO inventory	Develop SSO inventory in accordance of permit conditions	Department of Natural Resources and Department of Public Works	Complete within 1 year of effective date of permit	2019
Written IDDE Program	Create written IDDE program	Department of Natural Resources and Department of Public Works	Complete within 1 year of the effective date of permit and update as required.	2019
Storm Sewer System Mapping	Update map during IDDE program completion	Department of Natural Resources and Department of Public Works	Update map within 2 years of effective date of permit and complete full system map 10 years after effective date of permit.	2019
Implement IDDE program	Implement catchment investigations according to program and permit conditions	Department of Natural Resources and Department of Public Works	Ordinance, by-law, or regulatory mechanism shall be in place within 3 years of the effective date of the permit.	2020
Employee training	Train employees on IDDE implementation	Department of Natural Resources and Department of Public Works	Train employees annually	2019
Conduct dry weather screening	Conduct in accordance with outfall screening procedure and permit conditions	Department of Natural Resources and Department of Public Works	Dry weather screening to be completed within 3 years of effective date of permit.	2019
Conduct wet weather screening	Conduct in accordance with outfall screening procedure	Department of Natural Resources and Department of Public Works	Complete 10 years after effective date of permit	2022
Ongoing screening	Conduct dry weather and wet weather screening (as necessary)	Department of Natural Resources and Department of Public Works	Complete ongoing outfall screening upon completion of IDDE program as needed	2025

Develop IDDE Authority	Determine authority that will implement all aspects of the IDDE Program. Provide a statement that identifies the agencies responsible for the different aspects of the program.	Department of Natural Resources	Include statement within the IDDE Program, which shall be completed within 1 year of the effective date of the permit.	2019
Assessment and Priority Ranking of Outfalls	Conduct priority ranking of the outfalls discharging to the priority water bodies. Waters impaired for bacteria or pathogens shall be designated either Problem Catchments or HIGH Priority.	Department of Natural Resources and Department of Public Works	Priority ranking to be completed within 3 years of the effective date of the permit.	2020
Catchment Investigation Procedure	Develop a procedure for catchment investigations	Department of Natural Resources and Department of Public Works	Develop procedure 18 months from the effective permit date.	2019

Notice of Intent (NOI) for coverage under Small MS4 General Permit

Part III: Stormwater Management Program Summary (continued)

MCM 4: Construction Site Stormwater Runoff Control

BMP Categorization (enter your own text to override the drop down menu or entered text)	**BMP Description**	**Responsible Department/Parties** (enter your own text to override the drop down menu)	**Measurable Goal** (all text can be overwritten)	**Beginning Year of BMP Imple-mentation**
Site inspection and enforcement of Erosion and Sediment Control (ESC) measures	Complete written procedures of site inspections and enforcement procedures	Conservation Commission and Department of Natural Resources	Complete within 1 year of the effective date of permit	2019
Site plan review	Complete written procedures of site plan review and begin implementation	Planning Board and Community Development Department	Complete within 1 year of the effective date of permit	2019
Erosion and Sediment Control	Adoption of requirements for construction operators to implement a sediment and erosion control program	Conservation Commission and Department of Natural Resources	Complete within 1 year of the effective date of permit	2019
Waste Control	Adoption of requirements to control wastes, including but not limited to, discarded building materials, concrete truck wash out, chemicals, litter, and sanitary wastes	Conservation Commission and Department of Natural Resources	Complete within 1 year of the effective date of permit	2019
Construction Site Stormwater Runoff Control Program	Create Ordinance/ bylaw for the control of stormwater runoff at construction sites	Department of Natural Resources	Include in the bylaws the updated Construction site stormwater control measures	2019

Notice of Intent (NOI) for coverage under Small MS4 General Permit

Part III: Stormwater Management Program Summary (continued)

MCM 5: Post-Construction Stormwater Management in New Development and Redevelopment

BMP Categorization (enter your own text to override the drop down menu or entered text)	**BMP Description**	**Responsible Department/Parties** (enter your own text to override the drop down menu)	**Measurable Goal** (all text can be overwritten)	**Beginning Year of BMP Imple-mentation**
As-built plans for on-site stormwater control	The procedures to require submission of as-built drawings and ensure long term operation and maintenance will be a part of the SWMP	Conservation Commission and Department of Natural Resources	Modify by-laws within 2 years of the effective date of the permit.	2020
Target properties to reduce impervious areas	Identify at least 5 permittee-owned properties that could be modified or retrofitted with BMPs to reduce impervious areas and consider BMPs that can reduce nitrogen discharges.	Department of Natural Resources, Community Development, and Department of	Complete 4 years after effective date of permit and report annually on retrofitted properties	2021
Allow green infrastructure	Develop a report assessing existing local regulations to determine the feasibility of making green infrastructure practices allowable when appropriate site conditions exist	Department of Natural Resources and Community Development	Complete 4 years after effective date of permit and implement recommendations of report	2020
Street design and parking lot guidelines	Develop a report assessing requirements that affect the creation of impervious cover. The assessment will help determine if changes to design standards for streets and parking lots can be modified to support low impact design options.	Department of Natural Resources and Community Development	Complete 4 years after effective date of permit and implement recommendations of report	2020

Target Properties to Reduce Impervious Areas	Identify additional permittee-owned sites and infrastructure that could be retrofitted such the permittee maintains a minimum of 5 sites in their inventory.	Department of Natural Resources	Beginning with the 5th Year Annual Report and in each subsequent annual report until the permittee has less than 5 sites remaining.	2023
Post-Construction Ordinance/Bylaw	Develop and implement program to address post-construction runoff from new development and redevelopment sites that disturb one or more acres and discharge into the MS4. Include requirement that BMPs be optimized for nitrogen removal.	Conservation Commission, Community Development, and Department of Natura	Incorporate new requirements if necessary to meet the new permit within 2 years of the effective date of the permit.	2020

Notice of Intent (NOI) for coverage under Small MS4 General Permit

Part III: Stormwater Management Program Summary (continued)

MCM 6: Municipal Good Housekeeping and Pollution Prevention

BMP Categorization (enter your own text to override the drop down menu or entered text)	**BMP Description**	**Responsible Department/Parties** (enter your own text to override the drop down menu)	**Measurable Goal** (all text can be overwritten)	**Beginning Year of BMP Imple-mentation**
O&M procedures	Create written O&M procedures including all requirements contained in 2.3.7.a.ii for parks and open spaces, buildings and facilities, and vehicles and equipment	Department of Natural Resources, Parks & Recreation, Facilities, and De	Complete and implement 2 years after effective date of permit	2020
Inventory all permittee-owned parks and open spaces, buildings and facilities, and vehicles and equipment	Create inventory	Department of Natural Resources, Parks & Recreation, Facilities, and De	Complete 2 years after effective date of permit and implement annually	2020
Infrastructure O&M	Establish and implement program for repair and rehabilitation of MS4 infrastructure	Department of Natural Resources and Department of Public Works	Complete 2 years after effective date of permit	2020
Stormwater Pollution Prevention Plan (SWPPP)	Create SWPPPs for maintenance garages, transfer stations, and other waste-handling facilities	Department of Natural Resources and Department of Public Works	Complete and implement 2 years after effective date of permit	2020
Catch basin cleaning	Establish schedule for catch basin cleaning such that each catch basin is no more than 50% full and clean catch basins on that schedule	Department of Public Works	Clean catch basins on established schedule and report number of catch basins cleaned and volume of material moved annually	2019

Street sweeping program	Sweep all streets and permittee-owned parking lots, which contribute to targeted areas that require pollutant load reduction, a minimum of once in the Spring and once in the Fall. Sweep all other streets and permittee-owned parking lots a minimum of once per year in the spring.	Department of Public Works	Street Sweeping Program shall be implemented within 2 years of the effective date of the permit.	2019
Street Sweeping - Uncurbed Roads with no catch basins and limited access highways	Develop and implement an inspection, documentation, and targeted sweeping plan for rural uncurbed roadways with no catch basins and limited access highways. Program needed only if requesting to street sweep these areas less frequent than the program outlined in the previous BMP.	Department of Public Works	Street Sweeping Plan for Uncurbed Roads with no catch basins and limited access highways shall be implemented within 2 years of the effective date of the permit.	2020
Inspections and Maintenance of Stormwater Treatment Structures	Establish and implement inspection and maitenance procedures and frequencies	Department of Public Works	Inspect and maintain treatment structures at least annually	2019
Road Salt Use Optimization Program	Establish and implement a program to minimize the use of road salt	Department of Public Works	Implement salt use optimization during deicing season	2019
Additional Cape Cod Nitrogen TMDL Requirements	Per Appendix F of the permit, manage grass clippings and leaf litter, prohibit blowing organic waste material onto impervious surfaces, and establish requirements for use of slow release fertilizers and reducing fertilizer use	Department of Natural Resources and Department of Public Works	Monitor and enforce these requirements annually	2019

Employee Training	Workshops held by the "Road Scholar" and Plymouth County Highway Association workshops	Department of Public Works	Annually attend the workshops.	2019
Water Monitoring/Testing	Coastal Water Quality Nutrient Monitoring Program	Department of Natural Resources	Continue summer water quality monitoring program begun in 1998.	2018

Notice of Intent (NOI) for coverage under Small MS4 General Permit

Part III: Stormwater Management Program Summary (continued)

Actions for Meeting Total Maximum Daily Load (TMDL) Requirements

Use the drop-down menus to select the applicable TMDL, action description to meet the TMDL requirements, and the responsible department/parties. If no options are applicable, or more than one, **enter your own text to override drop-down menus.**

Applicable TMDL	Action Description	Responsible Department/Parties (enter your own text to override the drop down menu)
Cape Cod (Bactria/Pathogen)	Adhere to requirements in part A.III of Appendix F	Department of Natural Resources and Department of Public Works
Muddy Creek (Bactria/Pathogen)	Adhere to requirements in part A.III of Appendix F	Department of Natural Resources and Department of Public Works
Frost Fish Creek (Bactria/Pathogen)	Adhere to requirements in part A.III of Appendix F	Department of Natural Resources and Department of Public Works
Chatham Southern Embayments (Nitrogen)	Adhere to requirements in part A.IV of Appendix F	Department of Natural Resources and Department of Public Works
Pleasant Bay System (Nitrogen)	Adhere to requirements in part A.IV of Appendix F	Department of Natural Resources and Department of Public Works

Notice of Intent (NOI) for coverage under Small MS4 General Permit

Part III: Stormwater Management Program Summary (continued)

Actions for Meeting Requirements Related to Water Quality Limited Waters

Use the drop-down menus to select the pollutant causing the water quality limitation and enter the waterbody ID(s) experiencing excursions above water quality standards for that pollutant. In addition, if you are subject to additional requirements due to a downstream nutrient impairment (see Part 2.2.2 of the permit) select the pollutant of concern and indicate applicable waterbody IDs or write "all waterbodies" if applicable. Choose the action description from the dropdown menu and indicate the responsible party. If no options are applicable, or more than one, **enter your own text to override drop-down menus.**

Pollutant	Waterbody ID(s)	Action Description	Responsible Department/Parties (enter your own text to override the drop down menu)

Part IV: Notes and additional information

Use the space below to indicate the part(s) of 2.2.1and 2.2.2 that you have identified as not applicable to your MS4 because you do not discharge to the impaired water body or a tributary to an impaired water body due to nitrogen or phosphorus. Provide all supporting documentation below or attach additional documents if necessary.
Also, provide any additional information about your MS4 program below.

Endangered Species Act eligibility is pending with USFWS. The Cape Cod Commission submitted a blanket request (attached) to FWS on August 17, 2018 for all covered towns on Cape Cod and no reply has been received as of September 19th. Further information will be provided as received from FWS.

The Town of Chatham has no "industry" as commonly defined. Activities of this nature are limited to small scale vehicle/boat repair facilities, landscapers, builders, etc. considered commercial enterprises.

Part V: Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Title:

Signature: Date:

[To be signed according to Appendix B, Subparagraph B.11, Standard Conditions]

Note: When prompted during signing, save the document under a new file name

Notice of Intent (NOI) for coverage under Small MS4 General Permit

Part V: Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name:	Jill R. Goldsmith	Title:	Town Manager
Signature:	Jill R. Goldsmith	Date:	09/18/18

[To be signed according to Appendix B, Subparagraph B.11, Standard Conditions]

Note: When prompted during signing, save the document under a new file name

From: Timothy Pasakarnis
Cape Cod Commission
3225 Main St. P.O. Box 226
Barnstable, MA 02630

To: U.S. Fish and Wildlife Service
New England Field Office
70 Commercial Street, Suite 300
Concord, NH 03301

August 17, 2018

Re: Project Review Request, 2016 Massachusetts Small Municipal MS4 Permit Eligible Municipalities, Barnstable County, MA

We have reviewed the referenced project using the Environmental Protection Agency's (EPA) project review process for our Municipal Separate Storm Sewer System (MS4) and have followed all guidance and instructions in completing the review. We completed our review on August 13, 2018 and are submitting our project package in accordance with the instructions for further review. The U.S. Fish and Wildlife Service's (Service) Information for Planning and Consultation (IPaC) species list indicated these species may be present within the regulated areas on Cape Cod, which includes the municipalities of Barnstable, Bourne, Brewster, Chatham, Dennis, Eastham, Falmouth, Harwich, Mashpee, Orleans, Sandwich and Yarmouth:
(1) Northern Long-eared Bat (2) Piping Plover (3) Roseate Tern (4) Red Knot (5) Plymouth Redbelly Turtle (6) Northeastern Beach Tiger Beetle (7) Rusty Patched Bumble Bee (8) Sandplain Gerardia. We are submitting this letter as a non-Federal representative of the EPA pursuant to the requirements of the EPA's process for NPDES/MS4 permits.

Our proposed action consists of: regular operation (discharge from), inspection, and maintenance of existing stormwater infrastructure owned by the towns.

The location action area is identified on the enclosed map.

Permit implementation will begin in the fall of 2018 and the permit has an expiration date of June 30, 2022.

This is a request for review by the Service pursuant to section 7 of the Endangered Species Act. We determined that the project may affect, but is not likely to adversely affect the above listed species, because:

- Of the identified species, permit activities are expected to have no effect on the (1) Northern Long-eared Bat, (7) Rusty Patched Bumble Bee, or (8) Sandplain Gerardia because no clearing, new construction, or land disturbance is planned; and (6) Northeastern Beach Tiger Beetle because the habitat for the Northeastern Beach Tiger Beetle within Barnstable County is outside the MS4 permit regulated area.

- (2-4) Piping Plover, Roseate Tern, and Red Knot: The general inspection and maintenance of existing stormwater infrastructure does not include new construction or landscape alteration, therefore these activities are not expected to impact these species' habitats. Although discharges from the project may reach the coastal habitats and feeding grounds used by all three species, the project implements BMPs to reduce pollutants to the extent that the discharges are not known to have measurable impacts on the species, their habitat, or their food sources.
- (5) Plymouth Redbelly Turtle: Similar to above, inspection and maintenance of existing infrastructure is not expected to impact the Plymouth Redbelly Turtle or its habitat. Discharges from the project may reach the pond/lake habitats utilized by this species, however the project implements BMPs to reduce pollutants to the extent that the discharges are not known to have measurable impacts on the species, its habitat, or its food sources.

The enclosed project package provides the information about the species and/or critical habitat considered in our review, and we identified our determinations for the resources that may be affected by the project. We request you concur with our determination that the project may affect, but is not likely to adversely affect the species described above.

For additional information, please contact Timothy Pasakarnis at the address listed above, by phone at (508) 744-1214, or tim.pasakarnis@capecodcommission.org.

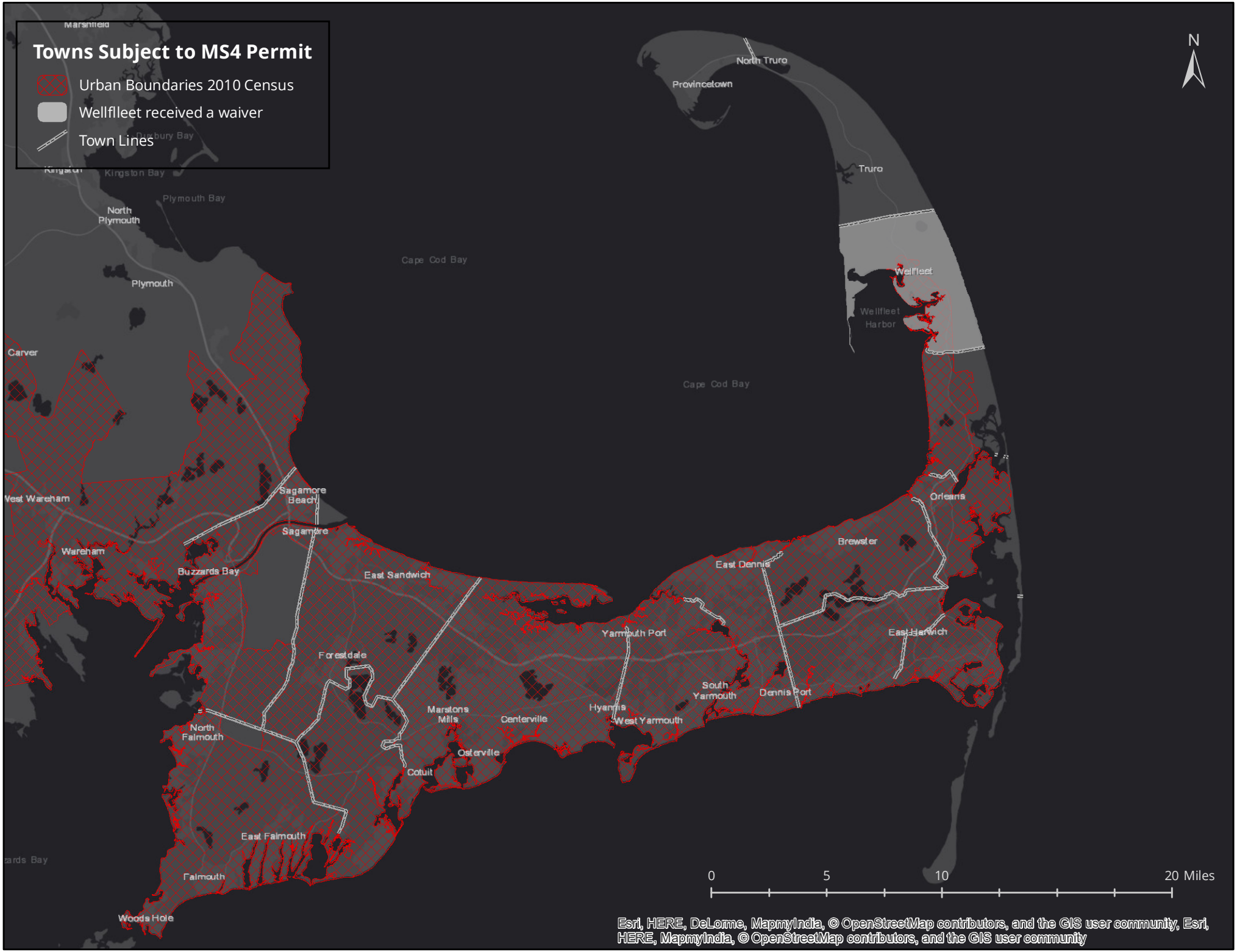
Sincerely,

Timothy Pasakarnis
Water Resource Analyst

Enclosures:

1) Project review request
2) Map of regulated areas where MS4 activities will occur
3) Information for Planning and Consultation (IPaC) resource list

Attachment 1: Map of Cape Cod MS4 Regulated Areas


Towns Subject to MS4 Permit
Urban Boundaries 2010 Census
Wellflleet received a waiver
Town Lines
N
Marshfield
Duxbury Bay
Kingston Bay
Plymouth Bay
North Plymouth
Plymouth
Carver
Cape Cod Bay
North Truro
Provincetown
Truro
Wellfleet
Wellfleet Harbor
Cape Cod Bay
West Wareham
Wareham
Buzzards Bay
Sagamore Beach
Sagamore
East Sandwich
Forestdale
Marstons Mills
Centerville
Osterville
Cotuit
Hyannis
West Yarmouth
Yarmouth Port
South Yarmouth
Dennis Port
East Dennis
Brewster
Orleans
East Harwich
North Falmouth
East Falmouth
Falmouth
Woods Hole
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Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user community, Esri, HERE, MapmyIndia, © OpenStreetMap contributors, and the GIS user community

Attachment 2: Information for Planning and Consultation (IPaC) resource list

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

NOT FOR CONSULTATION

Project information

NAME

Barnstable County 2016 MS4 Permit

LOCATION

Barnstable County, Massachusetts

DESCRIPTION

Operation and maintenance of existing municipal
separate storm sewer systems in accordance with the 2016 Massachusetts Small MS4
General Permit

Local office

New England Ecological Services Field Office

(603) 223-2541
(603) 223-0104

70 Commercial Street, Suite 300
Concord, NH 03301-5094

http://www.fws.gov/newengland

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Log in to IPaC.
2. Go to your My Projects list.
3. Click PROJECT HOME for this project.
4. Click REQUEST SPECIES LIST.

Listed species

[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

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1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information.
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

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Mammals

NAME	STATUS
Northern Long-eared Bat Myotis septentrionalis No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9045	Threatened

Birds

NAME	STATUS
Piping Plover Charadrius melodus There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/6039	Threatened
Red Knot Calidris canutus rufa No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1864	Threatened
Roseate Tern Sterna dougallii dougallii No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/2083	Endangered

Reptiles

NAME	STATUS
Plymouth Redbelly Turtle Pseudemys rubriventris bangsi There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/451	Endangered

Insects

NAME	STATUS
Northeastern Beach Tiger Beetle Cicindela dorsalis dorsalis No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8105	Threatened
Rusty Patched Bumble Bee Bombus affinis No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9383	Endangered

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Flowering Plants

NAME	STATUS
Sandplain Gerardia *Agalinis acuta* No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8128	Endangered

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act

[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds

MIGRATORY BIRD INFORMATION IS NOT AVAILABLE AT THIS TIME

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur

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and be breeding in your project area, view the Probability of Presence Summary. Additional measures and/or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the E-bird Explore Data Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

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Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

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Facilities

Wildlife refuges and fish hatcheries

REFUGE AND FISH HATCHERY INFORMATION IS NOT AVAILABLE AT THIS TIME

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of

Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

The area of this project is too large for IPaC to load all NWI wetlands in the area. The list below may be incomplete. Please contact the local U.S. Fish and Wildlife Service office or visit the NWI map for a full list.

ESTUARINE AND MARINE DEEPWATER

- E1UBL
- E1ABL
- M1ABL
- E1UBLx6
- E1UBLx
- E1UBL6

ESTUARINE AND MARINE WETLAND

- E2EM1P
- E2EM1Pd
- M2USM
- M2USP
- E2USM
- M2USN
- E2USN
- E2USP
- E2EM1N
- E2SS1P
- E2EM1/SS1P
- E2EM1Nx

FRESHWATER EMERGENT WETLAND

- PEM1R
- PEM1E
- PEM1F
- PEM1Ed
- PEM1Fh
- PEM1/SS1Rd
- PEM1A
- PEM1C
- PEM1/SS1R
- PEM1Fd

FRESHWATER FORESTED/SHRUB WETLAND

- PFO1E
- PSS1E

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PFO1/4E
PSS1R
PFO1R
PFO4E
PFO4Eg
PFO1/4R
PSS1/4Eg
PFO1/4Eg
PSS1Ed
PFO4R
PSS1/FO1E
PFO1A
PFO1F
PFO1/SS1E
PFO1Rd
PFO1C
PFO1/4B
PSS1C
PSS1Ex
PFO4A
PFO1Ed
PSS1F
PSS1Fx
PSS1A

FRESHWATER POND

PABF
PABH
PABHh
PABKx
PUBHh
PUBH
PUBHx

LAKE

L1UBH

OTHER

Pf

RIVERINE

R4SBC
R5UBFx

A full description for each wetland code can be found at the National Wetlands Inventory website

Data limitations

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The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

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