Part I: General Conditions General Information Name of Municipality or Organization: |Town of Uxbridge MA State: EPA NPDES Permit Number (if applicable): MAR - 04-1166 **Primary MS4 Program Manager Contact Information** Benn S. Sherman, P.E. Title: Director of the Department of Public Works Street Address Line 1: 147 Hecla Street Street Address Line 2: City: Uxbridae MA State: Zip Code: 01569 bsherman@uxbridge-ma.gov Email: Phone Number: (508) 278-8616 Fax Number: (508) 278-3179 Other Information Stormwater Management Program (SWMP) Location Uxbridge Department of Public Works (web address or physical location, if already completed): **Eligibility Determination** Eligibility Criteria Endangered Species Act (ESA) Determination Complete? Yes \square A \square B \square C (check all that apply): Eligibility Criteria National Historic Preservation Act (NHPA) Determination Complete? Yes \square A \square B \square C (check all that apply): Check the box if your municipality or organization was covered under the 2003 MS4 General Permit 1 MS4 Infrastructure (if covered under the 2003 permit) **Estimated Percent of Outfall Map Complete?** If 100% of 2003 requirements not met, enter an 100% (Part II, III, IV or V, Subpart B.3.(a.) of 2003 permit) estimated date of completion (MM/DD/YY): Web address where MS4 map is published: http://www.uxbridge-ma.gov/Pages/UxbridgeMA_DPW/Stormwater%20Atlas/SW% If outfall map is unavailable on the internet an electronic 20Atlas.pdf or paper copy of the outfall map must be included with NOI submission (see section V for submission options) Regulatory Authorities (if covered under the 2003 permit) Illicit Discharge Detection and Elimination (IDDE) Authority Adopted? Effective Date or Estimated Yes 11/10/15 (Part II, III, IV or V, Subpart B.3.(b.) of 2003 permit) Date of Adoption (MM/DD/YY): Construction/Erosion and Sediment Control (ESC) Authority Adopted? Effective Date or Estimated Yes 11/10/15 (Part II,III,IV or V, Subpart B.4.(a.) of 2003 permit) Date of Adoption (MM/DD/YY); Post- Construction Stormwater Management Adopted? Effective Date or Estimated Yes 11/10/15 (Part II, III, IV or V, Subpart B.5.(a.) of 2003 permit) Date of Adoption (MM/DD/YY):

Part II: Summary of Receiving Waters

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

Check off relevant pollutants for discharges to impaired waterbodies (see above 303(d) lists) without an approved TMDL in accordance with part 2.2.2.a of the permit. List any other pollutants in the last column, if applicable.

Waterbody segment that receives flow from the MS4	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
Drabbletail Brook	31										
Mumford River MA 51-14	31										Aquatic Plants (macrophytes), Copper, Lead)
Dunleavy Brook	3										
Dunleavy Pond	2										
Lackey Pond	2										
Blackstone River MA (51-04 & 51-05)	48						\boxtimes		×		Aquatic macroinvertebrate bioassessments, cadmium, copper, excess algal growth, lead, nutrient/eutrophication biological indicators, pcbs, taste and odor, and turbidity, DDT
Still Corner Brook	7										
Farrell Brook	3										
Cold Spring Brook	16										
Rivulet Pond MA 51138	4										
Taft Pond	8										
Whitin Pond	4										
Hecla Canal	3				П						
Happy Hollow Brook	1										
Blackstone Canal	8										
West River MA 51-12	39										Cadmium, chloride, copper, lead, nutrient/eutrophication biological indicators, low pH
Bacon Brook	2										
Ironstone Reservoir MA51074	4										

Waterbody segment that receives flow from the MS4	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
Rivulet Brook	4										
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Waterbody segment that receives flow from the MS4	Number of outfalls into receiving water segment	Chloride	Chlorophyll-a	Dissolved Oxygen/	Nitrogen	Oil & Grease/ PAH	Phosphorus	Solids/ TSS/ Turbidity	E. coli	Enterococcus	Other pollutant(s) causing impairments
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Click to lengthen table	

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	Promote stormwater awareness through social media and town web page link to Central Massachusetts Regional Stormwater Coalition(CMRSWC) and Think Blue Massachusetts.	Residents	Department of Public Works	Track number of posts and followers.	2018
Web Page	Promote stormwater awareness through social media and town web page link to CMRSWC and Think Blue Massachusetts.	Businesses, Institutions and Commercial Facilities	Department of Public Works	Track number of posts and followers.	2018
Web Page	Promote stormwater awareness through social media and town web page link to CMRSWC and Think Blue Massachusetts.	Developers (construction)	Department of Public Works	Track number of posts and followers.	2018
Web Page	Promote stormwater awareness through social media and town web page link to CMRSWC and Think Blue Massachusetts.	Industrial Facilities	Department of Public Works	Track number of posts and followers.	2018

Town of Uxbridge

Page 6 of 21 Classroom education School Curricula/Programs Department of Public Works Quantity of students. 2021 Residents on stormwater Flyer for pollution prevention. Businesses, Institutions and Quantify number of Brochures/Pamphlets Distributed with Department of Public Works 2021 Commercial Facilities brochures taken. utility bills by use type. Flyer for low impact development benefits. To be Quantify number of Brochures/Pamphlets Developers (construction) Conservation Commission & Planning Board 2021 placed in planning brochures taken. and conservation offices. Flyer for pollution prevention for industrial sites. Quantify number of Industrial Facilities Brochures/Pamphlets Department of Public Works 2021 Distributed with brochures taken. utility bills for industrial zone users.

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	SWMP Review	Department of Public Works and Stormwater Committee	Allow annual review of stormwater management plan and posting of stormwater management plan on website.	2018
Public Participation	SWMP Review	Department of Public Works, Conservation Commission and Stormwater Commit	Allow public to comment on stormwater management plan annually.	2018
Public Review	Service Request system, Tracks incoming questions/comments from th	Department of Public Works	Maintain DPW Phone Line for community questions, concerns, and reporting. Track number of calls and issues presented.	2003
Public Participation	Stormwater Committee	Department of Public Works, Conservation Commission and Planning Board	Ensure compliance with MS4 program	2003
Public Participation	Storm Cleanup and Monitoring	Conservation Commission	Two cleanups scheduled per year.	2003
Public Participation	Illegal Dumping Education and Citizen Reporting	Department of Public Works	Continue to provide education materials regarding illegal dumping and record quantity distributed. Record number of reported incidents.	2003
Public Participation	Post Outfall Signage	Department of Public Works, Conservation Commission and Stormwater Commit	Quantify number of signs installed.	2021
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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 Public Works	Complete inventory within 1 year of effective date of permit	2018
Storm sewer system map	Create map and update during IDDE program completion	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	2018
Written IDDE program	Create written IDDE program	Department of Public Works	Complete and begin implementation within 1 year of the effective date of permit and update as required	2018
Implement IDDE program	Implement catchment investigations according to program and permit conditions	Department of Public Works	Complete 10 years after effective date of permit	2018
Employee training	Train employees on IDDE implementation	Department of Public Works	Train annually. Record date and type of training offered.	2018
Conduct dry weather screening	Conduct in accordance with outfall screening procedure and permit conditions	Department of Public Works	Complete 3 years after effective date of permit. Report sample results in each annual report.	2018
Conduct wet weather screening	Conduct in accordance with outfall screening procedure	Department of Public Works	Complete within 10 years after effective date of permit. Report sample results in each annual report.	2018
Ongoing screening	Conduct dry weather and wet weather screening (as necessary)	Department of Public Works	Complete ongoing outfall screening upon completion of IDDE program and report on sample results in each annual report.	2018

Town of Uxbridge			Page 10 of 2

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	DPW, Conservation Commission, Planning Board, & Stormwater Committee	Complete within 1 year of the effective date of permit	2018
Site plan review	Complete written procedures of site plan review and begin implementation	DPW, Conservation Commission, Planning Board, & Stormwater Committee	Complete within 1 year of the effective date of permit	2018
Erosion and Sediment Control	Adoption of requirements for construction operators to implement a sediment and erosion control program	DPW, Conservation Commission, Planning Board, & Stormwater Committee	Complete within 1 year of the effective date of permit	2018
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	DPW, Conservation Commission, Planning Board, & Board of Health	Complete within 1 year of the effective date of permit	2018
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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 asbuilt drawings and ensure long term operation and maintenance will be a part of the SWMP	DPW, Planning Board, and Conservation Commission	Require submission of as-built plans for completed projects	2018
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 update annually	DPW, Planning Board, and Conservation Commission	Complete 4 years after effective date of permit and report annually on retrofitted properties	2018
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	Stormwater Committee, DPW, Conservation Commission, & Planning Board	Complete 4 years after effective date of permit and implement recommendations of report	2018
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.	SW Committee, Planning Board, Conservation Commission, and DPW	Complete 4 years after effective date of permit and implement recommendations of report	2018

Town of Uxbridge Page 14 of 21 Adoption, amendment, Ensure any stormwater controls or management practices for new development and redevelopment meet the retention or treatment requirements of the permit and all applicable requirements of the Massachusetts or modification of a regulatory mechanism to Complete 2 years after Conservation Commission and Planning Board meet permit 2018 effective date of permit requirements. Include Stormwater Handbook LID and BMP strategies.

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 Public Works	Complete and implement 2 years after effective date of permit	
Inventory all permittee-owned parks and open spaces, buildings and facilities, and vehicles and equipment	Create inventory	Department of Public Works	Complete 2 years after effective date of permit and update annually if appropriate	2018
Infrastructure O&M	Establish and implement program for repair and rehabilitation of MS4 infrastructure	Department of Public Works	Complete 2 years after effective date of permit. Include in annual report	
Stormwater Pollution Prevention Plan (SWPPP)	Create SWPPPs for maintenance garages, transfer stations, and other waste-handling facilities	Department of Public Works	Complete and implement 2 years after effective date of permit	2012
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	2003
Street sweeping program	Sweep all streets and permitee-owned parking lots in accordance with permit conditions	Department of Public Works	Sweep all streets and permitee-owned parking lots once per year in the spring	2003
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	2018

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)
Not applicable.	Adhere to requirements in part A.II of Appendix F	
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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. 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)
Cadmium, Copper, Lead	Blackstone River MA 51-04	Adhere to requirements in part V of Appendix H	Department of Public Works
E. Coli	Blackstone River MA 51-04	Adhere to requirements in part III of Appendix H	Department of Public Works
Phosphorus	Blackstone River MA 51-04	Adhere to requirements in part II of Appendix H	Department of Public Works
TSS	Blackstone River MA 51-04	Adhere to requirements in part V of Appendix H	Department of Public Works
Cadmium, Copper, Lead	Blackstone River MA 51-05	Adhere to requirements in part V of Appendix H	Department of Public Works
E. Coli	Blackstone River MA 51-05	Adhere to requirements in part III of Appendix H	Department of Public Works
Phosphorus	Blackstone River MA 51-05	Adhere to requirements in part II of Appendix H	Department of Public Works
TSS	Blackstone River MA 51-05	Adhere to requirements in part V of Appendix H	Department of Public Works
Copper, Lead	Mumford River MA 51-14	Adhere to requirements in part V of Appendix H	Department of Public Works
Cadmium, copper, lead	West River MA 51-12	Adhere to requirements in part V of Appendix H	Department of Public Works
Chloride	West River MA 51-12	Adhere to requirements in part IV of Appendix H	Department of Public Works
		Adhere to requirements in part I of Appendix H	

Part IV: Notes and additional information

Use the space below to indicate the part(s) of 2.2.1 and 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.

Click to add text	

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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:	Angeline Ellison	Title:	Town Manager			
Signature:	[To be signed according to Appendix B, Subparagraph B.11, Standard Conditions]	Date:	10/01/18			

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

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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:	Angeline Ellison	Title:	Town Manager		
Signature:	To be signed according to Appendix B, Subparagraph B.11, Standard Conditions J		10/01/18		

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

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Part IV: Notes and additional information

Use the space below to indicate the part(s) of 2.2.1 and 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.

The results from the U.S. Fish and Wildlife IPaC system determined that Uxbridge's MS4 area contains the Northern Long-eared bat. See attached resource list as a reference for IPaC results. Using the ESA eligibility criteria as referenced in Appendix C of the MA Small MS4 General Permit, the Town falls under criterion C. Based on our review, there is no discharge related activities involving the habitat of this species of bat therefore the Town's MS4 system does not affect any federal threatened or endangered species. The Town will consult
with U.S. Fish and Wildlife as needed during the permit term.

IPaC Information for Planning and Consultation u.s. Fish & Wildlife Service

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.

Project information

NAME

Uxbridge MS4

LOCATION

Massachusetts and Rhode Island



DESCRIPTION MS4

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

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 and their critical habitats are managed by the <u>Ecological Services Program</u> 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 <u>NOAA Fisheries</u> for <u>species under their jurisdiction</u>.

- Species listed under the <u>Endangered Species Act</u> are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the <u>listing status page</u> 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:

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

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 Act¹ and the Bald and Golden Eagle Protection Act².

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 <u>below</u>.

- 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:

3/27/2019 IPaC: Resources

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
 http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

The birds listed below are birds of particular concern either because they occur on the <u>USFWS Birds of Conservation Concern</u> (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ <u>below</u>. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the <u>E-bird data mapping tool</u> (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found <u>below</u>.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

Bald Eagle Haliaeetus leucocephalus

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

https://ecos.fws.gov/ecp/species/1626

Breeds Oct 15 to Aug 31

Black-billed Cuckoo Coccyzus erythropthalmus

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

https://ecos.fws.gov/ecp/species/9399

Breeds May 15 to Oct 10

Bobolink Dolichonyx oryzivorus

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds May 20 to Jul 31

Canada Warbler Cardellina canadensis

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds May 20 to Aug 10

Eastern Whip-poor-will Antrostomus vociferus

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds May 1 to Aug 20

Kentucky Warbler Oporornis formosus

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds Apr 20 to Aug 20

Prairie Warbler Dendroica discolor

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds May 1 to Jul 31

Rusty Blackbird Euphagus carolinus

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds elsewhere

Wood Thrush Hylocichla mustelina

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds May 10 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

- 1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
- 2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
- 3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (I)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (-)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

1						■ pro	bability of p	presence	breeding	season Is	survey effort	t - no data
SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Bald Eagle Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, bu warrants attention because o the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)		<mark>00+0</mark>	ф ++ Ш	o-too	that 1-1-	4-1-1-1-	4-1-4-4-	1 1-1-	11+++	∏++ <mark>+</mark>	111-1-1-	r-+ 11
Black-billed Cuckoo BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)	++++	++++	++++	++++	op <mark>h (14</mark>	W-+Och	4-4-1-4-]-1 -	4-1-4-1-	++ ++	++++	++++
Bobolink BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)	++++	++++	++++	++++	++ <mark>++</mark>	1-1-1-	4-4-4-1	- 	++	++++	4444	-+++

Canada Warbler BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)	++++	++++	++++	++++	ΦD <mark>D+</mark>	U+II	-1-11-1-1-	4-4-4-	++++	++++	++++	++++
Eastern Whip-poor-will BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)	-1	nan nan hija han		+111+	1+15	1-11	-	1-1-1-1-1-	4-4-4-4-	4-4-4-	a-d-a-	4-4-4
Kentucky Warbler BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its	 - -	++++	 - +	++++	++1+	11-	4-4-4-4-	·)····		4-4-4-4	4-44-	
range in the continental USA and Alaska.)												
Prairie Warbler BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)	++++	++++	++++	+		uji¦	∳++ 1 <u>1</u>]+]+		++++	++++	++++
Rusty Blackbird BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)	 - 			++++	4-4-4-		on one of				C	1-1-1
Wood Thrush BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)	++++	4-4-4-4-	++++	+++ #	HDI1		111+	<u> </u>	1+++	++++	4-4-4-	4-4-4-4

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 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 <u>Birds of Conservation Concern (BCC)</u> 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 <u>Avian Knowledge Network (AKN)</u>. The AKN data is based on a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen science datasets</u> 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 (<u>Fagle Act</u> 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 <u>E-bird Explore Data Tool</u>.

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 <u>Avian Knowledge Network (AKN)</u>. This data is derived from a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen science datasets</u>.

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:

- "BCC Rangewide" birds are <u>Birds of Conservation Concern</u> (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

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 "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the <u>Eagle Act</u> 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.

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 <u>Diving Bird Study</u> and the <u>nanotag studies</u> or contact <u>Caleb Spiegel</u> or <u>Pam Loring</u>.

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.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the <u>National Wildlife Refuge</u> system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to <u>NWI wetlands</u> 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>U.S. Army Corps of Engineers District</u>.

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:

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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.

FRESHWATER EMERGENT WETLAND PEM1E PEM1A PEM1C PEM1F FRESHWATER FORESTED/SHRUB WETLAND PFO1E PFO1A PFO1/4E PSS1E PFO1C PSS1C PFO4E PSS1A PFO1/4C PFO1B PFO1/SS1E PSS1/EM1E PFO1/4A PSS4E PSS1/4E PSS1/4C PSS1Fb PSS3Ba FRESHWATER POND **PUBH PABH PUBHh PABHh PUBHX** PUB/EM1Fb **PUBFb PABHX** LAKE L1UBHh L2ABH L1UBH L2ABHh RIVERINE R2UBH R2UBHx R2ABH R4SBC R2ABHx R5UBH

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

Data limitations

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.

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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.