

## PUBLIC NOTICE

Notice is hereby given that the Massachusetts Department of Environmental Protection (MassDEP), under authority granted by the Massachusetts Clean Waters Act, M.G.L. c. 21, §§ 26 – 53, and the implementing regulations at 314 CMR 3.00 and 4.00, is proposing to: (1) issue a federal Clean Water Act Section 401 Water Quality Certification (WQC) for the U.S. Environmental Protection Agency's (EPA) proposed 2024 Draft NPDES Permit (Federal Permit) (MA Permit No. MA0103390) to Swansea Water District for the Swansea Desalination Facility for their facility's pollutant discharges to the Palmer River (MA 53-03); and (2) issue the 2024 Draft Massachusetts Surface Water Discharge Permit (SWDP) for the same discharge pursuant to the Massachusetts Clean Waters Act. Swansea Water District is located at 700 Wilbur Drive, Swansea, Massachusetts and the Swansea Desalination Facility is located at 240 Vinnicum Road, Swansea, Massachusetts. The proposed WQC, proposed SWDP, and a link to the proposed Federal Permit are all available at <https://www.mass.gov/info-details/massdep-permits-approvals-for-comment>. Alternatively, a copy of the documents can be obtained by contacting Xiaodan Ruan, MassDEP Surface Water Discharge Program, at 857-256-4172 or at [xiaodan.ruan@mass.gov](mailto:xiaodan.ruan@mass.gov).

Written comments on both the proposed WQC and the proposed SWDP will be accepted until 5:00 p.m. on February 3, 2025. MassDEP strongly encourages written comments to be submitted by email to [massdep.publiccommentnpdes@mass.gov](mailto:massdep.publiccommentnpdes@mass.gov); subject line: Swansea Desalination Facility. If not possible, please send by mail to MassDEP NPDES Program, c/o Xiaodan Ruan, 100 Cambridge Street, Suite 900, Boston, MA 02114.

Following the close of the comment period, MassDEP will issue a final WQC and final SWDP and forward copies to the applicant and each person who has submitted written comments or requested notice. The final determination will contain information regarding the opportunity to file an adjudicatory appeal pursuant to 310 CMR 1.01. Information regarding intervention and participation can be found at 310 CMR 1.01(7).

For special accommodations, please call the MassDEP Diversity Office at 617-292-5751. TTY# MassRelay Service 1-800-439-2370. This information is available in alternate format upon request.

By Order of the Department

Bonnie Heiple, Commissioner

**MASSACHUSETTS PERMIT TO DISCHARGE POLLUTANTS TO SURFACE WATERS**

In compliance with the provisions of the Massachusetts Clean Waters Act, as amended (M.G.L. Chap. 21, §§ 26 - 53) and the implementing regulations at 314 CMR 3.00 and 4.00,

Swansea Water District  
700 Wilbur Drive  
Swansea, MA 02777

is authorized to discharge from the facility located at

Swansea Water District Desalination Facility  
240 Vinnicum Road  
Swansea, MA 02777

to receiving waters named

Palmer River (MA53-03); Class SB  
Narragansett Bay Watershed

in accordance with the following effluent limitations, monitoring requirements and additional conditions:

1. The issuance date of this permit is the date it is signed by the Massachusetts Department of Environmental Protection (MassDEP).<sup>1</sup>
2. This permit shall become effective on [DATE].<sup>2</sup>
3. This permit shall expire five years after the effective date.
4. This permit supersedes the permit issued on January 13, 2017 (jointly with the NPDES permit issued by EPA) and modified on March 1, 2022 (also via a joint permit).
5. Pursuant to MassDEP's authority under M.G.L. c. 21, §§26-53, 314 CMR 3.00, and 314 CMR 4.00, this permit incorporates by reference: Part IA., Effluent Limitations and Monitoring Requirements; Part IB., Unauthorized Discharges; Part IC., Operation and Maintenance of the Desalination Facility; Part ID., Reporting Requirements; and Part II, Standard Conditions, as set forth in the 2024 draft NPDES Permit No. MA0103390,<sup>3</sup> issued by the United States Environmental Protection Agency (EPA), Region 1, issued to the Swansea Water District ("Permittee") on December 19, 2024 (the 2024 draft NPDES Permit) and attached hereto by reference as Appendix A and available on EPA's website at

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<sup>1</sup> Any person aggrieved by the issuance of this permit may file an appeal within 30 days of the issuance date. Further details on appeal rights will be attached to the final permit.

<sup>2</sup> According to 314 CMR 2.08(1), if no comments objecting to the issuance or terms of the permit were received by the Department during the public comment period, then the permit shall be effective upon issuance. If comments objecting to the issuance or the terms of the permit were received by the Department during the public comment period, then the permit shall become effective 30 days after issuance.

<sup>3</sup> This draft Mass DEP permit references the 2024 draft EPA NPDES Permit. The final version of this MassDEP permit will reference the final version of the EPA NPDES Permit. The final version of this MassDEP permit may reflect changes between the 2024 draft EPA Permit and the final version of that EPA NPDES permit.

<https://www.epa.gov/npdes-permits/massachusetts-draft-individual-npdes-permits>; provided, however:

- a. that the reporting required by Part IB.1 shall be in accordance with 314 CMR 3.19(20)(e) (24-hour reporting);
  - b. that a copy of the requests, reports, and information required by Part ID.3. to be submitted to EPA shall also be submitted to MassDEP electronically to [massdep.npdes@mass.gov](mailto:massdep.npdes@mass.gov); and
  - c. that, if there is a conflict between the definitions in 314 CMR 3.02 and/or 314 CMR 4.00 and the definitions in Part IIE, the definitions in 314 CMR 3.02 and/or 314 CMR 4.00 shall control, as applicable.
6. This permit incorporates by reference the Standard Permit Conditions set forth in 314 CMR 3.19.
7. Notwithstanding any other provision of the final NPDES permit to the contrary, all PFAS monitoring results (influent; effluent; and sludge as specified in the final NPDES permit) and Adsorbable Organic Fluorine monitoring results shall be reported to MassDEP via the eDEP portal, or as otherwise specified in writing by MassDEP to the Permittee, within 30 days after the Permittee receives the sampling results, in addition to the final NPDES Permit reporting requirements. Information regarding the submittal of data via eDEP may be found at <https://www.mass.gov/how-to/submit-wastewaterresiduals-pfas-data-via-edep>.
8. In order to ensure that the discharge will not violate applicable state water quality standards, pursuant to M.G.L. c. 21, §§ 26-53, and 314 CMR 3.00 and 4.00, including 314 CMR 3.11(3), 314 CMR 3.19(1), and 314 CMR 4.05:
  - a. The discharge shall be free from pollutants in concentrations or combinations that settle to form objectionable deposits; float as debris, scum or other matter to form nuisances; produce objectionable odor, color, taste or turbidity; or produce undesirable or nuisance species of aquatic life.
  - b. The discharge shall be free from pollutants in concentrations or combinations that adversely affect the physical or chemical nature of the bottom, interfere with the propagation of fish or shellfish, or adversely affect populations of non-mobile or sessile benthic organisms.
  - c. The discharge shall be free from floating, suspended and settleable solids in concentrations and combinations that would impair any use assigned to the receiving water, that would cause aesthetically objectionable conditions, or that would impair the benthic biota or degrade the chemical composition of the bottom.
  - d. The discharge shall be free from color and turbidity in concentrations or combinations that are aesthetically objectionable or would impair any use assigned to the receiving water.
  - e. The discharge shall be free from oil, grease and petrochemicals that produce a visible film on the surface of the receiving water, impart an oily taste to the edible portions of aquatic life, coat the banks or bottom of the water course, or are deleterious or become toxic to aquatic life.
  - f. The discharge shall be free from taste and odor in such concentrations or combinations that are aesthetically objectionable, that would impair any use assigned to the receiving water, or that would cause tainting or undesirable flavors in the edible portions of aquatic life.
  - g. The discharge shall be free from pollutants in concentrations or combinations that are toxic to humans, aquatic life or wildlife.
9. Swansea Water District shall conduct annual biological and hydrological monitoring and reporting in accordance with the Biological and Hydrological Monitoring and Reporting Plan (Attachment A). An

annual report summarizing the biological and hydrological monitoring results shall now be submitted to [massdep.npdes@mass.gov](mailto:massdep.npdes@mass.gov) by June 30 of each year.

Issued on this \_\_\_\_ day of \_\_\_\_\_, 20\_\_

Lealdon Langley, Director  
Division of Watershed Management  
Department of Environmental Protection

**MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION**

**FACT SHEET**

**MASSACHUSETTS PERMIT TO DISCHARGE POLLUTANTS TO SURFACE WATERS**

**MA PERMIT NUMBER:** MA0103390

**NAME AND MAILING ADDRESS OF APPLICANT:**

Swansea Water District  
700 Wilbur Drive  
Swansea, MA 02777

**NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:**

Swansea Water District Desalination Facility  
240 Vinnicum Road  
Swansea, MA 02777

**RECEIVING WATER AND CLASSIFICATION:**

Palmer River (MA53-03); Class SB  
Narragansett Bay Watershed

**PUBLIC NOTICE DETAILS:**

Public comment time period: December 27, 2024 – February 3, 2025

Address where comments can be received:

Via email: [massdep.publiccommentnpdes@mass.gov](mailto:massdep.publiccommentnpdes@mass.gov) or to the below mailing address

Include the following subject line: Swansea Water District Desalination Facility

**MASSDEP CONTACT:**

Person to contact for additional information:

Xiaodan Ruan, 857-256-4172, [xiaodan.ruan@mass.gov](mailto:xiaodan.ruan@mass.gov)

**MAILING ADDRESS:**

MassDEP NPDES Program, C/o Xiaodan Ruan, 100 Cambridge Street, Suite 900, Boston, MA 02114.

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This Fact Sheet for the above-referenced draft MassDEP Surface Water Discharge Permit (SWDP) incorporates by reference the entire Fact Sheet for the 2024 draft NPDES Permit No. MA0103390, issued by the United States Environmental Protection Agency (EPA), Region 1, to the Swansea Water District on December 19, 2024, including all attachments and appendices to the Fact Sheet. In addition to the information contained in the EPA Fact Sheet incorporated herein by reference, MassDEP includes the information that follows.

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### **NARRATIVE EFFLUENT LIMITATIONS**

The 2024 draft Swansea Water District Desalination Facility NPDES Permit does not include certain narrative effluent limitations included in the previous Swansea Water District Desalination Facility discharge permit issued jointly by MassDEP and EPA. In order to ensure that the discharge does not cause or contribute to a violation of the Massachusetts Surface Water Quality Standards set forth in 314 CMR 4.00, MassDEP has included appropriate narrative effluent limitations in its draft Surface Water Discharge Permit (SWDP) and draft Water Quality Certification (WQC). These effluent limitations are included pursuant to MassDEP's authority under M.G.L. c. 21, §§ 26-53, and 314 CMR 3.00 and 4.00, including but not limited to 314 CMR 3.11(3), 314 CMR 3.19(1), and 314 CMR 4.05.

### **PER – AND POLYFLUROALKYL SUBSTANCES (PFAS)**

Like EPA, MassDEP is concerned about the potential impacts that PFAS in discharges from wastewater treatment plants may have on downstream drinking water, recreational, and aquatic life uses. The Massachusetts Surface Water Quality Standards do not include numeric criteria for PFAS. However, the narrative criterion for toxic pollutants at 314 CMR 4.05(5)(e) states:

*All surface waters shall be free from pollutants in concentrations or combinations that are toxic to humans, aquatic life or wildlife.*

In addition, this narrative criterion is further elaborated on at 314 CMR 4.05(5)(e)2.e. which states:

*Unlisted Pollutants; Combinations of Pollutants. Any pollutant or combination of pollutants within the meaning of 314 CMR 4.05(5)(e) for which 314 CMR 4.05(5)(e)1. does not establish a generally applicable criterion shall not be discharged to surface waters in a quantity or manner that would: i. exceed safe exposure levels for aquatic life as determined by toxicity testing using methods approved by MassDEP pursuant to 314 CMR 4.03(6); or ii. cause adverse human health effects due to the ingestion, inhalation or dermal absorption of such toxins attributable to such waters during their reasonable use as designated in 314 CMR 4.00; or iii. result in a human health excess lifetime cancer risk level greater than 10 for -6 individual carcinogens.*

To assess whether PFAS is in discharges from the wastewater treatment plants and whether PFAS may be contributing to a violation of the narrative toxics criteria, MassDEP requires that all Massachusetts Surface Water Discharge Permit and NPDES permit PFAS and Adsorbable Organic Fluorine monitoring results be submitted to the MassDEP electronic database referred to as eDEP. This will provide a means for MassDEP to better access all the data relative to its water quality standards. Information about submitting data to eDEP is available at the following website: <https://www.mass.gov/how-to/submit-wastewater-residuals-pfas-data-via-edep>. Also, data is available for review by the public at the following website: <https://eeaonline.eea.state.ma.us/portal#!/search/npdes>.

### **BIOLOGICAL AND HYDROLOGICAL MONITORING AND REPORTING PLAN**

The permittee has been conducting annual ambient monitoring since it began operating the facility in 2013, as required by MassDEP's Clean Water Act Section 401 Water Quality Certification for the permittee's previous NPDES permits, to evaluate the impact of the discharge on water quality and aquatic life in the Palmer River. This monitoring, which includes hydrological, ichthyoplankton, fish, and benthic sampling, has been ongoing for 12 years with annual reports submitted to MassDEP. This monitoring is required pursuant to MassDEP's authority under 314 CMR 3.11(9) and 3.11(11)(e), to ensure that the discharge is not violating MassDEP Surface Water Quality Standards (SWQS) (314 CMR 4.00) in the Palmer River.

The results of the monitoring show expected seasonal and interannual variations but do not indicate discernible impacts from the discharge. After a 2024 review of the monitoring data with the Massachusetts Coastal Zone Management Agency and the Massachusetts Division of Marine Fisheries, MassDEP determined to revise the monitoring plan. The revised plan continues hydrological and ichthyoplankton sampling, with sampling frequency adjusted to weekly only during July through October when SWD discharges a higher salinity brine. The benthic and fish sampling will be discontinued, as the results have not discerned any impacts due to the discharge, and there is concern regarding occasional entanglement of diamondback terrapins in the fyke fish sampling nets. This change will allow the permittee and MassDEP to focus on monitoring that best assesses any potential impacts from the discharge.

### **REQUEST FOR A PUBLIC HEARING**

According to 314 CMR 2.07(1), the applicant or permittee for a surface water discharge permit can request a public hearing, or the Department can determine a public hearing is in the public interest. In either case, the Department shall schedule and conduct such hearing in a community within the area(s) affected by the facility or discharge which is the subject of the permit. The Department may satisfy a public hearing requirement through a public hearing jointly held with EPA.

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Clean Water Act Section 401 Water Quality Certification  
For the 2024 Proposed NPDES Permit  
For the Swansea Water District Desalination Facility  
Permit No. MA0103390

The Massachusetts Department of Environmental Protection (MassDEP), having examined Swansea Water District's ("Permittee") National Pollutant Discharge Elimination System (NPDES) permit application for the Swansea Desalination Facility to discharge to Palmer River (MA53-03), and having reviewed the United States Environmental Protection Agency (EPA) – Region 1's 2024 draft NPDES permit for the Swansea Desalination Facility (Permit No. MA0103390), issued December 19, 2024 ("2024 draft NPDES Permit"), hereby certifies that there is a reasonable assurance that the proposed discharge will not violate applicable Massachusetts water quality requirements, if made in accordance with the provisions of the 2024 draft NPDES Permit and the conditions set forth below, and provided that the 2024 draft NPDES Permit is not modified in a manner inconsistent with this certification:

The following conditions, together with the terms and conditions contained in the 2024 draft NPDES permit for the Swansea Desalination Facility, are necessary to ensure that the proposed discharge will comply with the applicable provisions of the Federal Clean Water Act Sections 208(e), 301, 302, 303, 306, and 307, and with appropriate requirements of State law, including, without limitation, the Massachusetts Clean Waters Act, M.G.L. c. 21, §§ 26-53, and the Massachusetts Surface Water Quality Standards published at 314 CMR 4.00:

- a. Notwithstanding any other provision of the final NPDES Permit to the contrary, all PFAS monitoring results (influent; effluent; and sludge as specified in the final NPDES permit) and Adsorbable Organic Fluorine monitoring results shall be reported to MassDEP via the eDEP portal, or as otherwise specified in writing by MassDEP to the Permittee, within 30 days after the Permittee receives the sampling results, in addition to the final NPDES Permit reporting requirements. Information regarding the submittal of data via eDEP may be found at <https://www.mass.gov/how-to/submit-wastewaterresiduals-pfas-data-via-edep>.
- b. Pursuant to M.G.L. c. 21, §§ 26-53, and 314 CMR 3.00 and 4.00, including 314 CMR 3.11(3), 314 CMR 3.19(1), and 314 CMR 4.05, MassDEP has determined that it is necessary to include the following conditions:
  - i. The discharge shall be free from pollutants in concentrations or combinations that settle to form objectionable deposits; float as debris, scum or other matter to form nuisances; produce objectionable odor, color, taste or turbidity; or produce undesirable or nuisance species of aquatic life.
  - ii. The discharge shall be free from pollutants in concentrations or combinations that adversely affect the physical or chemical nature of the bottom, interfere with the propagation of fish or shellfish, or adversely affect populations of non-mobile or sessile benthic organisms.
  - iii. The discharge shall be free from floating, suspended and settleable solids in concentrations and combinations that would impair any use assigned to the receiving water, that would cause aesthetically objectionable conditions, or



that would impair the benthic biota or degrade the chemical composition of the bottom.

- iv. The discharge shall be free from color and turbidity in concentrations or combinations that are aesthetically objectionable or would impair any use assigned to the receiving water.
  - v. The discharge shall be free from oil, grease and petrochemicals that produce a visible film on the surface of the receiving water, impart an oily taste to the edible portions of aquatic life, coat the banks or bottom of the water course, or are deleterious or become toxic to aquatic life.
  - vi. The discharge shall be free from taste and odor in such concentrations or combinations that are aesthetically objectionable, that would impair any use assigned to the receiving water, or that would cause tainting or undesirable flavors in the edible portions of aquatic life.
  - vii. The discharge shall be free from pollutants in concentrations or combinations that are toxic to humans, aquatic life or wildlife.
- c. Swansea Water District shall conduct annual biological and hydrological monitoring and reporting in accordance with the Biological and Hydrological Monitoring Plan (Attachment A). An annual report summarizing the biological and hydrological monitoring results shall now be submitted to [massdep.npdes@mass.gov](mailto:massdep.npdes@mass.gov) by June 30 of each year. This monitoring is intended to ensure that Massachusetts Surface Water Quality Standards for Class SB waters at 314 CMR 4.05(4)(b), and other applicable minimum criteria for surface waters at 314 CMR 4.05(3) and (4), are met.

To meet the requirements of Massachusetts laws, each of the conditions in the 2024 draft NPDES permit and this certification shall not be made less stringent unless new data or other information is presented and MassDEP determines modification of this certification is appropriate in consideration of the relevant water quality considerations.

Signed this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

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Lealdon Langley, Director  
Massachusetts Department of Environmental Protection  
Bureau of Water Resources  
Division of Watershed Management

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Clean Water Act Section 401 Water Quality Certification  
For the Proposed 2024 NPDES Permit  
And  
MassDEP Surface Water Discharge Permit  
For Swansea Water District  
Permit No. MA0103390

Attachment A

Swansea Desalination Facility

Biological and Hydrological Monitoring and Reporting

- a. The permittee shall conduct the following program of sampling and analysis each year:
  1. Hydrological Data
    - i. The permittee shall profile water temperature, salinity, pH, turbidity, and dissolved oxygen including percent saturation at the three locations shown in Figure 1. Readings shall be taken at the surface and 3-ft intervals to bottom in conjunction with Palmer River ichthyoplankton sampling.
  2. Palmer River Ichthyoplankton Data
    - i. The permittee shall sample ichthyoplankton at two locations in the Palmer River. One location shall be just above the Old Providence Road Bridge and one shall be further upstream near the Route 6 bridge beyond the influence of the intake and discharge as indicated in Figure 1.
    - ii. Samples shall be collected at night using a 0.333-mm mesh plankton net.
    - iii. Tows shall be oblique from surface to near bottom covering the water column equally, each sample representing the filtration of a minimum of 100 m<sup>3</sup> of water.
    - iv. Sampling frequency shall be weekly from July 1 through October 31 and monthly during March, April, May, June, and November.
    - v. Ichthyoplankton shall be identified to the nearest practical taxonomic category (preferably species) and expressed in densities per 100 m<sup>3</sup> of water.
  3. Intake Ichthyoplankton Data
    - i. Ichthyoplankton entrained by the Swansea facility shall be sampled whenever Palmer River water is being withdrawn.
    - ii. Each sample shall represent 100 m<sup>3</sup> of water filtered through 0.333-mm mesh.
    - iii. Sampling frequency shall be three times weekly from May 1 through June 15 and weekly otherwise.

- iv. Once per year the infiltration bed intake structure shall be inspected to document that it has not been compromised such that fish eggs and larvae would be more readily entrained.
- 4. Reporting
  - i. An annual report summarizing the biological and hydrological monitoring results shall be submitted to [MassDEP.NPDES@mass.gov](mailto:MassDEP.NPDES@mass.gov) by June 30 each year.
- 5. Fish kills
  - i. In the event of a fish kill in the area of the Swansea Water District discharge on the Palmer River near the Old Providence Bridge, notify the MA Division of Fisheries and Wildlife (DFW) Fish Kill Coordinator at (508) 389-6334 (office) or the DFW Fish Kill Notification phone at (508) 450-5869. If the DFW Fish Kill Coordinator is not available, leave a message including the name and number of the witness and the location of the fish kill.

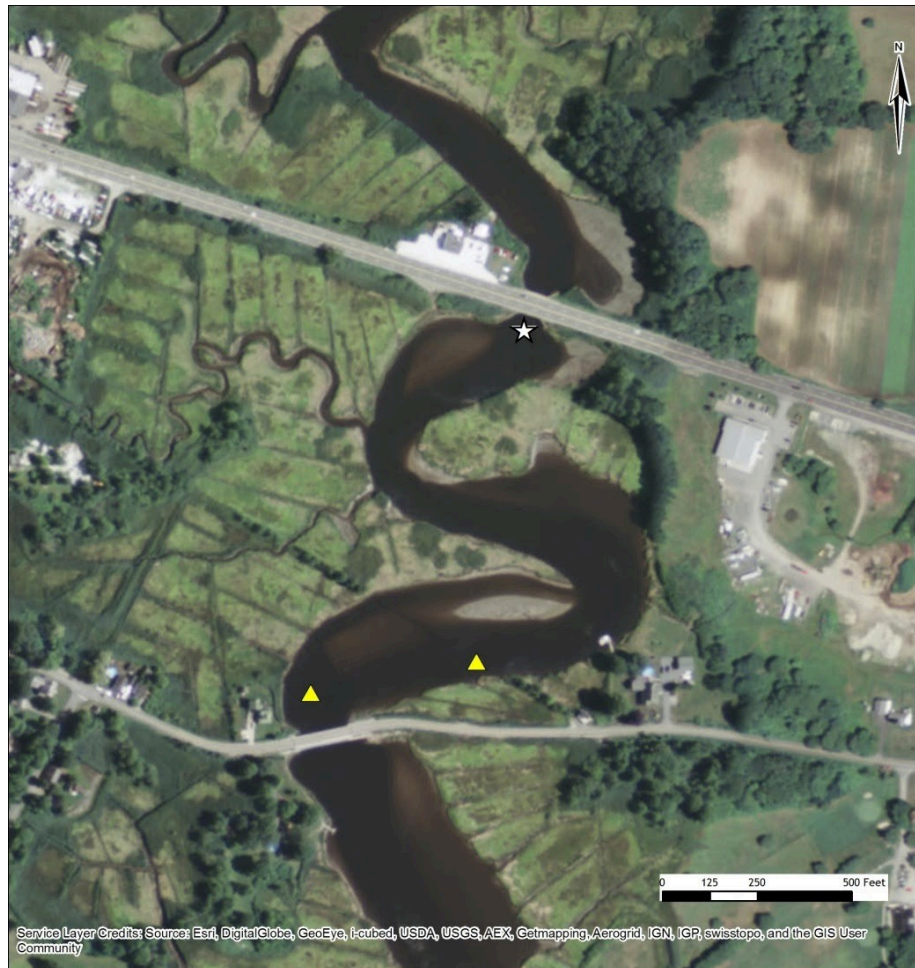


Figure 1. Sampling locations in the Palmer River. Yellow triangles represent ichthyoplankton sampling sites. Hydrographic data shall be collected at the ichthyoplankton sampling sites and the white star.