United States Environmental Protection Agency
Office of Water: Office of Wetlands, Oceans and Watersheds
Washington, DC
EPA 843-B-25-006001

National Wetland Condition Assessment 2026

Site Evaluation Guidelines

Version 1.0
October 2025

NOTICE

The goal of the National Wetland Condition Assessment (NWCA) is to provide a comprehensive assessment of the condition of the Nation's wetlands. The complete documentation of overall NWCA project management, design, methods, and standards is contained in four companion documents:

•National Wetland Condition Assessment 2026: Field Operations Manual – EPA 843-B-25-004
•National Wetland Condition Assessment 2026: Quality Assurance Project Plan – EPA 843-B-25-005
•National Wetland Condition Assessment 2026: Laboratory Operations Manual – EPA 843-B-25-003
•National Wetland Condition Assessment 2026: Site Evaluation Guidelines – EPA 843-B-25-006

This document, *National Wetland Condition Assessment 2026: Site Evaluation Guidelines* (SEG) contains an overview of the process involved in locating a sampling site, evaluating the site to determine if it should be sampled, and selecting appropriate alternate sites when necessary. It is based on guidelines developed and followed in the Western Environmental Monitoring and Assessment Program (Peck et al., 2003), previous NWCA surveys (2011, 2016, 2021), and the other National Aquatic Resource Surveys conducted by EPA and the States and Tribes (http://www.epa.gov/national-aquatic-resource-surveys). Methods described in this document are to be used specifically in work relating to the NWCA. Mention of trade names or commercial products in this document does not constitute endorsement or recommendation for use. Further detail on the project overview and specific methods for field sampling, sample handling, and sample processing can be found in the appropriate companion documents listed above.

The suggested citation for this document is:

> U.S. EPA. 2025. National Wetland Condition Assessment 2026: Site Evaluation Guidelines. **EPA 843-B-25-006** U.S. Environmental Protection Agency, Washington, DC.

Version History

Version	Date	Revision Comments
1.0	10/20/2025	Not applicable

TABLE OF CONTENTS

LIST OF FIGURES AND TABLES

NATIONAL WETLAND CONDITION ASSESSMENT
SITE EVALUATION GUIDELINES

This document is provided to clarify the steps involved in the process of locating and evaluating a sampling site for the National Wetland Condition Assessment (NWCA). The primary purpose of site evaluation is to determine whether a random sample point selected by the NWCA design is a wetland in the target population for the NWCA and is accessible and sampleable by a field crew. There are four main steps involved in this process (Figure 1):

1. Locate the sampling point on an aerial image, topographic and/or similar map and determine whether the point is within or very near (within 60 meters of) a wetland that is in the target population for the NWCA.
2. Determine if the point is accessible.
3. Verify that the point is sampleable or can be shifted to a nearby location that is.
4. Sample the point *OR* replace with an alternate point.

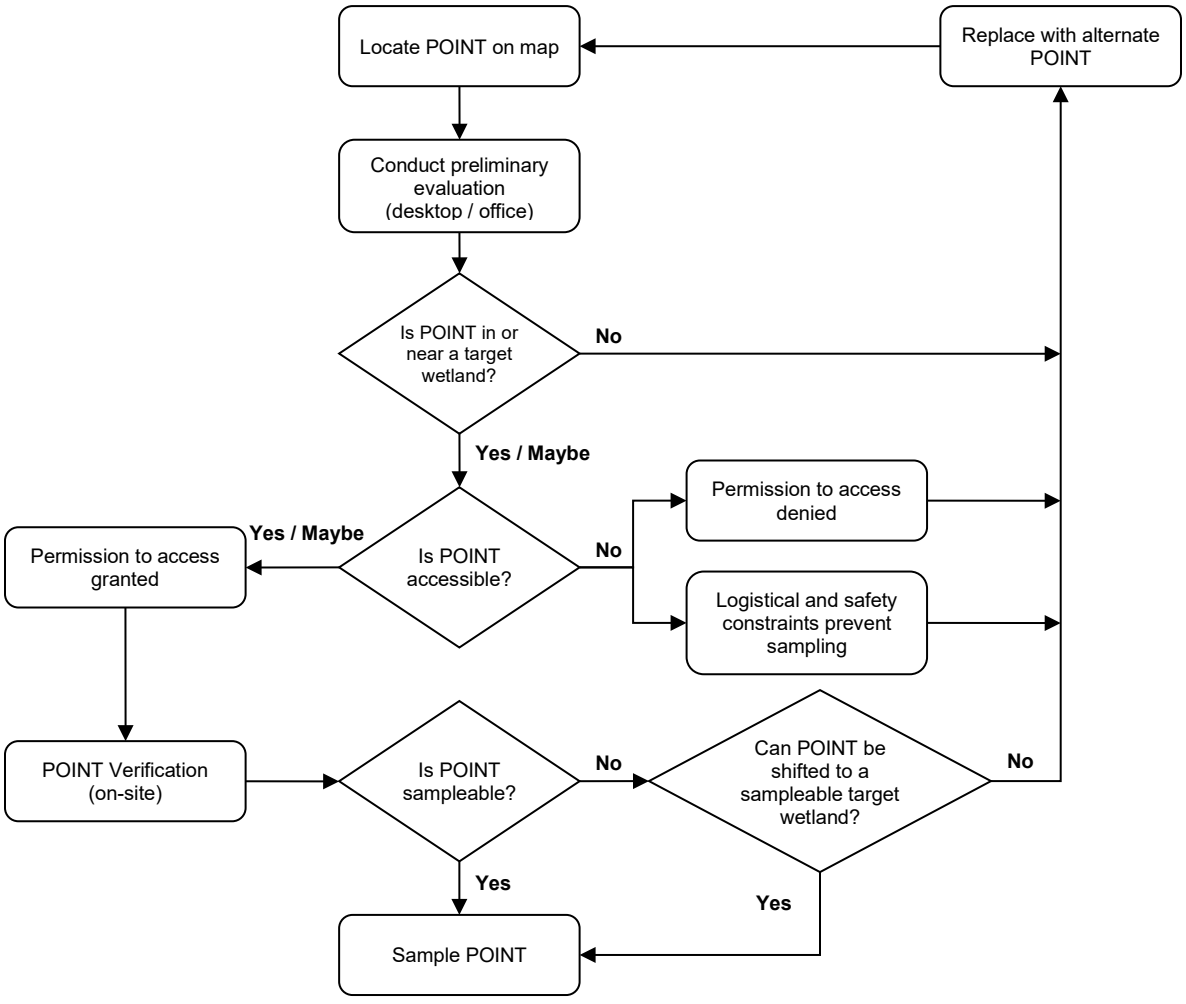


Figure 1: Process of point evaluation

In the process of completing each step of the site evaluation, the evaluators will assemble a site packet that contains important location and access information for each site they are scheduled to visit. The site packet should contain appropriate maps, aerial images, contact information, photographs of the site, copies of landowner permission forms, all required permits and any other specific requirements or instructions to access and sample the site, and other information about the site that would benefit the field crew (e.g., soil types, timing and duration of the peak growing season, plant species lists, etc.).

If the evaluators do not include employees from a state or tribal agency, they should contact appropriate state and tribal personnel to determine if they are able to provide technical assistance in verifying sites within the state or tribal boundary. Before a site visit, the evaluators must contact the landowner(s) to ensure they have permission to enter and traverse any private land in order to access the site and to obtain relevant site access information. This information may include:

- Presence of locked gates, pets, livestock, or other things that could impede access
- Active hunting, farming, mining, or other activities on or near the site
- Whether the landowner wants to be informed when the crew is on site
- Other current conditions that could prevent access (i.e., high water, forest fires, etc)

1.0 IDENTIFICATION OF WETLAND SAMPLING LOCATIONS

Wetland sampling locations were chosen through a survey design consisting of two components:

1) sites from the prior NWCA survey in 2021; and
2) new sites drawn from a sample frame utilizing U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) digitized maps of wetland types and locations (http://www.fws.gov/wetlands/), or state-provided wetland maps comparable to NWI (MN).

NWCA processed the NWI data by assigning wetland polygons to states and within each state assigning them to the nine aggregated ecoregions of the National Aquatic Resource Surveys (NARS). In addition, the detailed wetland classes were categorized into seven wetland types of interest to NWCA:

- E2EM- Estuarine Intertidal Emergent
- E2SS- Estuarine Intertidal Forest or Shrub
- PEM-Palustrine Emergent
- PSS- Palustrine Shrub
- Pf- Palustrine Farmed
- PFO- Palustrine Forested
- PUBPAB- Palustrine Unconsolidated Bottom/ Palustrine Aquatic Bed

and five wetlands types *not* included:

- EOTH – Estuarine Other Wetlands
- M1M2 – Marine Wetlands
- LOTH – Lacustrine Other Wetlands
- POTH – Palustrine Other Wetlands
- ROTH – Riverine Other Wetlands

The former are included in the target population as they are likely to result in sites that would meet the NWCA definition of a wetland and the latter are excluded from the target population as they are unlikely to result in sites that would meet the NWCA definition of a wetland. Cowardian wetland classes were assigned to each NWCA wetland type by two wetland ecologists. Table 1 below provides descriptions of the NWCA Target Wetland Types.

Sample sites in the NWCA, also referred to as “POINTS,” were randomly selected from the NWCA sample frame using a spatially balanced Generalized Random Tessellation Stratified (GRTS) survey design for an area resource, with each POINT having a known probability of being sampled (Stevens and Olsen 2004). The GRTS design ensures the sample is representative of wetland resources at national and regional scales. Using this approach, 904 wetland assessment locations were selected from across the conterminous U.S., consisting of 443 resample sites from NWCA 2021 and 461 new sites. In addition, a pool of oversample sites were selected for use as replacements if any of the 904 assessment locations are not sampleable.

POINTS were selected from wetland-designated polygons in the sample frame that are consistent with the target population for this survey. **The target population for NWCA is tidal and nontidal wetlands of the conterminous U.S., including certain farmed wetlands not currently in crop production. The wetlands have rooted vegetation and, when present, open water less than 1 meter deep.** The NWCA defines wetlands using the classification system described by Cowardin et al. (1979) and established as a

Federal Geographic Data Committee (FGDC) standard for classification of wetlands[1]. This may be different than the definitions applied under state or federal regulatory programs. A wetland's status under state or federal regulatory programs does not affect a site's status as target for purposes of NWCA.

The latitude and longitude of each candidate POINT is listed in a Site Evaluation Spreadsheet distributed electronically by EPA to states, tribes, and contractors conducting field sampling for NWCA 2026. The spreadsheet contains a list of base and oversample (replacement) POINTS selected by the survey design in each state for two separate Stratum, Tidal (if applicable) and Inland, except for Minnesota which has its own design. The POINTS are listed on the spreadsheet in the order in which they were randomly selected. POINTS designated as base sites that are determined to be target and sampleable are sampled. All base POINTS (Panel Use =NWCA26_21_BASE and NWCA26_26_BASE) must be evaluated and sampled unless determined to be non-target or non-sampleable for reasons identified later in this document. Please see Section 5.0 for more information on the POINT replacement process.

Resample POINTS (Panel Use =NWCA26_21_BASE) were restricted to NWCA 2021 evaluated POINTS and include *both* sampled *and* non-sampled POINTS from the 2021 site list, including POINTS found to be non-target or inaccessible in 2021 (since conditions may have changed since 2021 that results in a site now being target and sampleable). As such, all resample POINTS should be evaluated again in 2026 to determine if they are target, accessible, and sampleable.

EPA must receive information for ALL evaluated POINTS, beginning with the first POINT on the state list and ending with the last POINT that is sampled for each respective Stratum. Please contact your EPA Regional Coordinator, Site Evaluation Coordinator, or the Contractor Field Logistics Coordinator, if you have any questions.

In addition to the Site Evaluation Spreadsheet, EPA will provide other resources to assist in site evaluation. This includes geospatial files (e.g., shapefiles, Google Earth KMZ files), soil and other site attribute information (e.g. protected land status). EPA will distribute site maps on which the POINT locations are marked. The maps include the POINT location at scales appropriate for 1) generally locating the POINT and determining how to access it, and 2) beginning the initial evaluation on whether the POINT is sampleable (i.e., is it a wetland in the target population for the NWCA, is it accessible, and is the wetland encompassing the POINT large enough to sample). All resources will be available to access and download from an EPA SharePoint site under the folder NWCA/NWCA 2026/ Site Evaluation Materials.

Additionally, EPA can provide access to an ESRI experience Site Evaluation Tool to assist in the desktop reconnaissance process of site evaluation. This tool is a resource that compiles aerial imagery, useful data layers and site information, while allowing for simultaneous interaction between two different maps. The maps incorporate various data layers including National Wetland Inventory, USGS NHD, USA Soil Hydric Class and Soil Map Units, ESRI terrain, slope, and hillshade, USDA Cropland and USDA National Agriculture Imagery Program data layers as well as general state, county and tribal resource data. Further information on this tool is outlined in additional site evaluation documents and can be provided upon request.

[1] Federal Geographic Data Committee. 2013. Classification of wetlands and deepwater habitats of the United States. FGDC-STD-004-2013. Second Edition. Wetlands Subcommittee, Federal Geographic Data Committee and U.S. Fish and Wildlife Service, Washington, DC (https://www.fgdc.gov/standards/projects/wetlands/index_html).

Table 1: NWCA Target Wetland Types and crosswalk with US Fish & Wildlife Service (USFWS) Status & Trends (S&T) wetland categories and USFWS National Wetland Inventory (NWI) wetland classes.

NWCA Target Wetland Type (Design Code)	NWCA Target Wetland Type (Form/App Code)	NWCA Target Wetland Type	S&T Wetland Categories*[1],	Included *NWI Classes*: Systems/Subsystems[2]
E2EM	**EH**	Estuarine Emergent	*E2EM* -Estuarine Intertidal Emergent	*Emergent and Aquatic Bed Classes in* Estuarine/Intertidal Subsystems
E2SS	**EW**	Estuarine Shrub/Forest	*E2SS* - Estuarine Intertidal Forest or Shrub	*Forested and Scrub-Shrub Classes in* Estuarine/Intertidal Subsystems
PEM	**PRL-EM**	Palustrine, Riverine, and Lacustrine - Emergent	*PEM* - Palustrine Emergent	*Emergent Classes* in Palustrine Systems; Shallow Riverine/Tidal, Lower Perennial, Upper Perennial, or Intermittent Subsystems; and Shallow Lacustrine/Littoral Subsystems
PUBPAB	**PRL-UBAB**	Palustrine, Riverine, and Lacustrine - Unconsolidated Bottom/Aquatic Bed	*PUB* - Palustrine Unconsolidated Bottom *PAB* - Palustrine Aquatic Bed	*Unconsolidated Bottom, Aquatic Bed, Unconsolidated Shore, Rock Bottom, and Rocky Shore Classes in* Palustrine Systems; Shallow Riverine/Tidal, Lower Perennial, Upper Perennial, or Intermittent Subsystems; and Shallow Lacustrine/Littoral Subsystems
Pf	**PRL-f**	Palustrine, Riverine, and Lacustrine - Farmed	*Pf* - Palustrine farmed	*Farmed Modifier in* Palustrine Systems; Shallow Riverine/Tidal, Lower Perennial, Upper Perennial, or Intermittent Subsystems; and Shallow Lacustrine/Littoral Subsystems
PSS	**PRL-SS**	Palustrine, Riverine, and Lacustrine - Shrub/Scrub	*PSS* - Palustrine Shrub	*Scrub-Shrub Classes in* Palustrine Systems; Shallow Riverine/Tidal, Lower Perennial, Upper Perennial, or Intermittent Subsystems; and Shallow Lacustrine/Littoral Subsystems
PFO	**PRL-FO**	Palustrine, Riverine, and Lacustrine - Forested	*PFO* - Palustrine Forested,	*Forested Classes in* Palustrine Systems; Shallow Riverine/Tidal, Lower Perennial, Upper Perennial, or Intermittent Subsystems; and Shallow Lacustrine/Littoral Subsystems

IMPORTANT NOTE: Status and Trends (S&T) category names DO NOT precisely equate to National Wetland Inventory (NWI) Codes for wetland type. S&T categories often aggregate multiple NWI types.

[1]Dahl TE, Bergeson MT (2009) Technical procedures for conducting status and trends of the Nation's wetlands. U.S. Fish and Wildlife Services, Division of Habitat and Resource Conservation, Washington, D.C., p 74.

[2]US Fish and Wildlife Service, National Wetlands Inventory, Wetland Classification Codes. https://www.fws.gov/wetlands/Data/Wetland-Codes.html. Accessed August 2025.

2.0 DESKTOP EVALUATION

The primary purpose of desktop evaluation is to determine if the selected POINT is, or likely will be, in the target population during the 2026 index period using data that is easily obtainable and verifiable without the expense of a more intensive field visit. The focus of the desktop evaluation should be on ruling out sites that are clearly not part of the target population for reasons described below. **If information obtained during the desktop evaluation is not conclusive then a field reconnaissance visit is necessary**.

A number of sources of information are useful for the desktop evaluation. These include aerial images, topographic maps, National Wetlands Inventory datasets, state, county, or tribal wetland resource data, the National Hydrography Dataset (NHD), soil maps, crop maps, road maps, personal and local knowledge, literature and scientific reports, and land ownership records. Some of these sources are included in the Site Evaluation tool that can be provided upon request. The use of these sources is at the discretion of the evaluators, but all information gathered will enhance POINT evaluation and help to ensure that proper POINTS are sampled.

The procedures for conducting the desktop evaluation are detailed in the steps below. Information found during the evaluation must be recorded on the Site Evaluation Spreadsheet. EPA provides each state or entity conducting sampling for NWCA 2026 an Excel spreadsheet to fill out electronically. Instructions for completing the Site Evaluation Spreadsheet are provided in Appendix A: Instructions for filling out NWCA 2026 Site Evaluation Spreadsheet. **Site evaluation information must be completed for all base POINTS in the spreadsheet, as well as any oversample POINTS that are evaluated, regardless of whether the POINT is selected for sampling or not.** The information provided through the spreadsheet will contribute to the statistical analyses of data from the survey.[2]

Step 1. Locate the POINT on the most recent aerial imagery that can be obtained. Using this imagery and any supplemental sources of information, determine if the POINT is in or near (within 60 meters) a wetland in the target population. If the image or other sources of information provide **conclusive** evidence that the POINT is **not** in or near a wetland in the target population, indicate that the site is **non-sampleable** and select the appropriate category on the Site Evaluation Spreadsheet (see Appendix B: Sampleable/Non-sampleable Categories). Provide an explanation for your choice in the appropriate column of the spreadsheet, **detail explanatory information under the Additional Comments column (required)** and follow the procedures for selecting an alternate POINT in Section 5.0. Otherwise, proceed to Step 2.

Step 2. Assess the predominant NWCA target wetland type for the POINT (see Table 1 for a description of wetland types).

2A. If the wetland type at the POINT falls under the **Palustrine, Riverine, Lacustrine - Unconsolidated Bottom/Aquatic Bed (PRL-UBAB)** NWCA target wetland type category, review the aerial image and other sources of information to determine whether there is **conclusive** evidence that the POINT (or an area within 60 meters) ***is*** in a wetland that:

[2] The use of the GRTS design allows for the adjustment of site weights to account for mapping errors (e.g., non-target POINTS) and for the dropping of POINTS in the target population because they are non-sampleable (e.g., access is denied).

I. Is strictly used for an industrial, agricultural, or aquacultural purpose. Examples that support this assertion include visual evidence that the wetland is:

- Strictly used to treat waste (e.g., wastewater lagoons, mining ponds);
- Lined wholly with concrete or other manufactured, non-vegetated barrier;
- An industrial cooling pond, livestock tank, fish pen or hatchery, commercial cranberry bog, etc.

OR;

II. Is inundated by water greater than 1 meter in depth that covers most of the area (90% or more) within a 60-m radius of the POINT.

If any of these criteria are met, indicate that the site is non-target and select the appropriate category (see Appendix B: Sampleable/Non-sampleable Categories) on the Site Evaluation Spreadsheet. Provide an explanation for your choice in the appropriate columns of the spreadsheet, **detail explanatory information under the Additional Comments (required) column and** follow the procedures for selecting an alternate POINT in Section 5.0. Otherwise, proceed to the next step.

2B. If the wetland type at the POINT falls under the **Palustrine, Riverine, Lacustrine Farmed (PRL-f)** NWCA target wetland type category, review the aerial image and other sources of information and determine whether there is **conclusive** evidence that the wetland will be in active crop production during the NWCA index period. Factors to consider include:

- Recent evidence of tilling
- Confirmation of farm use by landowner
- Presence of row or close grown crops (corn, sugar cane, soybeans, etc.)
- Terraced land (or other evidence of rice cultivation)
- Other evidence uncovered during evaluation

If there is **conclusive** evidence the POINT (or area within 60 meters of it) ***is or will be in active crop production during the index period***, indicate that the site is non-target and select the appropriate category (see Appendix B: Sampleable/Non-sampleable Categories) on the Site Evaluation Spreadsheet. Provide an explanation for your choice in the appropriate column of the spreadsheet, **detail explanatory information under the Additional Comments (required) column** and follow the procedures for selecting an alternate POINT in Section 5.0. Otherwise, proceed to the next step.

Step 3. Review maps, other collected information, or enlist the assistance of someone with personal knowledge of the location of the POINT to determine if an Assessment Area (AA) encompassing the POINT (or within 60 meters of it) can be established. The following criteria must be met to establish a sampleable AA:

i. The AA is between 0.1 and 0.5 hectares in area
ii. AA is at least 20 meters wide in most places
iii. AA contains less than 10% unsampleable area (unsampleable area is defined as upland, non-target wetland types, standing water greater than 1 meter in depth, or soft substrate that is unsafe or impossible to sample effectively)

iv. AA does not cross any hydrogeomorphic (HGM) boundaries (i.e., the AA contains only one HGM type)[3].

If the sources of information indicate **conclusively** that an AA cannot be established, indicate that the site is non-sampleable and select the appropriate non-sampleable category (see Appendix B: Sampleable/Non-sampleable Categories) on the Site Evaluation Spreadsheet. Provide an explanation for your choice in the appropriate column of the spreadsheet, **detail explanatory information under the Additional Comments column (required)**, and follow the procedures for selecting an alternate POINT in Section 5.0 SELECTING ALTERNATE POINTS.

Step 4. Review maps, other collected information, or enlist the assistance of someone with personal knowledge of the location of the POINT to determine if it is physically accessible by Field Crews and safe to sample.

In order to achieve the most robust results possible with the probabilistic sampling design, every effort must be made to sample the base points generated by the design. POINTS should not be rejected based on inconvenience in access. POINTS that require lengthy hikes from road access or the use of alternative vehicles (e.g., air boats, canoes) should not automatically be rejected. However, safety concerns for the field crew and permanent physical barriers (e.g., cliffs) that prevent access are legitimate reasons to reject POINTS.

If these sources of information indicate **conclusively** that the POINT (or area within 60 meters of it) **is not** accessible, indicate that the site is non-sampleable and select the appropriate non-sampleable category (see Appendix B: Sampleable/Non-sampleable Categories) on the Site Evaluation Spreadsheet. Provide an explanation for your choice in the appropriate column of the spreadsheet, **detail explanatory information under the Additional Comments (required) column,** and follow the procedures for selecting an alternate POINT in Section 5.0 SELECTING ALTERNATE POINTS.

If the POINT (or an area within 60 meters of the POINT) is determined to be **sampleable**, follow the procedures for obtaining permission to access the POINT in Section 3.0 OBTAINING PERMISSION TO ACCESS AND SAMPLE CANDIDATE SITE. If you are certain that the POINT is in the target population, accessible, and the wetland encompassing it is large enough to sample, then the POINT may be scheduled for sampling during the NWCA index period. Make sure to document any relevant site access issues or special requirements uncovered during desktop evaluation on the Site Evaluation Spreadsheet.

If the status of the POINT is **uncertain** after desktop evaluation, then a field evaluation (Section 4.0) should be conducted, after first obtaining permission to access the location of the POINT.

Information and data sources used in the desktop evaluation should be retained as part of the project record and incorporated into the site packet for each POINT. If you have questions about whether information should be deemed conclusive evidence of a POINT's status, please contact your EPA Regional NWCA Coordinator and/or Site Evaluation Coordinator (Appendix G: Contact List).

[3] Refer to Chapter 3 of the NWCA 2026 Field Operations Manual for detailed information on establishing the AA. Reference cards listing criteria for sampleable AAs, examples of HGM boundaries or mixes of types to avoid, and a key to assist in HGM classification are provided in Appendix H.

3.0 OBTAINING PERMISSION TO ACCESS AND SAMPLE CANDIDATE SITES

Landowner permission is required to traverse, access, and sample any POINT that falls on privately-owned land. Each Field Crew is responsible for obtaining the permissions necessary to access their assigned sampling POINTS. Field Crews should follow protocols already established by their state, tribe, or organization to obtain permission to access private land. If no protocols exist, Field Crews should employ the most personal contact practicable, enlisting the aid of any partners, groups or organizations that may be able to provide meaningful assistance (e.g., state or tribal staff, local cooperative extension staff, USGS) and potentially be more effective at obtaining landowner permission. **It is vital for the integrity of the survey to sample all POINTS that are in the target population whether they fall on public or private land. All efforts should be made to obtain permission to sample POINTS on private land**.

An in-person visit is an effective way to establish contact with landowner(s) and could be incorporated into field evaluation of the POINT (see Section 4.0 FIELD EVALUATION). Past surveys have found that landowners are more likely to grant permission if they meet with a study representative than if their only contact is through a phone call or letter. If a personal visit cannot be made, a phone call is considered the best alternative. If attempts to reach the landowner(s) through an in-person visit or telephone call are unsuccessful, a letter should be mailed with a fact sheet about the survey and a permission slip for the landowner(s) to return. Included in this package should be a return-addressed and postage-paid envelope with a specific date by which the permission slip should be returned. See Appendix E: Examples of Landowner Permission Letters and Forms. A signed permission slip can be important documentation to have when visiting the site for field evaluation or sampling. A survey fact sheet providing basic information on the NWCA for landowners is included in Appendix F: Survey Fact Sheet.

Landowner information can often be obtained from the county tax assessor's office. Tax assessor maps display landowner boundaries, addresses and, oftentimes, phone numbers. This information enables the Field Crew to contact landowners before accessing the POINT and will identify the landowners of parcels Field Crews may have to traverse to reach the POINT. For some counties, these records are available through a publicly-accessible electronic database that is searchable online. For other counties, it may require a visit to the assessor's office to manually search these records.

Field Crews will also need to be aware of and follow any special conditions and requirements for accessing and sampling on state, tribal, or federal lands. Field Crews should work with appropriate state, tribal, and federal agencies to determine whether any permits or special conditions apply to these lands. EPA will provide assistance to Field Crews in coordinating efforts with federal land management agencies and with state and tribal agencies as needed.

4.0 FIELD EVALUATION

The components of the field evaluation of the POINT are similar to those outlined for the desktop evaluation and the primary purpose is the same – to determine if the selected POINT is, or likely will be, in the NWCA target wetland population during the 2026 index period, accessible by a Field Crew under the constraints of the NWCA, and within a wetland where an Assessment Area (AA) encompassing the POINT can be established. Information obtained during the field evaluation must be documented on the Site Evaluation Spreadsheet. Evaluators may use a paper POINT Verification Form (PV-1; see Appendix C: Point Verification Form) for their own documentation. Using this form during field reconnaissance provides an easy and consistent way to record and provide information about accessing the site (e.g., directions, access constraints, special access requirements, etc.) to the Field Crew who will ultimately conduct the field sampling.

The evaluators that conduct the field evaluation should consist of at least two people, and one should have experience in wetland delineation. An important component of the field evaluation will be to determine if the POINT is in a wetland[4], and if not, to determine if it is possible to shift the POINT to a nearby area that is a wetland (see 4.2 SHIFTING THE POINT). This will be achieved more easily and quickly if one of the evaluators is experienced in wetland delineation and can recognize wetland characteristics in a variety of situations.

4.1 POINT VERIFICATION

The first task in field evaluation of the POINT is to verify that the site is accessible, the POINT is in the target wetland population identified for the NWCA, and an Assessment Area (AA) can be established that encompasses the POINT. The following steps document the procedures to accomplish this task.

Step 1. Record a detailed description of the route taken to access the POINT (roads, trails, etc.) on the PV-1 Form starting from an appropriate central road intersection. In addition, note any access issues or requirements (locked gates, permits, etc.). This information will be provided by the evaluators to the Field Crew as part of the site packet used on the day of sampling.

Step 2. If permission to access the POINT has not yet been obtained, meet with respective landowner(s) to discuss the survey and access to the POINT. This is also a good opportunity to get information about the area that includes the POINT from the landowner. In particular, if it is a farmed wetland, ask if the area will be in active crop production during the 2026 index period.

Step 3. Navigate to the POINT and verify the latitude and longitude of the POINT using a GPS receiver set to reference North American Datum of 1983 (NAD 83). Use at least one other map source to confirm your location. If it is not possible or practicable to navigate to the exact location of the point due to high water (over 1 meter in depth), safety, or other reason, detail this on the PV-1 Form and determine whether this is likely to prevent sampling during the NWCA index period. Take a digital picture to further document

[4] The NWCA defines wetlands using the classification system described by Cowardin et al. (1979) and established as a Federal Geographic Data Committee (FGDC) standard for classification of wetlands. This may be different than the definitions applied under state or federal regulatory programs. A wetland's status under state or federal regulatory programs does not affect a site's status as target for purposes of NWCA.

conditions at the POINT. The picture(s) should be representative of the prevailing conditions at the POINT. Digital pictures should be saved electronically and catalogued with NWCA site and date evaluated information to allow for future retrieval.

Step 4. Assess the predominant NWCA target wetland type for the POINT (see Table 1 for a description of wetland types). If the POINT is not a wetland or is not one of the NWCA target wetland types described in Table 1, proceed to Step 6. Otherwise continue to Step 4A.

4A. If the wetland type at the POINT falls under the Palustrine, Riverine, Lacustrine - Unconsolidated Bottom/Aquatic Bed (PRL-UBAB) NWCA target wetland type category, document any evidence that the POINT is in a wetland that:

1. Is strictly used for an industrial, agricultural, or aquacultural purpose. Examples that support this assertion include visual evidence that the wetland is:
    - Strictly used to treat waste (e.g., wastewater lagoons, mining ponds);
    - Lined wholly with concrete or other manufactured, non-vegetated barrier;
    - An industrial cooling pond, livestock tank, fish pen or hatchery, commercial cranberry bog, etc.

OR;

2. Is inundated by water greater than 1 meter in depth that covers most of the area (90% or more) within a 60-m radius of the POINT.

4B. If the wetland type at the POINT falls under the Palustrine, Riverine, Lacustrine Farmed (PRL-f) NWCA target wetland type category, document any evidence that the wetland will be in active crop production during the NWCA index period. Factors to consider include:

- Recent evidence of tilling
- Confirmation of farm use by landowner
- Presence of row or close grown crops (corn, sugar cane, soybeans, etc.)
- Terraced land (or other evidence of rice cultivation)
- Other evidence uncovered during evaluation

If evidence of any of the items listed in Step 4A and 4B is confirmed, then the POINT is not in the target wetland population for the NWCA. Proceed to Step 6. Otherwise, continue to the next step.

Step 5. Verify that an Assessment Area (AA) can be established for the POINT. Chapter 3 of the Field Operations Manual provides full details on the establishment of the AA and should be used as a reference when completing this step.

Select the aerial photo from the site map packet, or another image that best depicts the setting at the POINT and use this to annotate details on AA establishment. This annotated image will be provided by the evaluators to the Field Crew sampling the site to facilitate their work on the day of sampling.

Using the maps provided as a guide and the information you find at the POINT determine if an AA can be established that meets the following criteria:

i. AA is between 0.1 and 0.5 hectares in area
ii. AA is at least 20 meters wide in most places
iii. AA contains less than 10% unsampleable area (unsampleable area is defined as upland, non-target wetland types, standing water greater than 1 meter in depth, or soft substrate that is unsafe or impossible to sample effectively)
v. AA does not cross any hydrogeomorphic (HGM) boundaries (i.e., the AA contains only one HGM type)[5].

If an AA can be established, depict on the map the most appropriate layout utilizing the Key to AA Layouts provided in the Field Operations Manual (Appendix H: NWCA 2026 Assessment Area Reference Cards) and schedule the POINT for sampling. If an AA cannot be established, proceed to the next step.

Step 6. If the information gathered in the previous steps indicates that the designated POINT is non-target or non-sampleable, determine whether it is possible to shift the POINT to a place within 60 meters of the original POINT that is target and sampleable by following the procedures outlined in Section 4.2 SHIFTING THE POINT.

Information, data sources, and pictures used in field evaluation should be retained as part of the project record and incorporated into the site packet for each POINT. If you have questions about whether information is conclusive evidence of a POINT's status, please contact your EPA Regional NWCA Coordinator and/or the Site Evaluation Coordinator (Appendix G: Contact List).

4.2 SHIFTING THE POINT

If during POINT verification it is determined that the original POINT cannot be sampled because the POINT is inaccessible, is not in a target wetland, or an Assessment Area cannot be established, the next task is to determine if the POINT can be shifted to a sampleable wetland that lies within 60 meters of the original POINT.[6] The following steps document the procedures to accomplish this task:

Step 1. Navigate to the nearest spot that is the same NWCA wetland type listed for the original POINT where a sampleable AA can be established. Using a range finder, GPS, or measuring tape, determine if this is within 60 meters of the original POINT. If it is, record the GPS coordinates for the shifted POINT in the Comments section of the PV-1 Form or in another way that ensures the Field Crew has the shifted POINT coordinates when they sample the site. On the day of sampling, the shifted POINT coordinates will be officially recorded on the Assessment Area Establishment Form (AA-1). Take a digital picture to further document the prevailing conditions at the POINT. Digital pictures should be saved electronically and

[5] Refer to Chapter 3 of the NWCA 2026 Field Operations Manual for detailed information on establishing the AA. Reference cards listing criteria for sampleable AAs, examples of HGM boundaries or mixes of types to avoid, and a key to assist in HGM classification are provided in Appendix H: NWCA 2026 Assessment Area Reference Cards.
[6] 60 meters is the distance that encompasses a roughly ± 1 second latitude/longitude degree mapping or GPS error in the location of the POINT.

catalogued with NWCA site and date evaluated information to allow for future retrieval. **Field evaluation is complete and the POINT should be scheduled for sampling.**

Step 2. If there is not a wetland of the same NWCA type listed for the original POINT within 60 meters, navigate to the nearest spot that is a wetland in the NWCA target population where a sampleable AA can be established.

- The POINT should first be shifted 60 meters or less to a wetland type within that respective stratum (e.g. Inland or Tidal). If there are no wetland types available within that stratum, then shift to a wetland type in the other stratum.

If the POINT needs to be shifted, record the GPS coordinates for the shifted POINT in the Comments section of the PV-1 Form or in another way that ensures the Field Crew has the shifted POINT coordinates when they sample the site. Figure 2 demonstrates a shifted POINT scenario.

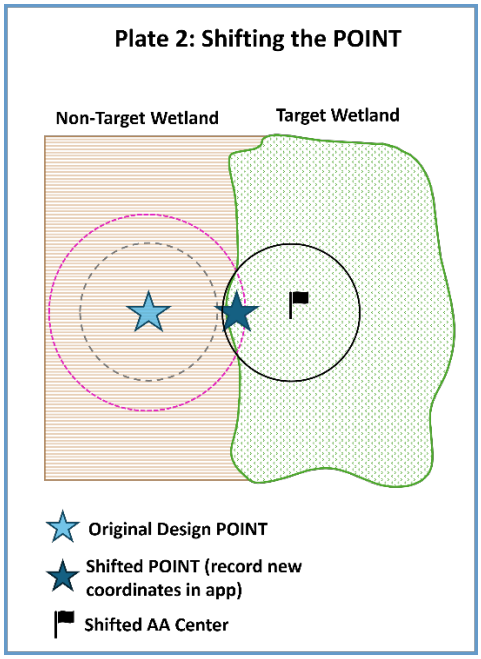


Figure 2: Diagram showing a shifted POINT scenario in which the point is moved to a NWCA target wetland.

On the day of sampling, the shifted POINT coordinates will be officially recorded on the Assessment Area Establishment Form (AA-1). Take a digital picture to further document the prevailing conditions at the POINT. Digital pictures should be saved electronically and catalogued with NWCA site and date evaluated information to allow for future retrieval. **Field evaluation is complete and the POINT should be scheduled for sampling.**

Step 3. If there is **not a wetland in the target population within 60 meters** of the original POINT, document this conclusion on the PV-1 Form and indicate that the site is non-sampleable and select the appropriate non-sampleable category (see Appendix B: Sampleable/Non-sampleable Categories) on the Site Evaluation Spreadsheet. Provide an explanation for your choice in the appropriate column of the spreadsheet, **detail explanatory information under the Additional Comments column (required)** and follow the procedures for selecting an alternate POINT in Section 5.0. Field evaluation is complete.

Information, data sources, and pictures used in field evaluation should be retained as part of the project record and incorporated into the site packet for each POINT. If you have questions about whether information should be deemed conclusive evidence of a POINT's status, please contact your EPA Regional NWCA Coordinator and/or Site Evaluation Coordinator (Appendix G: Contact List).

5.0 SELECTING ALTERNATE POINTS

The list of POINTS randomly generated for the NWCA is organized in state specific NWCA 2026 Site Evaluation Spreadsheets and provided to each crew by EPA. The spreadsheet contains a list of base and oversample POINTS in the state for two separate stratum (INLAND and, if applicable, TIDAL). The POINTS are listed on the spreadsheet in the order in which they were randomly selected. **For the 2026 survey, there will be no Revisit sites**. The order of the sites on the list MUST BE maintained, but they can be sampled in an order the crew deems appropriate based on expected site conditions[7], travel logistics, etc. All base sites (Panel Use = NWCA26_21_Base or NWCA26_26_Base) must be evaluated, and then sampled unless determined to be non-target or non-sampleable for one of the following reasons:

1. The POINT is not in a target wetland, nor can it be shifted to a nearby wetland that is.
2. An Assessment Area cannot be established for the POINT.
3. The POINT is inaccessible (due to safety, persistent deep water, or other physical barriers).
4. Permission to access the POINT has been denied.

Base sites that are determined to be non-target or non-sampleable are replaced within their respective Stratum (Stratum = Tidal or Inland) following Figure 3:

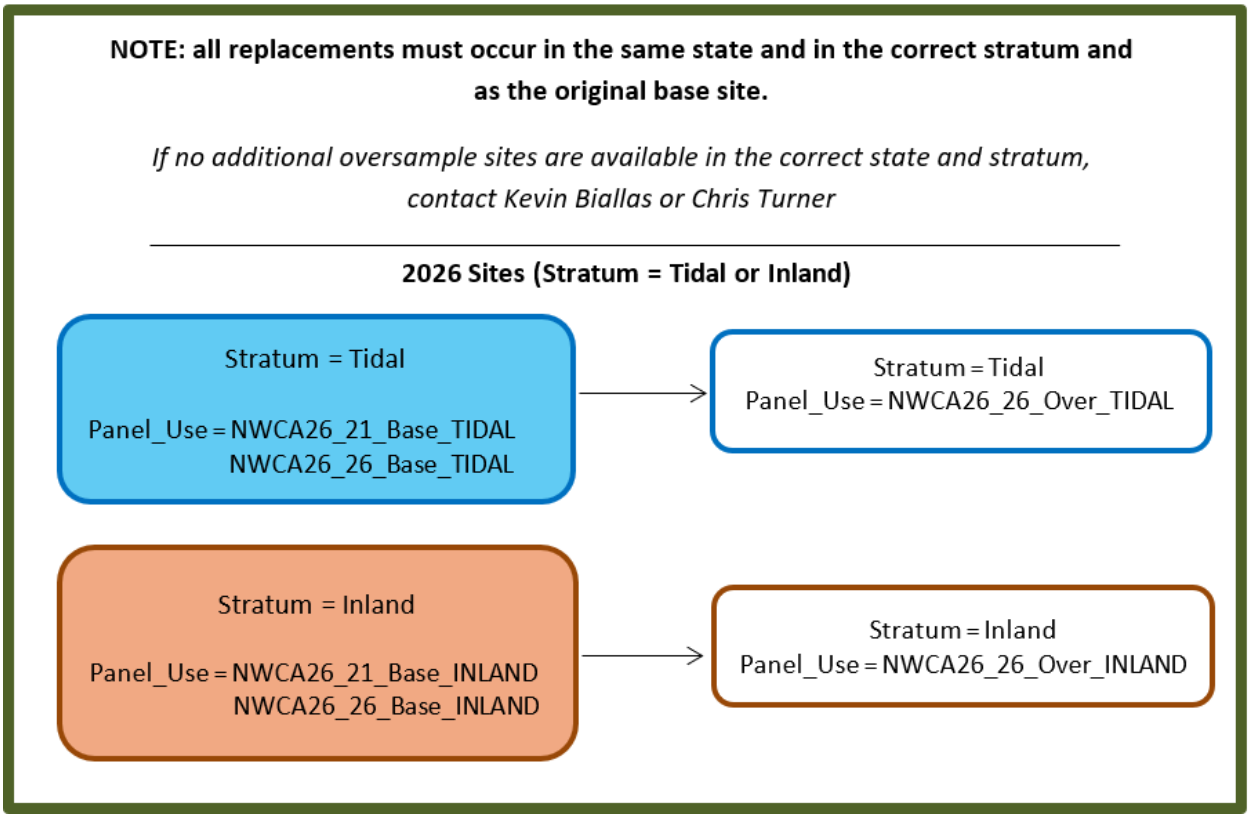


Figure 3: NWCA 2026 Site Replacement Plan. Base Panels in shaded cells, oversample panels in unshaded cells.

[7] Sites should be sampled when most vegetation is fully leafed and in flower or fruit; thus, sampling schedules should account for the expected timing of peak flowering for the wetland types and wetland plant communities in the state or region being sampled.

Figure 3: Example list of state sites from NWCA Site Evaluation Spreadsheet.is provided to help illustrate the process for replacing POINTS within a state, in this case, Oregon. For example, if NWCA26_OR_10001 is determined to be non-sampleable, then the next oversample POINT within the same stratum (Inland), NWCA26_OR_10033 is evaluated and, if sampleable, replaces NWCA26_OR_10001 as an Inland base site. **The total number of sampled sites within a state must equal the total number of base sites for each stratum (Tidal vs Inland).**

As POINTS are determined to be non-target or non-sampleable, evaluators will continue to work with the Designated EPA Contact to replace them with oversample POINTS by selecting the next available site on the list within that stratum, irrespective of NWCA wetland type. **It is imperative for crews to fill the site evaluation spreadsheet for each evaluated site regardless of whether it was sampled.**

STATE	SITE_ID	SITE_ID_2021 (if applicable)	Latitude	Longitude	Stratum	Panel Use	Eval Status 2021	NWCA Target Wetland Type	NWI Code	Is POINT Sampleable?
OR	NWCA26_OR_10001	NWC21-OR-10002	43.249480	-119.017240	OR_INLAND	NWCA26_21_Base_INLAND	Target_Sampled	PEM	PEM1C	No
OR	NWCA26_OR_10002	NA	42.289218	-120.219854	OR_INLAND	NWCA26_21_Base_INLAND	Target_Access_Denied	PEM	PEM1C	
OR	NWCA26_OR_10003	NA	42.181125	-121.417732	OR_INLAND	NWCA26_21_Base_INLAND	NonTarget_Active_Crop	PEM	PEM1C	
OR	NWCA26_OR_10004	NWC21-OR-10036	44.424560	-123.317360	OR_INLAND	NWCA26_21_Base_INLAND	Target_Sampled	PFO	PFO1A	
OR	NWCA26_OR_10005	NWC21-OR-10006	43.858010	-118.535570	OR_INLAND	NWCA26_21_Base_INLAND	Target_Sampled	PEM	PEM1C	
OR	NWCA26_OR_10006	NA	44.437472	-118.837845	OR_INLAND	NWCA26_21_Base_INLAND	Target_Access_Denied	PFO	PFOA	
OR	NWCA26_OR_10014	NWC21-OR-10012	43.724416	-124.120223	OR_TIDAL	NWCA26_21_Base_TIDAL	Target_Sampled	E2EM	E2EM1P	
OR	NWCA26_OR_10015	NWC21-OR-10034	43.708640	-124.081370	OR_TIDAL	NWCA26_21_Base_TIDAL	Target_Sampled	E2EM	E2EM1N	
OR	NWCA26_OR_10016	NWC21-OR-10014	45.287686	-123.936951	OR_TIDAL	NWCA26_21_Base_TIDAL	Target_Sampled	E2EM	E2EM1N	
OR	NWCA26_OR_10030	NA	44.418456	-124.056198	OR_TIDAL	NWCA26_26_Base_TIDAL	NA	E2EM	E2EM1P	
OR	NWCA26_OR_10031	NA	43.724813	-124.166614	OR_TIDAL	NWCA26_26_Base_TIDAL	NA	E2EM	E2EM1P	
OR	NWCA26_OR_10032	NA	45.281211	-123.943164	OR_TIDAL	NWCA26_26_Base_TIDAL	NA	E2EM	E2EM1N	
OR	NWCA26_OR_10033	NA	44.753071	-123.186487	OR_INLAND	NWCA26_26_Over_INLAND	NA	PFO	PFOA	Yes
OR	NWCA26_OR_10034	NA	44.884134	-116.966602	OR_INLAND	NWCA26_26_Over_INLAND	NA	PFO	PFOA	
OR	NWCA26_OR_10035	NA	42.736701	-119.375367	OR_INLAND	NWCA26_26_Over_INLAND	NA	PSS	PSS1A	
OR	NWCA26_OR_10036	NA	43.465896	-123.397131	OR_INLAND	NWCA26_26_Over_INLAND	NA	PFO	PFOA	
OR	NWCA26_OR_10037	NA	42.620661	-121.147825	OR_INLAND	NWCA26_26_Over_INLAND	NA	PFO	PFOA	
OR	NWCA26_OR_10553	NA	45.742274	-123.853881	OR_TIDAL	NWCA26_26_Over_TIDAL	NA	E2SS	E2SS1/FO4P	
OR	NWCA26_OR_10554	NA	43.355488	-124.312967	OR_TIDAL	NWCA26_26_Over_TIDAL	NA	E2EM	E2EM1N	
OR	NWCA26_OR_10555	NA	44.587919	-123.954059	OR_TIDAL	NWCA26_26_Over_TIDAL	NA	E2EM	E2EM1N	

Figure 4: Example list of state sites from NWCA Site Evaluation Spreadsheet. (Note- some sites have been hidden for the sake of this example).

If the site will require extreme resources and / or considerable time to sample, contact the NWCA Project Team (Appendix G: Contact List) for approval before dropping the site. Consider only physical accessibility, and not access or sampling permission (i.e., evaluate this question with the assumption that permission will be granted).

Information on POINTS determined to be non-sampleable and the selection of alternate POINTS to replace them is reported to EPA and the NWCA Field Logistics Contractor throughout the period of site evaluation and field sampling (see Section 6.0 for specific details). EPA and the Field Logistics Contractor will review the information to:

i. Confirm that the correct process was used to select the alternate POINT,
ii. Confirm which Field Crew is responsible for sampling the alternate POINT (if multiple organizations are sampling within state boundaries),
iii. Report the replacement of base POINTS to appropriate Field Crew(s), state or tribal agencies AND to the EPA Project Team.

6.0 REPORTING SITE EVALUATION INFORMATION TO EPA

It is critical that Evaluators and Field Crews report information obtained during the site evaluation process to EPA in a timely manner throughout the period of site evaluation and field sampling in 2026. This information is used for the statistical analysis in the final report. The following forms must be returned to EPA for all POINTS that are evaluated:

NWCA Site Evaluation Spreadsheet: This spreadsheet must be filled out for ALL base POINTS (NWCA26_21_Base and NWCA26_26_Base) on the state list regardless of whether they are ultimately sampled. It must also be completed for ALL oversample POINTS evaluated as replacements. Please upload completed spreadsheets to the EPA SharePoint site under the folder ***NWCA/NWCA 2026/ Site Evaluation Materials/State and Contractor Submitted Site Evaluation Spreadsheets*** prior to the 2026 field season. The file name for the upload must include the state abbreviation (ST) and the date of upload. Please adhere to the following file naming format:

NWCA2026_SiteEvaluationSpreadsheet_ST_YYYYMMDD

Subsequent uploads of the site evaluation spreadsheet should be made in a timely manner throughout the field season as additional sites are evaluated and dropped. Please change the date of the document to alert EPA to the most recent version. A final spreadsheet, complete for ALL evaluated sites, must be uploaded to the EPA SharePoint site two weeks after the completion of field sampling in the state.

NWCA POINT Verification Form (PV-1): This form should be completed for *ALL POINTS that are evaluated in the field*, regardless of whether they are ultimately sampled. Evaluators should retain all PV-1 Forms completed for "Recon" visits and keep with the site packet. PV-1 Forms completed during a sampling visit will be submitted to the NARS IM team with other forms as directed in the Field Operations Manual.

7.0 LITERATURE CITED

Cowardin, L. M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. FWS/OBS-79/31. U.S. Fish and Wildlife Service, Washington, DC.

Dahl, T.E. and M.T. Bergeson. 2009. Technical procedures for conducting status and trends of the Nation's wetlands. U.S. Fish and Wildlife Service, Division of Habitat and Resource Conservation, Washington, D.C.

Dahl, T.E. 2011. Status and trends of wetlands in the conterminous United States 2004 to 2009. U.S. Department of the Interior; Fish and Wildlife Service, Washington, D.C.

Federal Geographic Data Committee. 2013. Classification of wetlands and deepwater habitats of the United States. FGDC-STD-004-2013. Second Edition. Wetlands Subcommittee, Federal Geographic Data Committee and U.S. Fish and Wildlife Service, Washington, DC (https://www.fgdc.gov/standards/projects/wetlands/index_html)

Peck, D.V., J.M. Lazorchak, and D.J. Klemm (editors). Unpublished draft. Environmental Monitoring and Assessment Program -Surface Waters: Western Pilot Study Field Operations Manual for Wadeable Streams. U.S. Environmental Protection Agency, Washington, D.C.

Stevens, D.L., Jr. and A.R. Olsen. 2004. Spatially-balanced sampling of natural resources. Journal of American Statistical Association 99:262-278.

Appendix A: Instructions for filling out NWCA 2026 Site Evaluation Spreadsheet

INSTRUCTIONS FOR COMPLETING NWCA 2026 SITE EVALUATION SPREADSHEET

1. Save spreadsheet using the following format: NWCA2026_SiteEvalSpreadsheet_ST_YYYYMMDD where "ST" is your state abbreviation and "YYYYMMDD" is the current date. Upload your updated spreadsheet to SharePoint:

NWCA\NWCA2026\Site Evaluation Materials\State and Contractor Submitted Site Evaluation Spreadsheets

Once posted do not make changes directly to the posted version. New updates should be made by editing your version and posting a new version with a new date in the file name.

2. Fill out evaluator contact information under 'EVALUATOR CONTACT INFO' tab and all required information for each evaluated site in the 'MAIN' worksheet tab. The table below provides a description of each field and the required information needed to be provided by the evaluator.

3. Each dropdown menu in columns K-M are connected in a series of cascading dropdown menus. A selection must be made in column K to populate the options for column L. Once a selection has been made in Column L, the appropriate options will be available in column M. Should you need to change the distinction of one column, please make sure the selection is correct each of the preceding columns, if not, selection mismatches may occur.
4. Do not add or delete rows or columns from the spreadsheet. If you wish to add additional information for your own use, use columns N and beyond.
5. Do not change the colors of the rows. If you wish to use colors for your own tracking purposes, you may change the font color, not cell color.

IMPORTANT REMINDER:

The order of the sites on the list MUST BE maintained. All base sites, rows colored with the darker hues, (Panel Use = NWCA26_21_Base and NWCA26_26_Base) must be evaluated and sampled unless determined to be non-target or non-sampleable. Base sites that are determined to be non-target or non-sampleable are replaced by oversample sites within their respective Stratum beginning with the first oversample site on the list for that Stratum (Oversample sites are identified by rows with lighter colored hues and Panel Use = NWCA26_26_Over). EPA must receive information for ALL evaluated sites, beginning with the first site on the state list and ending with the last site that is sampled for each respective Stratum. **The number of sites sampled must equal the total number of base sites on a state list**. A flowchart for how to perform desktop recon for site evaluation and selecting an oversample site can be found in the 'EVAL AND REPLACEMENT CHART' tab. Please contact your EPA Regional Coordinator, EPA Site Evaluation Coordinator, Kevin Biallas (biallas.kevin@epa.gov) or the Contractor Field Logistics Coordinator, Chris Turner (cturner@glec.com) if you have any questions.

COLUMN / FIELD IN MAIN TAB	DESCRIPTION	REQUIRED ACTION BY EVALUATOR
STATE	Postal code for state	None
SITE_ID	NWCA 2026 site identification number	None
SITE_ID_2021	NWCA 2021 site identification number if POINT was evaluated in 2021. Cell will be left blank if not part of NWCA 2021.	None
Latitude	Latitude in decimal degrees	None

	of POINT from design file	
Longitude	Longitude in decimal degrees of POINT from design file	None
Stratum	Stratum category (Inland,Tidal) in NWCA design	None
Panel Use	Type of site (e.g., base or oversample) from design file	None
Eval Status 2021	Evaluation status of the site from the 2021 survey. Cell will be blank if not evaluated in NWCA 2021.	None
NWCA Target Wetland Type	NWCA wetland code from the 2026 sample frame. See 'NWCA TARGET WET TYPE' tab for descriptions of each wetland type	None
NWI Code	Full wetland class code from the NWI.	None
Is POINT Sampleable?	Drop down list to indicate whether POINT is sampleable	If **Yes**, choose sampleable category and wetland type in the next two columns If **No**, choose non-sampleable category and reason in the next two columns, then add additional explanation in column N
Sampleable/Non-sampleable Category	Drop down list to indicate the sampleable / non-sampleable category	If **sampleable**, indicate either: **Point Sampleable** (POINT is in target wetland and sampleable AA can be setup) **Shifted Point Sampleable** (POINT can be shifted to location within 60m where sampleable AA can be setup). Note: a POINT shift greater than 60m requires prior EPA approval.

		If **non-sampleable,** provide the appropriate non-sampleable category: **No Access** (permission not granted or permanently inaccessible) **AA Cannot Be Established** (due to size, unsampleable area, or HGM constraints) **Non-Target** (not in target wetland population)
Reason (Non-sampleable) or Wetland Type (Sampleable)	Drop down list to indicate the reason it is non-sampleable OR the wetland type if it is sampleable	If **non-sampleable**, select the appropriate reason for the respective category: **No Access** Categories: **Access not granted by site owner** **Permanently inaccessible due to obstacles going to or at site** (see Site Evaluation Guidelines) **AA Cannot Be Established** Categories: **Sampleable area too small** (see Site Evaluation Guidelines) **Unsampleable area greater than 10% of AA** (see Site Evaluation Guidelines) **Sampleable area crosses hydrogeomorphic (HGM) boundary** (see Site Evaluation Guidelines) **Non-Target** Categories: **Not a wetland** (due to map error, development activity since initial mapping, lacking wetland indicator(s), etc) **Non-target wetland type** (not one of the NWCA target wetland types-see 'NWCA TARGET WET TYPES') **Active crop production during index period** (see Site Evaluation Guidelines) **Strictly used for industrial/agricultural/aquacultural purpose** (see Site Evaluation Guidelines) **Inundated by water > 1 m in depth (over 90% of area 60m around POINT)** **Other** (if you feel reason is not covered in other choices, select AND describe in next field)
		If **sampleable,** provide the predominant wetland type of the AA: **EH** - Estuarine Emergent **EW** - Estuarine Shrub/Forest **PRL-EM** - Palustrine, Riverine, and Lacustrine Emergent **PRL-SS** - Palustrine, Riverine, and Lacustrine Shrub/Scrub **PRL-FO** - Palustrine, Riverine, and Lacustrine Forested **PRL-UBAB** - Palustrine, Riverine, and Lacustrine Unconsolidated Bottom/Aquatic Bed **PRL-f** - Palustrine, Riverine, and Lacustrine Farmed
Explain Non-sampleable Choice (REQUIRED FOR DROPPED SITES)	Field to enter information explaining why POINT is non-sampleable	Provide further information to explain non-sampleable choice. For example, if the reason POINT is non-sampleable is active crop production during index period, note any evidence used to determine this (e.g., recent evidence of tilling, confirmation by farmer, etc.).

Was this POINT Used as a Replacement POINT for a Base POINT?	Field to enter information pertaining to Replacement of Base POINT	Select **Yes** if site was used as replacement POINT **No** if not (e.g. solely evaluated as original base POINT, oversample POINT evaluated as non-target/non-sampleable for a replacement POINT, or oversample POINT evaluated but did not need to be sampled)
Site ID of Original Base POINT Replaced	Field to enter Site ID of Base POINT replaced if cannot be sampled	Enter full Site ID of Base POINT replaced. Leave blank if site was not used as a replacement site for a dropped base site. Only dropped base sites will ever be listed in Column P. In the end there should be a 1:1 relationship between sites that are dropped and those listed as replacing dropped sites.
Site Access Considerations	Field to enter information on special considerations for site access	Provide any information detailing special considerations for site access (e.g., locked gates, livestock, landowner check-in). DO NOT include any personal information regarding landowners, contacts, etc.
Permit Requirements	Field to enter information on permit requirements to sample site	Provide information on permit requirements, if applicable
Additional Evaluator Comments	Field to enter any additional comments about the evaluation of the POINT	None unless there is additional information evaluator would like to add

Appendix B: Sampleable/Non-sampleable Categories

Use these categories as a guide to help determine the sampling status of the POINT.

Sampleable Categories

□ EH - Estuarine Emergent
□ EW - Estuarine Shrub / Forest
□ PRL-EM – Palustrine, Riverine, and Lacustrine Emergent
□ PRL-SS – Palustrine, Riverine, and Lacustrine Scrub Shrub
□ PRL-FO – Palustrine, Riverine, and Lacustrine Forested
□ PRL-UBAB – Palustrine, Riverine, and Lacustrine Unconsolidated Bottom / Aquatic Bed
□ PRL-f – Palustrine, Riverine, and Lacustrine farmed (not currently in active crop production)

Non-Sampleable - No Access Categories

□ Access permission denied
□ Permanently inaccessible (e.g., permanent physical barriers, dangerous conditions)

Non-Sampleable – Non-Target Categories

□ Not a wetland (due to map error, recent conversion to upland, etc.)
□ Non target wetland type (e.g., estuarine and marine subtidal aquatic beds)
□ Active crop production during index period (e.g., recent evidence of tilling, confirmation of farm use by landowner)
□ Strictly used for an industrial/agricultural/aquacultural purpose (e.g., strictly used to treat waste, lined with concrete or other manufactured, non-vegetated barrier)
□ Inundated by water > 1 m in depth
□ Other (must explain in Additional Comments on Site Evaluation Spreadsheet and Form)

Non-Sampleable – Assessment Area Cannot Be Established Categories

□ Sampleable area too small (sampleable area is less than 0.1 hectare or less than 20 meters in width)
□ Unsampleable area greater than 10% of AA (more than 10 % of the AA is non-target or unsafe to sample)
□ Sampleable area crosses a hydrogeomorphic (HGM) boundary (e.g., AA contains more than one HGM type or includes a tributary to the reach of the river or stream associated with the POINT)

Appendix C: Point Verification Form

FORM PV-1: NWCA 2021 POINT VERIFICATION FORM (Front) Reviewed by (initial):____

SITE ID: NWCA21- VISIT: ○ 1 ○ 2 DATE: ___/___/2021

EVALUATOR: AFFILIATION:

POINT LOCATION AND ACCESSIBILITY

Directions to POINT:

POINT verified by (mark all that apply, describe other item(s) if applicable): ○ GPS ○ Topographical Map ○ Aerial

○ Other (describe):

Note any difficulties accessing site (mark all that apply, describe other item(s) if applicable):

○ Dense Vegetation ○ Steep or Unstable terrain ○ Deep Water ○ Livestock

○ Other (describe):

Special Access Requirements (mark all that apply, describe other item(s) if applicable): ○ Locked Gates ○ Special Permits

○ Other (describe):

IS POINT SAMPLEABLE?

○ YES ○ original POINT is sampleable (fill in category below)
○ POINT could be shifted ≤60m (fill in category below) AND enter documentation for shifted point on Form AA-1 at time of sampling.

NWCA Wetlands Target Type INCLUDED in target population

○ EW - Estuarine Shrub/Forest
○ EH - Estuarine Emergent
○ PRL-EM - Palustrine, Riverine, and Lacustrine Emergent
○ PRL-SS - Palustrine, Riverine, and Lacustrine Scrub/Shrub
○ PRL-FO - Palustrine, Riverine, and Lacustrine Forested
○ PRL-UBAB - Palustrine, Riverine, and Lacustrine Unconsolidated Bottom/Aquatic Bed
○ PRL-f - Palustrine, Riverine, and Lacustrine Farmed (not currently in active crop production)

○ NO (fill in category below)

NON-SAMPLEABLE - ON THIS VISIT

○ Non-Sampleable (add reasons to comment section on back)
○ Temporarily Inaccessible (add reasons to comment section on back)

NON-SAMPLEABLE - NO ACCESS CATEGORIES

○ Access permission denied
○ Permanently inaccessible (add reasons to comment section on back)

NON-SAMPLEABLE - AA CAN'T BE ESTABLISHED

○ Sampleable area too small
○ Unsampleable area greater than 10%, includes water >1m deep
○ Sampleable area crosses hydrogeomorphic (HGM) boundary

NON-SAMPLEABLE - NON-TARGET CATEGORIES

○ Not a wetland
○ Non-target wetland type
○ Active crop production during index period (explain)
○ Strictly used for an industrial/agricultural/aquacultural purpose (explain)
○ Inundated by water >1m in depth (over 90% of area 60m around pt)
○ Other (describe)

Provide any additional information in the comments section on the back of this form.

11/13/2020 PV-1 NWCA 2021 Point Verification Form

1712124255

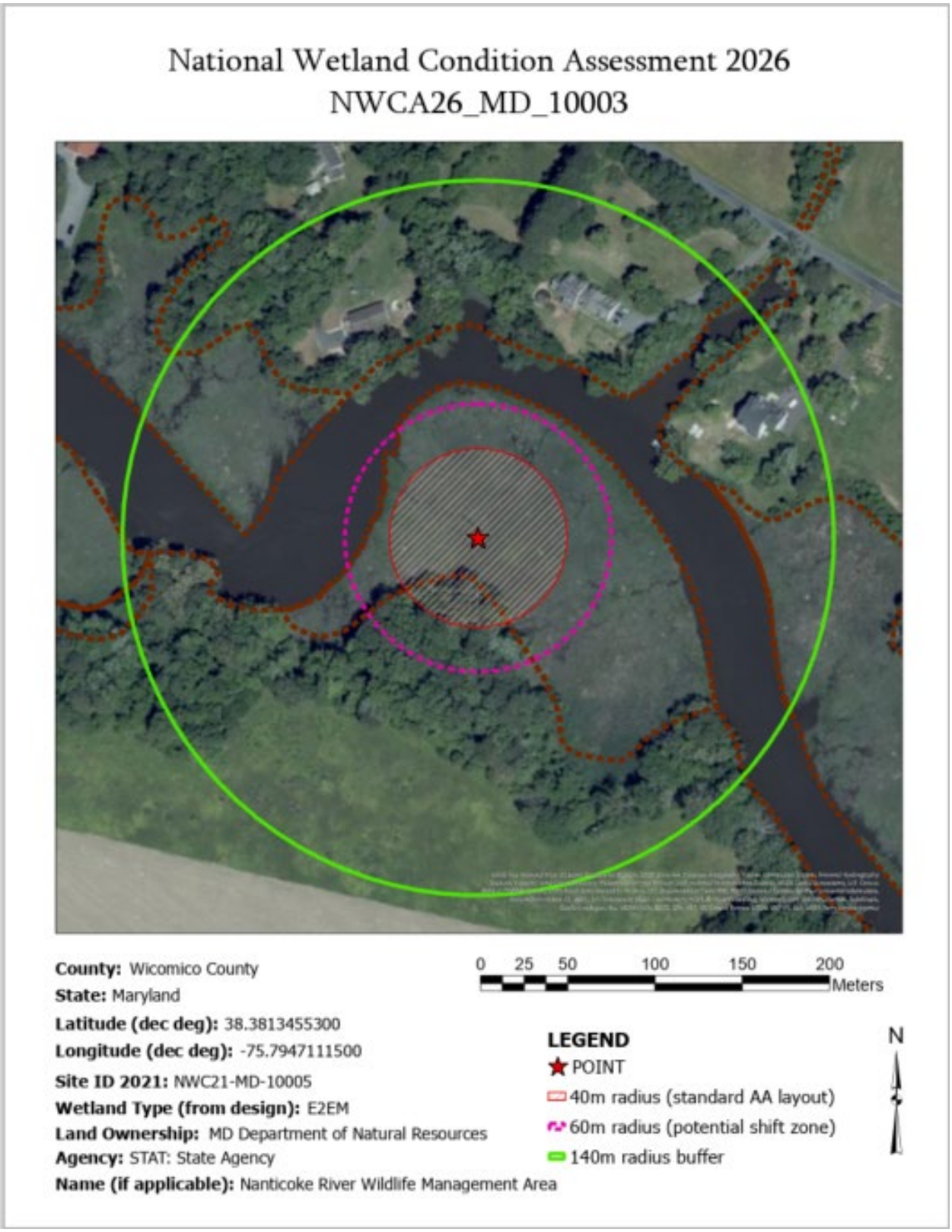
FORM PV-1: NWCA 2021 POINT VERIFICATION FORM (Back) Reviewed by (initial):_____

SITE ID: NWCA21- DATE: ___/___/2021

GENERAL ASSESSMENT COMMENTS

Record any additional information and observations of the POINT or surrounding area. Potential information to include: general observations of biotic integrity, vegetation diversity, presence of wildlife, land uses, potential stressors not otherwise identified, local anecdotal information, or any other pertinent information about the site or surrounding area. Record any observations that may be useful for future data interpretation.

Appendix D: Example of Site Map Provided by EPA



Appendix E: Examples of Landowner Permission Letters and Forms

[Date]

Dear Landowner:

The U.S. Environmental Protection Agency, in cooperation with State agencies, is conducting an ecological assessment of wetlands across the United States. A computer was used to randomly select sampling locations throughout the United States. A total of 904 wetland sites were selected for sampling in 2026. We will be conducting a site survey that will last 5-6 hours and will require no permanent structures. Our sampling area will be small, consisting of a 40-meter radius circle around the computer-selected point. The primary focus of the survey is to record observations about plant species, soil, hydrology, and water chemistry to assess the health of wetlands nationally. A minimal amount of water, soil, and vegetation will be collected from the site. The data collected is to be used for scientific purposes and copies of the final reports will be provided to landowners upon request.

One or more of the 904 randomly selected sites [is located on your property] / [requires a field crew to cross your property in order to reach the site]. We are contacting you prior to visiting the site to obtain your permission (form enclosed) to access the sampling site. We have enclosed a copy of a map(s) with the site(s) identified by a red circle at the specific point in the wetland to be sampled. We realize that working on your property is a privilege and we will respect your rights and wishes at all times.

Please return the completed Landowner Access Permission Form in the enclosed postage-paid envelope by [date]. If you have any questions concerning this request, please contact me [phone number]. We are looking forward to your reply.

Sincerely,

[Name]
[Affiliation]
[Contact information]

NWCA Landowner Permission Form

The Field Crew from [fill in state agency, Cooperator, or contractor name] has requested permission to access the wetland site located on my property as part of the EPA's National Wetland Condition Assessment. Please check one of the choices below:

_____ I grant permission

_____ I grant permission, but with the following restrictions: _____

_____

_____

_____ I do not grant permission

Landowner Name (please print): _____

Landowner Signature: _____

Date: _____

Phone Number: _____

Address: _____

_____

_____

Additional Access Information (please describe any specific details about your property that the Field Crew should be aware of, such as gates, cattle or livestock on property, planned prescribed burns, planned harvests, etc.):

_____

_____

_____

If the occupant is different than the landowner, please list the name and phone number of the occupant below so that we may contact them before the site visit:

_____

_____

_____

Appendix F: Survey Fact Sheet

Survey of the Nation's Wetlands: A Fact Sheet for Communities

Introduction

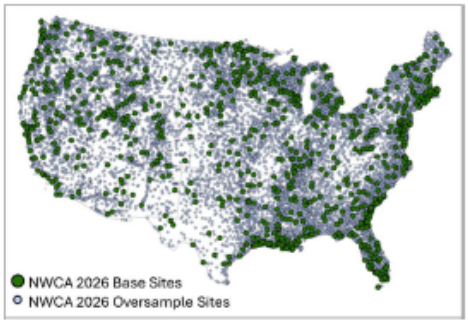
The U.S. Environmental Protection Agency (EPA), states, and tribes are conducting a nationwide survey of the condition of the nation's wetlands. This survey, the *National Wetlands Condition Assessment (NWCA)*, is one in a series of studies that will help us measure the health of our waters, take action to prevent pollution, and evaluate the effectiveness of protection and restoration efforts.

Designed to estimate the percentage of wetlands that are in good, fair, or poor condition, this survey will serve as a scientific report card on America's wetlands. It will examine ecological, biological and water quality indicators and assess the extent of key stressors across the country.

This survey is a collaborative effort that involves dozens of state environmental and natural resource agencies, federal agencies, tribes, universities and other organizations. In most states, state water quality staff will conduct the ecological sampling and habitat assessments.

How were wetlands selected?

A total of 904 wetland sites are included in this survey, representing seven wetland types and distributed across the lower 48 states. EPA selected the wetland sites from previously sampled NWCA sites and National Wetland Inventory (NWI) digitized maps to capture areas where wetlands are present. Sampling sites were selected randomly using a statistical survey to represent the population of wetlands in their ecological region – the geographic area in which climate, ecological features, and plant and animal communities are similar.



Distribution of wetlands in the survey

What about my wetland?

If your wetland is being sampled for this survey, it was selected randomly from the total population of wetlands in your part of the country. Your wetland was not selected because it exhibits any particular problem or water quality condition, or because it was recommended for sampling by an agency or organization. Data from your wetland will contribute to the regional and national picture of wetland condition. Personal information will not be collected or disclosed for purposes of this assessment.

If your wetland is not being sampled for this survey, it was not omitted for any particular reason, but rather because it was not randomly selected or did not fit into the target population of wetlands (e.g., wetlands that have rooted vegetation or water not greater than one meter in depth).

What will researchers measure?

Field crews will be taking many measurements at each selected wetland site. They will be using consistent procedures at all sites so that results can be compared across the country. They will be measuring such things as:

- The presence and abundance of grassy plants, trees, and shrubs
- Soil properties and chemistry
- Water chemistry (such as nutrients and chlorophyll-*a*)
- Hydrology information
- Condition of the habitat in the area surrounding the wetland

What happens next?

Field crews will sample wetland sites during the spring and summer of 2026. EPA intends to issue a report on the findings. Between the sampling period and publication of the national report, samples collected in the field will be analyzed by labs and written field observations will be entered into a database. Field and lab data will be analyzed and a draft report written.

A report describing the results of the previous NWCA survey in 2021 is available on the following web page:

https://www.epa.gov/national-aquatic-resource-surveys/national-wetland-condition-assessment-2021-results

For more information on the NWCA and other National Aquatic Resource Surveys, visit:

http://www.epa.gov/national-aquatic-resource-surveys

U.S. Environmental Protection Agency
1200 Pennsylvania Ave. NW
Washington, DC 20460
August 2025

Appendix G: Contact List

NWCA PROJECT CONTACT LIST

Title	Name	Contact Information
EPA HQ NWCA Project Manager	Gregg Serenbetz, OW	Serenbetz.Gregg@epa.gov, 202-566-1253
EPA HQ NWCA Site Evaluation Coordinator	Kevin Biallas, OW	Biallas.Kevin@epa.gov; 202-564-3013
EPA HQ Logistics Coordinator	Brian Hasty, OW	Hasty.Brian@epa.gov; 202-564-2236
EPA HQ NARS Team Lead	Sarah Lehmann, OW	Lehmann.Sarah@epa.gov, 202-566-1379
Contract Field Logistics Coordinator	Chris Turner, Great Lakes Environmental Center, Inc.	cturner@glec.com; 715-829-3737
Information Management Coordinator	Michelle Gover, General Dynamics Information Technology	gover.michelle@epa.gov, 541-754-4793
EPA Regional Coordinators	Jean Brochi, Region 1 Hilary Snook, Region 1	Brochi.Jean@epa.gov, 617-918-1536 Snook.Hilary@epa.gov, 617-918-8670
	Bill Storm, Region 2 Rita Matos, Region 2 Jaclyn Woollard, Region 2	Storm.Bill@epa.gov, 732-321-4453 Matos.Rita@epa.gov, 732-321-4462 Woollard.Jaclyn@epa.gov, 212-637-3832
	Leah Ettema, Region 3 Katherine Kent, Region 3	ettema.leah@epa.gov, 304-234-0245 Kent.Katherine@epa.gov, 215-814-2733
	Christopher McArthur, Region 4 Elizabeth Belk, Region 4	mcarthur.christopher@epa.gov, 404-562-9391 Belk.Elizabeth@epa.gov, 404-562-9377
	Mari Nord, Region 5 Katie Quesnell, Region 5	Nord.Mari@epa.gov, 312-886-3017 Quesnell.Kathryn@epa.gov, 312-353-3202
	Robert Cook, Region 6	Cook.Robert@epa.gov, 214-665-7141
	Jeannette Schafer, Region 7 Chris Janssen, Region 7	Schafer.Jeannette@epa.gov, 913-551-7297 Janssen.Chris@epa.gov, 913-375-6971
	Nolan Hahn, Region 8 Darrel Williams, Region 8 Sarah Wheeler, Region 8	hahn.nolan@epa.gov, 303-312-6486 Williams.Darrel@epa.gov, 303-312-6765 Wheeler.Sarah@epa.gov, 303-312-6379
	Matt Bolt, Region 9 Russell Huddleston, Region 9	Bolt.Matthew@epa.gov, 415-972-3578 Huddleston.Russell@epa.gov, 415-972-3507
	Lisa Kusnierz, Region 10	kusnierz.lisa@epa.gov, 406-439-0776

Appendix H: NWCA 2026 Assessment Area Reference Cards

Reference Card AA-1: Assessment Area Establishment, Side A

Key to Assessment Area (AA) Layouts

1a Sampleable area contains POINT (original or shifted) and is ≥ 0.5 hectares (ha) **2**

2a Sampleable area can contain a circular area with a diameter of 80m **3**

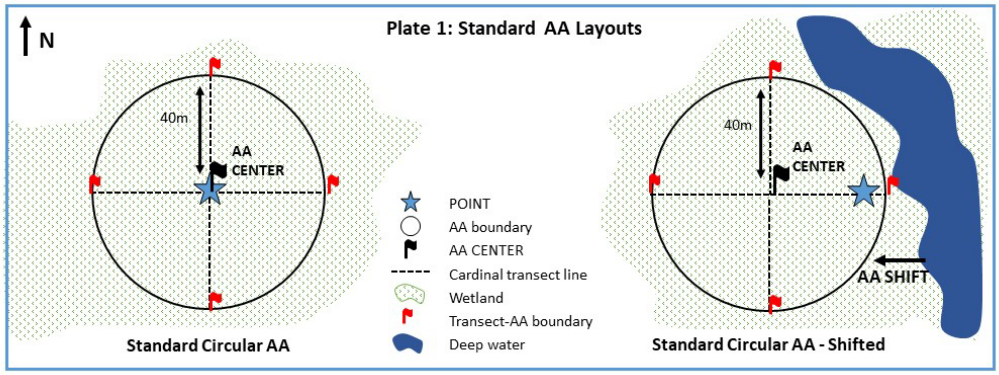
3a POINT is at the center of sampleable area ..... **Standard Circular AA (Plate 1)**
3b POINT (original or shifted) is not at the center of sampleable area..... **Standard Circular AA-Shifted (Plate 1)**

2b Sampleable area contains POINT (original or shifted) but ranges from minimum width 20m (length 250m) to maximum width of 79.5m (length 63m) ..... **Polygon AA (Plate 2)**

1b Sampleable area contains POINT (original or shifted) and is < 0.5ha but ≥ 0.1ha ..... **Wetland Boundary AA (Plate 3)**

Sampleable Area: No more than 10% of the AA can contain upland, non-target wetland, standing water greater than 1m deep, or soft substrate that is unsafe or impossible to sample.

Plate 1: Standard AA Layouts



Reference Card AA-1: Assessment Area Establishment, Side B

Plate 2: Polygon AA Layouts
AA is 0.5ha
AA CENTER is as close to POINT as possible

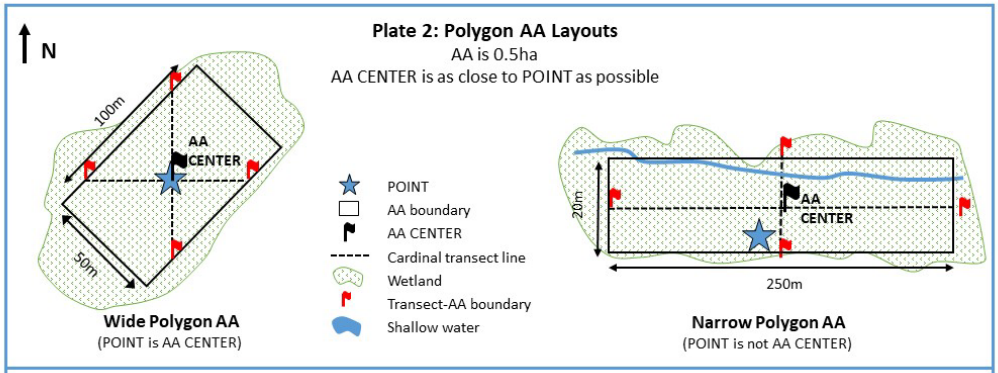
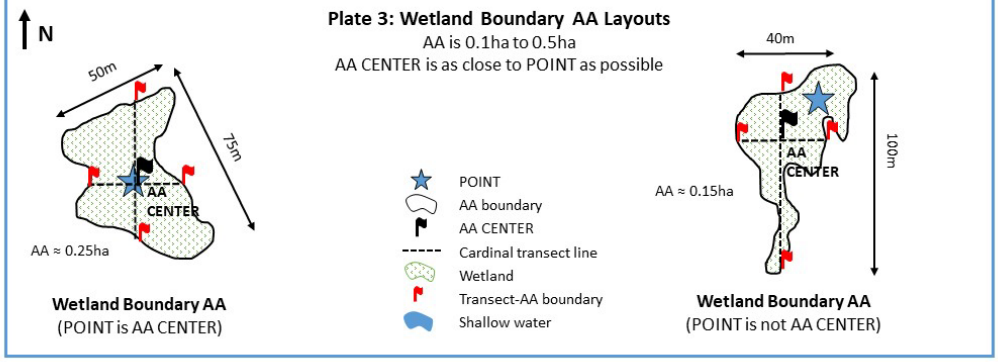


Plate 3: Wetland Boundary AA Layouts
AA is 0.1ha to 0.5ha
AA CENTER is as close to POINT as possible



Reference Card AA-2, Side A. Criteria for Sampleable Area

The AA is sampleable if ALL the following criteria are met:

- The AA contains the POINT (original design or shifted) and ranges in size from 0.1ha to 0.5ha.
- The AA is at least 20m wide[b] to accommodate the vegetation plots (see Chapter 5).

  [b] It is allowable for the AA to fall below the width of 20m in some locations, as long as Veg Plots can be placed adequately.

- No more than 10% of the area of the AA:
  - has water greater than 1m deep[d];
  - has standing water or soft substrate that is unsafe or impossible to sample effectively; and/or
  - has upland or non-target wetland type (see definition of wetland below).

  [d] One meter is the minimum water depth sampled in the National Lakes Assessment, and thus sets the boundary between open water and fringing wetlands used in the National Aquatic Resource Surveys.

- The sampleable area contains one or more of the NWCA Target Wetland types representing the NWCA target population. See Reference Card AA-3, Side A for a list of target wetland types.

  The **NWCA Target Population** is defined as: *Tidal and nontidal wetlands of the conterminous U.S., including certain farmed wetlands not currently in crop production. The wetlands have rooted vegetation and, when present, open water less than 1 meter deep.*

  The NWCA defines wetlands using the classification system described by Cowardin et al. (1979) and established as a Federal Geographic Data Committee (FGDC) standard for classification of wetlands:

  Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. Wetlands must have one or more of the following three attributes:

  1) *at least periodically, the land supports predominantly hydrophytes;*
  2) *the substrate is predominantly undrained hydric soil, and*
  3) *the substrate is non-soil and is saturated with water or covered by shallow water at some time during the growing season of each year (FGDC 2013).*

  Examples of characteristics that could be used in the field to identify whether the AA is wetland include:
  - predominance of hydrophytic vegetation;
  - presence of plants with morphological or structural adaptations for growing in wetland soils, e.g., buttressed tree trunks, multiple trunks, pneumatophores, adventitious roots, hypertrophied lenticels, polymorphic leaves;
  - visual observation of soil saturation and/or inundation;
  - presence of undrained hydric soil;
  - presence of indicators of wetland hydrology. e.g., drift lines, watermarks, sediment deposits; and
  - geomorphic boundaries such as the active floodplain or flood-prone width.

- The AA does not cross any Hydrogeomorphic boundaries (see Side B).

Reference Card AA-2, Side B. Hydrogeomorphic Boundaries and Human Altered Types

Examples of Hydrogeomorphic Boundaries or Mixes of Types to Avoid in Establishing the AA

The AA should not include:

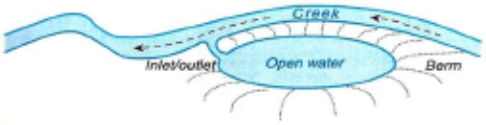
- A mix of tidal and nontidal wetlands;
- A tributary to the river or stream associated with the POINT; or
- A combination of lacustrine fringe or riverine wetlands and the seeps or springs (i.e., slope wetlands) upslope from them, in other words, the hydrogeomorphic (HGM) types are distinct (excluding any transition zone).

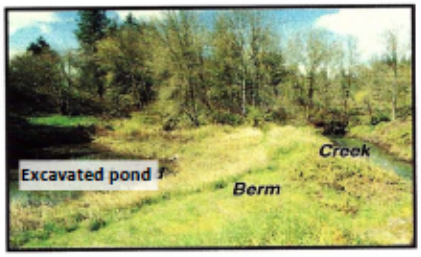
Alternatively, an AA can include a mosaic of HGM types (see Riverine Complex on **Reference Card AA-3, Side B**) or drainage channels typical in tidal and lacustrine fringing wetlands.

Examples of Human Altered Hydrogeomorphic Types

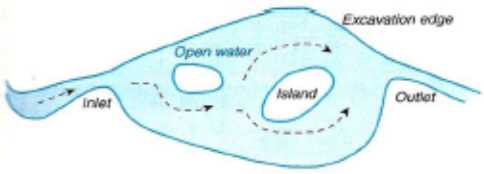
Alteration of the hydrogeomorphic (HGM) class of a site that has been altered or disturbed may change the class or create a hybrid HGM class. To avoid these problems, the site should be placed in the "human" class associated with the original HGM type (see **Reference Card AA-3, Side B**).

Riverine – Human Altered

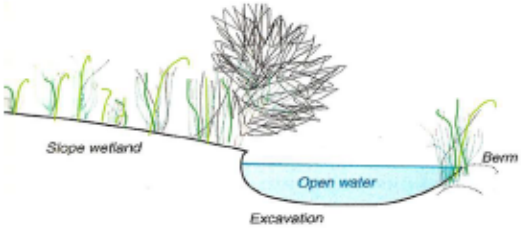


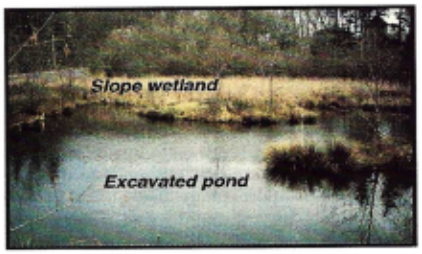


Riverine – Human Altered



Slope – Human Altered





Reference Card AA-3, Side B. Key to Hydrogeomorphic (HGM) Classes and Subclasses

In the following key, the HGM Class is separated by a dash (–) from the corresponding HGM Subclass. Modifiers to the HGM Subclass are described after a comma (,) for the Depression HGM Class.

1. Wetland would be under influence of tides if not for human actions, e.g., diked.....**Tidal – Human Altered**[b]
1. Wetland is naturally under influence of tides.....2
   2. Salinity greater than 0.5 parts per thousand (ppt).....**Tidal – Naturally Occurring**
   2. Salinity less than 0.5 part per thousand (ppt).....**Riverine – Tidal**
1. Wetland is not naturally under influence of tides.....3
   3. Wetland is topographically flat and precipitation is a dominant source of water.....4
      4. Wetland has a mineral soil.....**Flats – Mineral Soil**
      4. Wetland has an organic soil.....**Flats – Organic Soil**
      4. Either of the above with hydrology altered by human actions, e.g., ditching.....**Flats – Human Altered**[b]
   3. Wetland is not topographically flat and precipitation is not a dominant source of water.....5
5. Wetland is associated with a nontidal stream channel, floodplain, or terrace.....6
   6. Stream is 1st or 2nd order.....**Riverine – Upper Perennial**
   6. Stream is 3rd order or higher.....**Riverine – Lower Perennial**
   6. Wetland is part of a mosaic of small streams, floodplain features (former channels, depressions) and/or slope wetlands (supported by groundwater).....**Riverine – Complex**
   6. Wadeable stream channel has been impounded by beaver activity.....**Riverine – Beaver Impounded**
   6. Wadeable stream channel has been excavated and deepened, the active floodplain has been excavated and/or isolated from overbank flows from the channel.....**Riverine – Human Altered**[b]
   6. Stream is constrained by a graminoid-dominated wetland supported primarily by groundwater.....10
5. Wetland is not associated with a nontidal stream channel, floodplain, or terrace.....7
7. Wetland is fringing a lake or reservoir.....8
   8. Wetland inundation controlled by relatively natural hydroperiod.....**Lacustrine – Naturally Occurring**
   8. Wetland inundation controlled by dam releases.....**Lacustrine – Artificially Flooded**
7. Wetland is not fringing a lake or reservoir.....9
   9. Wetland is primarily supported by ground water.....10
      10. Water source is ground water discharged to the surface on the side of a hill due to a geologic feature, e.g., a confining layer.....**Slope – Stratographic**
      10. Water source is ground water discharged at the toe-of-slope.....**Slope – Topographic**
      10. Slope wetland excavated to increase depth/amount of surface water.....**Slope – Human Altered**[b]
   9. Wetland is associated with a topographic depression.....11
      11. Topographic depression without surface water inlets, outlets or other connections.....12
         12. Wetland is a naturally occurring feature of the landscape.....**Depression – Closed**
         12. Closed Depression impounded by beaver activities.....**Depression – Closed, Beaver Impounded**
         12. Closed Depression impounded by human activities.....**Depression – Closed, Human Impounded**
         12. Closed Depression excavated by human activities.....**Depression – Closed, Human Excavated**
         12. Closed Depression excavated and impounded by human activities.....**Depression – Closed, Human Excavated and Impounded**
      11. Topographic depression with surface water inlets, outlets, or other connections.....13
         13. Wetland is a naturally occurring feature of the landscape.....**Depression – Open**
         13. Open Depression impounded by beaver activities.....**Depression – Open, Beaver Impounded**
         13. Open Depression impounded by human activities.....**Depression – Open, Human Impounded**
         13. Open Depression excavated by human activities.....**Depression – Open, Human Excavated**
         13. Open Depression is excavated and impounded by human activities.....**Depression – Open, Human Excavated and Impounded**

[a] Adapted from Smith et al. (1995), Brooks et al. (2011), and personal experience of M.E. Kentula, USEPA.

[b] For examples of human altered hydrogeomorphic types, see **Reference Card AA-2, Side B**.