

ArcGIS Survey123 Chain of Custody and Post-Trip & QA/QC Summary
Standard Operating Procedure
IC eDNA Monitoring Program



U.S. Fish and Wildlife Service, Region 3

Contact:

Maren Tuttle-Lau, maren_tuttle-lau@fws.gov

Document Information:

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ArcGIS Survey123 Chain of Custody and Post-Trip & QA/QC Summary

SOP Number 3

2025 QAPP

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Application/Purpose:

Procedure for using Survey123 digital Chain of Custody (COC) and Post-Trip & QA/QC Summary Form for Invasive Carp eDNA Monitoring Program.

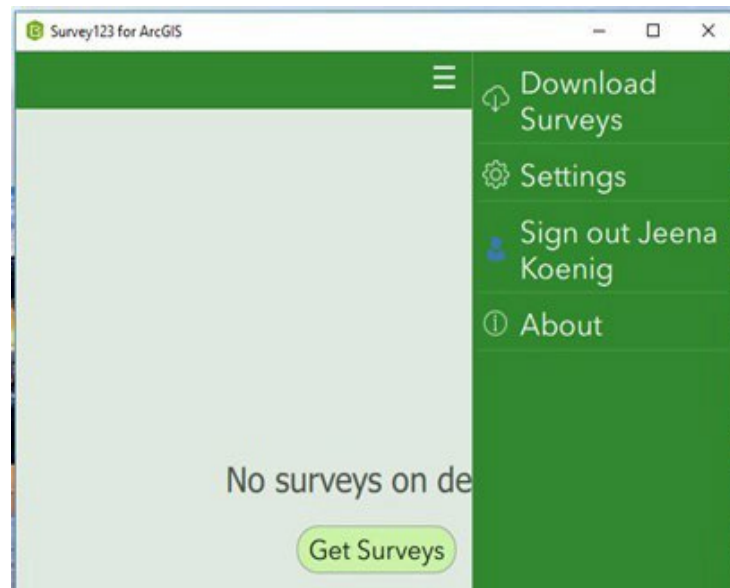
Roles and Responsibilities:

All eDNA Monitoring Program staff sending or receiving Survey123 COC and Post-Trip & QA/QC Summary Forms should read and understand this SOP.

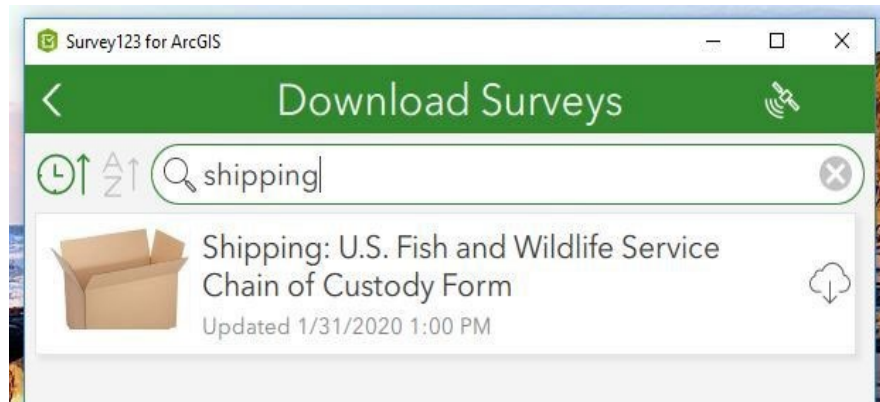
Survey 123 COC Creation Procedure:

To create and send COC's in Survey123: (instructions work for I-Phone and I-Pad)

1. Download Survey123 Form from ArcGIS Survey123 Application.
2. On the login page select Enterprise Login.
3. Type FWS into text box.
4. Select U.S. Fish and Wildlife Service
5. Sign in using FWS Account and Password if needed
6. Select "Download Surveys" from the menu or "Get Surveys" if no surveys are on device



7. Each office will have their own collection form called: Office Name: U.S. Fish and Wildlife Service Chain of Custody Form. Each individual office form will have their own unique picture for the form icon. If you work for a FWCO or are collecting samples you will also need to download the Shipping Chain of Custody form (Select the cloud download icon next to the form) (has a cardboard box form icon). If you work for WGL you'll want to download the shipping form mentioned above.



8. Once you have the appropriate form downloaded, go to the upper left-hand corner of the screen and select the back arrow. You should see the form you downloaded in step 7.
9. To create a new COC form when collecting eDNA samples, open the Survey123 app on your I-Pad at the beginning of your week and click on the COC form and select "collect" you will then see the electronic version of what used to be our paper COC.
10. Enter the information required in the various boxes i.e. case number, sample numbers (1-xyz), date of collection, enter the crew names in the collected by box, select your office (should be a drop down menu with all the FWCO's) and fill in any notes that pertain to the collection of your samples.
11. Once the collection team (boat, or otherwise) is ready to hand off to trailer personnel, select a delivery method (FedEx, in person, or other), one of the collection team members should type their name in the release signature box and select the check box certifying their digital signature, enter in Release agency (default set to USFWS), and select the release date. The person receiving the samples, either a person working in the processing trailer or a "runner" that will transfer the samples from the boat personnel to processing trailer personnel, will then type their name in the receipt signature box and select the check box certifying their digital signature, enter in Receipt agency (default set to USFWS), select the receipt date, and fill out the Delivery method. The Person receiving the samples from the boat will then select the submit button in the bottom right corner of the form (looks like a "check mark") and select send now if there is a Cellular signal, otherwise select Send Later and use the Outbox to send your forms to ArcGIS Online when within Cellular range. If a "runner" is to be used to bring samples from the waterbody to the trailer, that person will either need to create a new COC form or use the repeat option under the Sample Numbers group for the existing COC form by selecting the "+" icon at the bottom of the group right before Editing Notes.
12. If a runner was used, the trailer staff should now fill out the receipt information in either the new form or the repeat sample field once the runner delivers the samples identified in the form. The trailer crew can then submit the form and select send now if there is a WiFi or Cellular signal. From here, the boat crew can create a new form for a new set of samples following steps 8-10. **Important: Never**

leave Survey123 forms in your Outbox if cellular signal is available, make sure to send forms to ArcGIS Online as soon as possible. Go to Outbox, select the Send icon in the bottom right-hand corner to send forms to ArcGIS Online.

13. Once the samples have been processed in the trailer and packaged for shipment to WGL, the processing lead (or designee) will need to create a shipping COC form (shipping box icon) and enter all the pertinent information. Any pertinent notes created during sample processing in the trailer should be transferred to the shipping COC notes i.e. a tube broke during centrifugation or sample xyz has 3 tubes instead of 5. Before the case is shipped, the shipping notes must be filled out to indicate how many containers and samples are included in the shipment. For example, if a case is being shipped that has 200 samples in 2 boxes, the shipping notes should read: "Shipping 2 boxes: Box 1:samples 1-100. Box 2: samples 101-200." Then WGL staff will know to expect 2 boxes for case xyz with the matching samples and COC's in the Survey123 shipping COC form inbox. Survey 123 will not let a form be submitted unless all required fields are filled out (Notes will pop up for your guidance).

Survey 123 COC Submission Procedure:

1. When the Survey123 Shipping COC form is submitted, an e-mail notification will automatically be sent to the WGL staff informing them of the shipment details entered into the form. The processing lead should use the R3 eDNA Program, eDNA shipping alerts Teams channel to input the tracking numbers for the case shipped.
2. When the case arrives at WGL, the person checking in the samples should open the shipping COC form on Survey 123 using the inbox and select the case from the FWCO that shipped it. **Note: Always select the Refresh icon in the bottom right-hand corner of the Inbox to see the latest forms, Inbox does not show newly submitted forms automatically.**
3. From here WGL check-in staff need to make sure that the samples collected/shipped match the samples received from FedEx. Any discrepancies should be addressed with a follow up call or email to the person whose name appears in the Released box on the Shipping COC and/or the Station eDNA Lead to make corrections. Corrective actions should be recorded in the editing notes section of the Shipping COC form. The FWCO staff member making the corrections should initial and date all editing notes. Ex: "Added agency to release agency-JK 3/5/2020"
4. Once the accuracy is verified for the shipping COC form then the WGL check-in staff can sign and date under the WGL Only receipt signature and select the submit button (Select Send Now after submission) finalizing the case's documentation of receipt and by the WGL.
5. All final sample and shipping COC forms will be QA/QC by the eDNA Processing QA/QC Specialist and backed up and removed from ArcGIS Online by 5 business days.

Survey123 Form Examples:

14:00 Mon Jun 8

La Crosse FWCO: U.S. Fish and Wildlife Service Chain of Custody Record

62%

U.S. Fish and Wildlife Service Chain of Custody Record

Case Number: *

Case Number should be 5 characters long.

50000

Sample Numbers: *

1-100

Date of Collection: *

Monday, June 8, 2020

Collected by (first and last names): *

Jane Doe, John Smith, Martin Brody

Collection Office: *

La Crosse FWCO

Notes:

Test

The chain of signatures should be continuous.

Sample Numbers

Sample Numbers: *

1-100

Release Signature

Release Signature: *

Please enter in first and last name.

Jane Doe

I certify the digital release signature above represents my signature for Chain of Custody purposes. *

☒ Yes

14:03 Mon Jun 862%

La Crosse FWCO: U.S. Fish and Wildlife Service Chain of Custody Record

Release Agency: *
If not USFWS, enter in Agency.

USFWS

Release Date: *


Monday, June 8, 2020

Receipt Signature

Receipt Signature: *
Please enter in first and last name.

Tim Miller

I certify the digital receipt signature above represents my signature for Chain of Custody purposes. *
☒ Yes

Receipt Agency: *
If not USFWS, enter in Agency.

USFWS

Receipt Date: *


Monday, June 8, 2020

Delivered via: *
☐ FedEx
☒ In Person
☐ Other

1 of 1

Please initial and date each Editing Note.

Editing Notes:
Added agency to release agency JD 6/8/2020

14:10 Mon Jun 8
60%

X
Shipping: U.S. Fish and Wildlife Service Chain of Custody Record

Shipping: U.S. Fish and Wildlife Service Chain of Custody Record

Case Number: *
Case Number should be 5 characters long.
50000

Sample Numbers: *
1-100

Date of Collection Start: *
Monday, June 1, 2020

Date of Collection End: *
Friday, June 5, 2020

Shipped by (first and last names): *
Jane Doe

Collection Office: *
La Crosse FWCO

Notes:
Test

Shipping Notes: *
Shipping 2 boxes: box 1: samples 1-50. Box 2: samples 51-100.

Shipping Notes Example: Shipping 2 boxes: Box 1: 1-100, Box 2: 101-200

The chain of signatures should be continuous.

Sample Numbers

Sample Numbers: *
1-100

Release Signature

Release Signature: *
Please enter in first and last name.
Jane Doe

I certify the digital release signature above represents my signature for Chain of Custody purposes.

14:10 Mon Jun 8 59%

Shipping: U.S. Fish and Wildlife Service Chain of Custody Record

1-100

Release Signature

Release Signature: *
Please enter in first and last name.
Jane Doe

I certify the digital release signature above represents my signature for Chain of Custody purposes.
*
☒ Yes

Release Agency: *
If not USFWS, enter in Agency.
USFWS

Release Date: *
Friday, June 5, 2020

Delivered via: *
☒ FedEx
☐ In Person
☐ Other

Are you WGL?
☐ Yes
☒ No

Please initial and date each Editing Note.

Editing Notes:

WGL Only:

14:11 Mon Jun 8 59%

Shipping: U.S. Fish and Wildlife Service Chain of Custody Record

Release Agency: *
If not USFWS, enter in Agency.
USFWS

Release Date: *
Friday, June 5, 2020

Delivered via: *
☒ FedEx
☐ In Person
☐ Other

Are you WGL?
☒ Yes
☐ No

Receipt Signature (WGL Only)
Receipt Signature: *
Please enter in first and last name.

I certify the digital receipt signature above represents my signature for Chain of Custody purposes.
*
☐ Yes

Receipt Date: *
Date

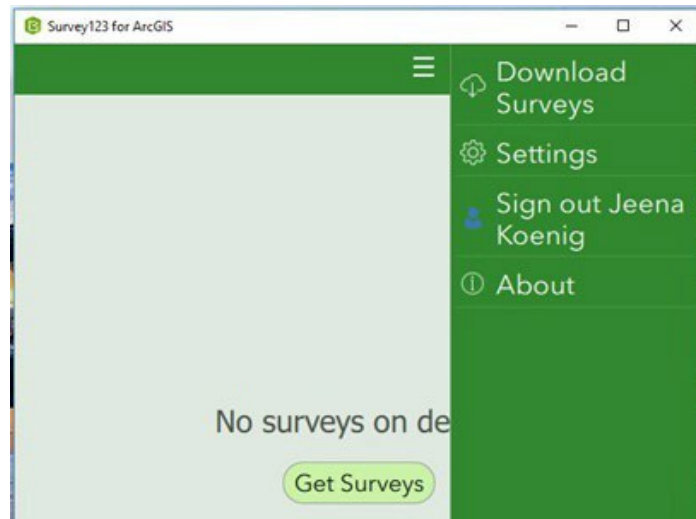
Please initial and date each Editing Note.

Editing Notes:

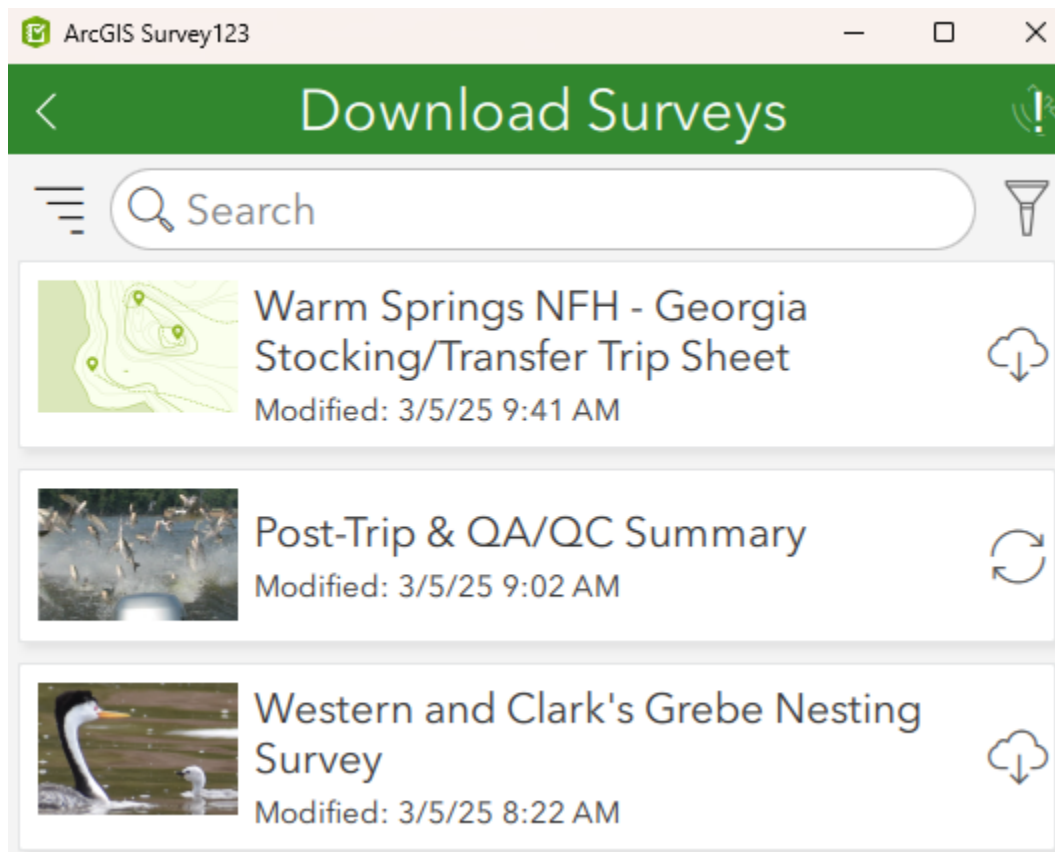
✓

Survey 123 Instructions for Post-Trip & QA/QC Summary Form

1. To create and send Post-Trip Field Summary Plan forms in Survey123: (instructions work for I-Phone and I-Pad).
2. Download Survey123 Form from ArcGIS Survey123 Application.
3. On the login page select Enterprise Login.
4. Type FWS into text box.
5. Select U.S. Fish and Wildlife Service.
6. Sign in using FWS Account and Password if needed.
7. Select "Download Surveys" from the menu or "Get Surveys" if no surveys are on device.

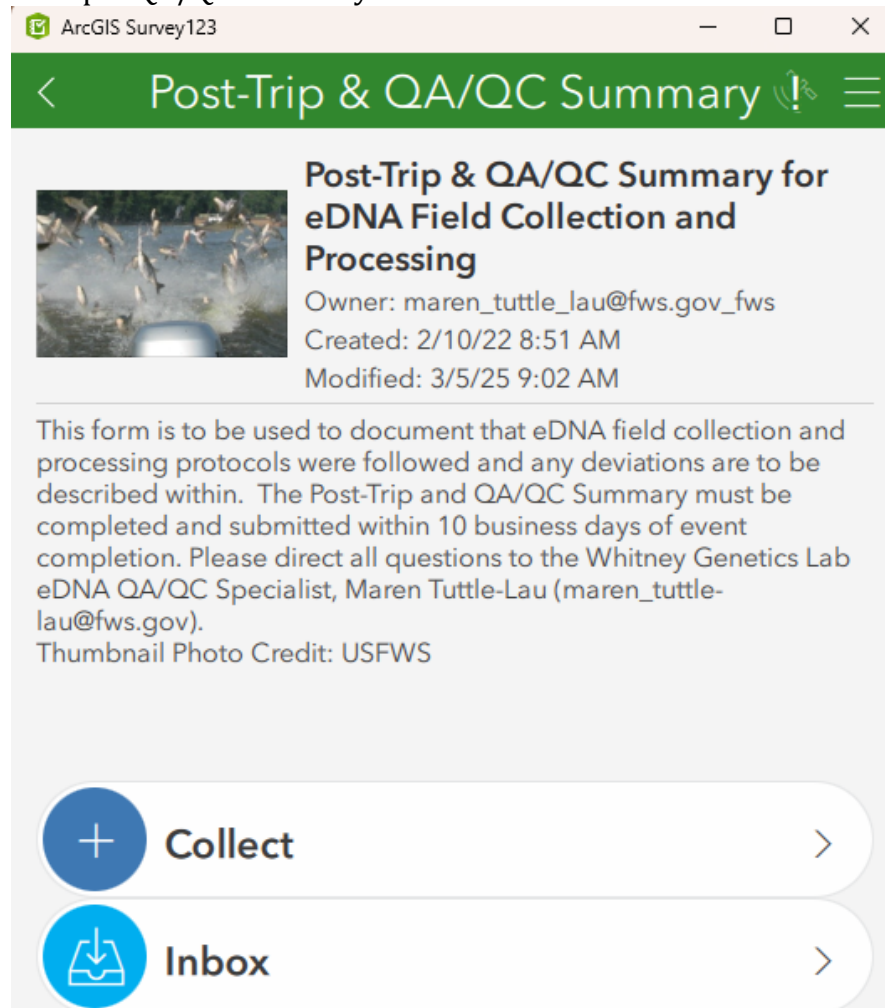


8. Type: Post-Trip & QA/QC Summary Form in the search bar and select the download icon on the right. In this screen capture, the form has already been downloaded which you see with the circular arrows. A cloud icon with the downward arrow will appear if the form has not been downloaded yet.



9. Once you have the appropriate form downloaded, go to the upper left-hand corner of the screen and select the back arrow. You should see the form you downloaded in step 7.

10. To create a new Post-Trip & QA/QC Summary Form after collecting eDNA samples, open the Survey123 app on your I-Pad or I-Phone within 10 business days of sample collection and click on the Post-Trip & QA/QC Summary Form and select “collect”. You will then see the electronic version of what used to be our paper Post-Trip & QA/QC Summary Form.



The screenshot shows the ArcGIS Survey123 app interface. At the top, there is a green header bar with a back arrow, the title "Post-Trip & QA/QC Summary", and a menu icon. Below the header, there is a thumbnail image of a fish being collected. To the right of the image, the title "Post-Trip & QA/QC Summary for eDNA Field Collection and Processing" is displayed, followed by the owner information "Owner: maren_tuttle_lau@fws.gov_fws", the creation date "Created: 2/10/22 8:51 AM", and the modification date "Modified: 3/5/25 9:02 AM". Below this information, a paragraph of text explains the purpose of the form: "This form is to be used to document that eDNA field collection and processing protocols were followed and any deviations are to be described within. The Post-Trip and QA/QC Summary must be completed and submitted within 10 business days of event completion. Please direct all questions to the Whitney Genetics Lab eDNA QA/QC Specialist, Maren Tuttle-Lau (maren_tuttle-lau@fws.gov). Thumbnail Photo Credit: USFWS". At the bottom, there are two large buttons: "Collect" with a plus icon and "Inbox" with a download icon, both with right-pointing arrows.

11. Enter the information required in the various boxes (i.e. case number, the basin samples were collected from, dates of collection, etc.) and proceed to answer the questions.

ArcGIS Survey123

—□×

×

Post-Trip and QA/QC Summary

!☰

Post Trip & QA/QC Summary for eDNA Field Collection and Processing

Case: *

Basin: *

Begin Date *

📅

Date

End Date *

📅

Date

1. Post Trip Summary *

☐ Sampling plan was completed as described in Exhibit 1

☐ Sampling plan was NOT completed as described in Exhibit 1 (Describe below)

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Post-Trip and QA/QC Summary

2. Quality Control Audit

Sampling Quality

The Sampling QA/QC Specialist observed the collection of eDNA for the above case number. They compared the actions of the sampling crew to the QAPP and witnessed adherence to the QAPP in the following (check the appropriate response for each item; if No, explain below):

Boat decontamination in the field *

☐ Yes ☐ No

Sample collection procedure *

☐ Yes ☐ No

Navigation to sample sites *

☐ Yes ☐ No

Sampling QA/QC Specialist *

Please enter in their first and last name.



Post-Trip and QA/QC Summary

Processing Quality

The Processing QA/QC Specialist observed the processing of eDNA samples for the above case number. They compared the actions of the processing crew to the QAPP and witnessed adherence to the QAPP in the following (check the appropriate response for each item; if No, explain below):

Decontamination of processing equipment *

☐

Yes

☐

No

Sample processing procedure *

☐

Yes

☐

No

Processing QA/QC Specialist *

Please enter in their first and last name.



Post-Trip and QA/QC Summary

Data Quality

The Data QA/QC Specialist completed the QA/QC of sample data for eDNA case number: *

The Data QA/QC Specialist confirms that data are accurate and represent the locations and conditions in which samples were collected. Any corrections or edits to the data are explained in the Notes column for the affected sample(s). *

Check the appropriate response; if No, explain below

☐

Yes

☐

No

Data QA/QC Specialist *

Please enter in their first and last name.

Notes

Provide any relevant notes about this sampling event.

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Post-Trip and QA/QC Summary

I certify that the information input is correct and accurate and that I communicated with the field staff for the information that is entered.

▼ eDNA Lead Signature

Signature *

Please enter in first and last name.

I certify the digital release signature above represents my signature *

☐ Yes

Date *

Wednesday, March 5, 2025

► Exhibit 2 Review (WGL Only):

12. Information that should be included in the Post-Trip & QA/QC Summary Form would include any deviations made to the sampling plan. Those notes and/or deviations could include environmental conditions that would limit sampling or alternate site selection, potential areas for contamination (fish jumped in boat). It might be useful to enter in information on the Post-Trip & QA/QC Summary Form and in the field notes section of Field Maps APP as well.

13. Once all fields have been filled out, select the ✓ to submit the form. All questions are required, so if you accidentally miss a question, the form will automatically direct you to what you missed.