



## Help Guide 4

# Project Leader: Adding Study Areas, Transects, and Management Units to a Project

**Summary:** This document describes how Project Leaders work with study areas and corresponding management units or transects within a project, create new study areas and units, and edit existing units, areas, and transect points. It also describes how to add spatial data to a project.

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### Accessing Study Areas and Sampling Units

In the AKN, a study area provides a folder for independent studies or protocols that are being utilized by a *Project*. It can be used to group the various types of observations into a more accessible format within the database. To add or edit a study area, login to the [Project Leader](#) portal. This opens the *Project Leader* interface. To access the *Sampling Units* interface, select *Sampling Units* → *Create and Manage*.

The screenshot shows the Project Leader interface. At the top left is the U.S. Fish and Wildlife Service logo. The main header is "Project Leader". Below this is a navigation bar with tabs: "Home", "Sampling Units", "Field Observations", and "Project Definition". Under the "Sampling Units" tab, there is a dropdown menu with two options: "Download" and "Create and Manage". The "Create and Manage" option is highlighted with a red rectangular box. Below the navigation bar, the date "Today is 11-Feb-2021" is displayed. The main content area is titled "What you can do in Project Leader?". Under this title, there is a sub-section "Sampling Units" also highlighted with a red box. Below this sub-section, there are two bullet points:
 

- **Download** - Get Project and Sampling Unit reports, maps and data.
- **Create and Manage** - Create and edit Sampling Units (geographic units for collecting field observations) including drawing geometry on a map or locating using GPS data.

Select the project from the list of available projects. The *Create and Manage Sampling Units* page will appear for that project.

## Create and Manage Sampling Units - Select Project

\*Select your project

- ADM - Audubon Drought Monitoring
- ADOB - Adobe Valley
- ADPE - Adelle Penguin Metapopulation Dynamics
- AEDCWMA - AEDC WMA
- AFFM - USACE Audubon Floodplain Forest Monitoring
- AGASSIZNWR - Agassiz NWR**
- AIR\_STATION\_KODIAK - [DOD\_COASTGUARD] CGAS Kodiak
- AKSS - Alaska Shorebird Survey
- ALA - Alameda Least Terns
- ALABAMADCNR - Alabama DCNR

enter



### Project Leader

- Home
- Sampling Units
- Field Observations
- Project Definition

## Create and Manage Sampling Units

AGASSIZNWR - Agassiz NWR [open new project](#)

Click on the Sampling Unit or Project you want to select (it will highlight yellow). Open any part of the tree to get to more detail. Hover on a tree node and the tooltip will tell you what type of feature it is.

List of study areas and management units for all data within the project database.

Add Sampling Units under the highlighted feature with:

- [online form](#)
- [GPS-U file](#)
- [Waypoint Plus file](#)
- [KML file](#)
- [SHP file](#)

Update Sampling Unit geometry under the highlighted feature using:

- [GPS-U file](#)
- [Waypoint Plus file](#)
- [KML file](#)
- [SHP file](#)

Manage the highlighted feature:

- [edit](#)
- [move in hierarchy](#)
- [delete](#)

- Add/Edit New Units  
- Upload/Digitize Geometry

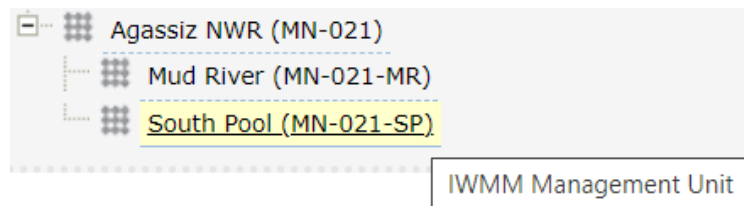
In the *Create and Manage Sampling Units* page, the project tree in the left panel contains a list of study areas. Expand the study areas by clicking on the expand button **+** to view the contents within the study area. Place the cursor over any management unit. A message box appears indicating the type of observations contained within the unit.

## Long Name / Short Name

The identifiers in parentheses are termed the “short name”. This is used as the unit or study area identifier in the database. The descriptive name outside of the parentheses is the “long name”. The long and short names are assigned by the project leader when the unit or study area is created.



⚠ Since multiple protocols may be assigned to one project, IWMM study areas are given a short name code to better identify them as being specific to IWMM. The code includes the two-letter state identifier corresponding to the state where the project is located followed by a sequential number (e.g., MN-003). To obtain a short name code for your study area, contact the [Inventory and Monitoring Data Manager](#), who is maintaining a list of numbers by state as new IWMM projects are added. If a project already contains an IWMM study area and units, then the short name has already been assigned. In this case, the I & M Data Manager does not need to be contacted. Simply add a new IWMM management unit to the study area. In the example below, the short name for an IWMM study area indicates that Agassiz NWR is located in Minnesota and is the 21<sup>st</sup> project within the state to conduct observations using the IWMM protocol(s). The suffix for management units are assigned by the Project Leader and can be numeric values or initials corresponding to the unit’s long name.



## Create a Study Area

Before creating individual management units, the first step is to create a study area (folder). Within a study area there may be any number of management units with different observation protocols. Start by clicking on the project’s name in the sampling unit tree (it will highlight yellow).



## Online Form

To manually input a study area, select the **online form** button below the **Add Sampling Units under the highlighted feature with:** section.

### Add Sampling Units under the highlighted feature with:

<b>online form</b>	<b>GPS-U file</b>	<b>Waypoint Plus file</b>
<b>KML file</b>	<b>SHP file</b>	

Select **Study Area (Area)** from the list provided. Check that you are creating a study area ‘**As part of No other study area**’ and click **enter**.

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**Add a New Sampling Unit**

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\*Select your project **AGASSIZNWR - Agassiz NWR**  
 As part of **No other study area**

**Add One**

---

\*Type(s) of sampling unit ?  Blood Collection (Point or Area)  Egg collection (Point or Area)  Net (Point or Area)  Other Banding Location (Point or Area)  Other Bird Observation Point (Point)  Other Nest (Point or Area)  Predatory Fish Diet Collection (Point)  Ranch (Area)  Shorebird Area (Area)  Shorebird Site (Area)  Shorebird Subsite (Area)  Specimen Collection (Point or Area)  **Study Area (Area)**  Target Species Sampling Area (Area)  Territory (Point or Area)  Trap (Point or Area)  Weather Station (Point)

**enter**  
**cancel**

The next page contains textboxes for defining the study area. Enter the long and short names, a description of the area, a URL if available, select “F – federal govt” if the site is a refuge, and “yes” for the radio buttons.

\*Select your project **AGASSIZNWR - Agassiz NWR**  
 As part of **No other study area**

**Add One**

---

\*Type(s) of sampling unit ? **Study Area (Area)**

\*Create a name for this sampling unit **Enter Long Name**

\*Give this sampling unit a short name ? **Enter Short Name**


Description

URL with Information ?

Landowner Category **F - federal govt**


Is location discoverable? ?  yes  no

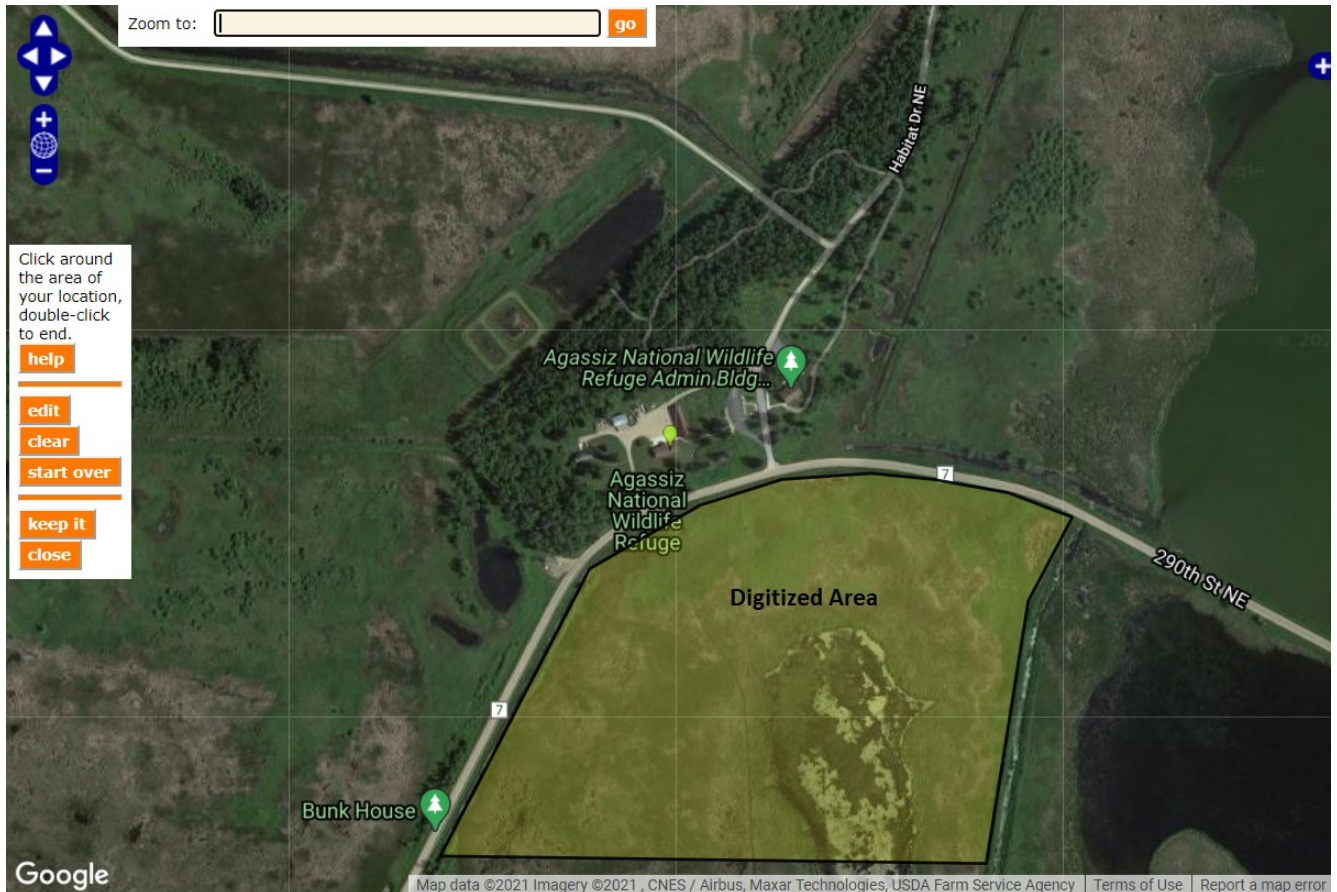
Is location active for new observations? ?  yes  no

Digitize Location:  **(optional) Manually digitize the study area boundary.**

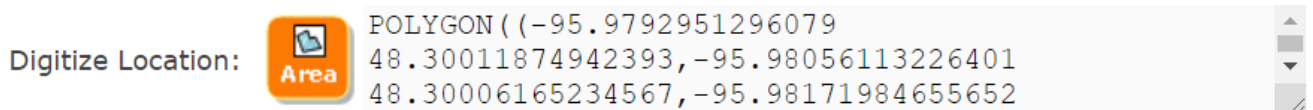
**Add to CalPif (optional)**

**save**  
**cancel**

If there are no geospatial data for the study area, the region can be digitized manually. Click the **Digitize Location** button . A map appears in a popup window. Click the vertices of the polygon defining the study area. Once the area is entered, click **keep it**. The digitized area is now included in the database. Click the **start over** button to re-enter the boundary or **edit** to modify the existing boundary.



The latitude and longitude coordinates of the vertices appear next to the digitize button:



Click **save** to complete creating the study area.

**i** Adding geospatial data is optional. A study area or management unit can be created without digitizing the area. Spatial data can be included at any time. However, location information needs to be included so the data can be used in pre-defined visualization and download tools that utilize spatial queries. Researchers using the data will also need location information corresponding to the observations.

### Upload Geospatial Data

If your study area has already been digitized and is in the form of an ESRI Shapefile, Google Earth KML file, or data from a GPS, use one of the other buttons to upload the file. Note, geospatial data must be in the WGS84 datum. Highlight the upper-level project in the project tree and click the button corresponding to the spatial data type to be uploaded.

**Add Sampling Units under the highlighted feature with:**




Clicking on any of these buttons will go to the same interfaces for defining the study area. However, there will be a prompt for uploading a file. For ESRI shapefiles, all individual components (.shp, .shx, .dbf, .prj, etc.) need to be in a single compressed file before uploading (\*.zip).

**Add Site Locations from KML/KMZ File**

\*Select your project **TEST01 - Test01 Project**

As part of **No other study area**

Enter KML/KMZ file  **BSUBennettsCreek.kml**

\*Type(s) of sampling unit   Blood Collection (Point or Area)  
 Egg collection (Point or Area)  
 Net (Point or Area)  
 Other Banding Location (Point or Area)  
 Other Bird Observation Point (Point)  
 Other Nest (Point or Area)  
 Predatory Fish Diet Collection (Point)  
 Ranch (Area)  
 Shorebird Area (Area)  
 Shorebird Site (Area)  
 Shorebird Subsite (Area)  
 Specimen Collection (Point or Area)  
 Study Area (Area)  
 Target Species Sampling Area (Area)  
 Territory (Point or Area)  
 Trap (Point or Area)  
 Weather Station (Point)

Prefix for each Long Name

Suffix for each Long Name

The next page provides a list of features within the file. Select the feature in the list and then click the **select** button. The selected data is displayed in the label box. Click the **process** button.

## Add KML/KMZ Site Locations

\*Select your project **TEST01 - Test01 Project**

As part of **No other study area**

\*Type(s) of sampling unit **Study Area (Area)**

**Add**

Select one or more KML/KMZ file entries, and click Select. Repeat for as many KML/KMZ file entries as you want. Click Clear All to start over. When finished, click Process to save everything to the database.

1. Select KML/KMZ entries to add and click Select.  
Use Shift or Ctrl click for selecting multiple entries.

2. Repeat. When finished,  
click Process to process list below.

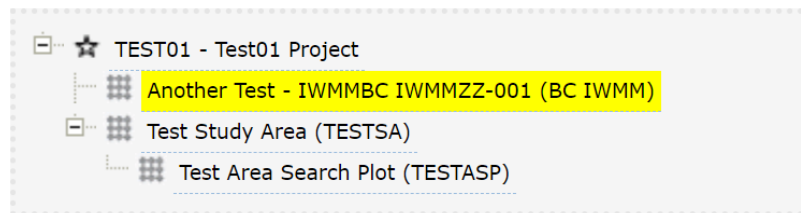
Another Test - IWMMBC IWMMZZ-001 (BC IWMM) [polygon] **select** **process** **clear all**

Click the entry in the list box.

Click "select" to add to selection box.

select Another Test - IWMMBC IWMMZZ-001 (BC IWMM) [polygon]

The new study area is added to the project tree. The name is modified to match the contents of the label box. To edit the properties of the study area, highlight the study area and click the **edit** button under the **Manage the highlighted feature:** section. See below for additional information about editing a study area.



## Editing Existing Study Areas, Sampling Units, and Transect Points

If geographic data was not included when the sampling unit or transect point was created, it can be uploaded under the **Update Sampling Unit geometry under the highlighted feature using:** section. Any spatial data must be in the WGS84 datum, and shapefile components must be compressed as a .zip file.

**Update Sampling Unit geometry under the highlighted feature using:**

**GPS-U file** **Waypoint Plus file** **KML file**  
**SHP file**

For IWMM polygons, click on the study area in the project tree. For point data, highlight the transect in the project tree. Click the button corresponding to the type of spatial data file to be uploaded. The next page requests the file to be uploaded. Once uploaded, match the feature from the uploaded file to the sampling unit or transect point by highlighting a single entry in each list (steps 1 and 2 in the figure below). Click the **select** button. This places the matched selection into the list box in step 4. Once all of the matches are made, click the **process** button. This will upload the geographic data to the matched transect points or sampling units. When uploading data, it is beneficial that the identifiers in the geographic data match the names of the points or polygons from the project tree.

**1. Select a KML/KMZ entry**      **2. Select a Sampling Unit to update**      **3. Click Select**      **4. Repeat. When finished, click Process to process list below.**

<ul style="list-style-type: none"> <li>64 (64) [point]</li> <li>65 (65) [point]</li> <li>66 (66) [point]</li> <li>67 (67) [point]</li> <li>68 (68) [point]</li> <li>69 (69) [point]</li> <li>7 (7) [point]</li> <li>70 (70) [point]</li> <li>71 (71) [point]</li> <li>72 (72) [point]</li> </ul>	<ul style="list-style-type: none"> <li>65 (65) [point]</li> <li>66 (66) [point]</li> <li>67 (67) [point]</li> <li>68 (68) [point]</li> <li>69 (69) [point]</li> <li>77 (77) [point]</li> <li>78 (78) [point]</li> <li>79 (79) [point]</li> <li>80 (80) [point]</li> <li>81 (81) [point]</li> </ul>	<p>select &gt;&gt;</p>	<p>process clear all</p> <div style="border: 1px solid black; padding: 5px;"> <p>select 65 (65) [point] to 65 (65) [point]</p> <p>select 66 (66) [point] to 66 (66) [point]</p> </div>
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To perform further edits, click the **edit** button under the **Manage the highlighted feature:** section. This will return to the interfaces used by the **online form** button. The long and short names can be edited as well as any other property of the study area or sampling unit.

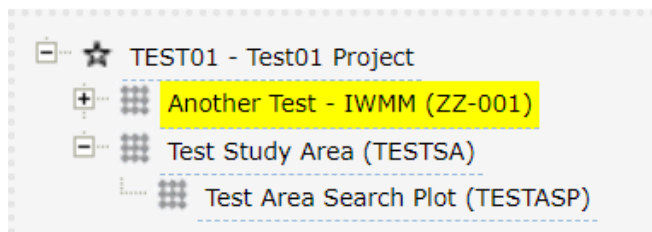
**Manage the highlighted feature:**

edit
move in hierarchy
delete

Study areas, management units, or transects and corresponding points can also be deleted in this section. Highlight the feature in the project tree and click the **delete** button.

**Management Units**

The process for adding and modifying sampling units and transects within a study area are similar to creating study areas. Begin by selecting the study area where the management units will be added. Choose the method of adding properties to the unit. The same type of information will need to be entered to define the unit. The headers of the web interfaces will state specifically the study area that the unit will be part of.



## Add a New Sampling Unit

\*Select your project **TEST01 - Test01 Project**

As part of **Another Test - IWMM(ZZ-001)**

### Add One

\*Type(s) of sampling unit ?

- Area Search Plot (Area)
- At-Sea Transect (Line or Area)
- Banding Net Collection (Area)
- Blood Collection (Point or Area)
- CTD Sample (Point)
- Depredation Plot (Point or Area)
- Diet Observations (Point or Area)
- Disturbance Plot (Point or Area)
- Egg collection (Point or Area)
- Fixed Radius Point Count Transect (None)
- Fixed Transect (Line)
- Forage Behavior Observation Point (Point or Area)
- Habitat Use Observation Point (Point or Area)
- Hydroacoustic Data Sample (Line)
- Index Plot (Point or Area)
- IWMM Management Unit (Area)
- Migration Observation Point (Point or Area)
- Nest Plot (Point or Area)
- Net (Point or Area)
- Nightbird Route (None)
- Other Banding Location (Point or Area)
- Other Bird Observation Point (Point)
- Other Nest (Point or Area)
- Point Count Transect (None)
- Predatory Fish Diet Collection (Point)
- Sea Watch Observation Point (Point)

enter

cancel

## Add a New Sampling Unit

\*Select your project **TEST01 - Test01 Project**

As part of **Another Test - IWMM(ZZ-001)**

### Add One

\*Type(s) of sampling unit ? **IWMM Management Unit (Area)**

\*Create a name for this sampling unit

\*Give this sampling unit a short name ?  **IWMM Short Name - append suffix to study area short name**

Description

URL with Information ?

Landowner Category

Is location discoverable? ?  yes  
 no

Is location active for new observations? ?  yes  
 no

Digitize Location:

save

cancel

## Download Sampling Units

To download area or point locations of study areas or sampling units, click on *Sampling Units* → *Download* in the Project Leader interface.



### Project Leader

Home **Sampling Units** Field Observations Project Definition

Download  
Create and Manage →

Today is 18-Feb-2021

### What you can do in Project Leader?

#### Sampling Units

- **Download** - Get Project and Sampling Unit reports, maps and data.
- **Create and Manage** - Create and edit Sampling Units (geographic units for collecting field observations) including drawing geometry on a map or locating using GPS data.

After selecting the project, the *Sampling Units – Download* page appears. Click on the desired sampling unit(s) in the project tree. The panel on the right provides download options. Click on the button for the preferred geospatial data format to obtain the coordinates or polygon data for the selected sampling unit(s). You will be requested to select a location to save the file.

### Sampling Units - Download

AGASSIZNWR - Agassiz NWR open new project

**Selecting Sampling Units:** Check all of the Sampling Units you want to select by clicking on each one. Open any part of the tree to get to more Sampling Units. To uncheck a Sampling Unit, click on it again. If you check or uncheck a Sampling Unit that contains other Sampling Units, the entire set of Sampling Units will be checked or unchecked. Click *Select All* to select and *Clear All* to unselect everything in the tree.

#### 1. Select sampling units from the tree below.

select all clear all

- AGASSIZNWR - Agassiz NWR
  - Agassiz NWR (AGASSIZNWR)
    - 011 Tamarac Uplands (011TAMARACUP)
    - 021 Whiskey/Olson Lakes (021WHISKEYOL)
    - 022 Berg West (022BERGWEST)
    - 030 Berg East (030BERGEAST)
    - 050 Webster Lake (050WEBSTERLA)
    - 061 Mud River/Webster Uplands (061MUDRIVERW)
    - 071 Webster Creek Uplands (071WEBSTERCR)
    - 072 Ditch 1 Uplands (072DITCH1UPL)
    - 074 Ditch 2 Uplands (074DITCH2UPL)
    - 084 Kuriko Lake (084KURIKOLAK)
    - 087 Golden Valley (087GOLDENVAL)
      - 81101 (81101)
      - 81102 (81102)
      - 81103 (81103)
      - 81104 (81104)
      - 81105 (81105)

#### 2. Download selected Sampling Units as:

All coordinate data uses the WGS-84 datum.

• **Sampling Units and center points (LatLong):**

Text file	CSV (Excel) file
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• **GPS locations (UTM):**

GPS-U file	Waypoint file
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• **GIS data:**

ESRI Shape file	Google Earth file
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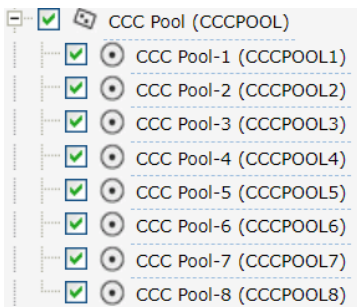
new! **Measurements (areas only):**

Text file	CSV (Excel) file
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HTML	
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• **Sampling Unit heirarchy for entire project:**

Text file	HTML
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- Sampling Units and center points (LatLong):
- GPS locations (UTM):
- GIS data:
- **new!** Measurements (areas only):
- Sampling Unit heirarchy for entire project:

Text file	CSV (Excel) file
GPS-U file	Waypoint file
ESRI Shape file	<b>Google Earth file</b>
Text file	CSV (Excel) file
HTML	
Text file	HTML

Google Earth KML File

