How to Enter State Scale Statistical (Probability) Survey Results in ATTAINS

Version: 8/12/2019: This document is based on the August ATTAINS software release.

Purpose: To explain how to use the Surveys module to enter summary results from State Scale Statistical (Probability) Surveys into the ATTAINS User Interface. The module does not accept the raw survey data, only the final condition estimates for each water type and state-defined Survey Category.

Audience: Users with Data Entry or Administrator permissions for the Surveys module.

Note: By default, users have been set to Read Only for the Surveys module. If you cannot access the survey for an Organization, or if you need to be able to edit and submit survey results data, but currently only have Read Only rights, please contact your regional Data Management Coordinator (DMC) to have your permissions updated. Data Entry permissions will allow you to add and edit survey results data. Administrator permissions will allow you to add and edit survey results data, as well as finalize and publish the results. Survey Administrators are limited to State/Territory/Tribal users. EPA users are allowed Survey Administrator permissions only in limited circumstances.

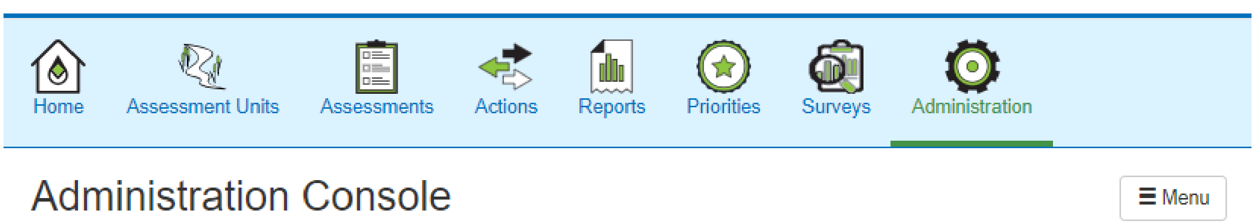
Domain Setup

Steps must be taken to setup the initial domain values (such as Category names and Use or Condition labels) that will be used when entering the survey data. However, this step may only be completed by a state **ATTAINS Domain Administrator**. If you are not a state user with ATTAINS Domain Administrator authority, contact the person who has that role. This step only needs to be completed once and then the domains can be reused for future surveys.

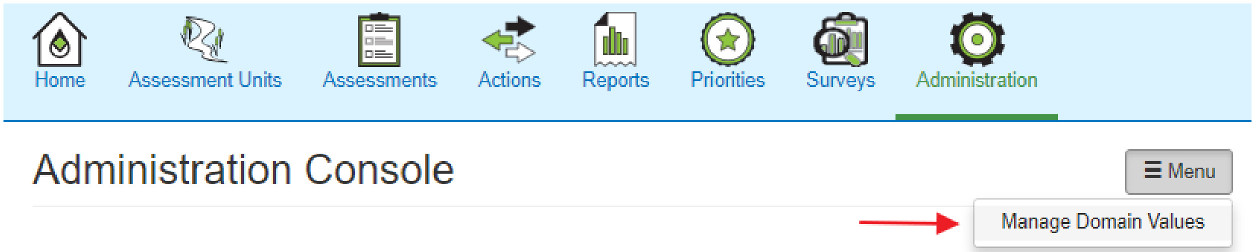
Set Up the Survey Categories

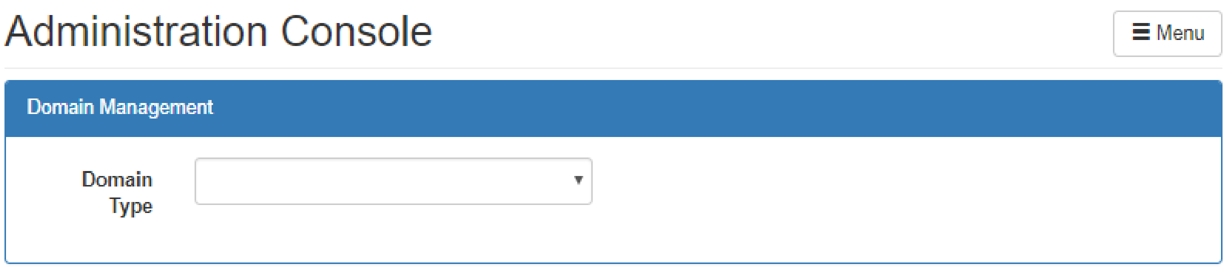
A State **ATTAINS Domain Administrator** must define the Survey Categories (such as Good/Fair/Poor or Optimal/Fair/Suboptimal) before they can be used in the Surveys module.

1. Go to the Administration tab.

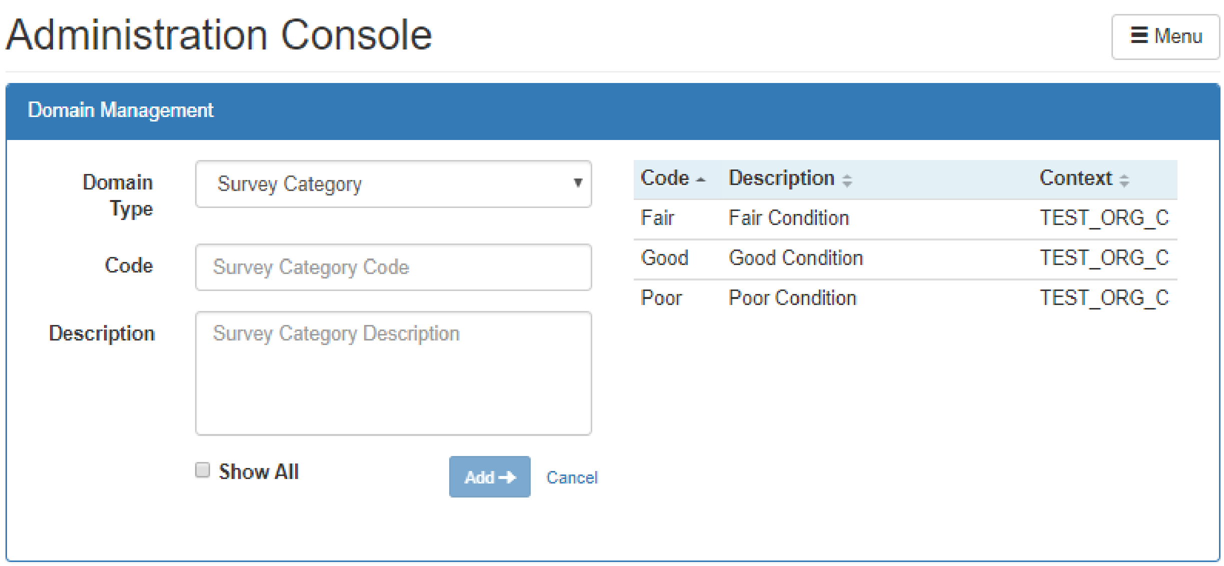


2. Click on the Menu button, and then click "Manage Domain Values".





3. In the Administration Console, for the Domain Type, select "Survey Category" from the drop-down menu. Any codes that have already been established for your Organization will show in the table on the right side of the page. If you do not see the code you want, enter the appropriate information in the fields on the left side of the screen.

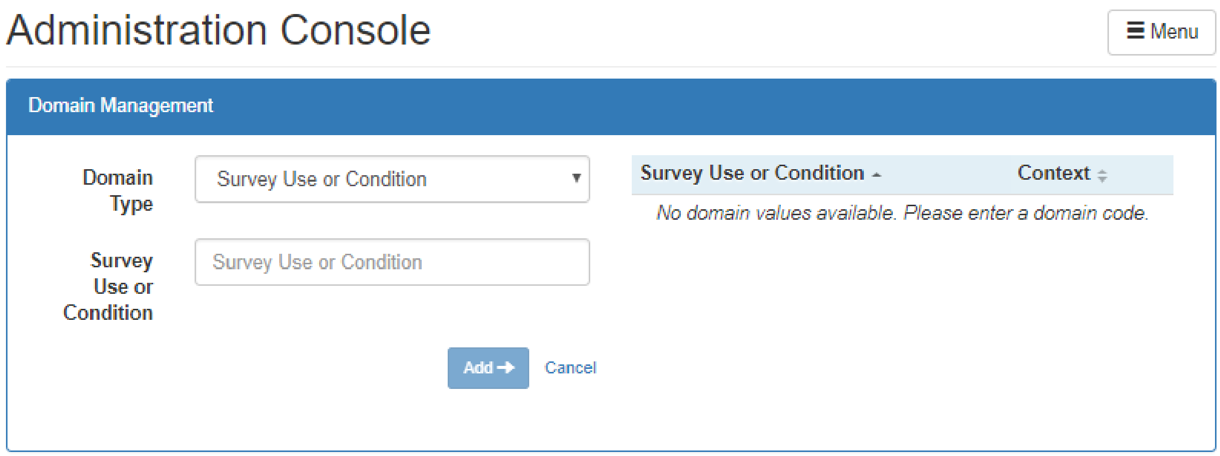


a. **Code:** This is the name of the Survey Category that you would like to show up in the User Interface, and eventually be published with the data. **Note:** Check your spelling before you click "Add", because you cannot edit the Code later.
b. **Description:** This is a definition of the Survey Code.
c. **Context:** This refers to who can see and use this code. This is automatically populated with your Organization ID.

Set Up the Use or Condition Labels

A state **ATTAINS Domain Administrator** must set up any Use or Condition label the state would like to use in the Surveys module from the Administration tab. If you are not a state user with ATTAINS Domain Administrator authority, contact the person who has that role. This step only needs to be performed once.

1. Go to the Administration tab.
2. Click on the Menu button, and then click “Manage Domain Values”.
3. In the Administration Console, for Domain Type, select “Survey Use or Condition” from the drop-down menu. Any codes that have already been established for your Organization appear in the table on the right side of the page. If you do not see the code you want, enter the appropriate information in the fields on the left side of the screen and click Add.



   a. **Survey Use or Condition:** This is a label that you want to have available for your survey. For instance, if you do a survey for “Recreation” Use or “Biological Condition”, then enter that here. **Note:** Check your spelling before you click “Add”, because you cannot edit the label later.
   b. **Context:** This refers to who can see and use this code. This is automatically populated with your Organization ID.

Set Up Survey Subpopulation Labels

Subpopulation can be used to distinguish survey results from multiple populations within the same water type. By default, the Subpopulation for state statistical surveys is set to “Statewide” for each water type. If the survey results for a water type all apply to the same population, then “Statewide” Subpopulation can be used. If the survey results for a water type apply to different populations or sizes within the same water type, then additional Subpopulation labels need to be added.

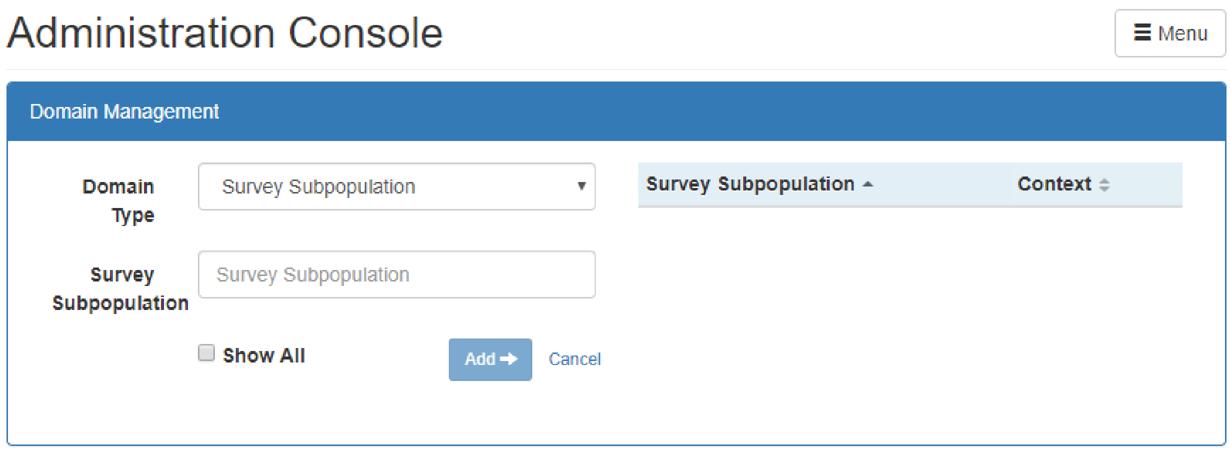
Examples of Subpopulation

- Subpopulation could be used to separate results from different ecoregions such as “Northern Appalachians”.
- Subpopulation could be used to separate results based on different water types within the water type group. For example, the STREAM/CREEK/RIVER water type group could be separated into “Wadeable Streams” and “Large Rivers” if these populations were sampled separately.

- Subpopulation could be used to show results from a specific Use or Condition that applies to a smaller size population than the other Uses or Conditions that were sampled.

If a state would like to use a smaller Subpopulation for the water type, then a state **ATTAINS Domain Administrator** must set up any additional Subpopulation values from the Administration tab. This step only needs to be performed once.

1. Go to the Administration tab.
2. Click on the Menu button, and then click "Manage Domain Values".
3. In the Administration Console, for Domain Type, select "Survey Subpopulation" from the drop-down menu. Any codes that have already been established for your Organization appear in the table on the right side of the page. If you do not see the code you want, enter the appropriate information in the fields on the left side of the screen and click Add.

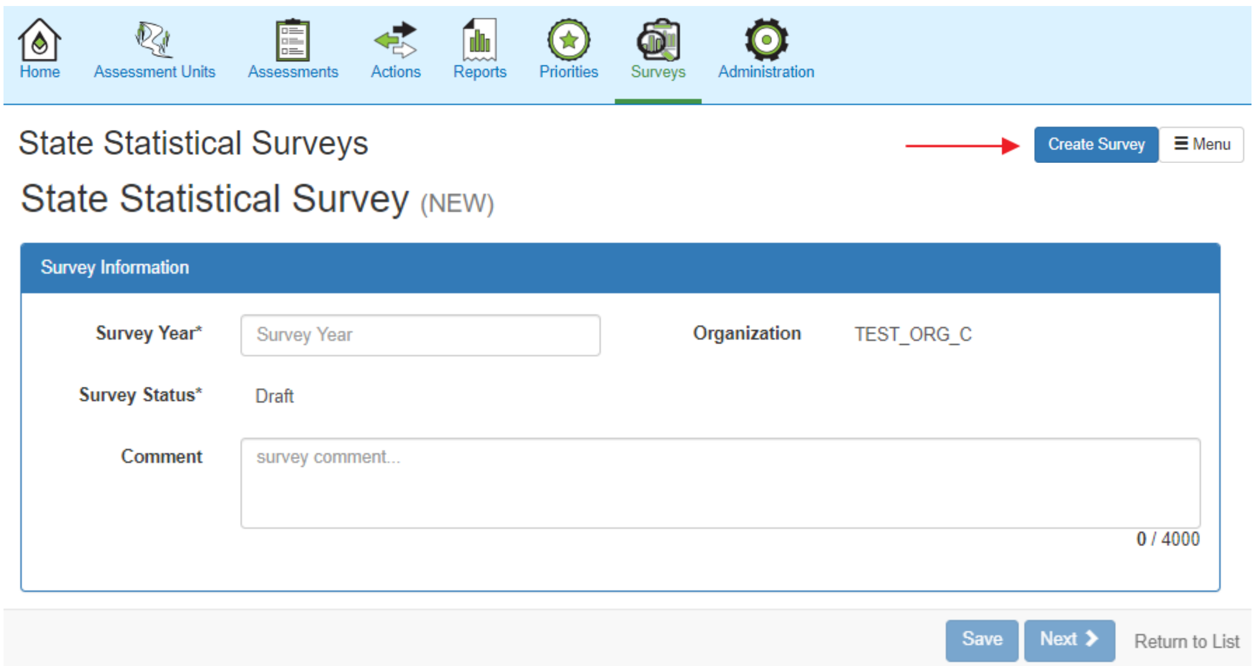


   a. **Survey Subpopulation:** This is the label that you want to have available for your survey, if your survey results were assessing different sizes/populations within the water type group. **Note:** Check your spelling before you click "Add", because you cannot edit the label later.
   b. **Context:** This refers to who can see and use this code. This is automatically populated with your Organization ID.

How to Enter the Survey Results Data

ATTAINS groups all the water types for a survey under a Survey Year. When the data are eventually published to How's My Waterway 2.0, the results for each water type will carry forward as the most recent data until a newer survey for the same water type has been entered.

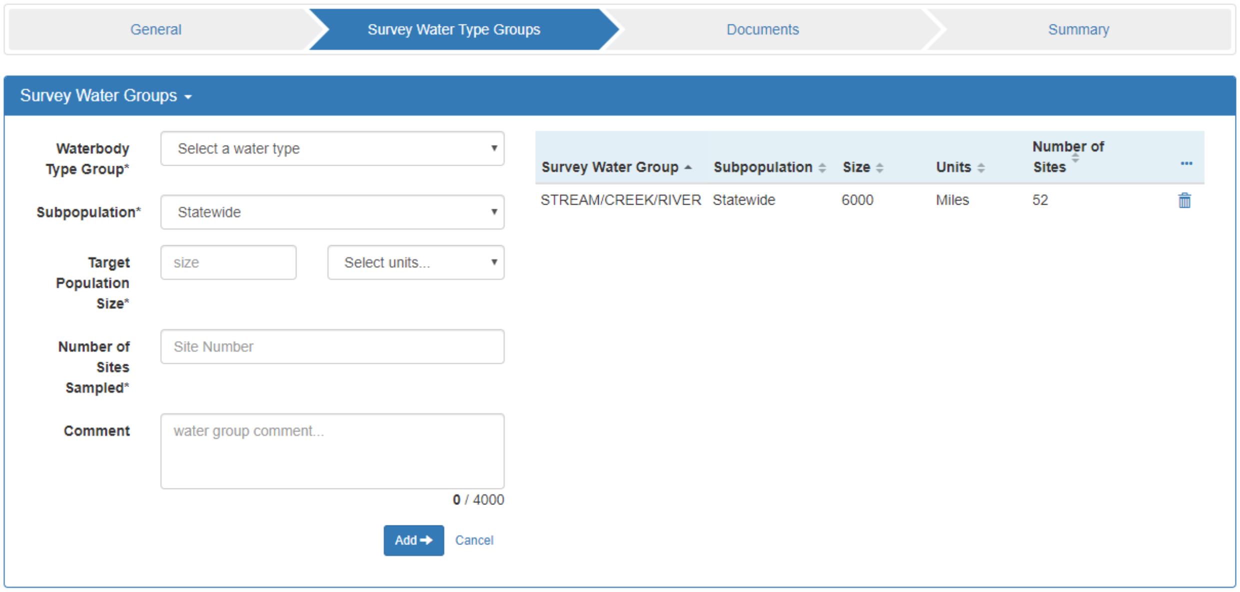
1. Survey Year
    a. If the Survey Year that you want to enter already exists, select it.
    b. If the Survey Year that you want to enter does not yet exist, click on the "Create Survey" button.



i. On the General sub-tab, enter the Survey Year (it should be entered as a 4-digit year in the format of YYYY), and a Comment that describes the Survey (such as the year(s) the sampling was conducted).

ii. Click the "Save" Button to save the information or click the "Next" button to save and proceed to the next step.

2. Enter "Survey Water Groups"
   a. On the "Survey Water Type Groups" sub-tab, enter the Water Types used in the Survey and the appropriate information for each.



i. **Waterbody Type Group:** Select the appropriate Water Type from the drop-down list.

ii. **Subpopulation:** Select the appropriate Subpopulation from the drop-down list. If all your results for the water type group apply to the same size/population, you can use Statewide and just provide a public-friendly description of the sample area in the Comment box. If you have results from two or more populations/different sizes in the water type group, then Subpopulation labels need to be added in the Domain Administration area, and then they will be available from this drop-down. The Target Population Size and Number of Sites Sampled information below apply to the Waterbody Type Group and Subpopulation combination.

iii. **Target Population Size:** Enter the size that the survey results describe, as it applies to the combination of water resource and Subpopulation.
   1. For example, if there is only one population for the STREAM/CREEK/RIVER in that survey, the Subpopulation would be Statewide. This Size would represent the full Target Population size sampled.
   2. However, if there were two Subpopulations within the STREAM/CREEK/RIVER waterbody type group, then this Size would apply to the currently selected combination of Waterbody Type Group and Subpopulation. Then, a second entry would apply to the Waterbody Type Group and the second Subpopulation.
   3. **Note:** For the LAKE/RESERVOIR/POND water type, you may enter either a size, or the number of lakes, depending upon how your survey was designed.

iv. **Select units:** Select the appropriate units for the Size entered above. For the LAKE/RESERVOIR/POND water type, you may select either the area size, or the option of "Number of Lakes".

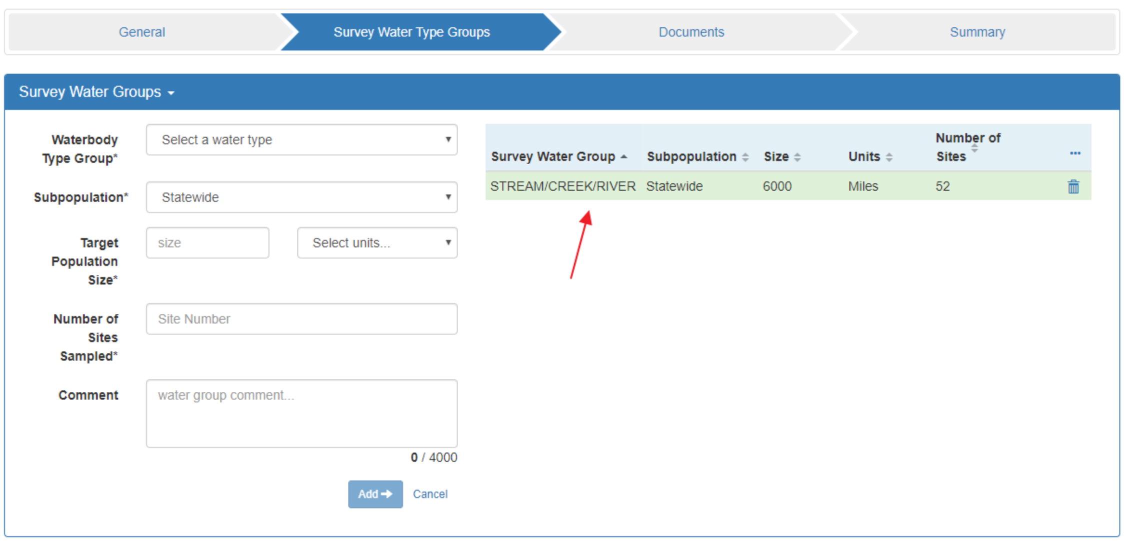
v. **Number of Sites Sampled:** Enter the number of sites sampled in this survey for the combination of Waterbody Type Group and Subpopulation.

vi. **Comment:** Enter an optional comment about the water type group surveyed (e.g., a description of the sample frame and target population). **Please try to make this description public-friendly, as it will be published in the survey web service and in How's My Waterway 2.0.**

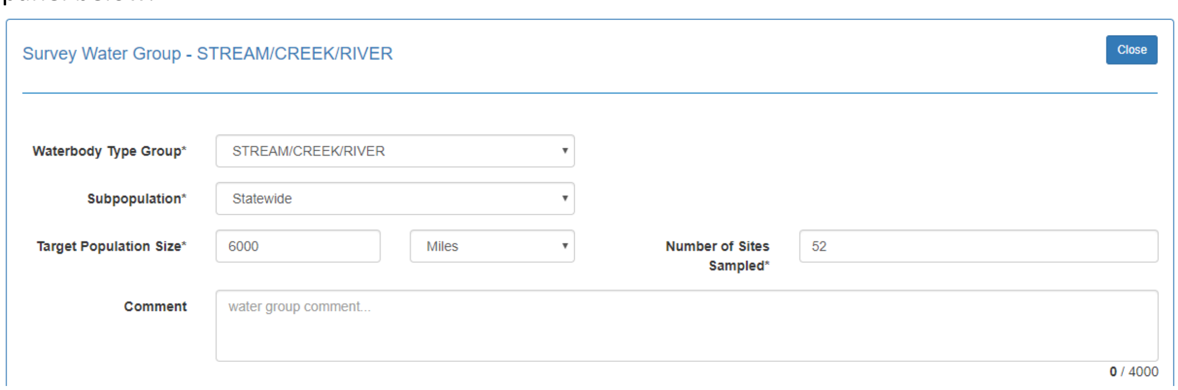
b. Click the "**Add**" button to add the Survey Water Group to the table on the right.

c. If you have additional Water Groups and Subpopulation combinations, repeat this step (or additional Water Groups can be added later, before finalizing the survey). Note: If you click on a Water Type in the table on the right, it opens a new window below. If you need to enter more than one Water Type, click Close in the lower window. ATTAINS will not let you add Water Types to the table (or delete Water Types from the table by clicking the trashcan icon) if the lower window is open.

3. When you have completed entering the Survey Water Groups, click on the appropriate water type in the table on the right to open a new panel below.

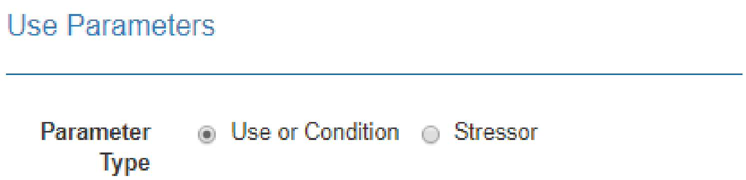


4. If you need to edit anything related to the water type survey definition, make the changes in the new panel below.

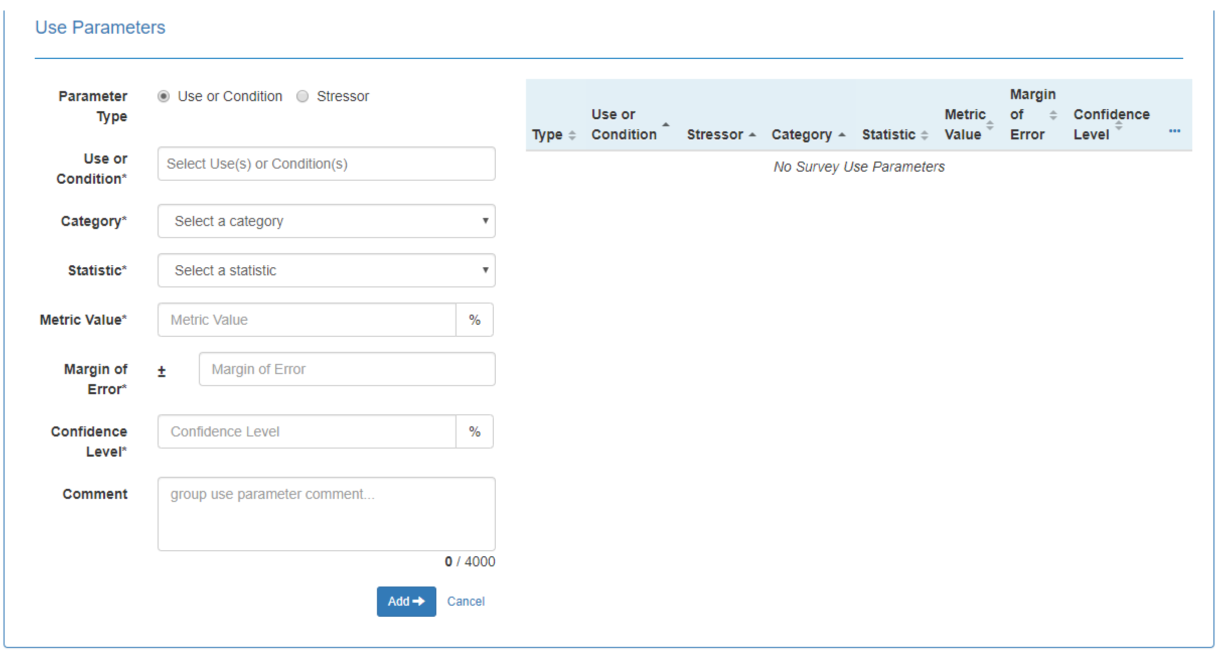


5. Enter the summary statistics for the Water Type and Subpopulation combination, including the Condition Estimates, for each Survey Category. You may enter overall statistics for the Use or Condition ("Use or Condition" radio button); or you may enter statistics for the combination of the Stressor and the Use or Condition ("Stressor" radio button). If you enter Condition Estimates for one or more Stressors associated with a Use or Condition, you must also enter the overall statistics for that Use or Condition on the "Use or Condition" subtab. For example, if you provide statistics for "Dissolved Oxygen" and "Temperature" on the Stressor sub-tab and associate them with the Use or Condition "Aquatic Life Use", then you must also provide the overall Condition Estimate for "Aquatic Life Use" on the "Use or Condition" sub-tab.

    a. Select the appropriate option from the Parameter Type radio button.

    b. To enter the overall statistics for the Use or Condition, select the **"Use or Condition"** radio button.

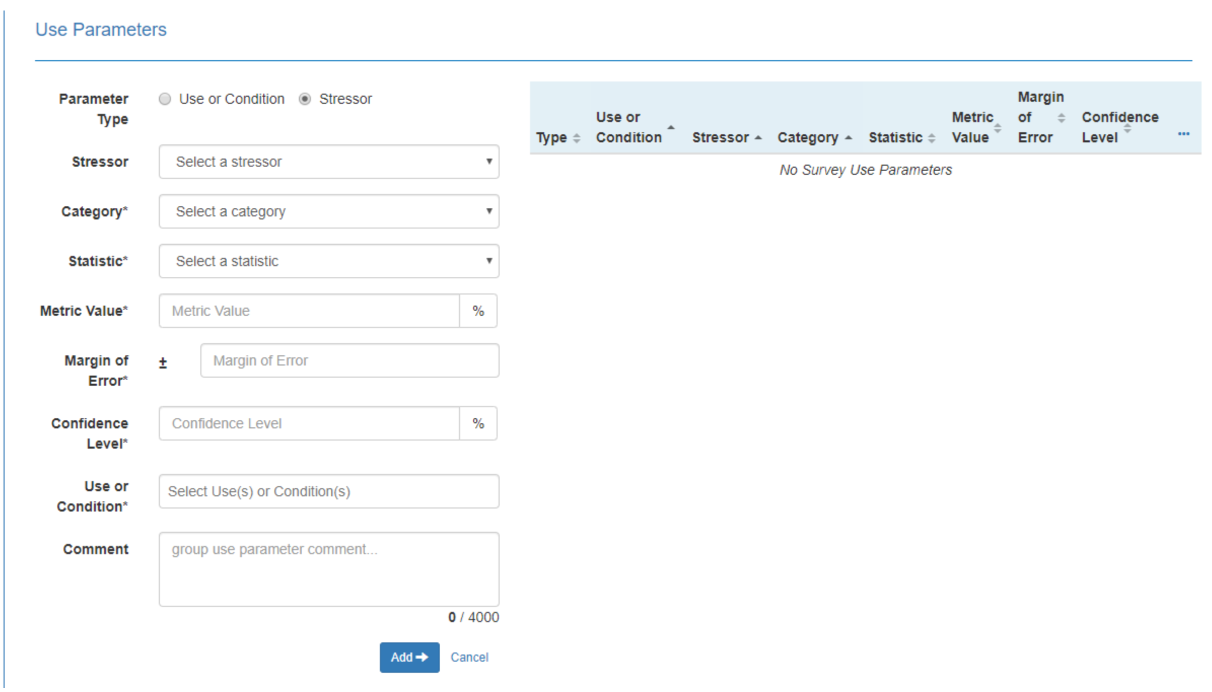


i. **Use or Condition:** Select the Use or Condition from the drop-down box. (This list includes any Uses or Condition labels that have been added via the Domain Administration module. If you don't see a Use or Condition that you want to use, contact your state ATTAINS Domain Administrator to have it added.)

ii. **Category:** Select the Survey Category (e.g., Good/Fair/Poor or Optimal/Fair/Suboptimal) that you want to enter from the drop-down list. (If you don't see the Category label that you are expecting, contact your state ATTAINS Domain Administrator to have it added.)

iii. **Statistic:** Select “Condition Estimate”.
iv. **Metric Value:** Enter the Condition Estimate percentage. This should be entered as a value from 0 to 100.
v. **Margin of Error:** Enter the Margin of Error
vi. **Confidence Level:** Enter the Confidence Level (percent). This should be entered as a value from 0 to 100.
vii. **Comment:** Provide a comment (optional)
viii. **Click the Add button** to save the information to the table on the right.
ix. **Repeat this step for each combination** of Use or Condition and Category to be entered. (If you have one Use and your Categories were Good/Fair/Poor, you would need to complete this step three times.)
x. Note: If you enter something that is incorrect, click the trashcan icon to delete the row and re-enter the row with the correct data.
xi. Filtering: The “…” button in the table header provides the option to “Show Filter”, which adds filter boxes at the top of each column.

c. To enter the statistics for the Stressor and the Use or Condition it is tied to, select the **“Stressor”** radio button.

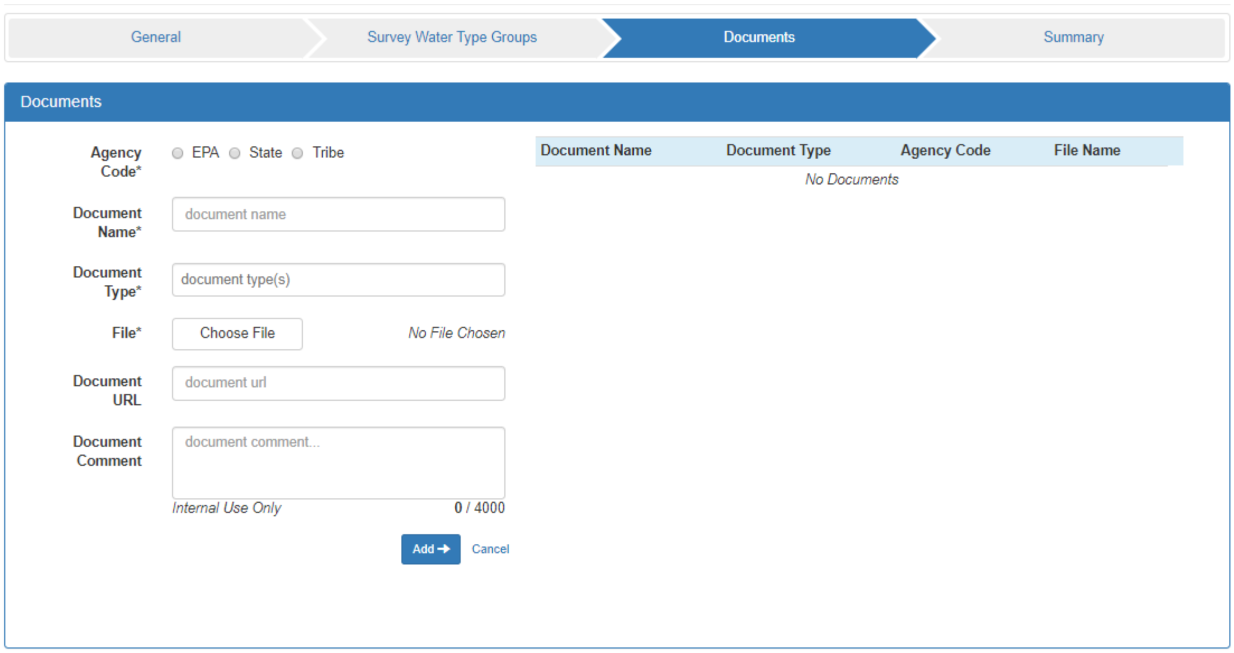


i. **Stressor:** Select the Stressor or Parameter name from the drop-down list.
ii. **Category:** Select the Survey Category (e.g., Good/Fair/Poor or Optimal/Fair/Suboptimal) that you want to enter from the drop-down list. (If you don’t see the Category label that you are expecting, contact your ATTAINS Domain Administrator to have it added.)
iii. **Statistic:** Select Condition Estimate.

iv. **Metric Value:** Enter the Condition Estimate percentage. This should be entered as a value from 0 to 100.
v. **Margin of Error:** Enter the Margin of Error
vi. **Confidence Level:** Enter the Confidence Level (percent). This should be entered as a value from 0 to 100.
vii. **Use or Condition:** Select one or more Uses or Conditions that this Stressor applies to. For example, if you surveyed for the Stressor "Ammonia" and it applied to both your "Overall Use Support" Use and your "Aquatic Life Use Support" Use, you can select both of those Uses from the Use or Condition search box (without having to enter the same statistics separately for each Use or Condition). To select more than one Use or Condition, select the first from the list and then start typing the second and ATTAINS will filter the values. Click on the one(s) you want to include.
viii. **Comment:** Provide a comment (optional)
ix. **Click the Add button** to save the information to the table on the right.
x. **Repeat this step for each combination** of Stressor and Category to be entered. (If you have one Stressor and your Categories were Good/Fair/Poor, you would need to complete this step three times.)
xi. Note: If you enter something that is incorrect, click the trashcan icon to delete the row and re-enter the row with the correct data.

d. When you have finished entering your data, click on the Next tab, to save the data and go to the Summary sub-tab. Or, scroll up and click on the Save button to save and remain on the Survey Water Type Groups sub-tab.

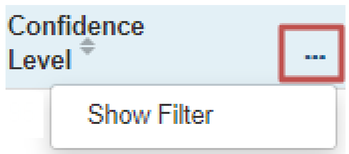
6. Enter the Documents associated with the Survey. Only one file may be selected to upload at a time. All documents uploaded to ATTAINS will be published once the survey is finalized. **IMPORTANT:** Please **DO NOT** upload files that contain sensitive personally identifiable information (PII) such as names and home addresses of staff who conducted the surveys.



a. **Agency Code:** Select the group that created and owns the document.
b. **Document Name:** Type in the name that should be published for the Document that is being uploaded.
c. **Document Type:** Select from one (or more) of the four options. These are labels that help users understand the type of document before opening it. You may select more than one for a single document if they apply.
   i. Map Image – Select this if you have an **image** (e.g., .JPG, .PNG, .BMP) of a map of survey locations that you would like to publish with the survey results.
   ii. QAPP Document – Select this if your document contains a Quality Assurance Project Plan (QAPP).
   iii. SOPs – Select this if you would like to publish Standard Operating Procedures used for the survey.
   iv. Survey Design Document – Select this if you have files that describe the survey design.
   v. Survey Report – Select this if you have a narrative report for the survey.
d. **File:** Choose the file to be uploaded.
e. **Document URL** (optional): If the document is publicly available via a web link, you may provide the web link instead of uploading the document. Please note that web links can change over time. A future change to a submitted web link will cause a broken link and make the file inaccessible to users viewing the survey results.
f. **Document Comment:** Provide a comment (optional)
g. **Click the "Add" button. The file information will show in the table on the right.**
h. Repeat this process for each additional survey document to be uploaded.

7. Review the data for the survey on the "Summary" tab.
   a. Click on a Water Group to expand the information associated with that Water Type.
   b. The table that opens under "Survey Water Group – Use Parameters" is sortable and filterable.
   c. To sort, click the arrows next to the column heading.

d. To filter the table, click the "…" button on the right side of the header row, and select "Show Filters".

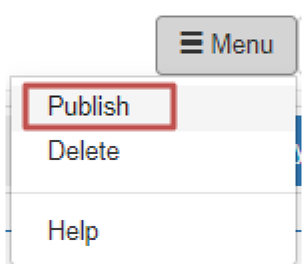


e. The table shows 5 rows by default. To see additional rows, click on the pages of the table on the lower left. Or, click on the number of rows options on the lower right.

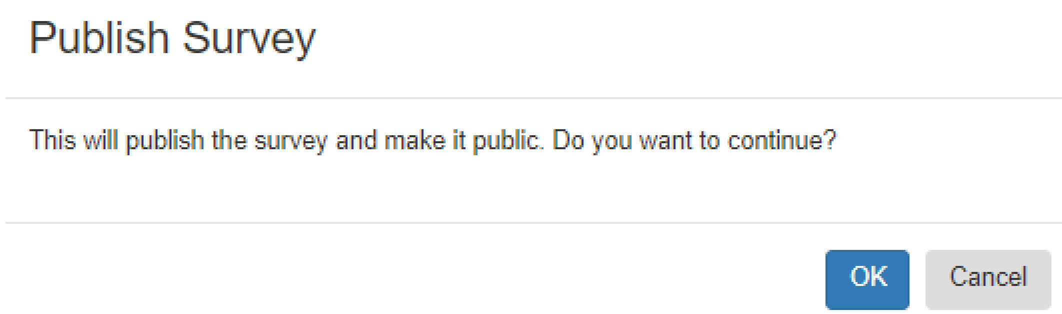
Finalize and Publish the Survey

Users with Survey Administrator permissions may finalize and publish the survey.

1. Prepare to finalize the Survey.
    a. On the "Summary" tab, check to ensure there are no error messages. If the survey is incomplete, the survey cannot be finalized.
        i. If you have entered a Stressor associated with a Use or Condition without also entering the overall statistics for the Use or Condition, an error will show at the top of the Summary tab.
    b. **Check the data carefully on the "Summary" tab to ensure it contains the correct information**. Once the survey is finalized, the survey will be locked and become Read-Only. No more changes may be made at that point.
2. If everything is as you expect, you may finalize and "Publish" the survey. **Note:** As of the March 2019 ATTAINS release, this locks down the survey and makes it Read-Only. Once the surveys web service is created, any finalized surveys will become accessible to the public via a web service. How's My Waterway 2.0 will use that web service to pull survey data from ATTAINS and display it on their website.
    a. To finalize a survey, go to the Menu button within the survey and select "Publish".



    b. A new dialog window pops up explaining that you are about to make the data available to the public. If you are ready to do so, click "Ok", which will lock down the survey. Otherwise, click "Cancel" and return to editing the survey.



c. If you clicked “Ok”, the survey becomes Read-Only, and will be visible to the surveys web service. The survey results will also be available to How’s My Waterway 2.0 once it is available.

Deleting a Survey

Users with Survey Administrator permissions may delete a Draft survey. **Warning:** Deleting a survey will delete data associated with that survey. Before attempting to delete a survey, please check the survey to ensure you are not deleting important data, as it cannot be retrieved after the survey has been deleted.