

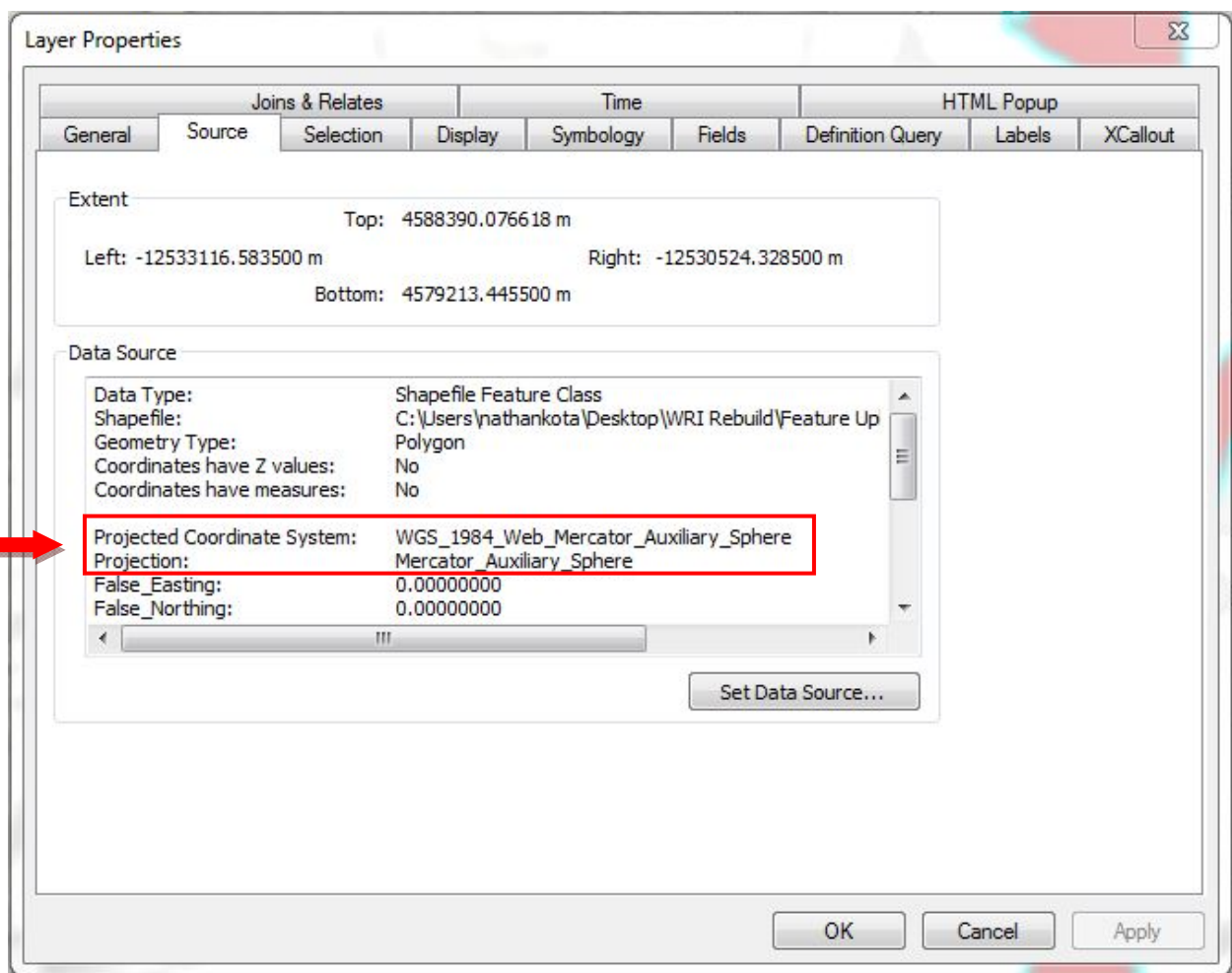
WRI Web Map Application

Feature Upload

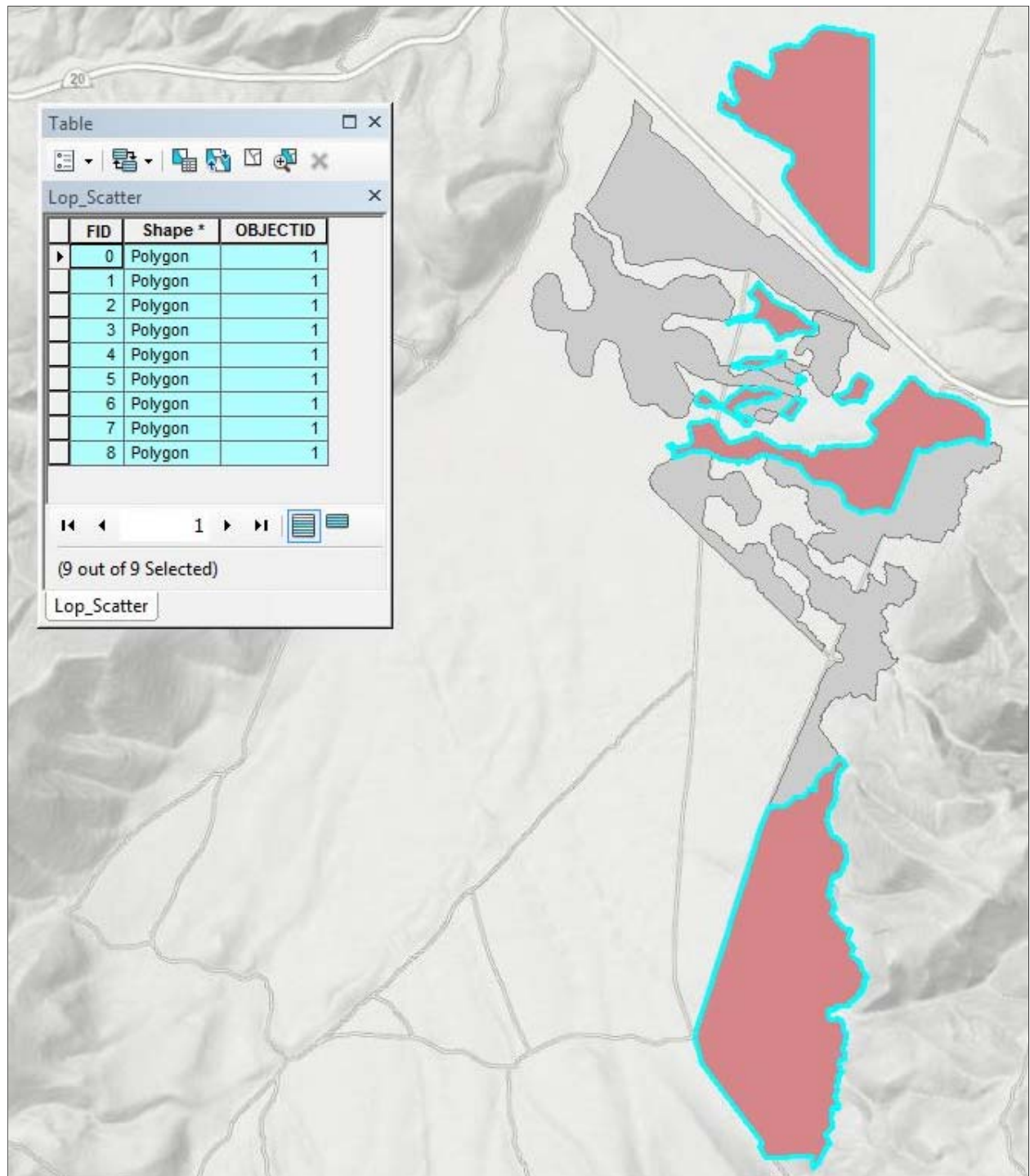
This document provides instructions and tips for uploading 'shape files' created in ArcGIS to represent project footprints on the WRI web map application.

1 Data Preparation in ArcGIS

- I. The database stores data in the projected coordinate system of WGS 1984 Web Mercator Auxiliary Sphere, but you may upload data in other projected coordinate systems, and it will be re-projected upon upload



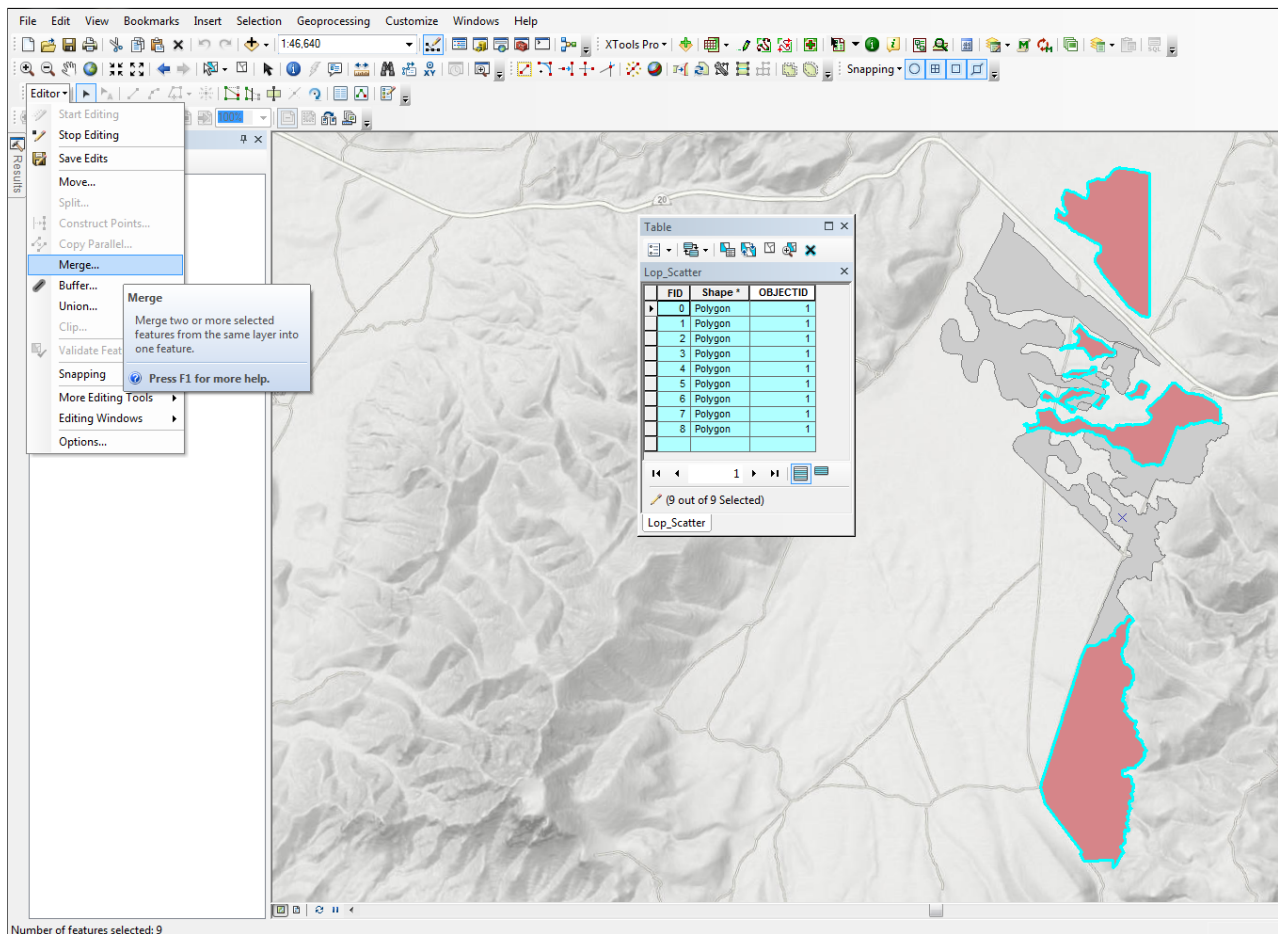
- II. Each uploaded shape file must contain only one feature record. Open the attribute table of the shape file or feature class. If there are multiple rows in the table representing features of the same Action/Treatment combination, the rows must be combined into a multi-part feature



III. Two common methods to create a multi-part feature are:

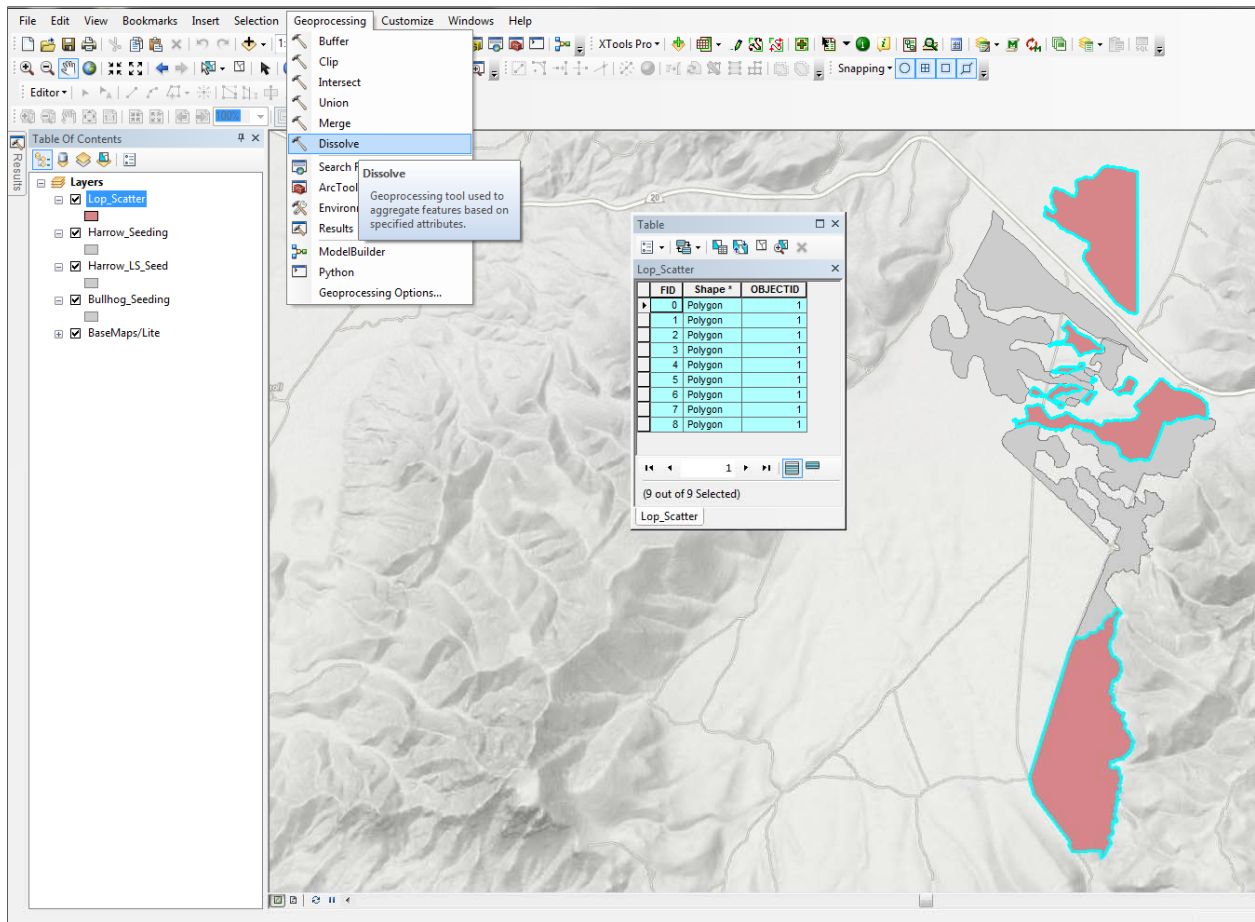
a) Merge function in Editor toolbar

- i) Click the Editor dropdown menu and Start Editing
- ii) Select all of the records/rows in the attribute table, or select them on the map
- iii) Click the Editor menu and select Merge
- iv) Click the Editor menu and Stop Editing, and save your edits

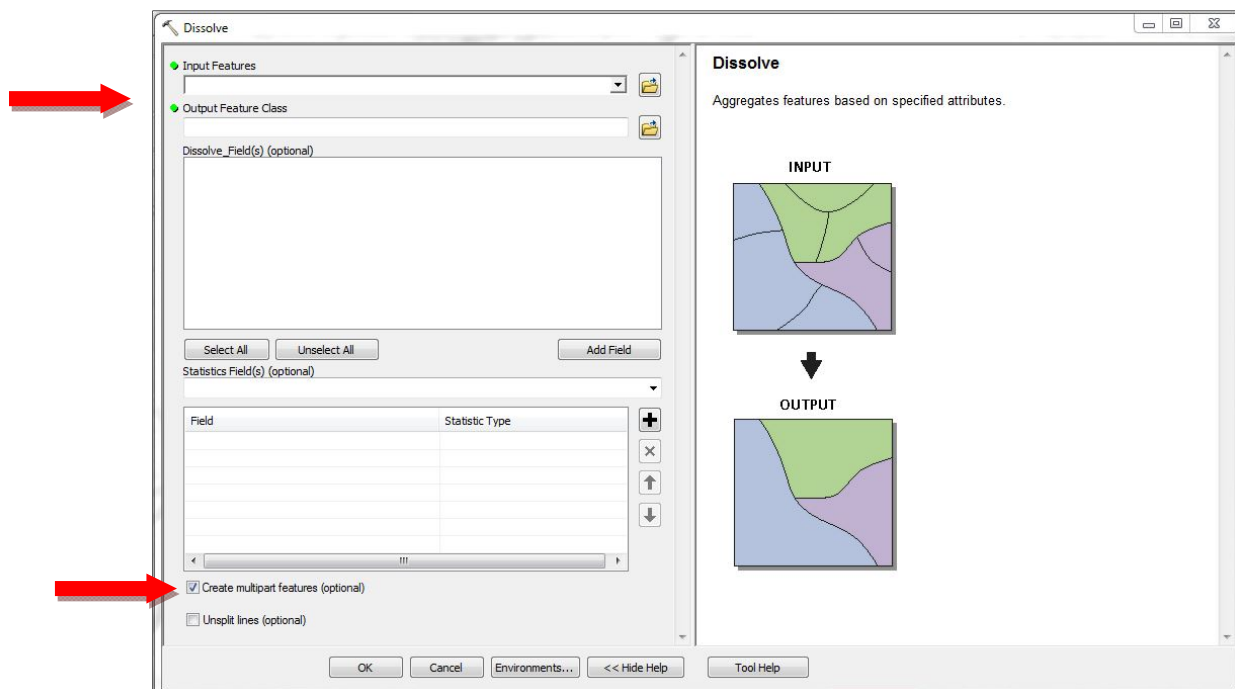


b) Dissolve tool

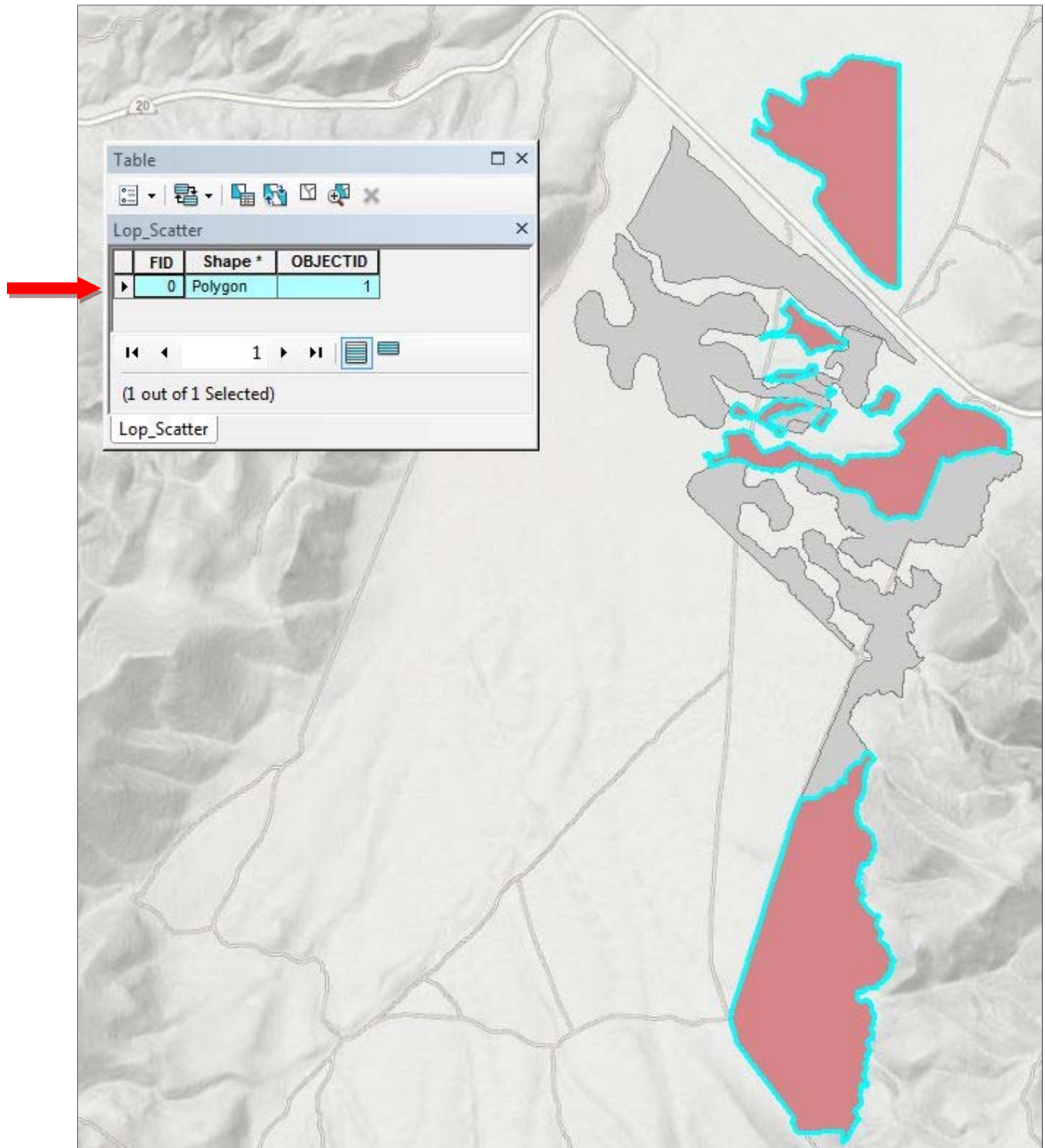
- i) Click the Geoprocessing tab at the top of the page and select Dissolve



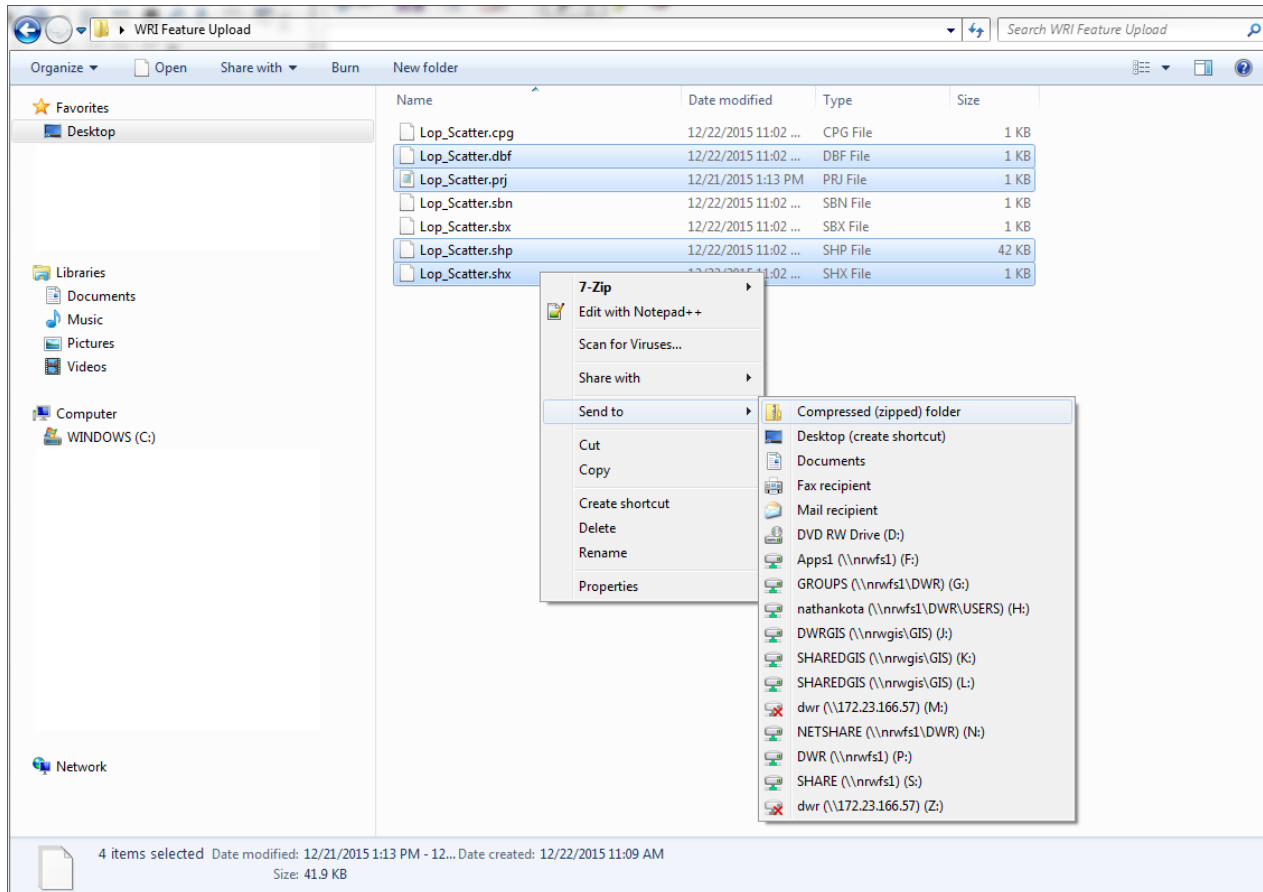
- ii) Select the Input Feature and define the Output Feature Class name and location. Keep all other default settings the same, ensure the Create multipart features box is checked, and click OK



- IV. The result of the Merge or Dissolve function will be a single record in the attribute table representing all features, also known as a multi-part feature



- V. Navigate to the location of the files associated with the GIS data on your computer's hard drive, or other storage location
- select at least the .dbf, .prj, .shp, .shx files
 - right-click and select Send to → Compressed (zipped) folder
 - The Compressed (zipped) folder is what you will upload to the WRI map application



2 Upload GIS files to your WRI project

- I. Access the map from your project's **Map This Project** button at the top of any of the project's data form pages

UTAH's WATERSHED RESTORATION INITIATIVE

Welcome: Nathan Kota User Settings Add Project

Feature Upload Example Project
Region: Southern
ID: 4590
Project Status: Draft

Map This Project Export Project Data Admin Edit

Title Page

* Title
Feature Upload Example Project

* Short Description of Project
Test

* Short Description of Project Location
Test

Title Page
Project Details
Finance
Species
Habitats
Seed
Comments
Images/Documents
Project Summary Report
Submit Proposal
Cancel Project

- II. In the panel on the left side of the page, click Add Feature, and select the appropriate feature Category

UTAH's WATERSHED RESTORATION INITIATIVE

Feature Upload Example Project (4590) Draft

Add Feature Adjacent Projects Project Details

Add Feature Details

Category

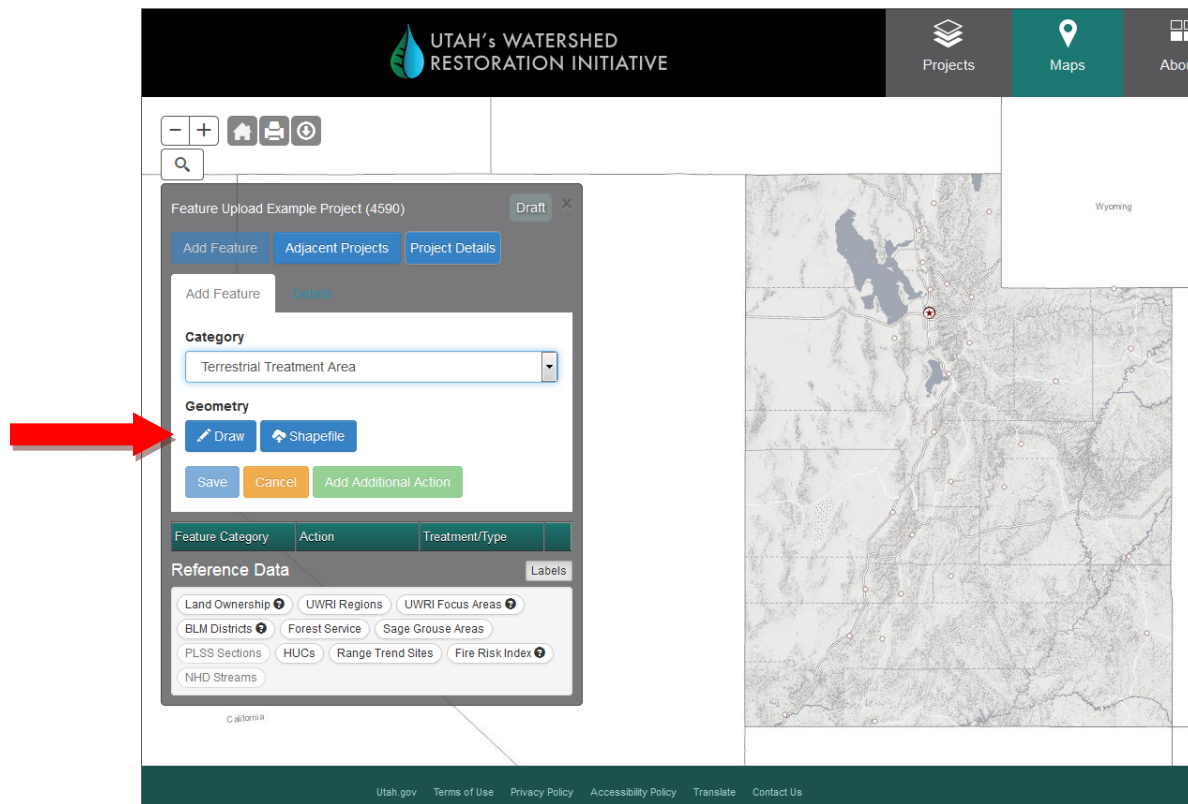
please select a category

please select a category
Affected Area
Aquatic/Riparian Treatment Area
Dam
Easement/Acquisition
Fence
Fish passage structure
Guzzler
Other point feature
Pipeline
Terrestrial Treatment Area
Trough
Water control structure
NHD Streams

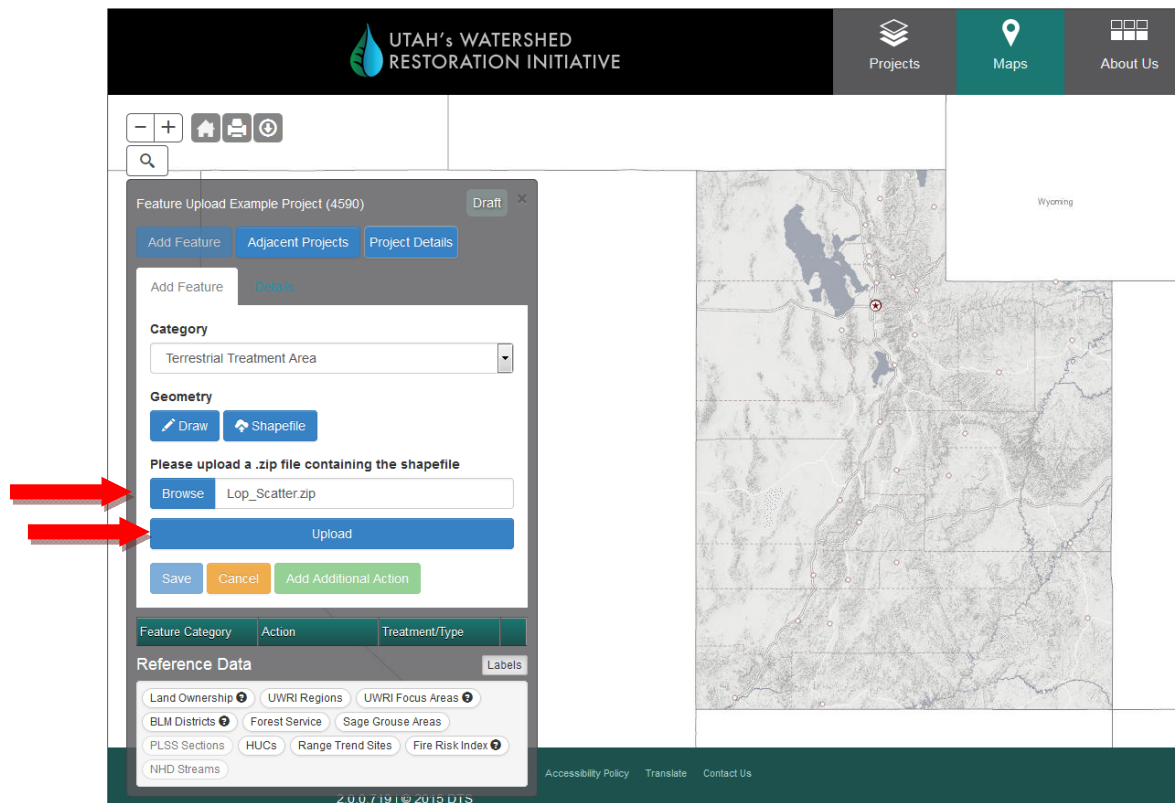
Wyoming
California

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- III. Select **Draw** to manually digitize a feature on the map, or **Shapefile** to upload the zipped GIS files you created and saved



- IV. Browse to the zipped folder containing the GIS files and click Upload



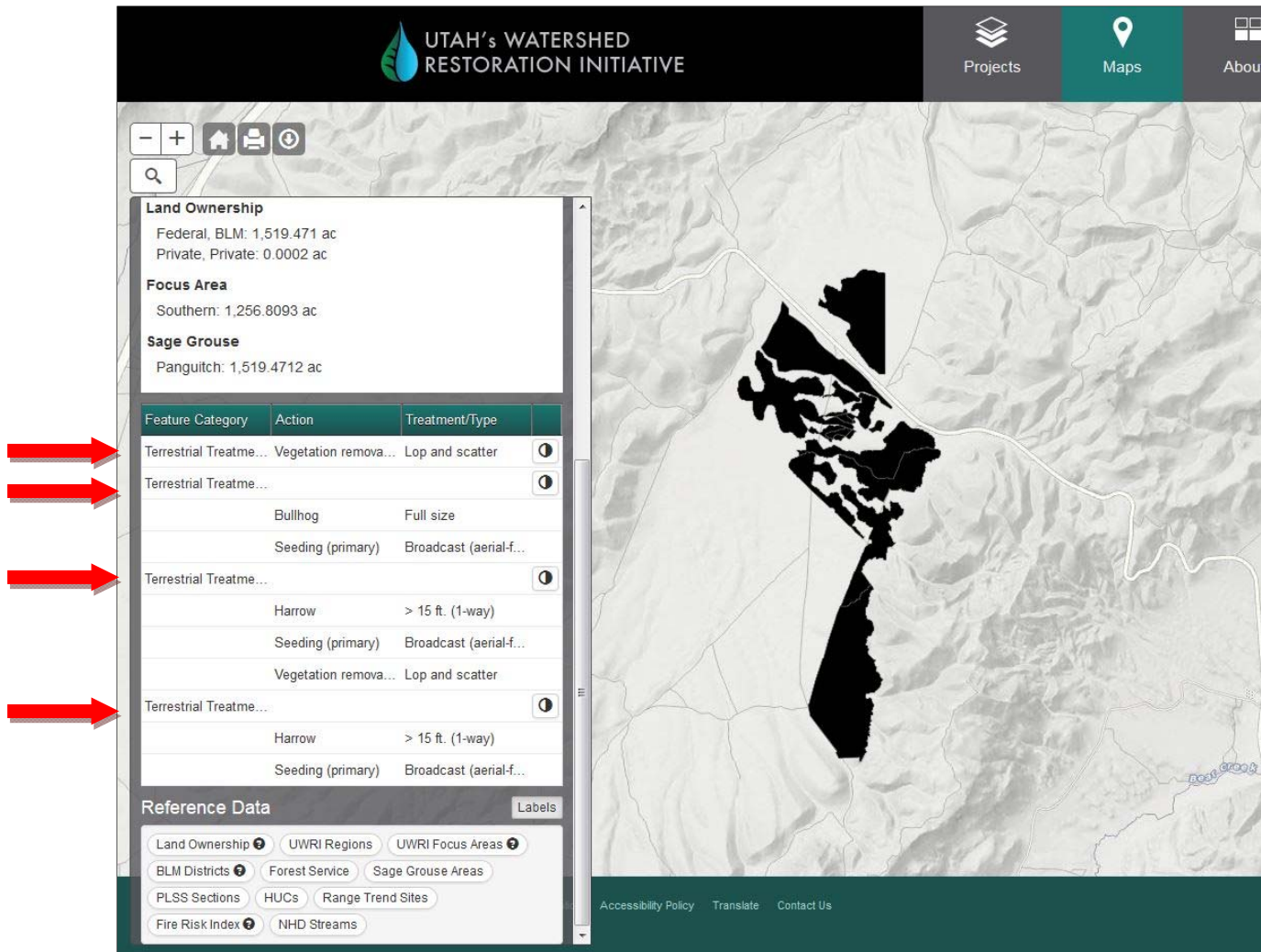
- V. The map will render the features and zoom to them (features are not saved yet!)
- Select the Action and Treatment combination(s) that describe the work that will be, or has been, done within the area.
 - Select as many of those combinations by using the Add Additional Action button
 - Click the Save button when complete
 - If the area is a retreatment of a previous WRI project, click the “Retreatment” box

The screenshot shows the UTAH's WATERSHED RESTORATION INITIATIVE web application. The top navigation bar includes the logo, 'Projects', 'Maps', and 'About' links. The main map area displays a topographic map with several yellow-shaded regions. A 'Feature Upload' modal is open, titled 'Feature Upload Example Project (4590)' with a 'Draft' status. The modal contains the following sections:

- Buttons:** 'Add Feature', 'Adjacent Projects', 'Project Details'.
- Modify Feature:** Includes tabs for 'Feature' and 'Details'.
- Category:** A dropdown menu set to 'Terrestrial Treatment Area'.
- Geometry:** Includes 'Draw' and 'Shapefile' buttons.
- Action/Treatment:** A blue box displays 'Action: Vegetation removal / hand crew' and 'Treatment: Lop and scatter'.
- Action:** A dropdown menu currently showing 'please select an action'.
- Retreatment:** A checkbox labeled 'Retreatment'.
- Buttons:** 'Save', 'Cancel', and 'Add Additional Action'.
- Table:** A table with columns 'Feature Category', 'Action', and 'Treatment/Type'. It contains one row: 'Terrestrial Treatme...', 'Vegetation remova...', 'Lop and scatter'.
- Reference Data:** Includes a 'Labels' button and dropdowns for 'Land Ownership', 'UWRI Regions', and 'UWRI Focus Areas'.

Three red arrows point to the 'Add Additional Action' button, the 'Retreatment' checkbox, and the 'Save' button.

- VI. Upload any other features with unique Action/Treatment combinations necessary to accurately represent the project area



3 Important Information and Tips

- I. The feature Category you select determines the type of feature that must be uploaded or digitized, as follows:
- a) **Polygon**
 - i) Affected Area
 - ii) Aquatic/Riparin Treatment Area
 - iii) Easement/Acquisition
 - iv) Terrestrial Treatment Area

b) **Line**

- i) Dam
- ii) Fence
- iii) Pipeline

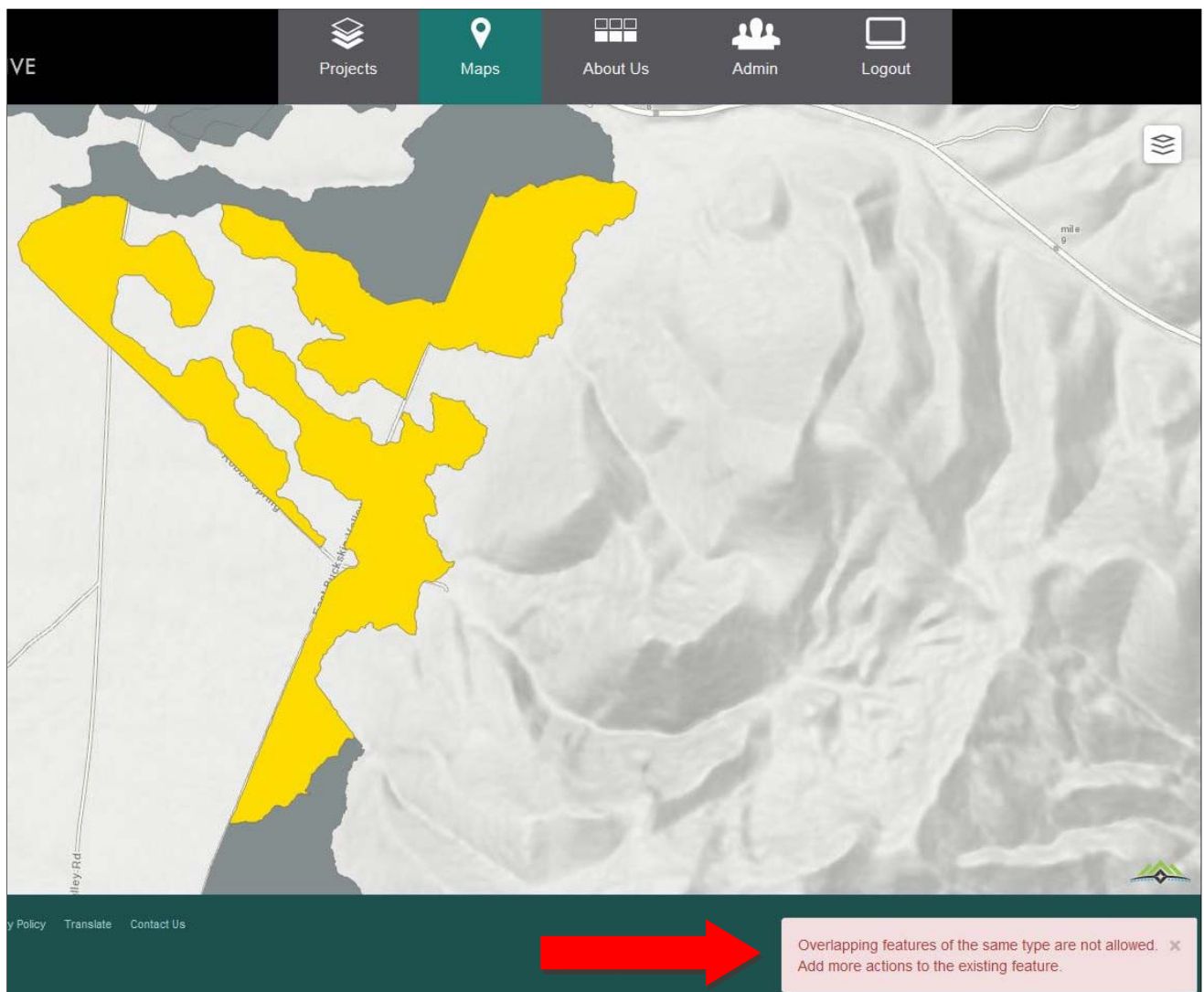
c) **Point**

- i) Fish Passage Structure
- ii) Guzzler
- iii) Other Point Feature
- iv) Trough
- v) Water Control Structure

The screenshot shows the 'Feature Upload Example Project (4590)' interface. At the top, there's a header with the Utah's Watershed Restoration Initiative logo. Below the header, there are navigation icons (minus, plus, home, print, download) and a search icon. The main content area has three tabs: 'Add Feature', 'Adjacent Projects', and 'Project Details'. The 'Add Feature' tab is active, and a red arrow points to the 'Category' dropdown menu. The dropdown menu is open, showing a list of categories: 'Terrestrial Treatment Area' (selected), 'Affected Area', 'Aquatic/Riparian Treatment Area', 'Dam', 'Easement/Acquisition', 'Fence', 'Fish passage structure', 'Guzzler', 'Other point feature', 'Pipeline', 'Trough', and 'Water control structure'. Below the dropdown, there's a 'Treatment' dropdown menu with 'Broadcast (aerial-fixed wing)' selected. There's also a checkbox for 'Retreatment'. At the bottom of the modal, there are three buttons: 'Save', 'Cancel', and 'Add Additional Action'. Below the modal, there's a table with columns 'Feature Category', 'Action', and 'Treatment/Type'. The table has two rows, both with 'Terrestrial Treatme...' in the 'Feature Category' column.

Feature Category	Action	Treatment/Type
Terrestrial Treatme...	Vegetation remova...	Lop and scatter
Terrestrial Treatme...		

- II. Features of the same Category type (e.g. Terrestrial Treatment Areas) within the same project may not overlap. However, features of different categories within the same project, or the same category from different projects, may overlap. If you receive an overlap error that disallows feature upload, try one of the following before attempting feature upload again:
- a) In ArcGIS, use the Intersect tool on the features in question to determine the area of overlap between them, and adjust feature geometry accordingly.
 - b) In ArcGIS, use the Buffer tool to set a small negative buffer (e.g. -0.25 or less) on one of the features.



- III. A common feature geometry error that disallows upload is the presence of two or more overlapping vertices. This can be detected by inspecting vertices in Editor mode in ArcGIS, and removing any overlap.



- IV. If you encounter additional problems or difficulties, please use the Contact Us link at the bottom of the web page to submit questions to WRI administrators