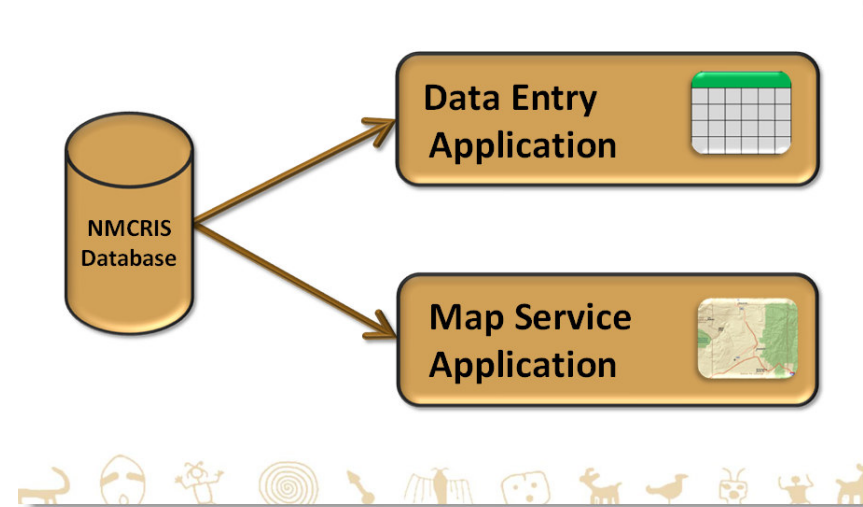# NMCRIS Map Service Application Feature Editing

Exercise goal: Users will edit the polygonal boundaries for activities and resources in the NMCRIS Map Service.

Important: This exercise is a sample presentation of the NMCRIS tools. The current database is live. *Your implementation of these methods should be on Activities and Resources that you have privileges to edit and intend to submit.*

Step 1: NMCRIS Login and Tabular Query

a. Enter https://nmcris.dca.state.nm.us into your web browser to get to the NMCRIS page.

The following exercise is based on the assumption that you have an active user account and currently have a login name and password.

b. Enter your **User Name** and **Password** in the **Sign In** box.

A successful logon will take you to NMCRIS Core Tabular Application (CTA) also known as NMCRIS Data Entry application page. At this point a user can query and view a specific activity data (see CTA Prefield Query training module).

Step 2: Query an Activity

a. From CTA, in the **Find NMCRIS Activity No**. box, enter a NMCRIS number for a survey that you wish to edit or create in the Map Service. Click **Go**.

The corresponding activity number will be queried and displayed in the results table below. If this activity has been registered there will be a corresponding record in CTA but since the survey shape has not yet been digitized or uploaded to the database, the GIS column in the table indicates 'No GIS'.

b. To begin a spatial editing session in the Map Service, click on the **No GIS → Browse All** link to open up a new window. Alternatively you could right click and choose **Open in New Tab** if you want to manage your windows through tabs.

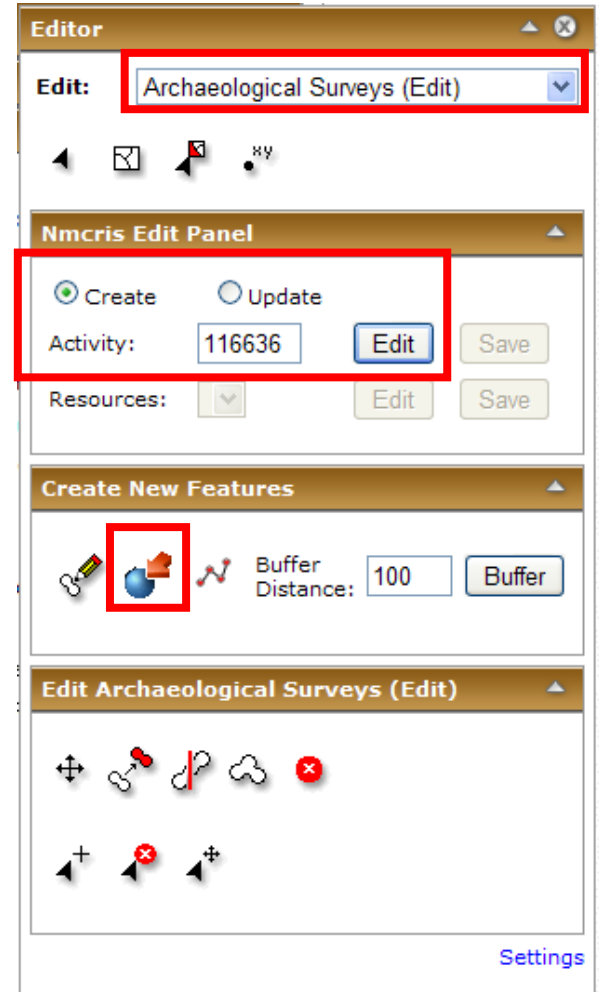## Step 3: Upload a Survey or Resource Shapefile to the Map Service

Once the Map Service has opened, you can either digitize a new survey or resource boundary directly in the Map Service application, or upload a shapefile that may have been created by a GPS unit or digitized in your desktop GIS software. This exercise will demonstrate uploading a shapefile. Please note that while this exercise focuses on the upload of a survey shapefile, these general steps also apply to uploading shapefiles for resources (archaeological sites and architectural properties)

a. From the Map Service Tab bar, select **Editor.**

The Editor dialog box will appear.

b. From the **Editor** dialog, select **Archaeological Surveys (Edit)** from the dropdown. Click **Create** radio button. If you are editing an existing survey or resource, select the **Update** radio button. Type in the Activity number of the survey you wish to edit in the **Activity:** field and click **Edit.**

This initiates an Edit session which is required prior to loading a shapefile.

c. From the Editor dialog, click on the **Upload A Shapefile** icon.

d. In the **Upload a Shapefile** dialog, click the **Select A .shp Browse** button and select the **.shp** portion of the shapefile. Repeat the step for the extensions of .shx, .dbf, and .prj.

These 4 components of a shapefile are all required for NMCRIS to import this feature into the statewide map layer. You can use this function to upload shapefiles for activities or resources.

NOTE:
- **Only files projected in UTM Zone 13, NAD 1983 will be accepted.**
- **Each shapefile must contain one and only one survey or resource.** Please see Appendix A for more information concerning constraints on shapefile uploads.

e. After the 4 files related to the shapefile have been selected correctly, click on the **Upload** button. A message will display indicating "The Shapefile has been successfully uploaded". Click on the **Zoom To** button to ensure your shape displays correctly in the Map Service.

The feature for the activity number you uploaded will be displayed. Because you presumably know what USGS quad this survey was created in, let's query this quad in the Map Service to make sure that the shape you have uploaded occurs in this quad. Please refer to the Map Service CSA Prefield Query training module for detailed Map Service query functionality.

f. From the Map Service Tab bar, select **Quad Names.**

Editor | PLSS | Quad IDs | Quad Names | Geog Names |

g. In the Quad Names dialog, enter the quadrangle name in the **Name** box and click **Find.**

h. The quad selected will be displayed in the Results panel. Zoom and pan as necessary to view the extent of the shape.

i. Once you are satisfied the uploaded shape displays correctly, click on the **Save** button in the **Editor** dialog to save the feature for the subject activity number.
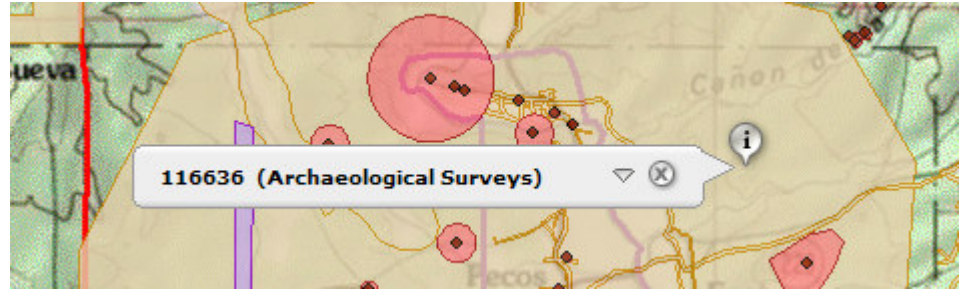
j. Another way to verify a correct upload is to select the **Map Identify** tool on the Toolbar, and click on the shape to verify that the feature is associated with the correct activity number.

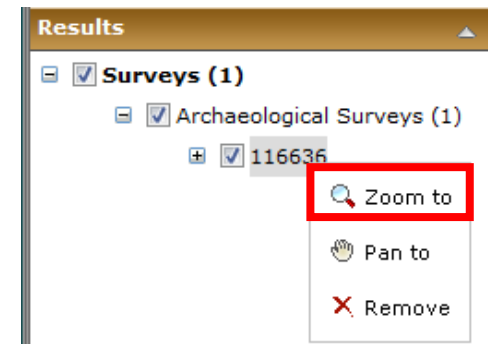k. From the Toolbar, select **Full Extent** to zoom to extents of the state boundary.

116636 (Archaeological Surveys)

Step 4: Digitize New Resources or Surveys

The surveyed space for the activity number you have been working with is now displayed in the Map Service. The following exercise will focus on digitizing, directly into the Map Server, resource boundaries (archaeological or architectural resource) associated with the survey. The following step-by-step process can also be used for digitizing surveys into the Map Server.

a. From the Mar Service Tab bar, select **Surveys** and enter the NMCRIS number of the survey to which the resource(s) you want to edit or create is linked.

b. In the Results panel, right click on the NMCRIS number and choose **Zoom to. Zoom in** and **Pan** to the location where the resource to be digitized exists.
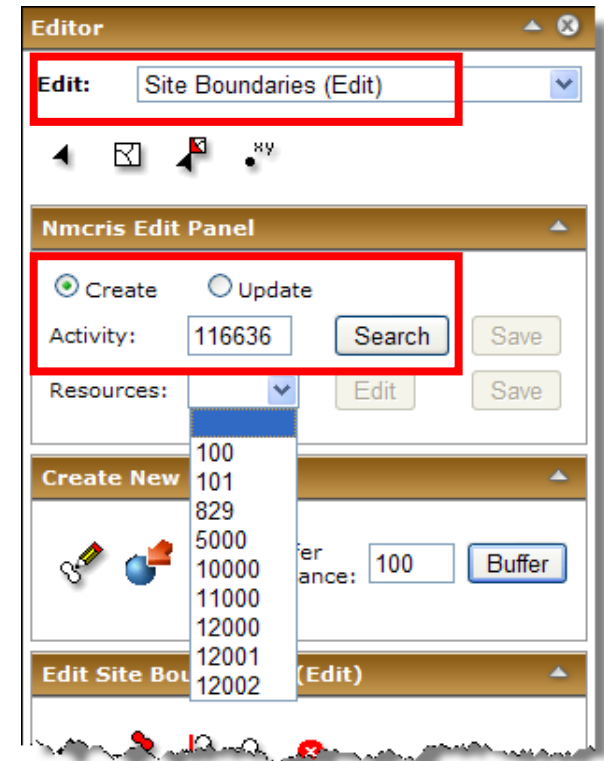

Results

☐ ☑ **Surveys (1)**
  ☐ ☑ Archaeological Surveys (1)
    ⊞ ☑ 116636
      🔍 Zoom to
      ✋ Pan to
      ✕ Remove

c. From the Map Service Tab bar, select **Editor** to open the
   Editor dialog.

d. In the Editor dialog, choose **Site Boundaries (Edit)** from
   the **Edit:** drop down. Click the **Create** radio button.
   Enter the Activity number you are working with and click
   Search. Clicking the **Resources** drop-down will display a
   list of resources linked to that NMCRIS number that are
   available for digitizing.

This list of resources is auto-populated from CTA when the resources are entered and
associated with a specific activity number.

e. From the Resources drop down, select a resource number
   and click **Edit.**

f. In the Editor dialog, select the **Create Feature**
   tool. Using the left mouse button, click on the
   map to start digitizing the polygon outline,
   using the USGS quad or aerial photographic coverage as a
   reference. Once the shape has been drawn, double-click
   to complete the shape. Then click **Save.**

g. Using the **Map Identify** tool, identify the digitized polygon.

Now we will create a second site polygon representing a linear feature such as a road, trail, or acequia. A line will be digitized and a
buffer specified to determine the width of the polygon. This process for creating linear features can also be applied to linear survey
features such as roads and pipelines.

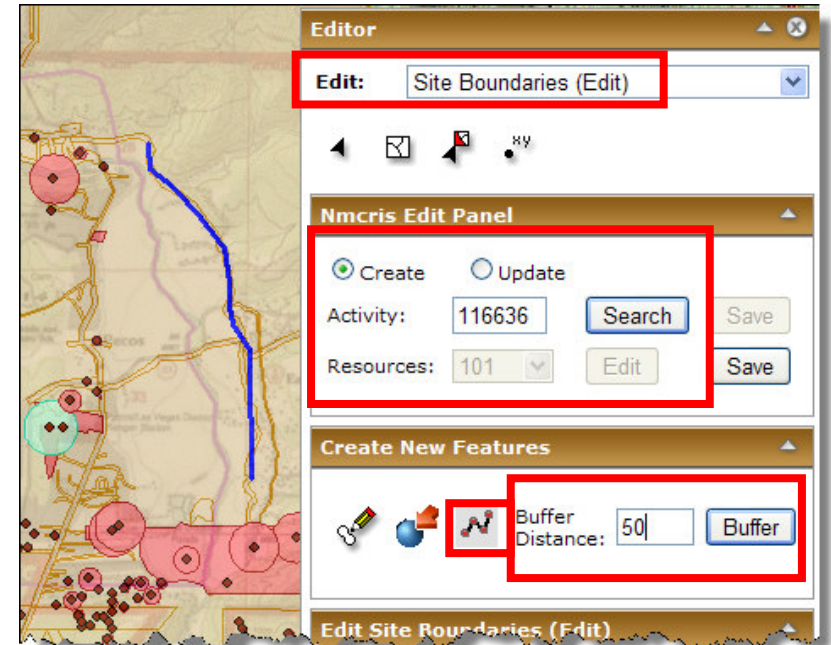h. From the Resources drop down, select a resource number and click **Edit.**

The resource (or survey) will be digitized using the 'hotdog' tool.

    i. In the Editor dialog, activate the **Draw a Line** tool. Using the left mouse button, click on the map to start the line. Digitize along the entire length of the linear feature, double-clicking when complete. Set the **Buffer Distance** to the appropriate width of the feature, and click **Buffer**. Then click **Save**.

    j. Using the **Map Identify** tool, identify the polygon.

NOTE: The Map Service has a 30 minute timeout. If your edit session sits idle, you could lose any work that has not been saved. Make sure you save all work as you go along.
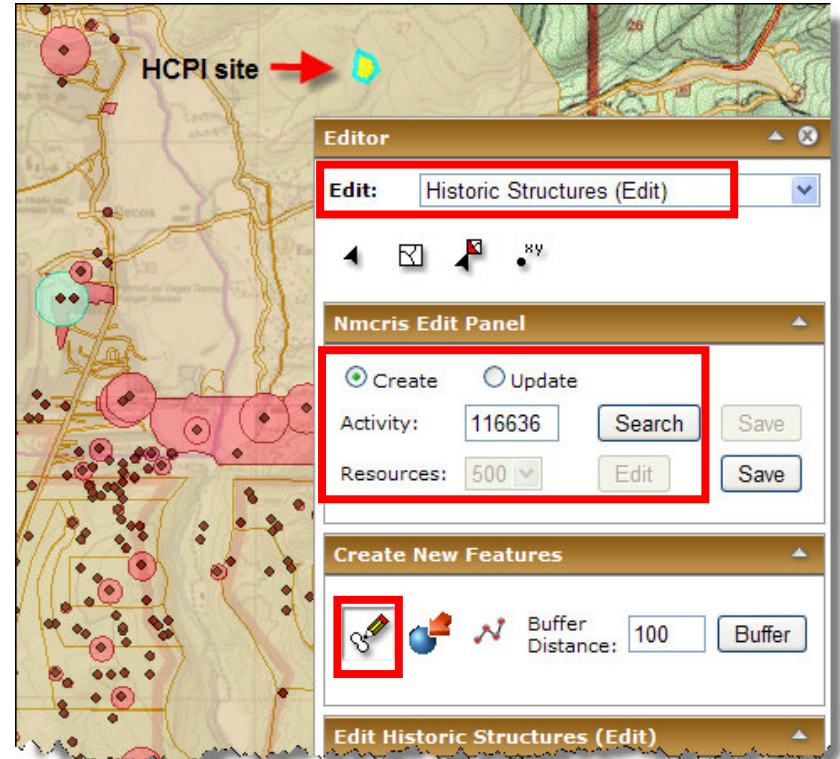
Step 5: Digitize Structure

If you have the privileges to edit structures, you will see another edit layer choice in the Edit menu. The same can be said for other layers such as Buildings, Districts, etc. In this case, you are going to digitize a historic structure for an HCPI resource.
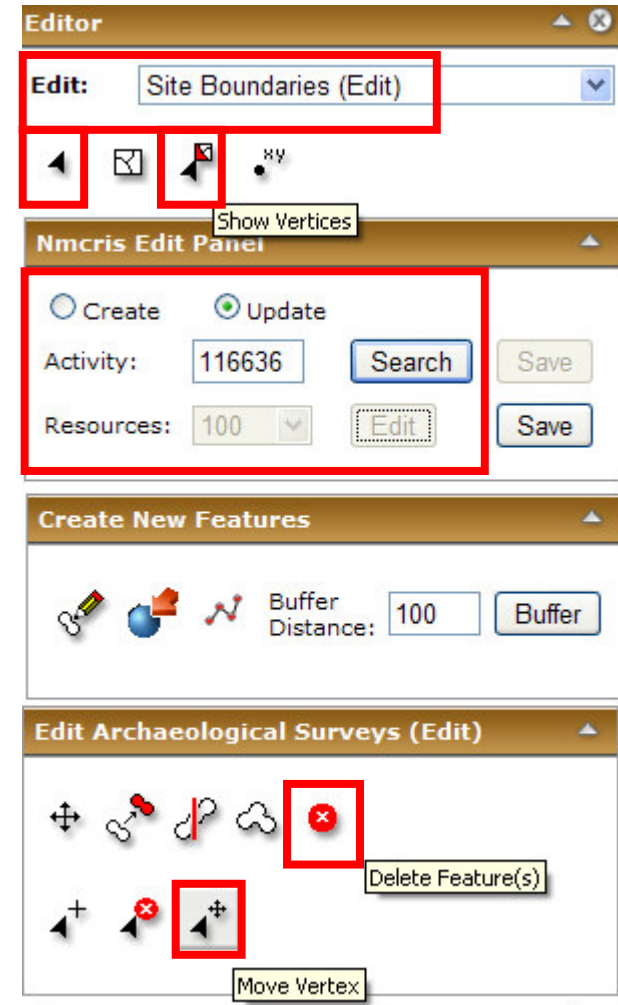
a. In the Editor dialog, for the Edit drop down select **Historic Structures (Edit).**

b. Click the **Create** radio button. Enter the Activity number to which the resource is linked, and click **Search.**

c. From the Resources drop down, select an HCPI resource number to digitize. Click **Edit.**

d. Click the **Create Feature** tool and draw the outline or boundary of the feature on the screen.

e. Click **Save** and identify the digitized polygon using the **Map Identify** tool.

Step 6: Updating Survey and Resource Shapes

After a resource or survey feature has been digitized, any of them can be modified or updated.

a. In the Editor dialog, for the Edit drop down select **Site Boundaries (Edit)**.

b. Click the **Update** radio button. Enter the appropriate Activity number, and click **Search**.

c. From the Resources drop down, select a resource number for editing. Click **Edit**.

d. Select the **Select Feature(s)** tool ◀ and click on the feature. The selected feature will be highlighted with a bright green-blue boundary.

e. To modify the boundary of the feature, click on the **Show Vertices** tool and the vertices of the feature will display

f. Select the **Move Vertex** tool, click one of the vertices, and drag it to a desired location. This step can be repeated for as many vertices that need to be moved within the feature.

g. Click **Save**.

h. In some instances it will be necessary to replace an existing resource or survey shape with a newly digitized shape. To delete a shape, begin by executing steps a. through d. above. After a feature has been selected, it can be deleted by selecting the **Delete Feature(s)** tool. The deleted feature will not disappear from the view

until after the **Save** button is clicked. After a feature has been deleted, but before the **Save** button is clicked, it can be replaced with another digitized or uploaded shape, and the attribution for the deleted shape will be applied to the new shape.

Summary: In this exercise you have learned how to upload shapefiles, digitize and update resources and surveys.

End Exercise.