



WEB APPLICATION & PROJECT PLANNING TOOL

USER'S MANUAL

*Utah's Watershed Restoration Initiative and Utah's
Automated Geographic Reference Center*

September, 2009

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1.0 GENERAL INFORMATION

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1.1 Overview

Available at <http://wri.utah.gov/>, the Utah Watershed Restoration Initiative (UWRI) projects website serves as the access point for all UWRI proposal and project information. Logged-in users may enter new project proposals, edit their own proposal and project data, and review and download details of other users' proposals and projects. Anyone who visits this website may view details of, and download files attached to, any proposal or project.

Proposal and project details are entered into, and viewed from, a series of web-based data forms. Some forms contain data fields that support the upload of electronic files (.pdf, .jpg, .doc, etc.) associated with the project. A mapping application allows the upload and/or real-time rendering of geospatial data to show the location of actions that occur to meet project objectives. Summary reports of proposal and project data and maps are available for viewing, downloading, and printing.

The web-based application acts as the user interface with a geodatabase that stores UWRI project information. While UWRI administrators are the domain managers, physical manipulation of web application function and database structure are the responsibility of Utah's Automated Geographic Reference Center (AGRC) staff.

1.2 Authorized Use Permission

As a public website, no authorization is required to view or download proposal and project data. However, to enter data and upload files, and to comment on other users' proposals, a user account must be created, and the user must be logged-in to the system (see Section 2.0 Creating a User Account). Inappropriate use of the application may result in the removal of a user's editing and commenting rights.

1.3 Points of Contact

1.3.1 Information and Help

For questions about the specific use of the application, and suggestions for additions, changes, and improvements to its functionality, please contact the designated expert from your regional team:

Central Region

Mark Farmer
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Northeastern Region

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Northern Region

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1.3.2 Coordination

For more information, contact UWRI administrators:

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2.0 GETTING STARTED

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2.1 System Menu

The default (or home) page contains three main selections:

1. Create new user (see Section 2.2)
2. Login (see Section 2.2)
3. View Projects

And four permanent links across the top of the page, to aid in website navigation:

1. Projects
2. Map
3. Query Builder
4. User Profiles

2.1.1 'View Projects' & 'Projects' links

The *View Projects* and *Projects* links have the same function: to allow users to view, filter, and sort a list of projects according to their status, which are categorized as follows:

1. **Proposed** – The Project Manager has entered details of a project for which they are requesting funding to implement the project. Submitted proposals are reviewed by regional UWRI teams to assess their merits and rank their importance.
2. **Current** – A project that has been approved by the regional team, awarded funding by UWRI administrators and/or partner agencies, and will be implemented within the current fiscal year (it may also have received approval to carry-over to a subsequent fiscal year).
3. **Completed** – A project that has been fully implemented, with all expenses paid, and all final project information entered in the database through the web application.
4. **Cancelled** – Any project that either did not make it through the regional review process or, if it was approved for implementation, was unable to be completed due to any combination of factors.

When a user is logged-in to the system (see Section 2.2.3), an added filter on the *View Projects* and *Projects* links allows one to see *My* projects, which are associated with their user profile. A filter and sorting function on each project list allows one to refine the list, based on the columns in the matrix. Clicking on a project name in the list leads to the Project Portal, which accesses all data the Project Manager has entered for that project.

2.1.2 Map link

Clicking on the *Map* link transfers the user to the mapping application, where zoom and identify tools can be used to view geospatial data associated with projects. If a user has selected a project from one of the lists (see 2.1.1, above), then the *Map* link will zoom directly to the extent of the chosen project. For more detailed information about the map application, please see Section 4.0.

2.1.3 Query Builder

This link is currently unavailable. This section of the User Manual will be updated as progress is made. The anticipated availability of the Query Builder is summer, 2010.

2.1.4 User Profiles

This link allows all users to view a subset of information about every person that has created a user account. By clicking *View User's Data*, followed by *Contact Project Manager*, anyone may send an email directly to the selected *Approved User*.

2.2 Create New User & Login

Obtaining a user account allows you to enter new proposals (see Section 3), edit data for proposals and projects linked to your username, and submit comments and replies (to comments) on other users' proposals and projects.

To set up an account, select the *Create new user* link on the UWRI default page, and complete the form to request a user account. All of the data fields are required, except the P.O. Box. If you only have one phone number, please enter it in both the *Mobile Phone* and *Office Phone* data fields. If your agency or organization, and office, are not included in the drop-down menu, please choose *Other* for both. If you would like for your agency and office to be included in the list, click the link above each field to request their addition. Please note that it may take several weeks before the additions are made, as changes to the database only occur periodically, due to the need to shut down web services.

Select a username and secure password, and an account type (see sections below for more information about account types). Click the *Submit Account Request* button. An email will be sent to UWRI Administrators, notifying them of your request. Once UWRI Administrators have accepted your user information, an email will be sent to you, and you may login at any time. It may take up to two business days (Monday – Thursday) for your account to be activated.

2.2.1 Project Manager User Account

The Project Manager user account is the most common account type. Project Managers have permissions and rights to enter new project proposals, and edit the details of any proposal or project associated with their user information. Project Managers are also able to submit comments on other users' proposals and project, as well as reply to comments.

2.2.2 Archaeologist User Account

The Archaeologist user account is intended for agency or organization archaeologists that are responsible for reviewing their agency's projects for cultural resource legal compliance. Archaeologists have special permissions and rights to enter data in two sections of the Archaeology data form (*Archaeology comment* and *Archaeology Budget*), for projects associated with their agency. See section 3.5 for further explanation of those data fields.

Archaeologists may also enter proposal data, edit proposals and projects associated with their user information, and comment and reply (to comments) on others' proposals and projects.

2.2.3 Login

Once a user account is created, click on the *Login* link on the default page and enter your username and password. The *View Projects* link now has an additional selection to view *My projects* lists, which filters to proposals and projects associated with your user information. See section 3 for instructions on creating a new proposal.

3.0 CREATE A NEW PROPOSAL (Enter Text Data)

3.0 CREATE A NEW PROPOSAL (ENTER TEXT DATA)

Logged-in users with Project Manager or Archaeologist user accounts may enter and edit their own project proposals. When logged-in to the system, select the *Create a new proposal* link on the default page, which transfers you to the *Title Page* data form. A list of links to other data forms appears in the left column of the page, many of which contain required data fields.

To initiate a proposal, the data fields on the *Title Page* must be completed, and the *Save* button clicked. Once a proposal is initiated, it will appear in the Proposed Projects list (accessed by the *View Projects* and *Projects* links). At this point, the Project Manager can return to the proposal at any time to view, enter, and edit proposal data.

Proposal data may be thought of in two separate categories: tabular data and geospatial data. Tabular data is entered and edited in the data forms, while geospatial data is entered using the Proposed Features data form, in conjunction with the mapping application. Subsequent sections contain information about each data form, and the creation of geospatial data.

NOTE: Every data entry field, on all forms, contains a definition of expected information for that data field. Simply roll the cursor over a data field to view a pop-up window containing the data definition.

3.1 Title Page

All data fields are required on this form. The *Project Manager* and *Project I.D.* fields are automatically populated by the system. If you are unsure about the *UWRI Region* of your project, click the *Map* link at the top of the page, and turn on the *UDWR Administrative Regions* map data layer to view the regions. At least one selection must be checked in the *Submit proposal to* section.

3.2 Justification

All data fields are required on this form. This is where the Project Manager must explain all details about the proposed project, including the need for the project, specific objectives, threats and risks of doing (and not doing) the project, how the project achieves goals of particular management plans, the specific methods, and management prescriptions. Roll the cursor over each data field to view a pop-up window with a definition of the expected information for that field. The *Reset* button changes the text in the data fields to the most recently saved information.

3.3 Equipment

Select the piece(s) of equipment, quantity, and who will provide them, in the data entry fields. If a piece of equipment, or an equipment provider, is not included on the respective lists, please choose *Other* and explain your choice in the *Comment* field.

Additionally, the *Comment* field may be used for any applicable information relating to the data field selections made on this form.

The equipment list is based on the equipment inventory of UDWR's Great Basin Research Center. If you select *DWR-GBRC* as the equipment provider, please contact their staff to schedule the use of equipment.

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3.4 Seed

Select the provider from the drop-down menu, and click *Save* to add it to the data matrix. If the provider is not shown, select *Other*.

Click the [Download UWRI Seed Mix Workbook and Template](#) link to access a MS Excel file designed to help biologists create seed mixes and estimates for a project. Instructions for the template are included in the first tab of the spreadsheet. The data contained within the spreadsheet are based on seed inventory at UDWR's Great Basin Research Center (GBRC), and the most up-to-date cost for seed.

Create a separate seed mix file for each seed mix you intend to use on a project. For example, if you plan to do a primary seeding of grasses immediately after a restoration treatment, then a secondary seeding of forbs later in the year, then two seed mix files should be created.

Once a provider is added to the data matrix, click the pencil icon to activate the *Attach Seed Documents* data entry fields. Upload a single seed mix per provider. Once a seed mix is paid for, return to this page to upload the invoice. If GBRC provided the seed for your project, their staff will upload seed invoices associated with your project. A link will be provided to open or save all uploaded files.

For questions about the use of the seed mix template, contact GBRC staff.

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3.5 Archaeology

Use the *Project Manager Comments* field to describe the expected archaeological clearance, or other work, that may need to occur for the project to satisfy legal obligations. The *Project Manager Comments* is a required field, so if there are no archaeology obligations within the project area, please note this in the comments field. The date is automatically calculated as the date the comment was entered.

An agency or organization archaeologist, with the Archaeologist user account (see Section 2.2.2), may use the *Archaeology comment* field to confirm or deny the *Project Manager Comments*, and offer suggestions about the archaeological work that may need to occur within the project area. The date is automatically calculated as the date the comment was entered.

Additionally, the Archaeologist user account may add line items to the project's budget via the *Add Archaeology Budget Items* data entry fields. The Project Manager may not edit the *Archaeology Comment*, but may alter the archaeology budget line item in the project's *Budget* data form.

3.6 NEPA

Use the *NEPA comment* field to describe NEPA work that has occurred, or will occur, for the project area. This is a required field, so if NEPA is not applicable to the project, please not this in the comments field. The date is automatically calculated as the date the comment was entered.

Upload any NEPA documents that the Project Manager determines is acceptable for public view. A link will be provided to open or save all uploaded files.

3.7 Species

Select species that are considered primary and secondary beneficiaries of the project. Primary beneficiaries are those species for which the project is designed, and any other species that may receive a direct benefit from the project.

Both data matrices require at least one entry. If the project is not specifically designed to be a primary or secondary benefit to any particular species, choose *Not Applicable* from the drop-down menu and add it to the list(s).

3.8 Budget

Use this data form to create a detailed, itemized budget for the project, and to suggest who will pay for each item. Select a budget category that most closely relates to each line item from the *Item* drop-down menu. Choose *Other* if there are no selections that sufficiently relate to the line item, and describe your choice in the *Short Description* field.

If a request is being made for any part of the cost of a line item to be paid for out of the Utah Watershed Restoration Initiative (UWRI) account, then enter the amount in the *UWRI Input* field. If any part of the cost of the line item is expected to be paid from the UWRI partner account, then enter the amount in the *Partner Input* field. If any part of the cost represents an in-kind value contribution to the project, then enter the amount in the *In-Kind* field. Each budget line item may have any combination of UWRI, Partner, or In-Kind inputs.

Provide a short description of the line item in the *Short Description* field.

Click *Add* to save a line item, and it will appear in the *Budget* matrix. Project Managers may edit budget line items at any time.

Once a line item is saved, the associated dollar value will be displayed in the *Budget Totals* section, depending on the chosen input.

Use the *Comments* field at the bottom of the page to enter supplemental, relevant information about the project's budget. The date is automatically calculated as the date the comment was entered.

3.9 Funding

Each total budget input amount from the *Budget* data form must be accounted for on the *Funding* data form.

To do so, first make a selection from the *Source* drop-down menu to identify a potential funding source for the project. For example, if you are requesting that UWRI contribute funds to the project, then select *UWRI* from the *Source* list. Select *Other* if the source is not on the list, and enter a short comment in the *Funding Comments* section at the bottom of the page to explain your choice.

If you would like a new source to be included in the list, click the link above the *Source* field and enter the name of the source. Please note that it may take several weeks before the addition is made, as changes to the database only occur periodically, due to the need to shut down web services.

If the requested amount needed from the source is an actual dollar figure, enter it in the *Amount* field. If the requested amount is an in-kind value, enter the dollar amount value in the *In-Kind* field.

Select the *Funding Channel* from the drop-down menu to indicate the agency or organization's accounting system from which the payment will be made to the vendor(s). For example, if *BLM WUI* is chosen as the funding source, and the payment from that source will be made directly from the BLM accounting system, then choose *BLM* as the *Funding Channel*. Alternatively, if funds are being requested from a UWRI funding source, select *UWRI* as the *Funding Channel*.

One of the main functions of UWRI is to pool resources of several agencies and organizations. If at any point a funding source goes through this pooled funding channel, UWRI should be selected as the funding channel even though the funding is from a partner.

Select the fiscal year for which the funding is being requested from the *FY* drop-down menu. The UWRI fiscal year is the same as the state fiscal year, from July 1st to June 30th of the following year. For example, fiscal year 2009 is from July 1, 2008 until June 30, 2009.

Click the *Is Approved* field only when you are certain that the selected funding source is going to contribute the identified amount or in-kind value. UWRI administrators will click this field for any UWRI requested sources.

Click *Add* to save the funding information, and it will display in the *Funding* data matrix. Once a funding source is approved, it will display in the *Approved Funding Totals* section, in the middle of the page.

Use the *Comment* field at the bottom of the page to enter supplemental, relevant information about the project's budget. The date is automatically calculated as the date the comment was entered.

NOTE: For a proposal to be submitted for review, the totals calculated in the *Amount* and *In-Kind* columns of the *Funding* data matrix MUST be equal to the *Net Total* and *In-Kind Total* fields, respectively, which are displayed in the *Budget Totals* summary section in the middle of the page.

Before an approved proposal's status can be changed to "project", the fields in the *Approved Funding Totals* summary section must exactly match the complementary field in the *Budget Totals* summary section. Both sections can be found on the *Funding* and *Budget* data forms.

3.10 Monitoring

Describe the monitoring that will occur within the project area in the *Methods* field; including the methodology to be use, the monitoring schedule, and assignments. Check all of the types of monitoring that apply (vegetation, wildlife, and other). The *Reset* button changes the text in the *Methods* field to the most recently saved information.

Use the *Monitoring Attachment* field to upload any publicly-viewable documents and files that were created as a result of monitoring activities. For each attachment, identify the *Attachment Type*, by indicating whether the file relates to vegetation, wildlife, or other monitoring efforts.

3.11 Images and Attachments

There are two sections to this page; one for uploading images associated with the project, and another for uploading other supporting documents and files that do not belong in another upload field in the data forms.

Use the *Image Type* drop-down menu to define if the image was taken *Before*, *During*, or *After* project implementation. Click the *Browse* button to navigate to the image location, and select the file to be uploaded through the *Select Image* data field. Describe what is going on in the image in the *Comment about this image* field. Click the *Upload* button to save to the *Images* matrix. A thumbnail view of the image becomes available for viewing and downloading, and the Project Manager may edit the *Type* and *Comments* fields, or delete the image, at any time.

There is a reminder in the *Attachments* section that seed, NEPA, and monitoring files should be attached on their respective data forms. To upload a supporting document that does not fit those categories, click the *Browse* button to navigate to the file location, and select the file. You must then provide a description of the file in the *Comment about this attachment* field. Once both fields have been populated, click the *Upload* button to add data to the attachments matrix. The Project Manager may edit the comments, or delete the attached file at any time.

There is a 4 GB limit on each attachment

3.12 Project Log

Enter any anecdotal information about the project in the *Comments* field, and click *Add Comment* to save it to the *Comment List* matrix. The date is automatically calculated as the date the comment was entered.

Examples of Project Log comments are dates that actions occurred, problems encountered, lessons learned, etc. The Project Manager may edit or delete comments at any time.

4.0 CREATE A NEW PROPOSAL (Enter Geospatial Data)

4.0 CREATE A NEW PROPOSAL (ENTER GEOSPATIAL DATA)

Use the *Proposed Features* data form to access the feature editing page. Alternatively, if you have selected one of your proposals from a list (see Section 2.1.1) the feature editing page is also accessible from the *Proposed Features* link on the project portal page.

The feature editing page allows you to create as many geographic features as are necessary to accurately show the on-the-ground work that is to take place for the project.

4.1 Define Attributes of Geospatial Features

The first task is to assign attributes to a geographic feature, based on common techniques, methods, and tools used in terrestrial, aquatic, and riparian restoration and conservation projects. Select the *Create New Features* link, which leads to a page asking *What type of feature would you like to create, edit, or delete?* Select the link that applies to the feature you would like to create.

4.1.1 Aquatic / Riparian

Select this link to create a polygon feature representing the location of an aquatic or riparian restoration or conservation treatment. Click on the *Add New Aquatic/Riparian Area* link in the directory tree on the left side of the page to activate edit mode.

Use the *Select Action* drop-down menu to choose the broad category of treatment to be employed in the project area. Then choose the more precise treatment from the *Select treatment* menu. For every action chosen, an associated treatment selection is mandatory. If you have chosen *Herbicide Application* as the action, and an associated treatment, then the *Select herbicide* menu will be activated automatically, allowing you to specify which herbicide(s) will be used.

Click the *Add* button, and a new *Aquatic/Riparian Area* will appear in the directory tree on the left side of the page, with the defined action and treatment below it.

You may add as many action and treatment combinations as necessary for a single project area feature. To add more actions, click once on the *Aquatic/Riparian Area* in the directory tree that represents the feature you want to add to, and select the additional action and treatment from the drop-down menus. To add more treatments to a defined action, click the action and select a treatment from the drop-down menu.

To create attributes for a new feature, click the *Add New Aquatic/Riparian Area* link in the directory tree, and select treatments and actions from the drop-down menus.

PLEASE NOTE: It is assumed that every action and treatment(s) combination you have assigned to a project feature will occur throughout the entire feature area. If this is not your intention, then you may need to create several features to accurately represent project treatments.

4.1.2 Terrestrial

Select this link to create a polygon feature representing the location of a terrestrial restoration or conservation treatment. Click the *Add New Treatment Area* link in the directory tree on the left side of the page to activate edit mode.

Use the *Select Action* drop-down menu to choose the broad category of treatment to be employed in the project area. Then choose the more precise treatment from the *Select treatment* menu, based on the defined action. For every action chosen, an associated treatment selection is mandatory. If you have chosen *Herbicide Application* as the action, and an associated treatment, then the *Select herbicide* menu will be activated automatically, allowing you to specify which herbicide(s) will be used.

Click the *Add* button, and a new *Treatment Area* will appear in the directory tree on the left side of the page, with the defined action and treatment below it.

You may add as many action and treatment combinations as necessary for a single project area feature. To add more actions, click once on the *Treatment Area* in the directory tree that represents the feature you want to add to, and select the additional action and treatment from the drop-down menus. To add more treatments to a defined action, click the action and select a treatment from the drop-down menu.

To create attributes for a new feature, click the *Add New Aquatic/Riparian Area* link in the directory tree, and select treatments and actions from the drop-down menus.

PLEASE NOTE: It is assumed that every action and treatment(s) combination you have assigned to a project feature will occur throughout the entire feature area. If this is not your intention, then you may need to create several features to accurately represent project treatments.

4.1.3 Dam

Select this link to create a polygon feature representing work to be done on a dam or dike, or creation of a new one. Select the type of work to be done from the *Action* drop-down menu, and click *Add*.

A record will be added to the matrix at the bottom of the page. The *Has Geometry* matrix column automatically shows *No*, indicating that only the attribute has been created for a dam feature, and the actual feature has yet to be created.

To change a saved dam attribute, click the pencil icon in the matrix, select the proper *Dam Action* and click the check mark to re-save. To delete a dam record, click the “x” button in the matrix for the record.

Only one *Dam Action* should be defined for each dam polygon feature.

4.1.4 Fence

Select this link to create a line feature representing work to be done on a fence, or creation of a new one. Select the type of work to be done from the *Action* drop-down menu, followed by the *Fence type* to be affected, and click *Add*.

A record will be added to the matrix at the bottom of the page. The *Has Geometry* matrix column automatically shows *No*, indicating that only the attribute has been created for a fence feature, and the actual feature has yet to be created.

To change saved fence attributes, click the pencil icon in the matrix, select the proper *Fence Type* and *Fence Action*, and click the check mark to re-save. To delete a fence record, click the “x” button in the matrix for the record.

Only one *Fence Type* and *Fence Action* should be defined for each fence line feature, unless you upload a multi-part shapefile to represent the defined attributes (see Section 4.2.2).

4.1.5 Pipeline

Select this link to create a line feature representing work to be done to a pipeline, or creation of a new one. Select the type of work to be done from the *Action* drop-down menu, followed by the *Pipeline type* to be affected, and click *Add*.

A record will be added to the matrix at the bottom of the page. The *Has Geometry* matrix column automatically shows *No*, indicating that only the attribute has been created for a pipeline feature, and the actual feature has yet to be created.

To change saved pipeline attributes, click the pencil icon in the matrix, select the proper *Pipeline Type* and *Pipeline Action*, and click the check mark to re-save. To delete a pipeline record, click the “x” button in the matrix for the record.

Only one *Pipeline Type* and *Pipeline Action* can be defined for each pipeline feature, unless you upload a multi-part shapefile to represent the defined attributes (see Section 4.2.2).

4.1.6 Guzzler

Select this link to create a point feature representing work to be done to a guzzler, or creation of a new one. Select the type of work to be done from the *Action* drop-down menu, followed by the *Guzzler type* to be affected, and click *Add*.

A record will be added to the matrix at the bottom of the page. The *Has Geometry* matrix column automatically shows *No*, indicating that only the attribute has been created for a guzzler feature, and the actual feature has yet to be created.

To change saved guzzler attributes, click the pencil icon in the matrix, select the proper *Guzzler Type* and *Guzzler Action*, and click the check mark to re-save. To delete a guzzler record, click the “x” button in the matrix for the record.

Only one *Guzzler Type* and *Guzzler Action* should be defined for each guzzler point feature.

4.1.7 Trough

Select this link to create a point feature representing the creation of a new trough, or any work to be done to an existing one. Click the *Add* button next to the *Add Trough* text at the top of the page, which adds a record to the matrix at the bottom of the page.

Click the pencil icon in the matrix to activate the *Description* data field, and type information regarding the work to be done to the trough point feature. To save the description, click the check mark. This description can be edited by clicking the pencil icon.

The *Has Geometry* matrix column automatically shows *No*, indicating that only the attributes have been created for a trough feature, and the actual feature has yet to be created. To delete a trough record, click the “x” button in the matrix for the record.

Only one *Point Feature* and *Description* should be defined for each trough point feature.

4.1.8 Water Control Structure

Select this link to create a point feature representing the creation of a water control structure, or any work to be done to an existing one. Enter a short description of the water control structure in the *Structure Description* data field, and click *Add*. A record will be added to the matrix at the bottom of the page.

The *Has Geometry* matrix column automatically shows *No*, indicating that only the attributes have been created for a water control structure feature, and the actual feature has yet to be created. Click the pencil icon in the matrix to edit the description of the water control structure. Then click the check mark to save the edits. To delete a water control structure record, click the “x” button in the matrix for the record.

Only one *Point Feature* and *Description* should be defined for each water control structure point feature.

4.1.9 Other Point Features

Select this link to create a point feature representing something other than the guzzler, trough, or water control structure features. Examples of an Other Point Feature could be photo points used to document project progress, or the location of a spring that will be worked on during the project.

Provide a short description of what the point represents in the *Description* field, and click *Add*. A record will be added to the matrix at the bottom of the page.

The *Has Geometry* matrix column automatically shows *No*, indicating that only the attributes have been created for an *Other Point Feature*, and the actual feature has yet to

be created. Click the pencil icon in the matrix to edit the description of the feature. Then click the check mark to save the edits. To delete an *Other Point Feature* record, click the “x” button in the matrix for the record.

Only one *Point Feature* and *Description* should be defined for each *Other Point Feature*.

4.1.10 Affected Area

Select this link to create an affected area polygon feature. The affected area represents the total area being impacted by all of the project’s treatments. Generally, the affected area encompasses, and goes beyond, all treatment areas for a project, within reason. If your project was subject to the NEPA process, then the affected area is most likely the same as the area defined within the NEPA document(s). Another example of an affected area would be the area expected to be positively impacted by a fencing project.

There are no specific attributes to define for an affected area. Simply click *Add* to insert an affected area record in the data matrix at the bottom of the page. The *Has Geometry* matrix column automatically shows *No*, indicating that only a database record has been created for an affected area, and the actual feature has yet to be created.

4.2 Create Feature Geometry

Once feature attributes have been defined (see Section 4.1), a link to *Create the geometries for the features below* appears on the feature editing page. Click this link to go to the map page and create feature geometry. Alternatively, you may click on the *Map* link at the top of the page.

Use the *Zoom Tools* tab to navigate to the project area. One may zoom to a city, county, geographic name, or hydrologic unit. The geographic name is based on the Geographic Names Information System (GNIS), which contains name and locative information about physical and cultural features throughout the state.

The *Create* tab at the bottom of the map page displays all features that have attributes, but still need geometries. Click the feature in this list to activate it for editing, and a pencil icon will appear next to it. To de-select the feature, simply click it again.

When a feature is selected for editing, two additional icons appear in the toolbar at the top of the map: an arrow icon, and the feature type icon.

4.2.1 Draw Features on Map

To draw a feature directly on the map, click the feature type icon. The feature (point, line, or polygon) is automatically determined by the defined attributes. For polygons and lines, click once on the map to begin drawing, click once at each vertex, and double-click to finish the feature. To create a point, click once on the map.

Click *Save Shape* in the *Save New Feature* window to save the feature to the database, or click *Close* to exit the edit session without saving. It may take up to one minute to save a new feature, as geospatial analyses occur. Features are analyzed for area (acres), overlap

with waterways (river miles), land ownership, ecosystem type, UWRI focus areas, and UWRI region.

Once a feature is saved, use the identify tool to show the results of the geospatial analyses, and to access information about the treatment(s) and project.

4.2.2 Upload GIS Shapefile

Click the arrow icon to upload a GIS shapefile that represents the treatment area. Read the instructions on the *Upload a shapefile* window. All files associated with a shapefile must be condensed in a .zip file. To do this, navigate to the location of the files on your computer's hard drive, highlight the files, right click and *Send To a Compressed (zipped) Folder*. Make sure that the defined projection for the shapefile is NAD 1983 UTM Zone 12N.

If your project area consists of many features with the exact same treatment, you may upload a multi-part polygon. In ArcGIS, use the Dissolve tool on the shapefile, located in ArcToolbox – Data Management Tools – Generalization – Dissolve. This will create a shapefile with a single record representing many polygons. If a multi-part polygon is uploaded, all spatial analyses will be for the summation of all polygons, rather than each separate polygon feature. Multi-part point (i.e. multi-point) files cannot be uploaded.

Browse to the location of the zipped file and click *Upload Shape*. It may take up to one minute to save, as geospatial analyses occur for the feature. Features are analyzed for area (acres), overlap with waterways (river miles), land ownership, ecosystem type, UWRI focus areas, and UWRI region.

Once a feature is saved, use the identify tool to show the results of the geospatial analyses, and to access information about the treatment(s) and project.

4.2.3 Modify an Existing Feature

Once a feature has been saved, it now appears in the *Modify Existing* tab. Click on the feature in this tab to begin an edit session. In the *Modify Geometry* window, select to either remove or add to the existing feature (the window will remain open), and render the area to be added or removed on the map.

For polygon features, selecting *Update shape* will add or remove the newly-rendered area, while selecting *Replace existing shape* will replace the treatment area altogether. It may take up to one minute to save the modified feature as geospatial analyses occur. To cancel the modify session without saving, click the “x” in the corner of the *Modify Geometry* window.

4.2.4 Delete a Feature

To delete a saved feature, the attributes must first be deleted. Go to the *Proposed Features* page and select the *Delete Existing Features* link. Select the type of feature that you want to delete. On the feature editing page click once on the feature in the directory

to activate an edit session. Click the *Delete* button. This will remove the attributes and any geometry for a saved feature.

5.0 Submit a Proposal for Review

5.0 SUBMIT A PROPOSAL FOR REVIEW

After all proposal data forms and features have been completed, the project manager must submit the proposal for review by the UWRI regional team and administrators. Click the *Submit Proposal* link on the data forms list. Several lists of required data fields appear, organized by the data forms that contain the fields.

If there is a green check mark next to the data field name, then the field is assumed to have been completed correctly. If there is a yellow notification icon next to the field name, then data must be entered. Click on the notification icon to go to the page that must be updated.

Once all of the required data fields are complete, green check marks will appear next to all of the field names, and a *Submit Proposal* button will appear in the middle of the page. When this button is clicked, the date on which the proposal was submitted will appear in the *Submitted* column of the *Proposed Projects* list. This is an indication to all who view the proposal that it is complete and ready for review.

6.0 Comment on a Proposal or Project

6.0 COMMENT ON A PROPOSAL OR PROJECT

Any approved user may comment on a proposal or project. You must be signed-in to your account. Select the proposal or project, navigate to the *Data Forms*, and click on the *Project Comments* link.

All of the submitted comments, their replies, and who submitted them, will be visible in the *Project Comments* list. You may reply to any comment, or create a new comment by entering text in the *Comments* box. Once your comment is submitted, an email is sent to the project manager, notifying them that there is a new comment on their proposal.

7.0 File Downloading and Summary Reports

7.0 FILE DOWNLOADING AND SUMMARY REPORTS

Any user (logged-in or not) may open or save a pdf file of a summary report for any project, regardless of its status (proposal, current project, completed project, cancelled project). All users may also open or save the images and other electronic file attachments uploaded by a project manager. Users may also download GIS shapefiles of the project features.

7.1 Create a Summary Report

To create a summary report, first locate the proposal or project of interest in one of the projects lists, and click the title to access the project portal page. Select the *Summary Report* link, and click the button to generate a report. It automatically goes to the mapping page, where it zooms to the extent of the project's features. This may take up to one minute, depending on the size, extent, and complexity of the features.

Use the navigation tools at the top of the map to zoom in and out, and pan around. The view of the project features that is created on this page will be saved as a map within the summary report. When the desired view is reached, click the *Generate Compiled Report* button below the map's table of contents. Once again, it may take up to one minute to generate the report. Select whether you want to open or save the pdf file.

7.2 File Downloading (Images and Attachments)

There are two ways to view and download the images and other attachments the project manager has attached to the project. First click the title of the proposal or project of interest to access the project portal page. Use the *Data Forms* link to go directly to the data form pages and search for attachments on the following pages: *Seed*, *NEPA*, *Monitoring*, *Images & Attachments*. Alternatively, you may access the same uploaded files by clicking the *Images* link or the *Attachments* link on the project portal page. Click the blue text link, or image thumbnail, to open or save the file.

7.3 File Downloading (GIS Shapefiles)

There are two ways to access GIS shapefiles of any project feature for download and use within your own desktop GIS. Select the proposal or project of interest by clicking on the title in one of the projects lists. Click the *Features* (for proposals) or *Final Features* (for completed projects) link; or select the *Data Forms* link, followed by the *Proposed Features* or *Final Features* data form link.

Note the type of *Geographic Features* (e.g. terrestrial treatment area, guzzler, etc.) from this page, then click the *Download Features* icon. Select the type of feature, and *Save File*. The zipped file will be automatically downloaded to your computer's hard drive.