Appendix H
Webmap Overview

The Webmap produced as part of this assessment contains all the vital GIS information to accompany the reports. The Touchet Webmap can currently be found at the following address:

https://gis.anchorqea.com/Touchet_River_Restoration/

1.1   Content and Utility

The Webmap allows clients and stakeholders to peruse the data used in the various geomorphic analyses conducted by Anchor QEA on the Touchet River. The Webmap currently contains base data including the delineated project areas and reaches, Reach Priority rankings, and delineated levees. A hydrography section contains data with river and valley lines to allow users to locate specific areas referenced throughout the report and appendices. A floodplain connectivity section provides all layers relevant to the floodplain connectivity analysis including the 2-year and 5-year modeled flood extents and their relative distinctions within the connectivity analysis framework. A complexity section includes the islands and modeled inundation used to run the channel complexity analysis. Finally, a relative elevation section provides multiple versions of the relative elevation map, which was the backbone of visual analyses. The relative elevation map is a phenomenal tool to assess the anthropogenic influences in the floodplain as well as any side channels and high-flow paths.

The Webmap is a useful tool to anyone invested in this report, because the geomorphic analyses are all grounded in geospatial data presented in the Webmap. The Webmap will be an essential tool when reading the reach cut sheets (Appendices I and J), which detail specific restoration actions throughout the Touchet basin. The cut sheets refer to project areas, sites, and levees by valley and river mile that the reader will need the Webmap to refer to. This tool will be critical in communication between landowners, consultants, and funding agencies when planning future restoration projects.

1.2   Functionality

Once logged into the Webmap there are several functions available for viewing the data. Figure H-1 shows the four main areas where functionality is available:

- Box A: Zoom in and out with the +/- buttons. This can also be done with the mouse scroll wheel. The Home button will bring you to the extents of the Touchet basin. The location button will zoom to your current location if using mobile.
- Box B: The first button provides a legend showing the symbology for all currently active data. The second button brings up the list of available data layers to add to the Webmap. Figure H-2 shows more details on available layers.
- Box C: The first button gives a variety of base maps that will be displayed under the selected data. The second button provides bookmarks to zoom to project areas. The third button brings up a measurement tool for length, path, or area. Finally, the last button is used for editing the Webmap and has been temporarily disabled.
- Box D: This box brings up a panel that provides in-depth information on the layers currently active on the screen. Figure H-3 shows more details on this functionality.

When the layer button in the top right of the screen is selected, as shown in Figure H-2, all the layer groups available will be displayed. By checking or unchecking the box next to the layer group, all layers in that group can be turned on or off. By selecting the arrow next to the layer group, the list of layers in that group is displayed, and individual layers can be turned on or off by checking the box next to the layer. Selecting the arrow next to any layer will show the symbology used for that layer on the Webmap. Table H-1 describes all of the layers available.

Using the arrow at the bottom of the screen (box D in Figure H-1), more detailed data about the layers currently on the screen can be found. Figure H-3 shows the detailed data for the "Reach Groups" layer. This will only show information for the layers on the screen, so in Figure H-3 only project areas MS-15, MS-16, NF-1, and SF-1 are shown. Using the "zoom to" button and selecting a data layer will bring that data layer to the center of the Webmap.
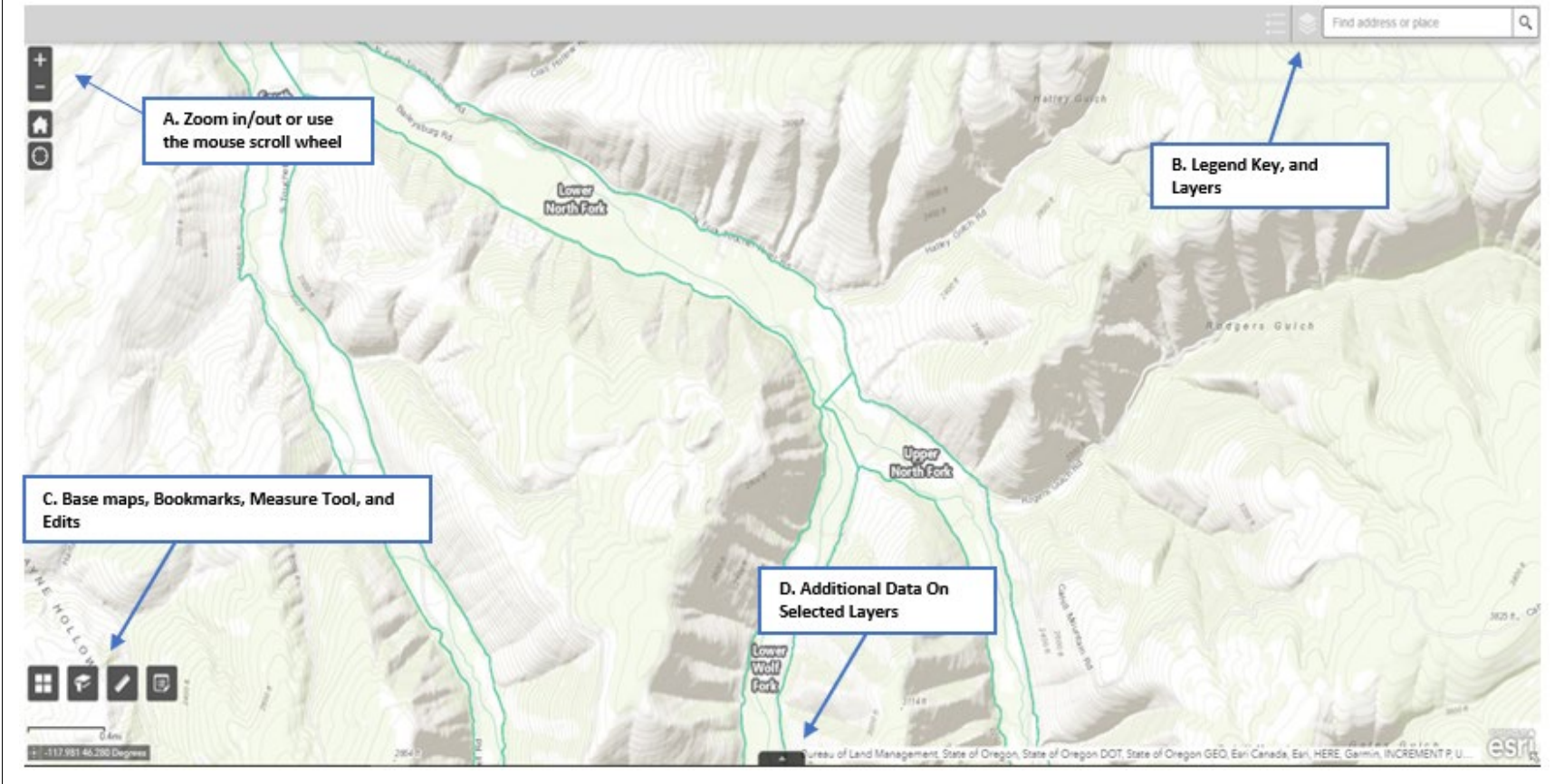
Figure H-1
Webmap Functionality Options
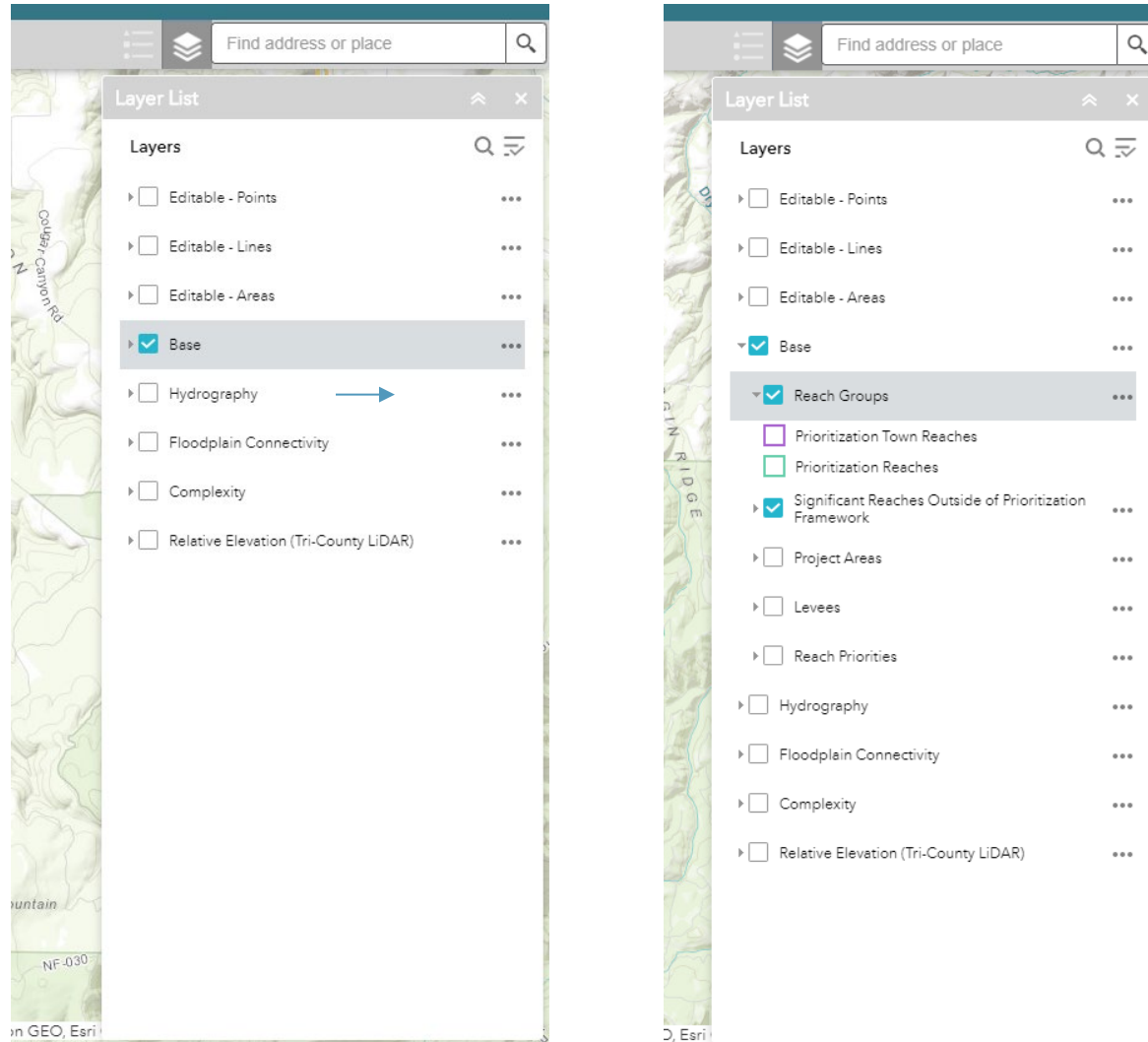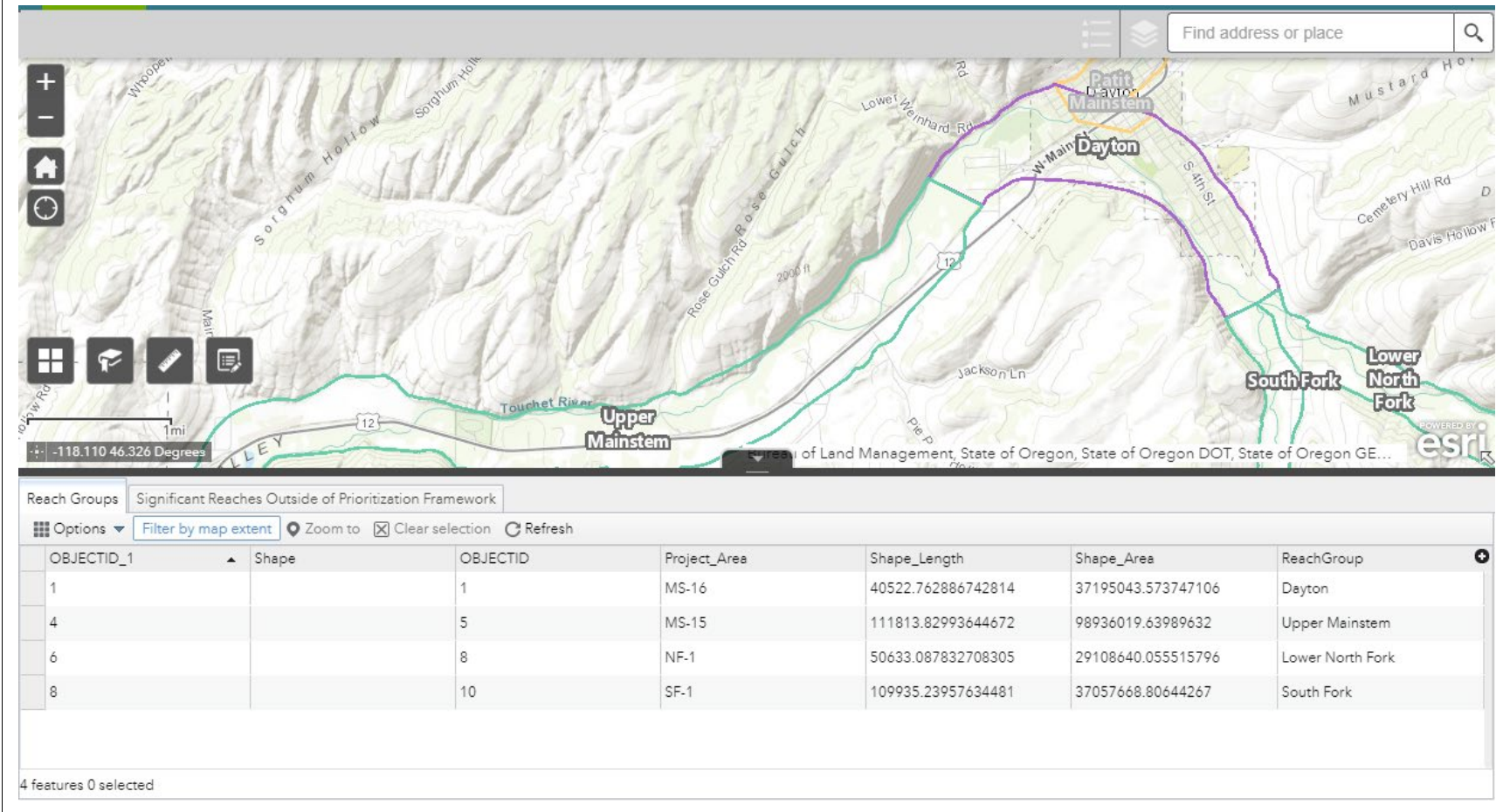
Figure H-2
Webmap Layer Options

Figure H-3
Webmap Detailed Layer Data

1.3   Layer Overview

Each project area cut sheet refers extensively to the data displayed on the GIS layers provided as part of this assessment. In general, the GIS layers display all the data used to determine the analysis results and prioritization metrics. Table H-1 provides an inventory of the GIS layer and its significance to the project area evaluations.

Table H-1
Inventory of GIS Data used in Project Area Cut Sheets

Layer Name	Layer Group	Significance to Analysis Results
Reach Groups	Base	These are the nine reaches that are included in the prioritization.
Reaches Outside of the Prioritization	Base	These reaches are within the study area but were not included in the prioritization. See the main report or Appendix A for more information.
Project Areas	Base	These are the 61 project areas that were delineated as part of this assessment. Six of these project areas are "city reaches" and were not included in the prioritization.
Levees	Base	This layer shows the levees identified through field observations and desktop analysis.
River Miles	Hydrography	River miles as delineated by the 2018 LiDAR.
Valley Miles	Hydrography	Valley miles, delineated using the 2018 LiDAR at the center of the valley for the given river.
Unobtainable at 2-year	Floodplain Connectivity	The unobtainable floodplain layers show areas that would have been available or disconnected, but were deemed "unobtainable," mostly due to the presence of infrastructure. Shown at the 2-year and 5-year events.
Unobtainable at 5-year	Floodplain Connectivity	
Disconnected at 2-year	Floodplain Connectivity	These layers are the areas that have been disconnected from the 2-year and 5-year floodplain by levees or other encroachments. These layers show the areas that contribute to the Encroachment Removal Potential analysis result.
Disconnected at 5-year	Floodplain Connectivity	
Connected at 2-year	Floodplain Connectivity	This layer shows all the connected floodplain at the 2-year event. This layer shows all the connected floodplain at the 5-year event.
Connected at 5-year	Floodplain Connectivity	
Islands – 1-year	Complexity	This layer shows the islands used for the complexity analysis. Islands must meet the minimum size requirement described in Appendix F and be within the connected floodplain.
Inundation – 1-year	Complexity	1-year inundation extents used to find the Complexity Islands.
Relative Elevation > All	Relative Elevation	These layers show the elevation of the floodplain relative to the nearest point on the river thalweg.