

How to use the West Sound Nearshore Prioritization Framework Tool:

<https://kitcowa.maps.arcgis.com/apps/View/index.html?appid=9468e4cae29841ae80a3a4afefe7239f>

You have accessed the map, and are presented with a “start-up” screen with links to both the “West Sound Nearshore Integration and Synthesis of Chinook Salmon Recovery Priorities” report, as well as the “Prioritization Database”, in a spreadsheet format.

You will also, of course, see this document there.

Read the Report (It’s only 106 pages) and dive into the Excel spreadsheet (It only has 91 columns to review and comprehend) Review the formulas and methods used (See Page B-11 in Appendix B of the User’s Guide, Chapter 4, Table B-3 to B-6) to derive the scores for the individual parcels and then the parcels combined into projects; and look at the down-drift information, such as forage fish presence and use, eelgrass, and embayments.

Once you’re familiar with the project and data, click “Close” on the introduction screen, and we will review the interface.

At the top, on the left we see the “**zoom in/ zoom out**” buttons, along with a “**Home**” button, which will return you to the original extent.

Moving to the right we see the “**Legend**” button. It will only show the layers that are viewable in the present extent and at the present scale. Zoom in to view more detail and additional features.

To the right of this button is the “**Layers**” button. Clicking here provides you with the ability to turn on and off layers. This allows you to turn off features you are not concerned with, such as fish passage barriers when you are only dealing with an armor removal project. Features in bold text are viewable at your current scale. As you zoom in, more and more features will become viewable. When a layer is turned on, you will notice an arrow on the right side of the layers window. Clicking here will open a view showing the symbology associated with the layer, and another button “Opacity”, which will allow you to set the viewing transparency /opacity of the feature itself. This helps when a data layer is on top of another feature, and allows you to see both on your map.

Clicking on individual features opens a window on the left showing attributes related to that specific feature. If multiple features from multiple layers are found at that location, they will all be displayed in the one window. Access all the records by clicking on the arrow at the top of the attribute window, and

move through them all. 

Next is the “**Basemap gallery**”. Use this to add another type of background to the map, such as imagery, topographic maps, streets, or a general light grey background with limited information.

The “**Overview map**” turns on or off the locator map, which shows your location in a broader sense. You can click and drag the grey box within this overview map, and use it to control the view in the map window. Simply click and drag the box to where you wish to review. This helps in the review of adjacent or nearby projects.

“**Measure**” presents the map user with 3 tools for measuring. The first tool is for measuring AREA. Clicking on this tool and then click once on the map for each point; double-clicking to finish. Units can be

set and changed in the right side of the measure tool. Area defaults to Sq Miles, but can be changed to acres, Sq feet/meters, etc. The next tool is for measuring DISTANCE. Use it in the same way as the AREA tool, again with varying choices for format. The last tool is LOCATION. This allows the user to select a project point location and get the Latitude / Longitude values in either Degrees, Minutes, Seconds (DMS), or in Decimal Degree.

The “**Details**” tab provides some descriptive information about the project, and includes contact info, a disclaimer, and credits.

“**Share**” allows you to send this map through various social media formats, including Facebook, Twitter, Google Plus, and Email. It also presents a link to the map itself, and a HTML snippet for embedding within a webpage. The snippet allows for a map size selection as well.

“**Print**” allows you to print the map, add a title and legend, and print at a desired size. It produces a pdf map of the area being reviewed. If needed, it can be set to default to another format, such as a jpeg, if you find that more helpful.

The “**Bookmarks**” button opens a list of areas. Click on the one in which are interested, and the map will zoom to that area. This list can always have specific areas added, if you find yourself in need. Multiple areas are currently represented, but cover varying extents and are in various scales.

To search for a particular project, parcel, or address, use the search window in the upper right side of the window. A 4-digit number will search for a Project Id; A 7 (or 10-digit in Pierce Co.) number will search for a parcel account number. You can also search by an address or by the 14-digit parcel number (This may be the one with which you are most familiar. All of these searches allow you to find parcels that have been scored, or the closest scored parcel to your project. By reviewing the processes involved, and the type of activity proposed on those projects, it is possible to get an idea of the probable scores on unscored parcels.

The Project Id will indicate if it is “Protection” project, or a “Restoration” project. Those that start with “1” are protection, those that start with “2” are restoration.

During scoring, it was decided to add the field “Tier” which is simply four groupings of the scores. The top 50 scores were assigned to Tier 1 with the remaining 370 project divided evenly among Tiers 2, 3, and 4. Fewer projects were assigned to Tier 1 so that it is a small, select subset of the most beneficial projects. The number of projects in Tier 1 was intended to be large enough to provide several project opportunities to pursue implementation while recognizing that some of the most beneficial projects may have feasibility challenges that may prevent implementation in the near future.

When you first open the map it will be set with the full extent of the project visible. The legend will be turned on, and at this scale, you will see only two layers. These are the Tier 1 projects (in red), and All Projects (in black). If you move over to the layers button, you will see that 4 layers are checked on by default. Those that are in bold text are visible at this scale, and as you zoom in, more will become visible. Turn them on or off by checking the box next to them.

Tier 1 is the highest scoring projects, while Tier 4 contains the lowest scoring projects. Tier 1 projects are usually those with multiple processes being affected, such as the Point-No-Point project (#2016) which was the highest scoring project, at 191.70. It is a restoration project which effects 4 processes – Sediment Transport, Cross-Shore Connectivity, Tidal Flow, and Fish Passage. The remaining process, Sediment Supply, was not included here since there is no real sediment source that would be available after restoration (no bluffs, high banks, etc.).

To review the Tier 4 projects, in the layers tab, turn off everything but Tier 4. These projects typically will only have one process involved. In the search window, use the pull-down button to select “Project Polygons”, and enter the Project Id of 2155. It has a score of 1.74 and is the lowest scoring project currently measured. Turn on all (or most all) of the layers. It may take a bit for the data to draw, but it will reside in the cache for the duration of the mapping session, and subsequent redraws will be quicker.

To better understand the data and processes involved, let’s review a parcel. Let’s look at a low-scoring project, and review why it is low. In the search window, use the pull-down button to select “Project Polygons”, and enter the Project Id of 2244. Looking at the Project Polygons information window, you see that this project is called “North of Southworth at Tola Road. It is a Restoration of Sediment Transport Processes, as you can see in the field “Opportunity”, where “REST” = “Restoration” and “ST” = “Sediment Transport”. The overall project score here is 5.51. Scrolling through this window gives you the scores for the individual components for each process. These include values for “Process”, “Suitability”, “Structure & Function”, size, and finally a total score.

Moving now to the Parcel Polygon window (use the arrows at the top of the window), we see the APN or TPN number. (If you don’t see the arrow at the top, try clicking within the parcel polygon. What has happened is the search tool has located the one point here, but not the underlying parcels, which have most of the information.) This is a number used in the GIS tables. If all you have is the Account Number (a much longer 12-14 digit number) you can search for it in the Search pulldown window by selecting “Kitsap Address and AcctNo Locator”. This parcel is APN# 1071885, and the Account Number is 012302-2-007-2005.

The “Description” is to “Remove shoreline armor and fill to restore movement of sediment alongshore”.

The score is defined as “the sum of the highest score assigned to each project type among all contributing parcels.” Here there is only one project type involved, that being Sediment Transport (ST). If the project had included multiple parcels with multiple project types, the final score would have been higher. For example, the score of a sediment supply and sediment transport restoration project that extends across three parcels will be the sum of the highest sediment supply score across all contributing parcels plus the highest sediment transport score across all contributing parcels. The report and user guide goes into more detail.

To derive the score, the formula for the framework is:

Score = [(Process * Suitability) + (Structure and Function)] * Size

From the Report (Confluence Environmental Company, 11/2016): *“The first two terms in the formula, Process and Suitability, are multiplied together to significantly contribute to the overall score. Process benefits are indicative of true restoration that will support and maintain natural nearshore conditions. Suitability indicates that the project opportunity is “the right project in the right place” for both addressing priority needs and in a location*

where the project will be sustainable. Structure and Function have a lesser contribution to the formula relative to Process because of the importance of processes in forming structure and, in turn, function. Size is multiplied by all other terms because of the importance of project size to the scale of the potential benefits and the fact that larger projects are more likely to be successful than smaller ones.

Following this idea, we see this parcel has scores of:

Process:	1.63
Suitability:	1.00
Structure and Function:	2.00
Size:	1.52

These sediment processes are scored based on their proximity to forage fish and eelgrass sites, either on-site or downdrift. The length of the remaining driftcell is indicated under the attribute "Downdrift Length" or as a percentage under the attribute "Downdrift Percent".

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