Washington Marine Planner Tutorial

Suggested Tasks:

1. Register and Sign In
2. Navigate the Map
3. View the Data Layers
4. Create a Bookmark
5. Generate an SMP Site
6. View SMP Site Reports
7. Generate a Scenario
8. View Scenario Reports
9. Multi-Objective Scenarios
10. Create a Folder
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12. Create Areas of Interest
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Register and Sign In

From the home page:

- http://washington.marineplanning.org

Click 'register', located at the top-right of the screen.

Complete the registration form.

Click the link sent to your email inbox to complete your registration process and sign in.

Navigate the Map

In the right panel you will see the Google Earth map display. The map can be navigated via mouse and keyboard controls. A useful video tutorial for navigating Google Earth can be found here.

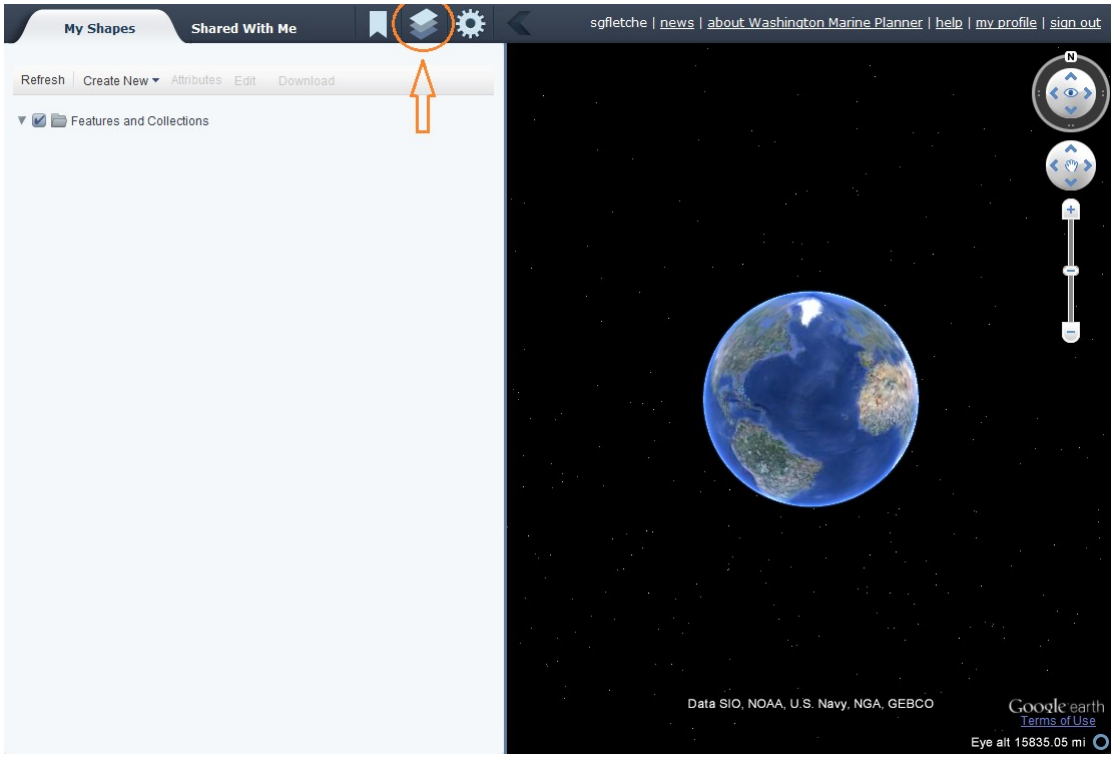
Some **commonly used mouse controls** include:

- double-click to zoom in
- use the mouse scroll wheel to scroll in and scroll out
- hold down the mouse button while moving the mouse to 'pan' the map view
- hold the mouse scroll wheel down while moving the mouse to change the 'aspect'
- alt-n can always be used to return the map view to the traditional 'north on top' view
- there are also navigation controls in the top-right corner of the map

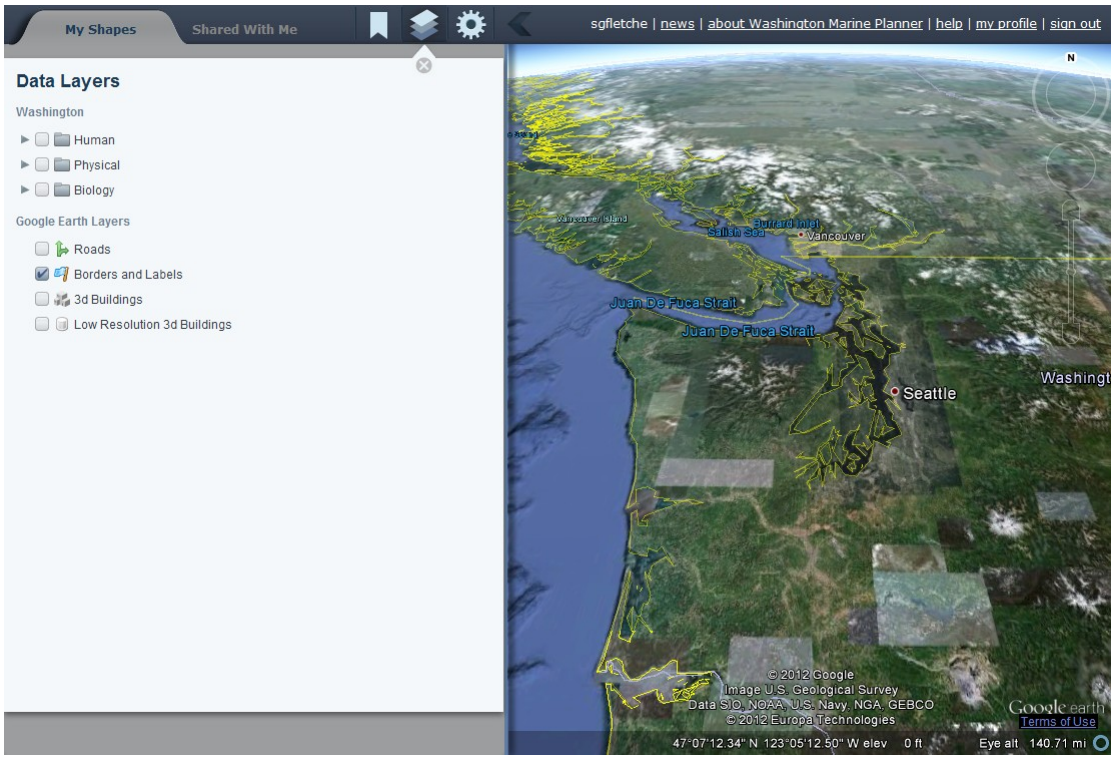
View the Data Layers

Once you have signed in, your screen should look like the image below.

The viewable Data Layers can be accessed through the icon referenced in this image.

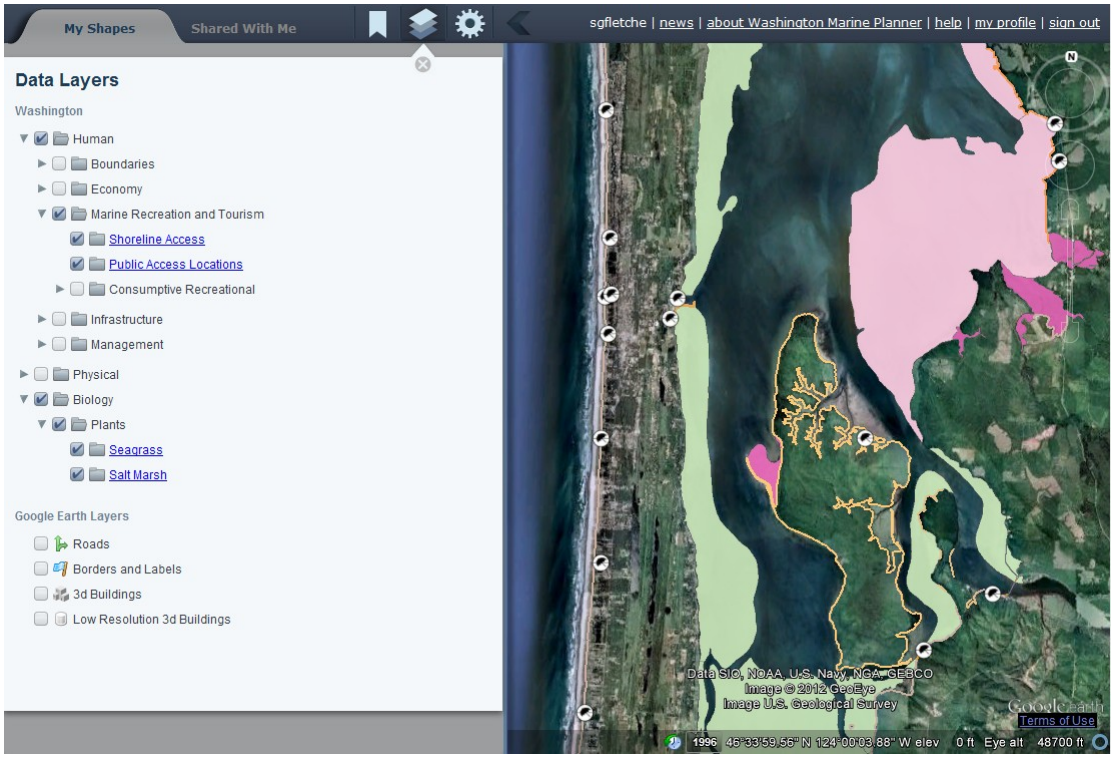


Zoom into the Washington coast and click on that icon to view the Data Layers panel.



Each of the three Data Layer folders, Human, Physical, Biology can be expanded to show their subfolders and related data layers.

For example, you might want to explore public access sites that are near seagrass and salt marsh areas in Willapa Bay.

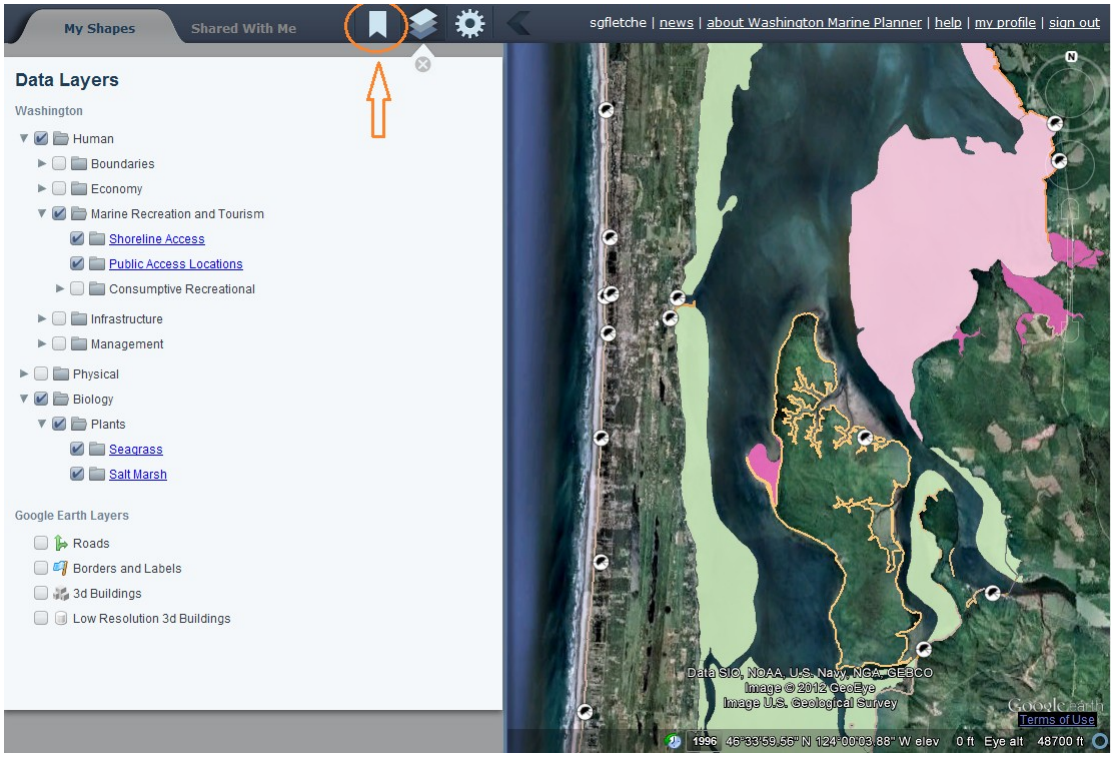


Create a Bookmark

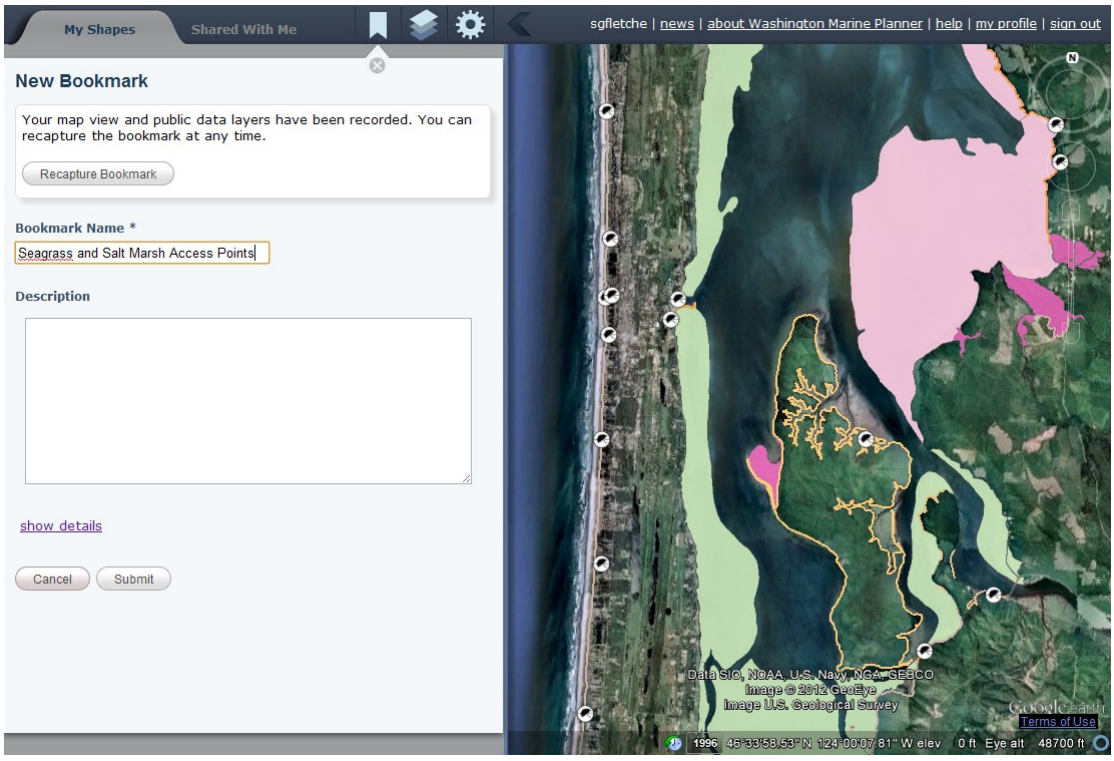
Sometimes you will want to save a map view for later viewing or sharing with colleagues.

When your map view is how you would like it to be, you can create a bookmark that captures that view.

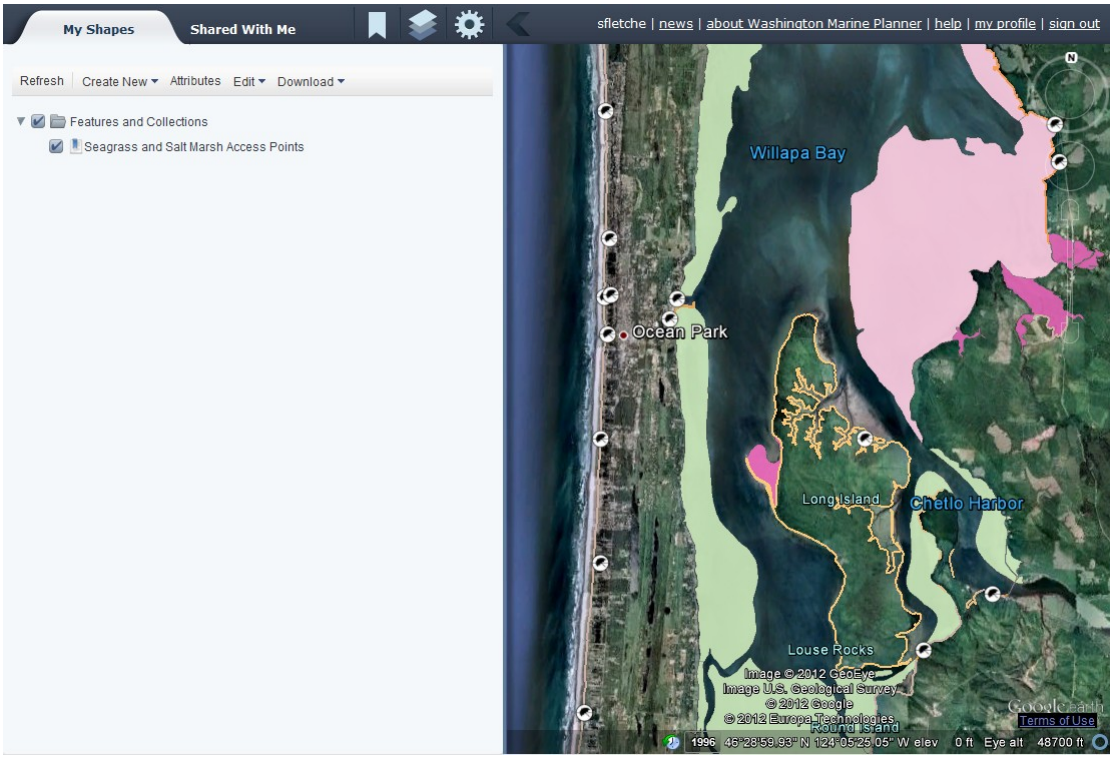
Simply click the bookmark icon,



Assign it a name, and then Submit.

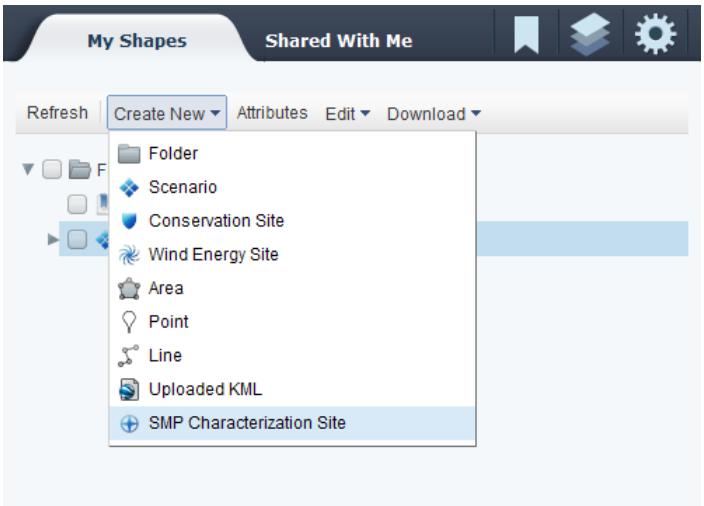


After you have created a bookmark, you will be able to access your bookmark at anytime, either through the URL provided, or from the My Shapes panel on the application.



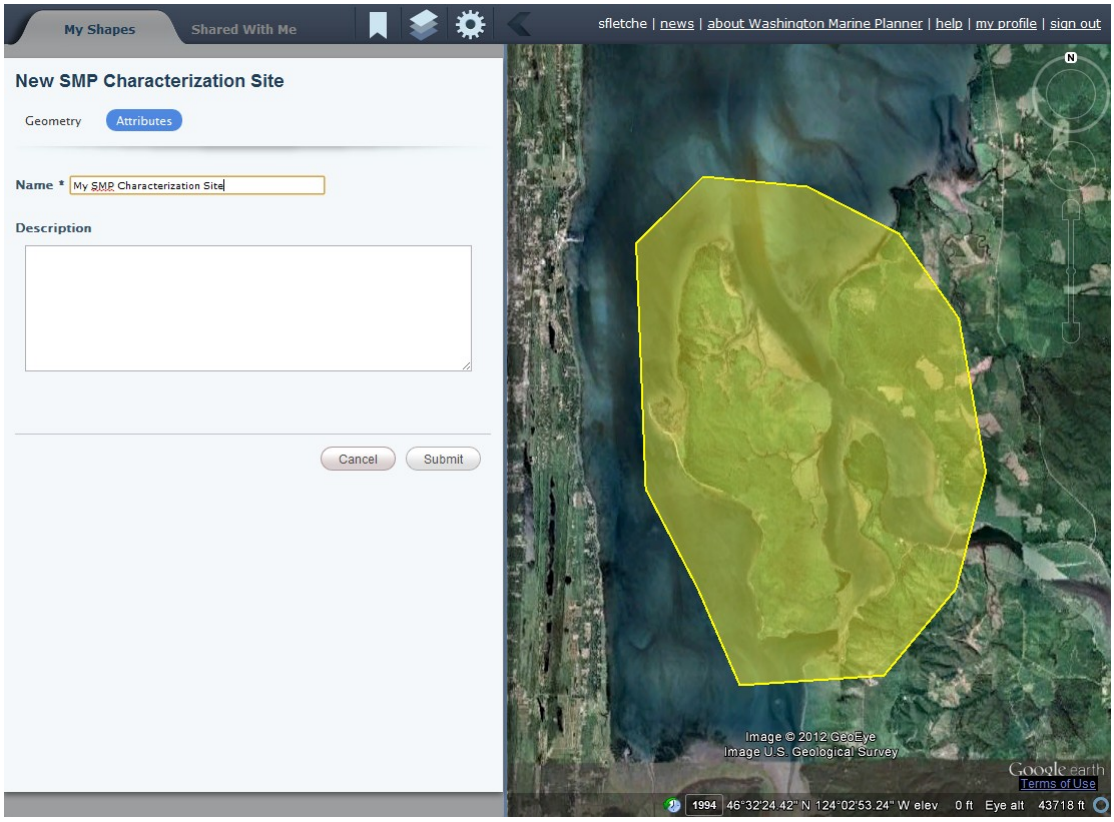
Generate an SMP Site

To generate a new SMP Characterization site, select Create New at the top of the My Shapes panel and select SMP Characterization Site



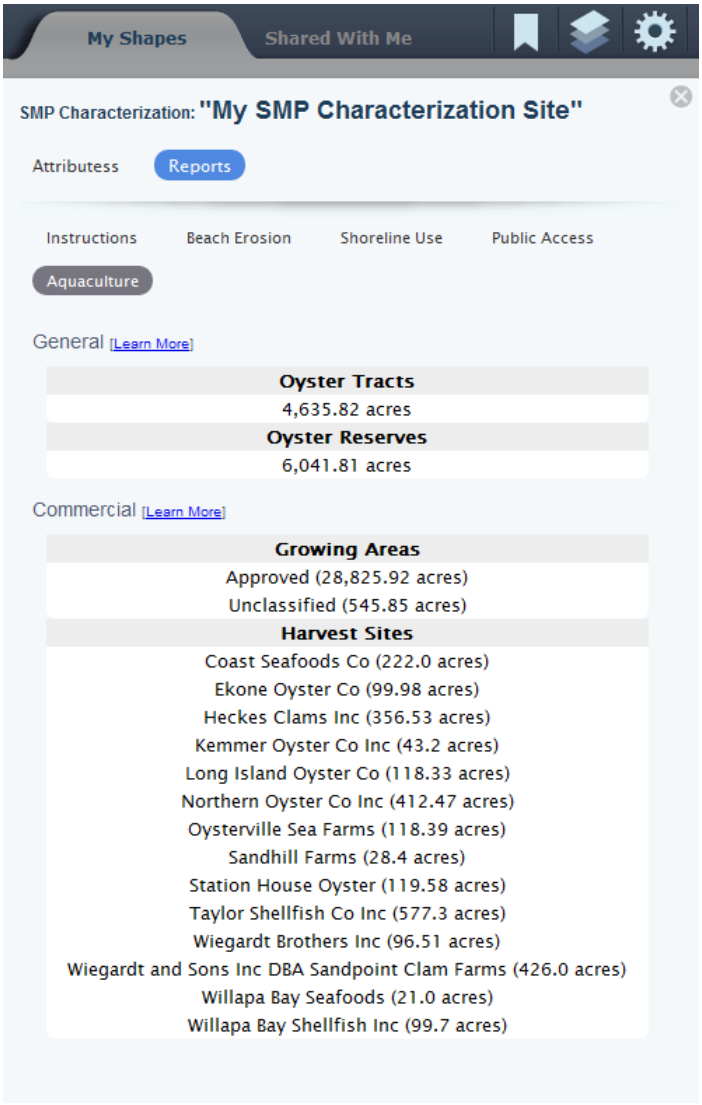
From here, zoom into the area that you are interested in exploring and then click Draw Shape to begin drawing your shape.

When your shape is finished and validated (double-click the final point to complete your shape), assign a name to your SMP site before clicking Submit.



View SMP Site Reports

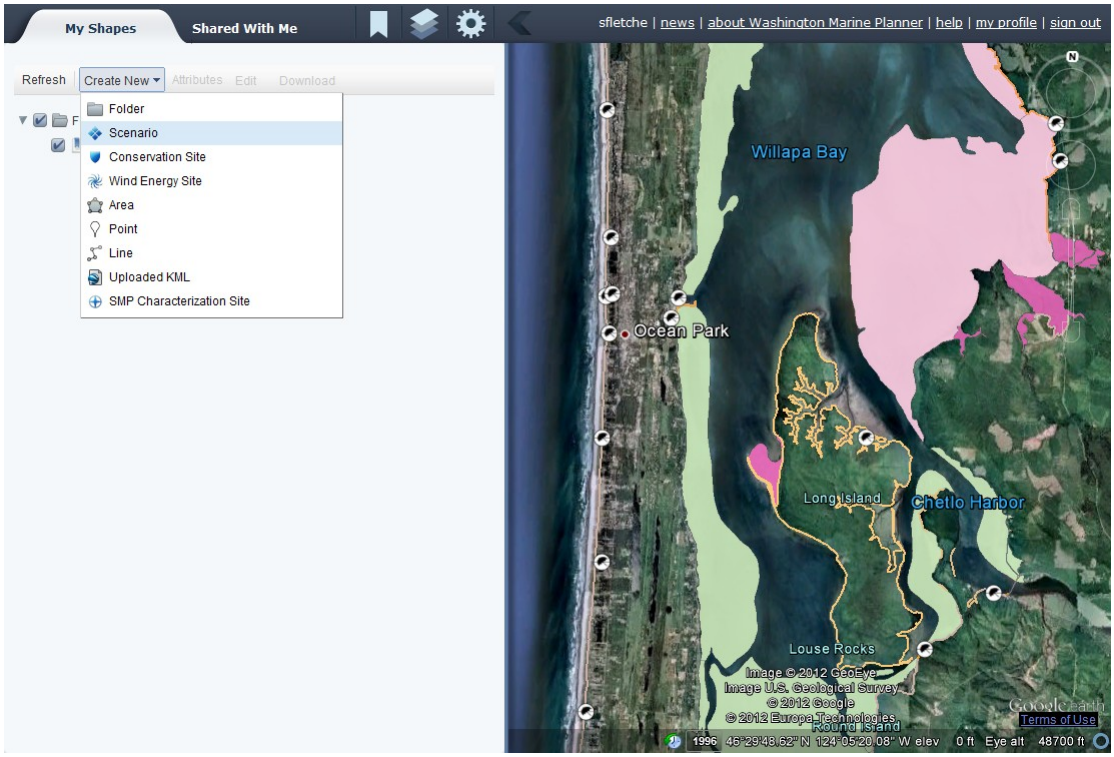
From the Attributes panel of your SMP site, you will find SMP reports specific to your shape: Beach Erosion, Shoreline Use, Public Access, and Aquaculture.



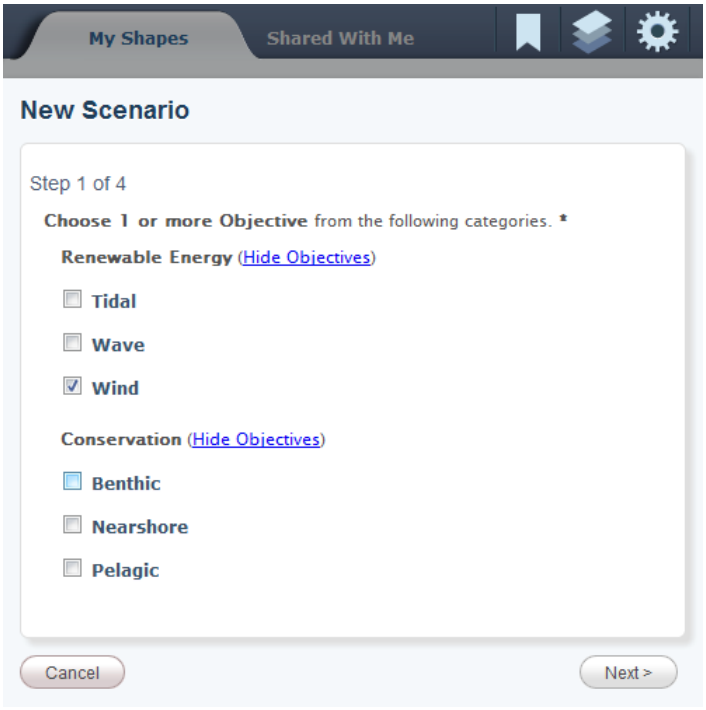
Generate a Scenario

Multi-Objective Scenarios can be used to identify coastal areas that have desirable characteristics and that meet certain criteria. For example, you might want to identify areas with potential for wind energy. You can provide parameters such as a distance from the shoreline or substrate type along with characteristics such as wind energy potential, and the application will display those areas that match your request.

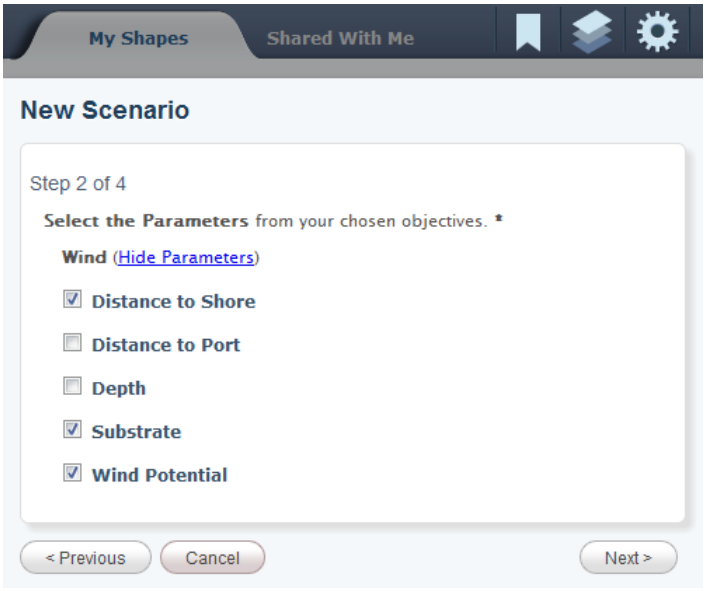
First, click Create New at the top of the My Shapes panel, then select Scenario.



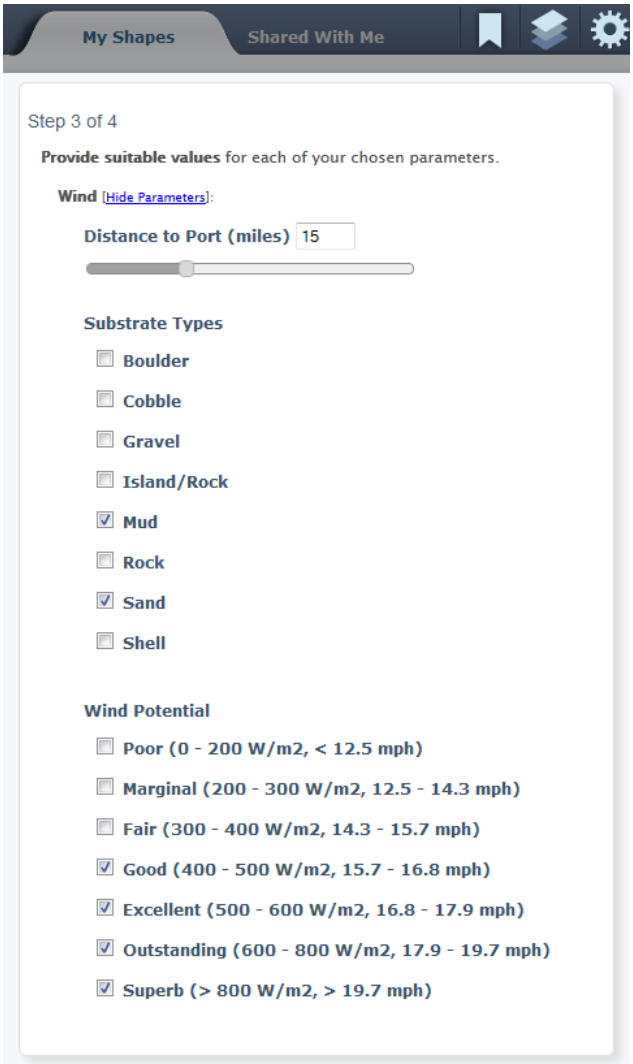
In Step 1 of the 4 step Scenario creation process, you'll want to select the objective(s) that you have in mind (in this case we'll select Wind)



In Step 2, we'll uncheck Distance to Port and Depth as we are only concerned with Distance to Shore, Substrate Type, and Wind Energy Potential for now.

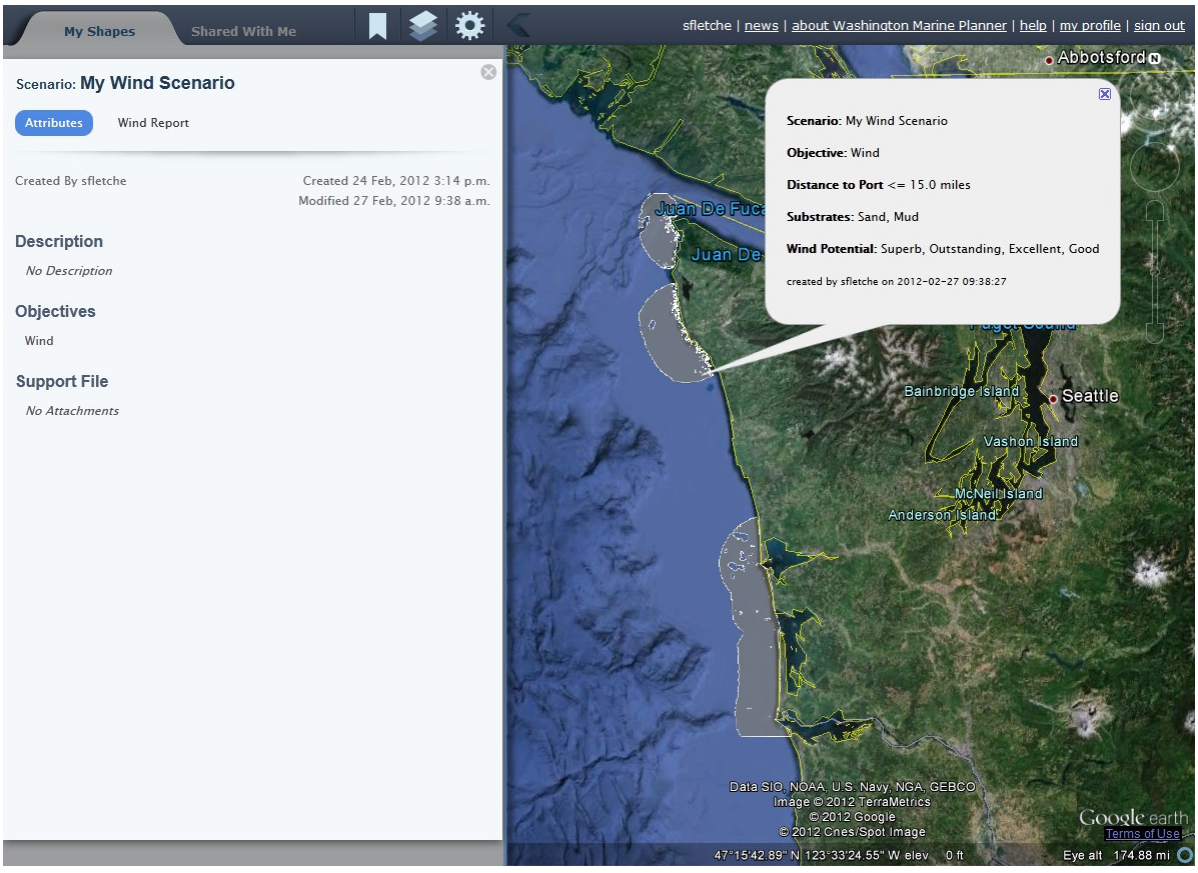


In Step 3, we'll provide a distance to shore, various substrate types, and wind potentials.



Finally, in Step 4, we'll provide a name and Submit.

The application then identifies those areas along the Washington coast that meet the parameters and characteristics you provided and displays them on the map.



View Scenario Reports

From this Attributes panel you can view the Wind Report generated for your scenario.

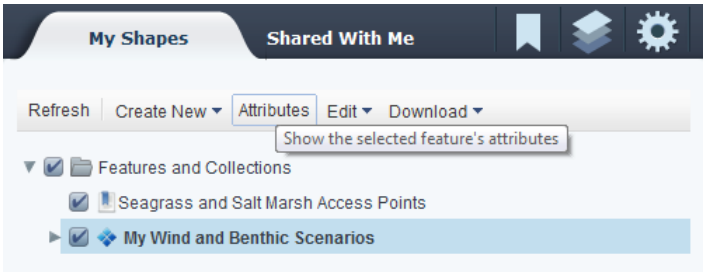
The Scenario Level Report details the make-up of your Wind Scenario with percentage make-up of each of the substrates, and wind potentials. Hovering over a bar provides additional information. For example, placing the mouse pointer over Sand informs the user that this scenario contains 26.18% of all available Sand.

The Substrate Level Report displays similar information but drilled down for each substrate in your scenario. For example, while the Scenario level report showed how much of your scenario is Outstanding, Excellent, and Good (the 3 available Wind Potentials), the Substrate level report shows the user how much of your scenario's Sandy area is Outstanding, Excellent, and Good (with additional charts for any other substrates present).

The Wind Potential Reports are similar to the Substrate Reports with information drilled down for each Wind Potential.

Note:

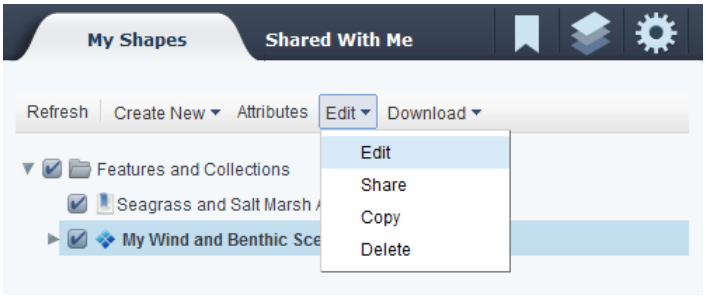
This Wind Scenario is also now located on your My Shapes panel next to the Bookmark we created earlier.

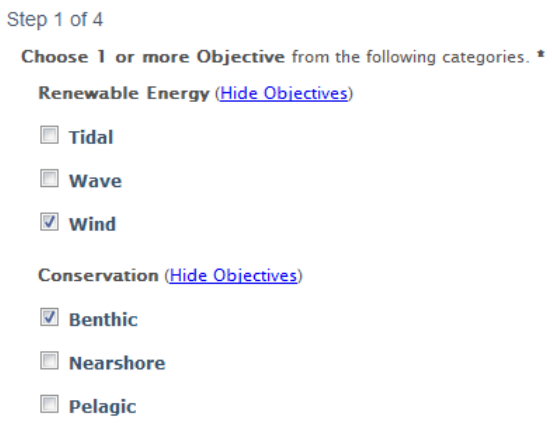


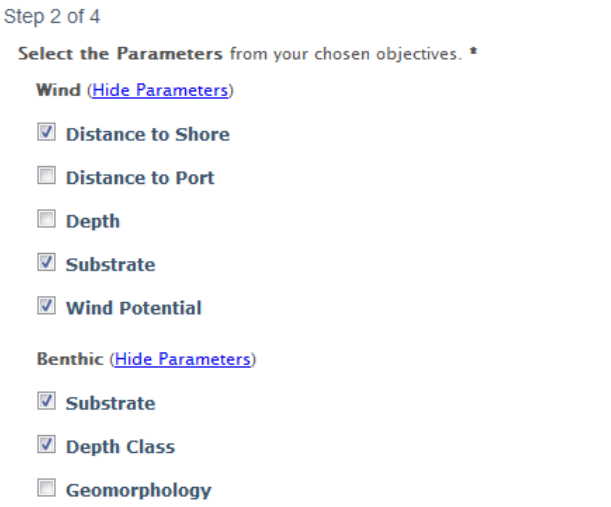
If you find yourself on the My Shapes panel wanting to return to this Attributes view (so that you can view scenario reports), simply select the Scenario from My Shapes and then click Attributes (or double click the Scenario name).

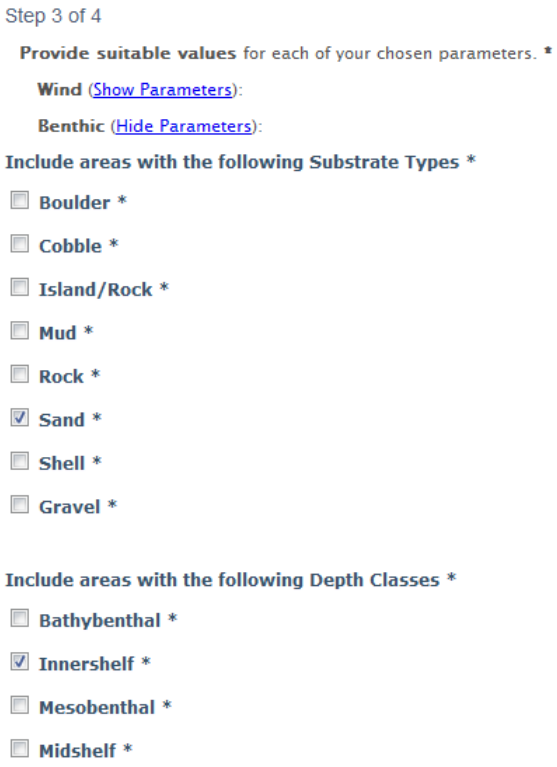
Multi-Objective Scenarios

At this time, we can view the scenario report for our wind energy scenario. To view this report we might Edit our current scenario to include a Benthic objective that identifies areas with Sandy substrate on the Innershelf.









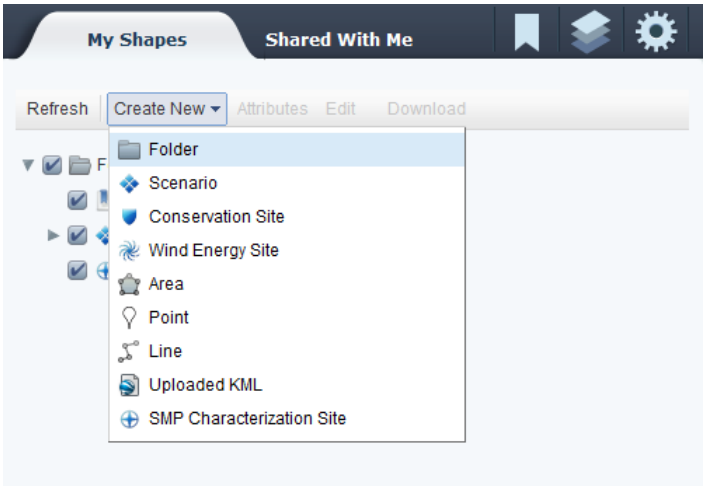
Once this objective has been added to our initial scenario, we will have additional outputs on the map, and reports available for both objectives, one for Benthic Conservation and one for Wind Energy.

Create a Folder

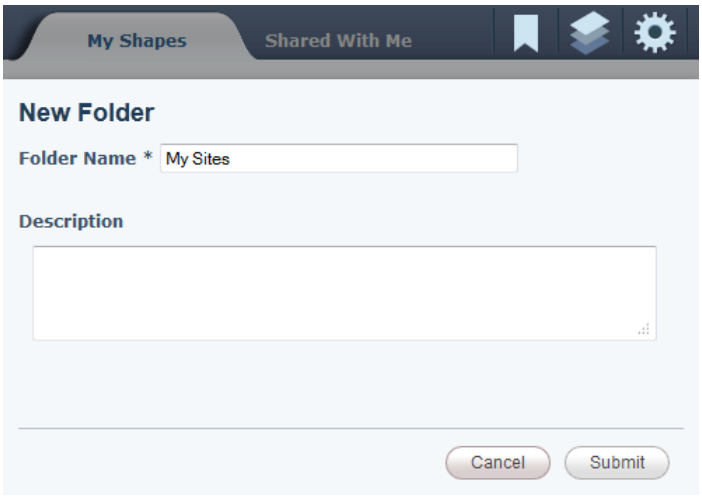
Creating folders has 2 primary purposes.

1. It allows you to better manage your bookmarks, sites, and scenarios in the My Shapes tab.
2. It is the first step in generating Tradeoff Analysis reports.

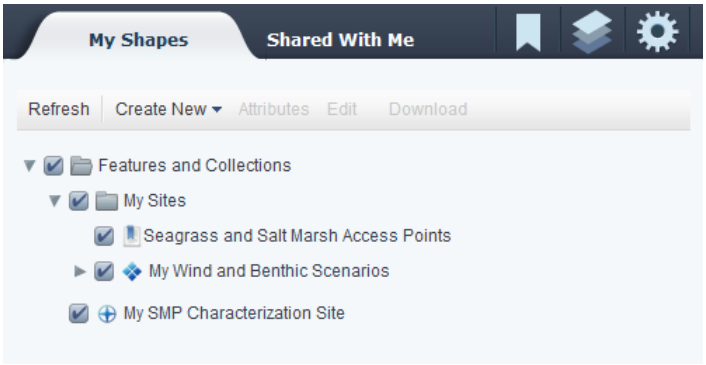
To create a folder, select Folder from the Create New menu in the My Shapes panel.



Give your folder a name and click Submit.



From the Attributes panel you can see that the Multi-Objective Tradeoffs Report has become accessible. We will revisit that report in the next section. For now, note the Hint at the bottom of this panel that explains that from the My Shapes panel, you can simply drag and drop any of your features into your new folder.



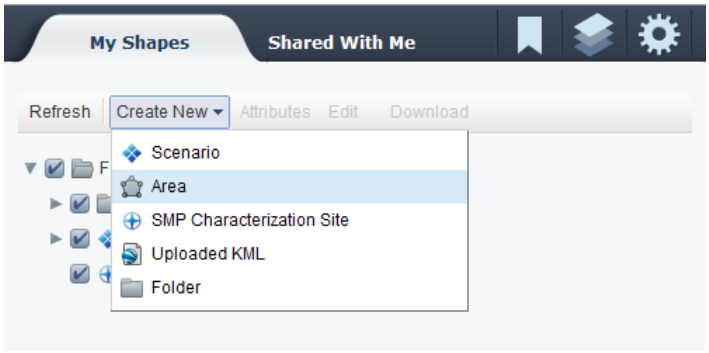
Tradeoff Analysis Basics

The process leading up to Tradeoff Analysis can be viewed as having 3 stages (of which only the last 2 are necessary for Tradeoff Analysis).

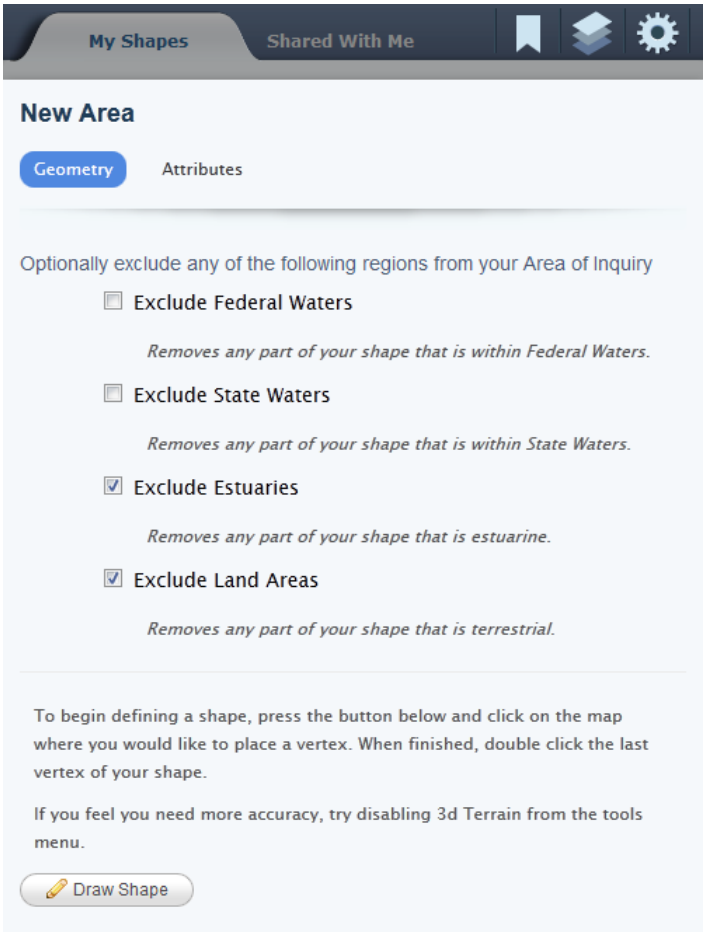
1. Use Scenario planning to determine potential areas of interest along the coast.
2. Create actual Areas of interest based on the results of the scenario planning or on your own knowledge and experience.
3. Group the sites in a folder, and view tradeoff analysis on those sites contained within a folder.

Create Areas of Interest

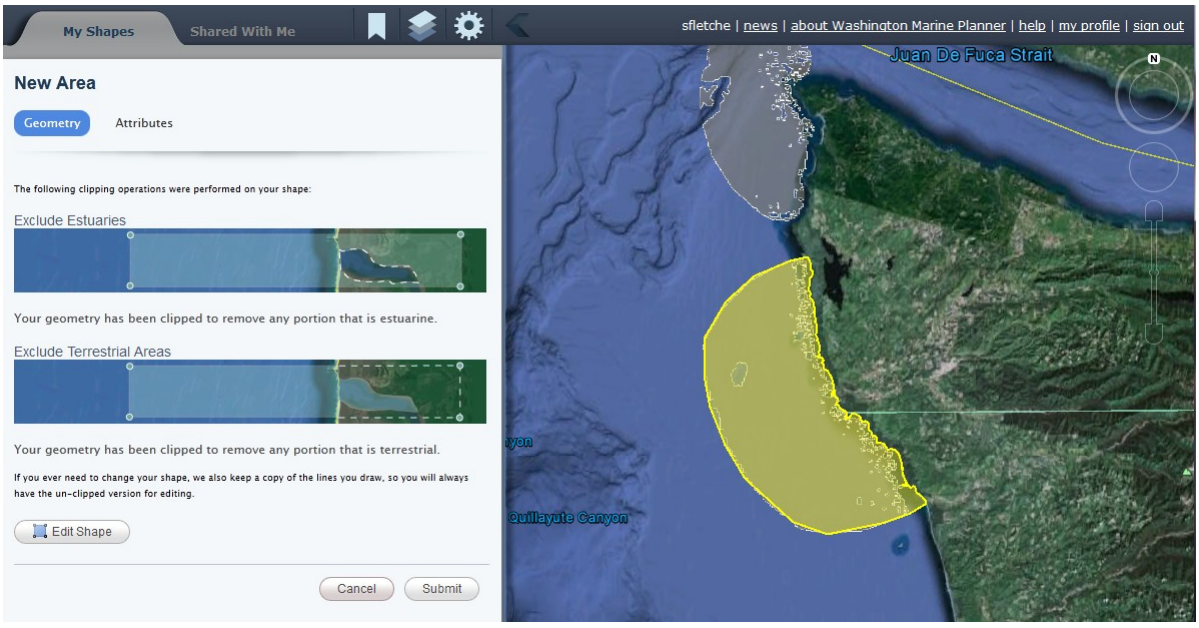
From the Create New menu, select Area.



From the initial view you can select various clipping behaviors that will be performed on your shape after you have finished drawing.

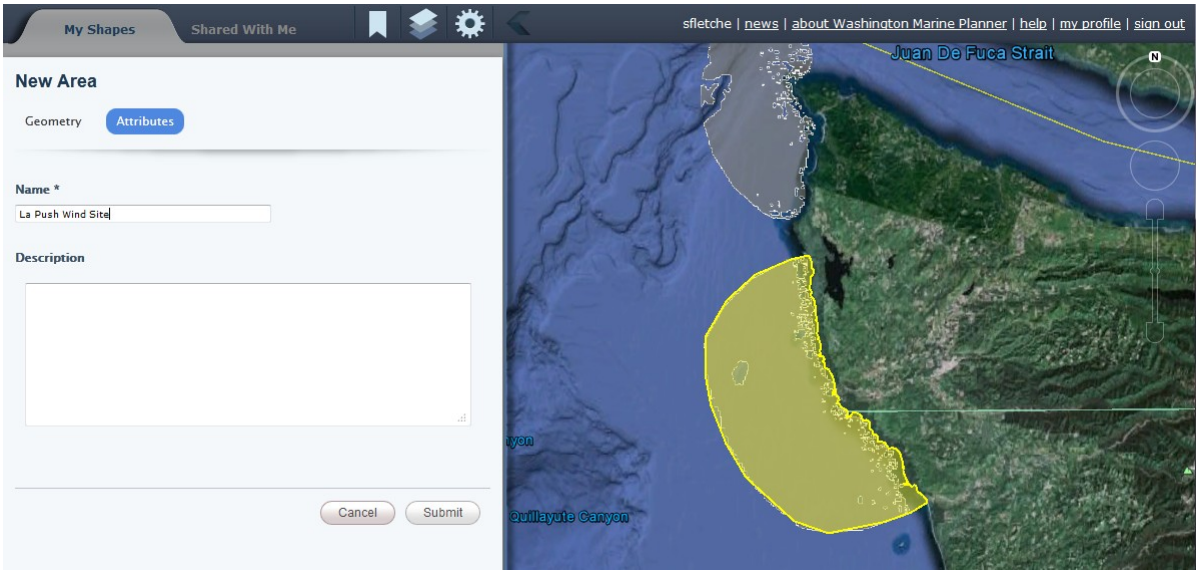


After you have selected 0 or more clipping behaviors, zoom into an area that you are interested in exploring and click Draw Shape to begin drawing your shape.



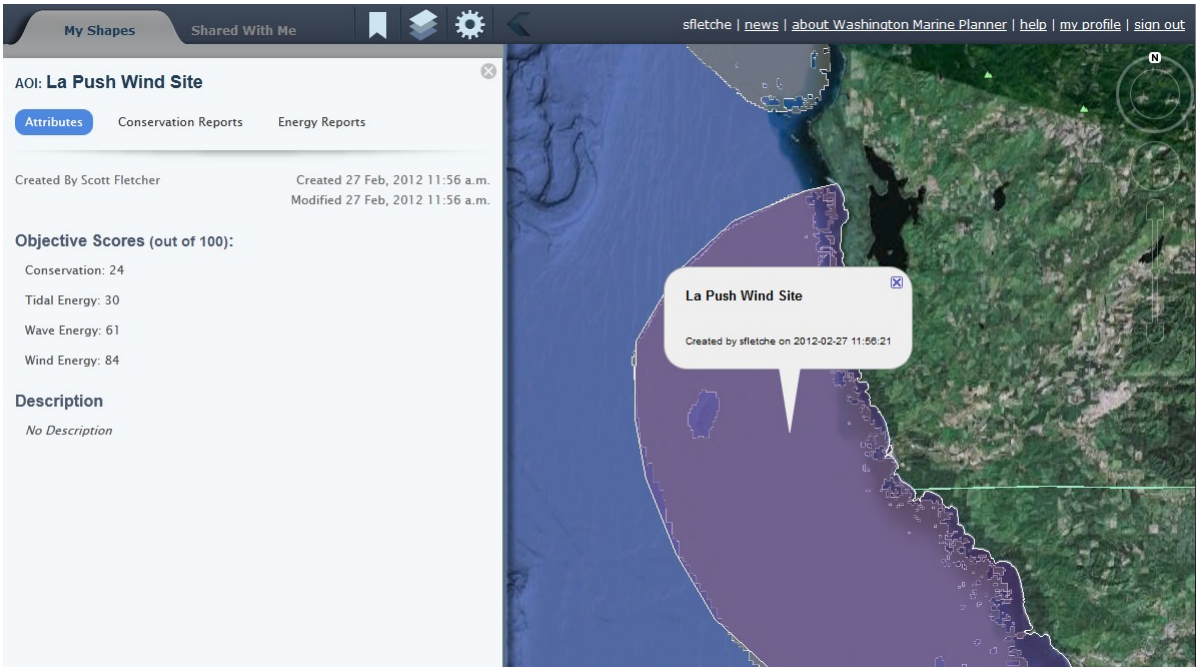
When your shape is finished (double-click the final point to complete your shape) and validated, assign

a name to your Area before clicking Submit.

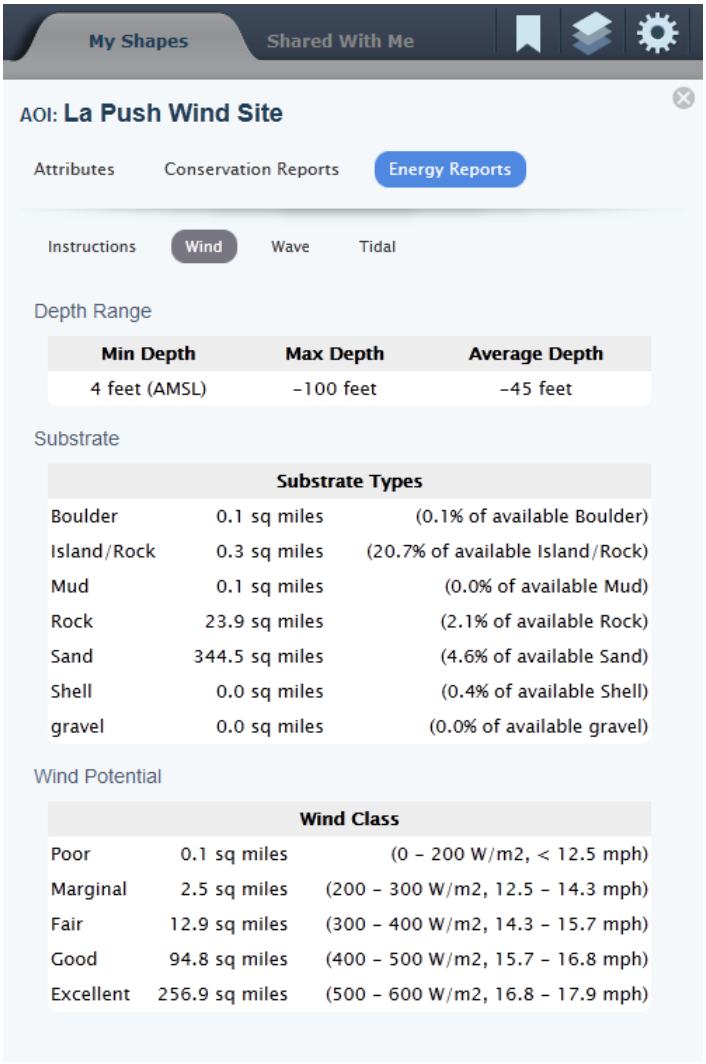


Area Reports

Each Area that you create will have both Conservation and Energy reports available. Estimated scoring is also determined for each of your Areas in the categories of Conservation, Tidal Energy, Wave Energy, and Wind Energy.



Since our initial interest was finding a suitable Wind Energy site, we might view the Wind Energy report by first seleting the Energy Reports tab, followed by the Wind tab.



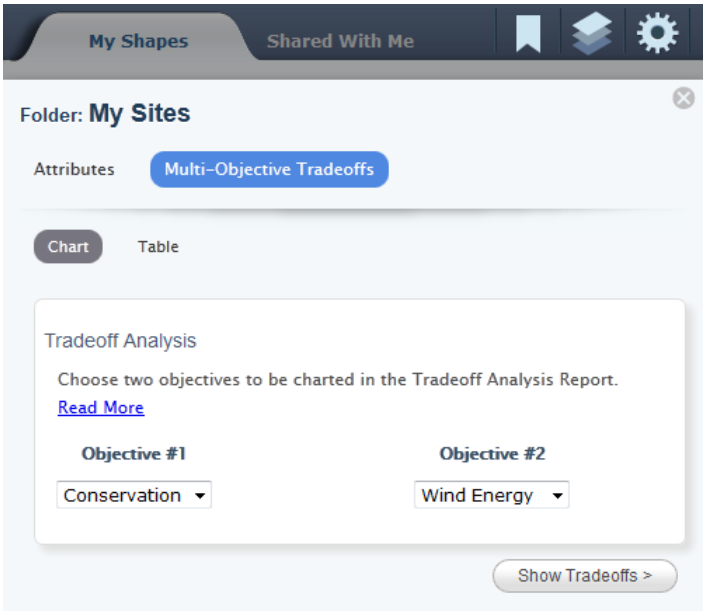
These reports are intended to provide a more detailed account of your Area and provide an indication of how your Area might be considered from the viewpoint of other objectives.

Tradeoff Analysis

Once you have created a few Areas of Interest and organized them into a folder, you can view the Tradeoff Analysis for your collection of Areas.

These reports can be accessed through the Attributes panel of your Folder (from the My Shapes panel, select your folder and click Attributes, or double click your folder name).

From the Attributes panel of your Folder, select Multi-Objective Tradeoffs to enter this report section.



From here there are two avenues for viewing the tradeoff analysis.

1. The Visualization tab requires the user to choose 2 objectives to compare on a bubble/scatter plot visualization. To see the Conservation scores plotted against the Wind Energy scores of your sites, choose those as objective #1 and #2 and click Show Tradeoffs.

Hovering over a bubble provides the 2 scores and the size of the site.

In our case, areas in the bottom-right have high scores for their conservation potential and lower scores for their wind energy potential.

Areas in the top-left are scored highly for their wind energy potential while less so for their conservation potential.

Areas in the top-right are scored highly for both wind energy and conservation. One might anticipate that these sites in the top-right are sites with greater potential for conflict.

In our example it is obvious that one of our sites is not scored very highly for Wind Energy, but is scored highly for Conservation. Hovering over that point identifies that site as Butler East.

2. The Table tab is an alternative view to the scatterplot in the Visualization tab. The Table tab provides tabular output showing all scores (for the conservation objective and each of the energy objectives) for the sites in your folder.

The sites contained within your folder are listed in the left column while the objectives are listed in the first row along the top.

This display highlights those areas that are highly valued for more than a single objective (red) and therefore candidates for conflict, while also demarking those areas that are valued highly for a single objective (green) indicating a lower likelihood of conflict.

We can see here that our La Push Wind Site has a high score for both Wind and Wave Energy.