

Instructions for Entering Coral Reef Mapping Priorities

1. GETTING STARTED – OPENING THE TOOL AND SIGNING IN

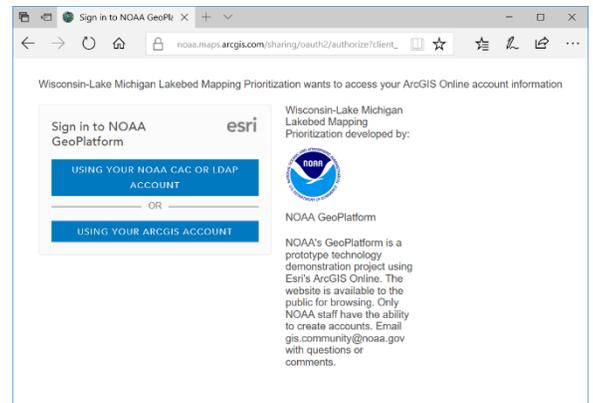
- 1) Click on the links below to access the web tool:

https://maps.coastalscience.noaa.gov/crcpp_hawaii/

NOTE: The web application works best in **Chrome** or **Firefox**. It does not work in IE or Edge.

- 2) Click on the  icon to activate the widget and to sign in using either your NOAA GeoPlatform account (Fig. 1). If you work for NOAA, click "Using Your NOAA CAC or LDAP Account". Non-NOAA participants click on "Using your ArcGIS Account".

****Note for Non-NOAA users, you should have received an email from notifications@esri.com on how to sign in to your NOAA GeoPlatform account.**



- 3) Once you are signed in, click the  icon again to activate the system. All of your spatial prioritization preferences for seafloor mapping will be entered using the map grid and simple pull-down menus on the widget (Fig. 2). Note: If your screen resolution cuts off the bottom part of the widget, use "Ctrl -" (control minus) to zoom out.

Fig. 1. Sign into NOAA GeoPlatform Account to access widget and enter your spatial priorities.

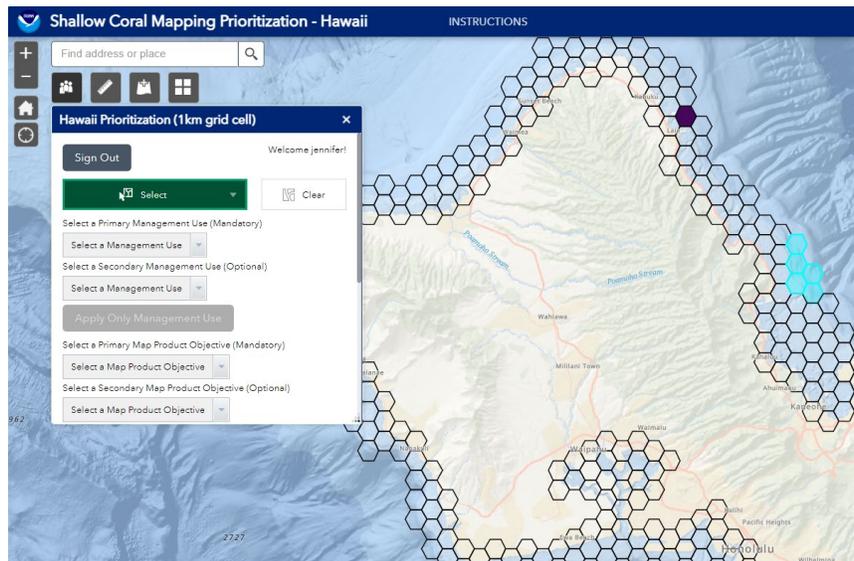


Fig. 2. Spatial priorities for seafloor mapping will be entered on the grid (right) using the widget (left). Information will be saved to the grid and analyzed to find key patterns and overlap among participant needs.

2. GENERAL NAVIGATION AND WIDGETS

There are several widgets available to help you navigate and view this application. These are located at the top left of your screen, under the address search bar.

1. **Basemap Gallery**  - You can change the basemap using this widget. It is recommended you explore other basemaps (such as the Chart Tile Service (RNC) map) to give you more detailed background information. The default background layer is 'Oceans'.
2. **Add Data**  - You can add your own map services or files, such as zipped shapefiles, CSV, KML, GPX, or GeoJSON, using the Add Data widget .
3. **Bookmark**  - Location bookmarks can be used to quickly zoom to a saved region or location. We have added some pre-saved bookmarks, or you can add your own.
4. **Measure**  - Tool that allows you to measure distance, area, or view the Lat/Long of the cursor's location.

3. BACKGROUND DATA AND INVENTORY

Many ecological, administrative, cultural, and existing mapping data layers are viewable in the Digital Atlas to help you identify important places and orient yourself in space.

NAVIGATING LAYERS

1. Click the Layer List tab at the upper right corner of the page (Fig 3).
2. To add layers to the map, click the box next to the layer. This will check the box and add it to your basemap.

****NOTE** – if the layer you want is nested under several 'parent'. Make sure all parent layers are also selected to display.

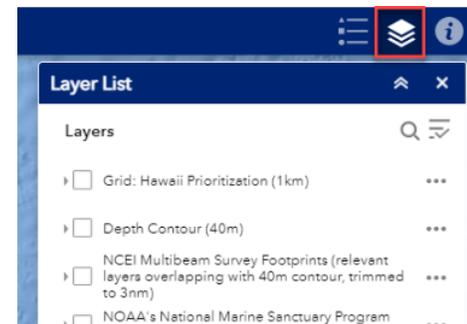


Fig. 3. Layer list that can be used to display existing mapping data, political and environmental boundaries, and key data points.

3. ASSIGNING COINS

1. If you haven't done so already, click the **Prioritization widget** (see Step 1)
2. **Select cells** you would like to assign coins to:
 - a. Use the selection tool (Fig. 4) at the upper left of the prioritization menu to select cells.
 - b. This tool has multiple ways of selecting cells, such as with a single click (Select by point), along a line (Select by line), in a freehand polygon (Select by lasso), or other defined shapes (rectangle, polygon, or circle).
 - c. **Not the cells you meant to highlight?...or you want to pick some new cells?** Use the clear selection button to clear the cells you have selected and then make a new selection.

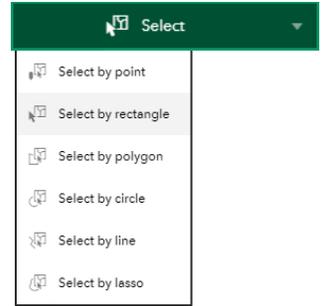
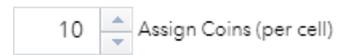


Fig. 4. Selection tool.



3. Distribute your coins into the grid cells that you would like mapped.
 - a. Enter the number of coins you wish to place into the selected cells. Use the up or down arrows to choose the number of coins you want to place in each selected cell.
 - b. Each respondent can allocate their coins as they would like in the prioritization area. However, a maximum of 10% coins can be placed into a single grid cell.



<i>Prioritization Region</i>	<i>Total # Cells</i>	<i>Total # of Coins</i>	<i>Max # coins per cell</i>
Hawaii	1786	540	54

****NOTE** that the system automatically keeps track of how many coins you have assigned, how many you still have available, and prevents more than 10% from going into any particular cell.

- c. Before applying your coins, move on to selecting Management Use and Map Product Requirement from the drop down menus (see step 5 below)

5. ASSIGNING DROP-DOWN VALUES

1. Once you have selected cells and the number of coins you wish to assign, continue down the prioritization menu and select Primary and Secondary Management Use and Map Product Requirement.
2. Click **Apply All** when you are done. This is all you need to do to submit your input!

Please note: the "Apply All" button will not work if the "Return Coins" button is active (i.e., you have selected cells with coins allocated). In this case, you will need to use the **Apply Only Justification** and **Apply Only Data Product** buttons.

OOPS! YOU WANT TO CHANGE THE ALLOCATION OF COINS, PRODUCT, OR JUSTIFICATION?

Select the cells already containing coins that you want to change. This activates the  button. Clicking this removes the coins in these cells and makes them available for redistribution. This is useful if you've made a mistake or if you want to move a few coins to another location. If you want to remove the justification or product, select those cells and choose 'None' in the dropdown, then hit Apply.

6. WHEN DO YOU NEED MAP PRODUCTS?

When distributing coins among grid cells, use these general guidelines to indicate the relative urgency of the priority:

- 8 – 10% coins = map products needed this year
- 4 – 7% coins = needed in 2-4 years
- 1 – 3% coins = needed in 5-10 years
- ZERO coins = no immediate need

7. SELECTION: MANAGEMENT USE

Below are general definitions for the drop-down "Management Use". You can identify a primary and secondary "Management Use" for the selected grid cells to convey your rationale for making this choice. Use the pull-down menus to make your selections from this list:

How will you use this data to inform coral reef management?

1. **Endangered Species Management** – Includes consultations, recovery planning and implementation
2. **Habitat Restoration** – Restoration planning and implementation of coastal and marine habitats such as corals, submerged aquatic vegetation, etc.
3. **Monitoring** - long-term biophysical monitoring, discrete management/restoration assessments, or emergency/disaster response assessment
4. **Coastal Vulnerability Planning** - Planning to mitigate for climate change impacts and other coastal hazards
5. **Watershed Management** - Planning and implementation of watershed management and restoration projects to improve coastal water quality
6. **Fisheries Management** - Planning, enforcement, and assessment of fisheries management actions
7. **Consultations and Permitting** - Planning and assessment for federal (e.g. USACE, ONMS, etc.) and/or state permits and environmental compliance with other federal regulations (e.g., NEPA, ESA, MSA, etc.)
8. **Emergency Response** - Rapid response to coastal and marine emergencies that require immediate assessment, triage, and/or remediation activities, such as storms, vessel groundings, bleaching events, disease, and/or invasive species outbreaks
9. **Spatial Protection/Management** - Planning, enforcement, and assessment of spatially managed areas, such as marine protected areas, marine managed areas, etc.

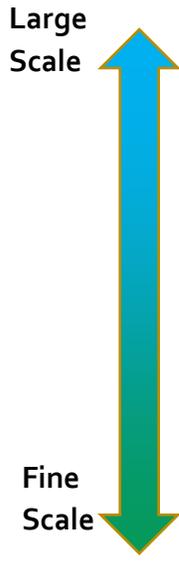
Now that you have entered a couple of attributes to cells, note that you can change your coin allocation and drop down options independently of editing the other sections. This is useful when you want to adjust only some of the attributes of a cell without re-entering all of your preferences. Use the “Apply Only ...” buttons, for example: 

If you want to reset all the pull-down menu selections for Justification and Map Product Requirements, click 

8. SELECTION: MAP PRODUCT REQUIREMENTS

In this section, you can identify a primary and secondary “Map Product Requirement” for each selected grid cell. This information is key in linking your project data needs, to the implementation and planning of project resources and methodology (i.e. data resolution and platform). Select cells (if none are selected) and then use the drop-down menus to make your choices from this list:

What are your requirements for mapping data?

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1. **Delineations of large topographic features (e.g., pinnacle)** – Includes escarpments, pinnacles, valleys, basins and other large scale bottom features detected
 2. **Delineations of hard vs soft bottom** – Data will be used to determine the hardness or reflectivity of the seafloor (i.e., rock vs soft sediment)
 3. **Delineations of substrate types (e.g., sand, mud, coral, rock)** – Locate and define seafloor types including sand, mud, rock outcrops, coral caps, pavement, etc.
 4. **Models of habitat suitability for key taxa or communities** – Models of habitat suitability using coarse (>10 m) resolution imagery
 5. **Models of presence/absence or density of corals** – Modeled percent cover and density of macrobiota (i.e., sponges, coral, etc.)
 6. **Identification of coral species and their local environments** – Locate and identify species of corals and document their local environments (e.g., slope, rugosity)
 7. **Documentation of individual specimen condition** – Identify the condition or health (e.g., injury, disease, bleaching) of individual corals

9. LEGEND: WHAT DO MY PRIORITY ENTRIES LOOK LIKE?

At any point in the prioritization process, you can examine your entries by clicking the  icon at the upper right of your screen to activate the legend. You can toggle the attributes displayed in the map using the pull down menu at the bottom of the prioritization widget (Fig. 5). You can also click on an individual cell and get its attributes in a pop-up table.

Number of Coins
Primary Management Use
Secondary Management Use
Primary Map Product Objective
Secondary Map Product Objective

Fig. 5. Legend options available in the tool.

10. ALL DONE?

Hurray! Please feel free to contact me (jennifer.kraus@noaa.gov) if you have questions or problems. Once you have made your final selections, please email me so we can begin analyzing your suggestions.