

COASTAL DATA EXCHANGE

PACIOOS



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PacIOOS

Data Supply Discussion

- How data were developed
- Strengths and weaknesses
 - Confidence interval (accuracy versus uncertainty). How do you treat data uncertainty?*
- Planners use my data for...
- Planners could also use my data for...
- Differences in how counties/ agencies have used it
- Other ways they could use it
- Ways my data should not be used
- How to access my data
- The future of my dataset

(e.g. this is the data you could use for x projection, what my data will look like in 10 years)



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How data were developed

- Data are collected via a variety of platforms, including *in-situ* (buoy, fixed-pier) and remote (HFR) sites, as well as “generated” synthetically by numerical model (circulation, wave, atmosphere, tide)
- Data products are developed based on user needs and/or requirements



Strengths and weaknesses

- Good:
 - Most data and all models provide data in real-time
 - Pacific-wide distribution of observing platforms
 - Multi-variate measurements
 - Efficient delivery mechanism
- Not-so-good:
 - Most time-series start with the program, *i.e.*, are three years or less
 - Point measurements are in relatively few, discrete points, while gridded data are coarse



Data Supply Discussion (cont'd)

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- Planners could also use my data for...
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- Other ways they could use it
- Ways my data should not be used



How to access data

- All data available via OPeNDAP and OGC standards (WMS, WFS, WCS) [**transport**]
- All data available via web-based browse tools (LAS, ERDDAP, GeoServer) [**browse**]
- Most data available via web-based view tools (Voyager, Explorer) [**discovery**]

<http://pacioos.org>

Additional value-added component is development of user-specified tools

<http://pacioos.org/shorelinechangetool>

- Local planning agencies requested a tool for estimating property set-backs using historical and future projections of sea-level change
- UH/SOEST provided scientific analysis (on-shore transects, historical coastlines, *etc.*)
- NOAA (CSP), State (Coordinator for the National Flood Insurance Program within DLNR) and State Planning Departments provided support and layers
- PacIOOS provided technical support, tool development and infrastructure



The screenshot shows the 'Hawaii Shoreline Change Tool' interface. A map of Hawaii is visible in the background. A sidebar on the left contains map controls. A central panel displays tool instructions and the PacIOOS logo. A legend and search box are in the top right. Callout boxes provide details about the map controls, the tool's purpose, and the initial start screen.

Map Control:

- Zoom in/out
- Select transect or parcel
- Show legend
- Show search

Hawaii Shoreline Change Tool

This tool allows you to find the rate at which the shoreline is changing at a given location and to view historical shoreline positions and potential impacts from sea-level-rise.

To find the rate at which the shoreline is changing at a given location simply search by Address, TMK or Transect ID (or select a location and select a parcel), and the results will be shown in the table.

Use of this tool assumes acknowledgement of the [Disclaimer](#).

Historical shoreline change data (1) and Sea-level rise (SLR) scenarios (and confidence) from the NOAA Sea-level rise viewer (2) are available in the map for viewing purposes. Six SLR scenarios (1 - 6 ft) are mapped from the mean higher high water surface around Kauai, Oahu, Maui, Molokai, Lanai and Hawaii.

(1) Hawaii Coastal Geology Group
<http://www.soest.hawaii.edu/coasts/erosion/>
(2) NOAA Sea Level Rise Viewer, NOAA NCS Digital Coast
<http://www.csc.noaa.gov/digitalcoast/tools/slrviewer/>

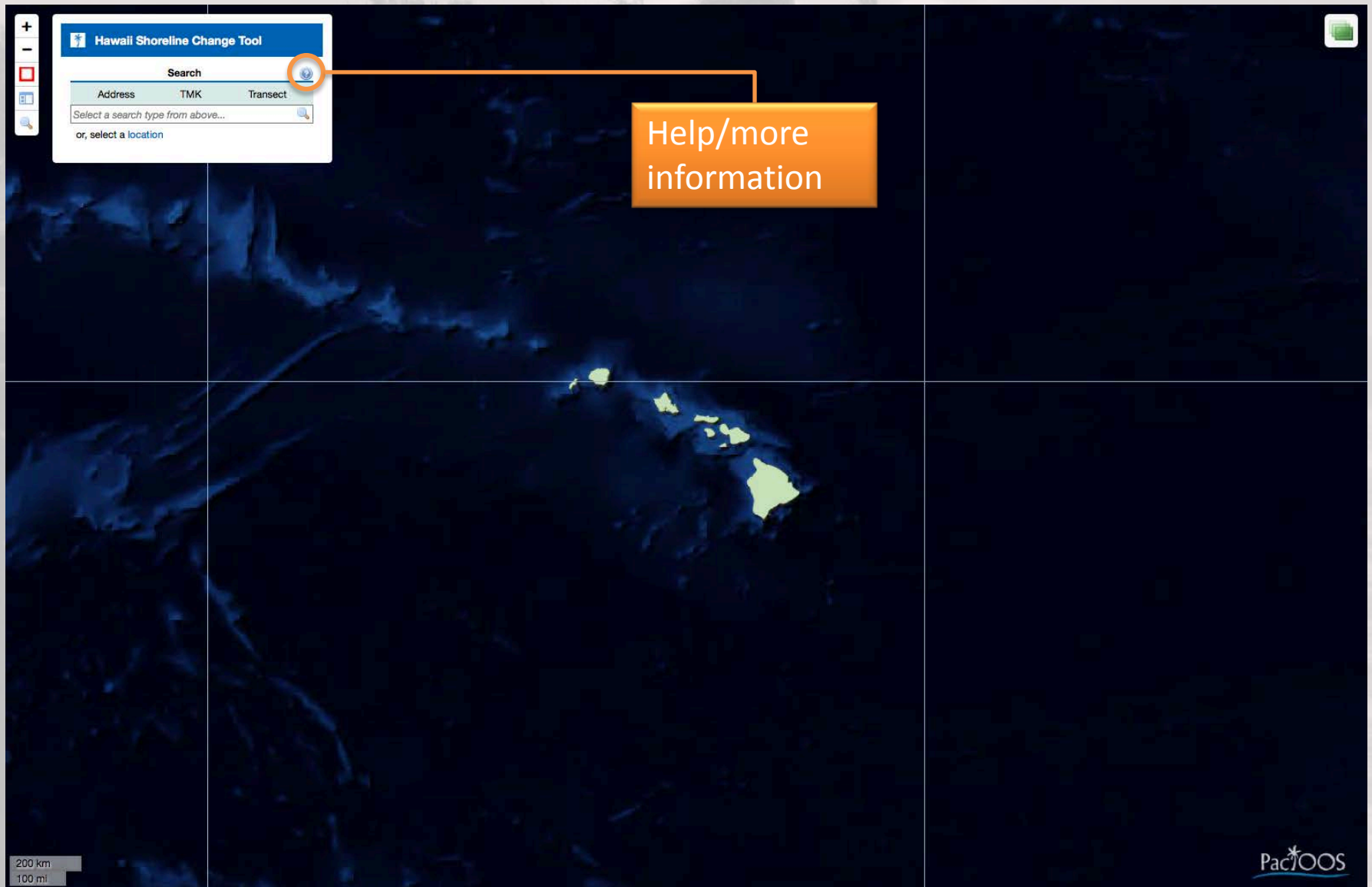
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Display legend and enable features

**Initial start :
Overview, disclaimer,
data information**

200 km
100 mi

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Hawaii Shoreline Change Tool

Search

Address	TMK	Transect
Select a search type from above...		

or, select a location

Search

Select a value to search on: **Address** (property address); **TMK** (tax map key); or, **Transect ID** (shoreline measurement location identifier) or you can click on 'location' and choose a region to zoom to.

Input **Address** as number, street name, street type and city (eg 2525 Correa Rd Honolulu)

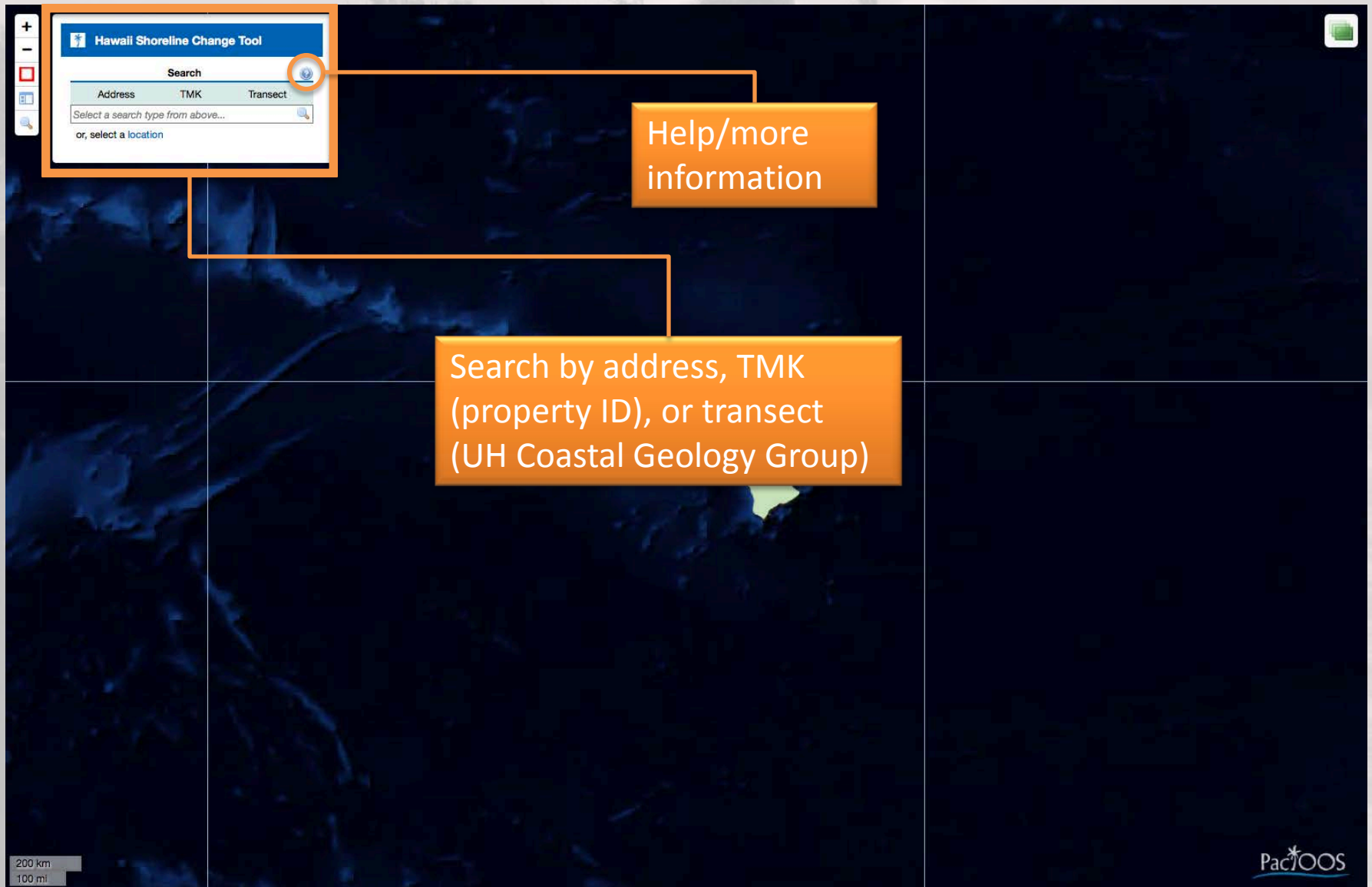
Input **TMK** using the 9 digit number excluding the first zero (0), if present, and without dashes (eg 59005085).

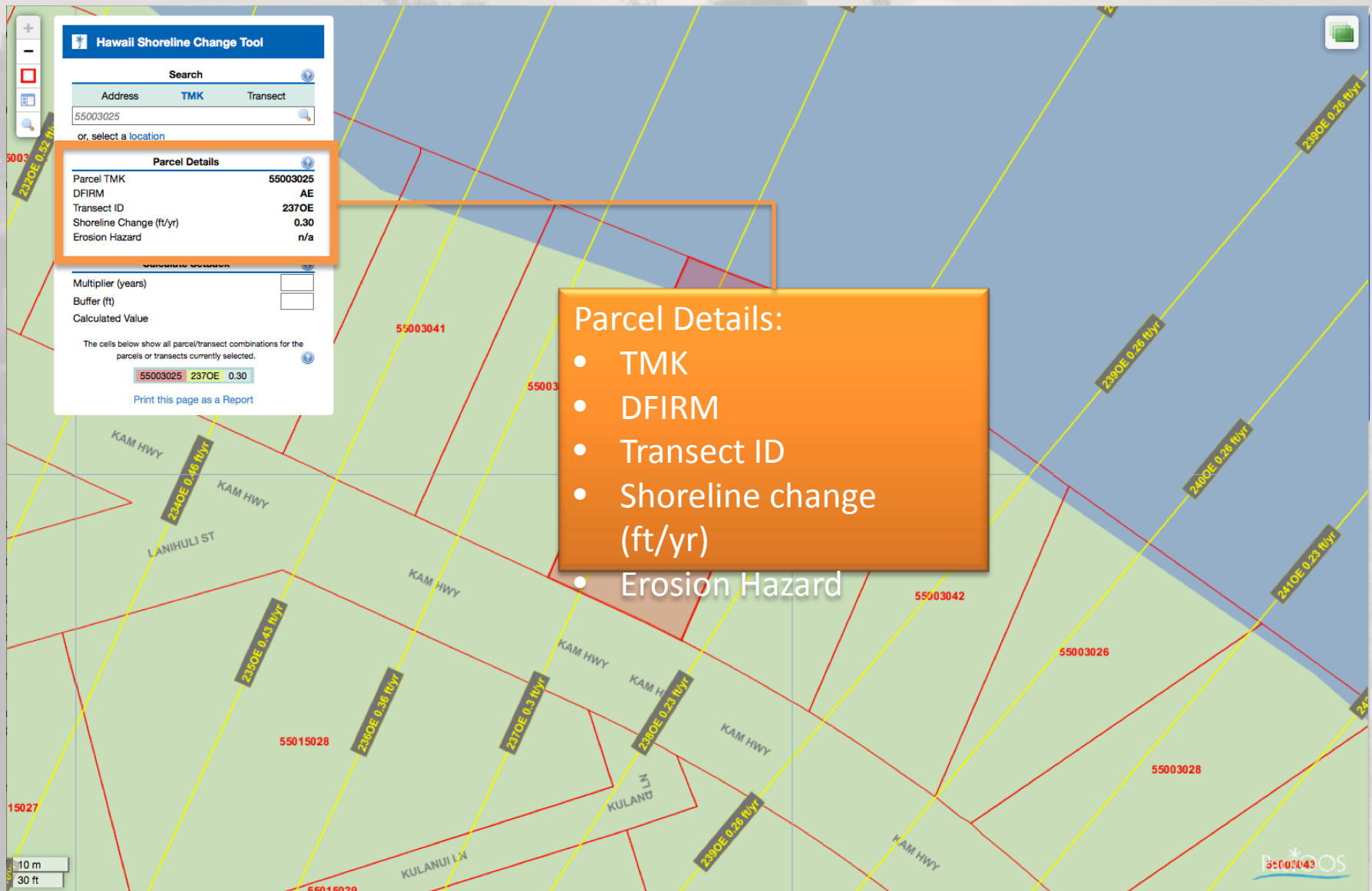
Input **Transect ID** in the form of 123XY. These IDs are the transect numbers found in [USGS Open-File Report 2011-1009](#) combined with letters reflecting the island (K-Kauai, Ma-Maui, O-Oahu) and what shore the transect is located (E-East, N-North, W-West, S-South, K-Kihei [Special Case for Maui]) e.g., 621ON for transect 621 on Oahu, North shore. NOTE: Transect ID applies only to Kauai, Maui and Oahu.

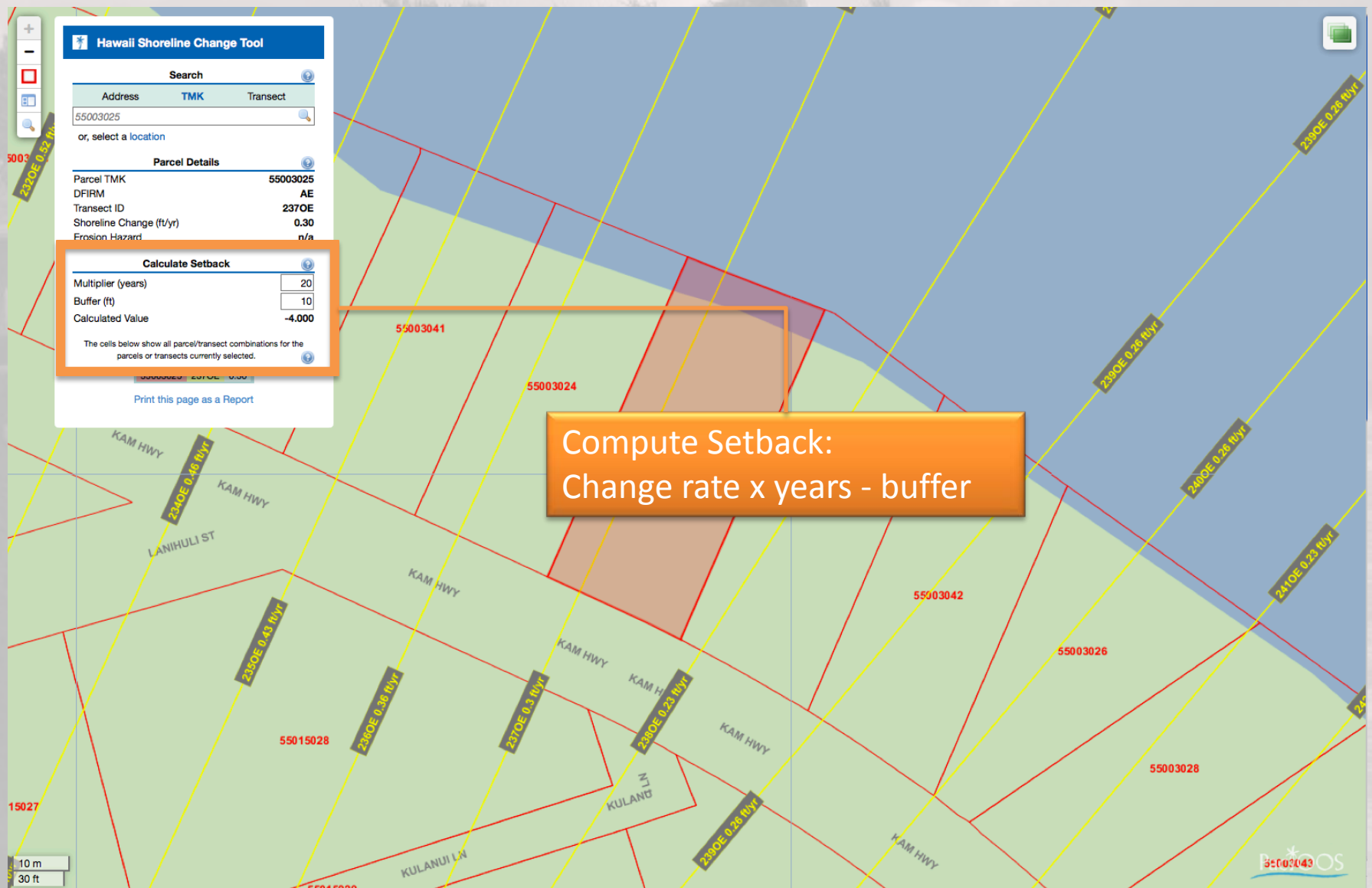
Press 'Enter' to start the search.

200 km
100 mi

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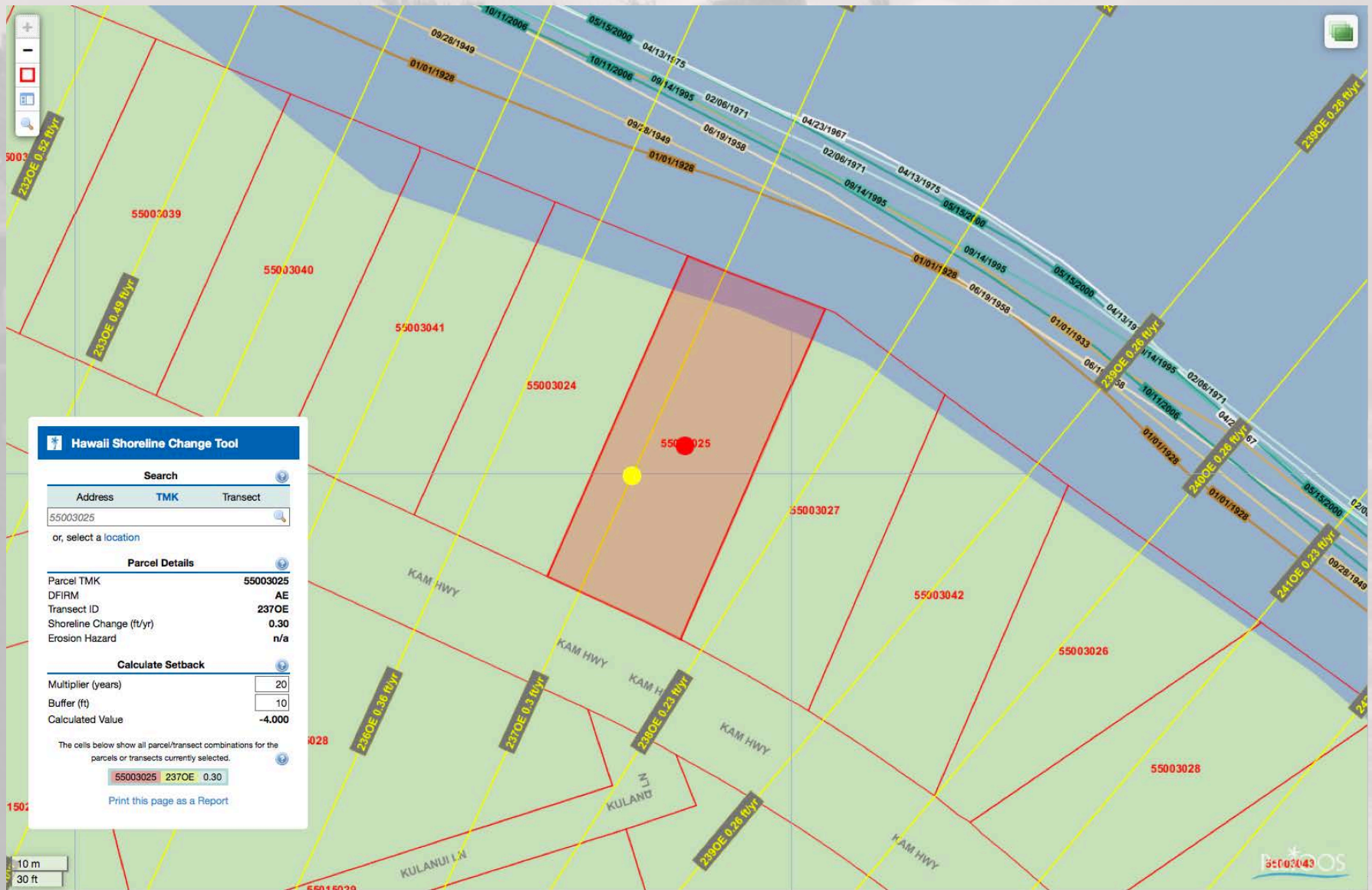














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COASTAL DATA EXCHANGE



The future of (my) (dataset)

- Shoreline tool in “beta release”, we welcome any/all feedback
- Ditto all PacIOOS data and data-services

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Planners use my data for

- ☒ County Plans
- ☒ General Plans
- ☐ Conservation District Use Permits
- ☒ Setbacks
- ☐ Shoreline Certification
- ☐ Shoreline Permits
- ☐ Building Permits
- ☐ Special Area Management Permits
- ☐ Flood Zones
- ☐



Planners could also use my data for

- ☒ County Plans
- ☒ General Plans
- ☐ Conservation District Use Permits
- ☒ Setbacks
- ☐ Shoreline Certification
- ☐ Shoreline Permits
- ☒ Building Permits
- ☒ Special Area Management Permits
- ☐ Flood Zones
- ☐

