

## LANDSCAPE VALUES MAPPING PLATFORM

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## 1. Brief Description:

The Landscape Values Mapping Platform (LVMP) was developed as a tool to facilitate the collection of spatially explicit social data to aid place-based environmental planning efforts. The tool enables researchers to design Public Participatory GIS (PPGIS) surveys that consist of mapping, quantitative and qualitative components. The LVMP is highly adaptable to specific research needs; researchers can easily incorporate their own questions, responses, mapping scales (zoom scales), mapping categories and definitions, pop-up questions, etc.

## 2. Features:

### 2.1. Quantitative / Qualitative Questionnaires

The survey can be designed to include questionnaires either before or after the mapping component. Most basic question types can be incorporated including open-ended, on a Likert scale or rating scale, and multiple choice.

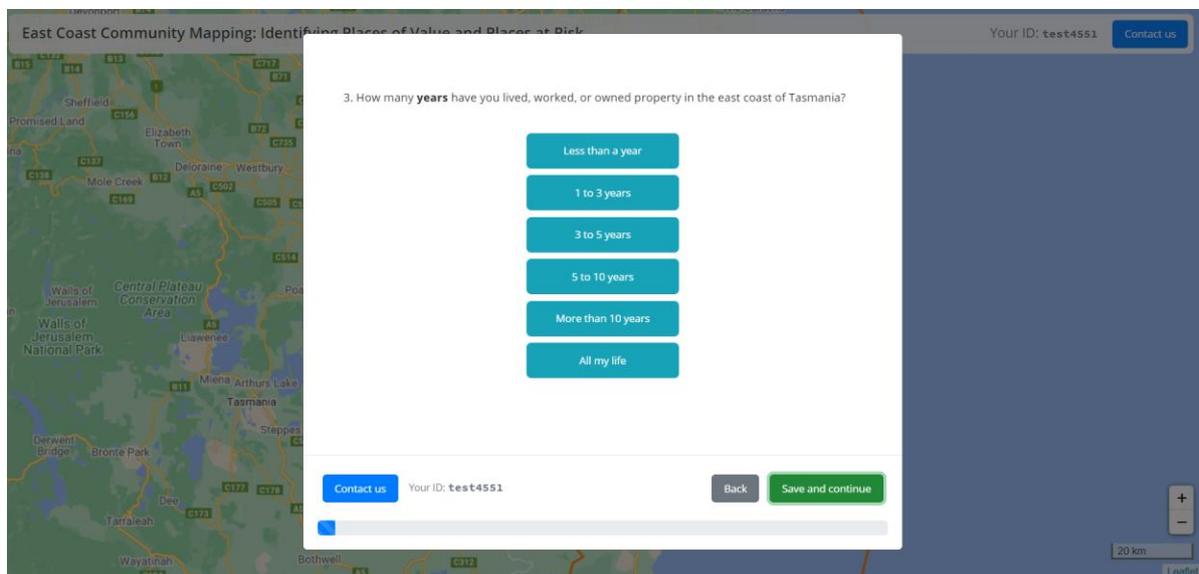


Figure 1: Example of a multiple choice question.



### 2.2.1. Marker Categories

The platform allows PPGIS data collection of any social information as is required. Researchers can define what each marker category is, what icons will be used to represent each category, and what the definition for each category will be. For example, if spatial information on landscape values is required, researchers can:

- Determine what landscape value categories respondents will be asked to map.
- The typologies for landscape values and the images / colours used to represent each value category.
- How many points the respondent can place for each category and whether they are required to place a set number of points (figure 3)

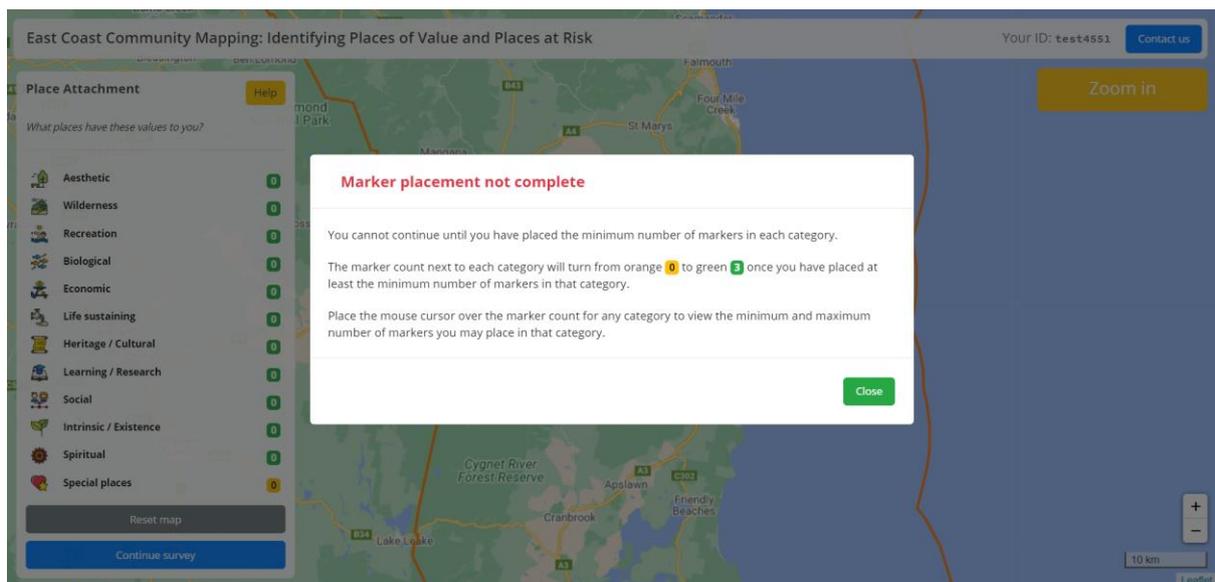


Figure 3: In this example, the user is required to place 5 overall points and at least 2 special place points before they can continue with the survey

Note that in addition to landscape value mapping, the same survey can also ask respondents to map other information such as their climate change risk perspectives, management and development preferences, etc. (figure 4).

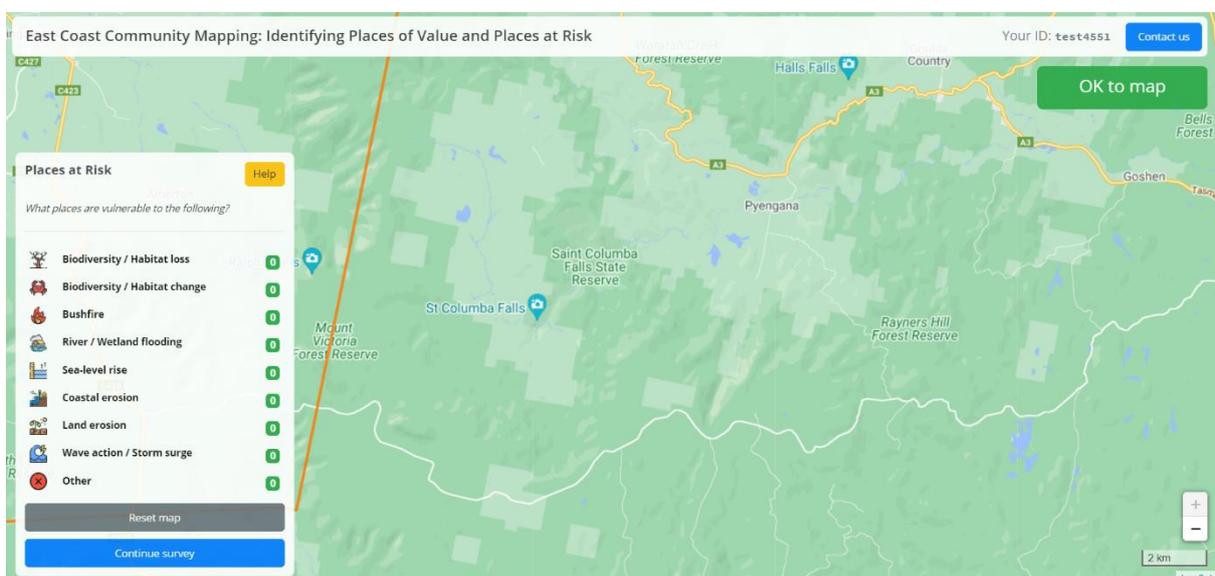


Figure 4: The LVMP can collect any type of PPGIS data, this example shows categories to map individual risk perceptions.

### 2.2.3. Zoom levels

A minimum and maximum mapping scale can be implemented to ensure accurate data capture. Respondents will only be able to place points when they are within the set mapping scale range (figure 5).

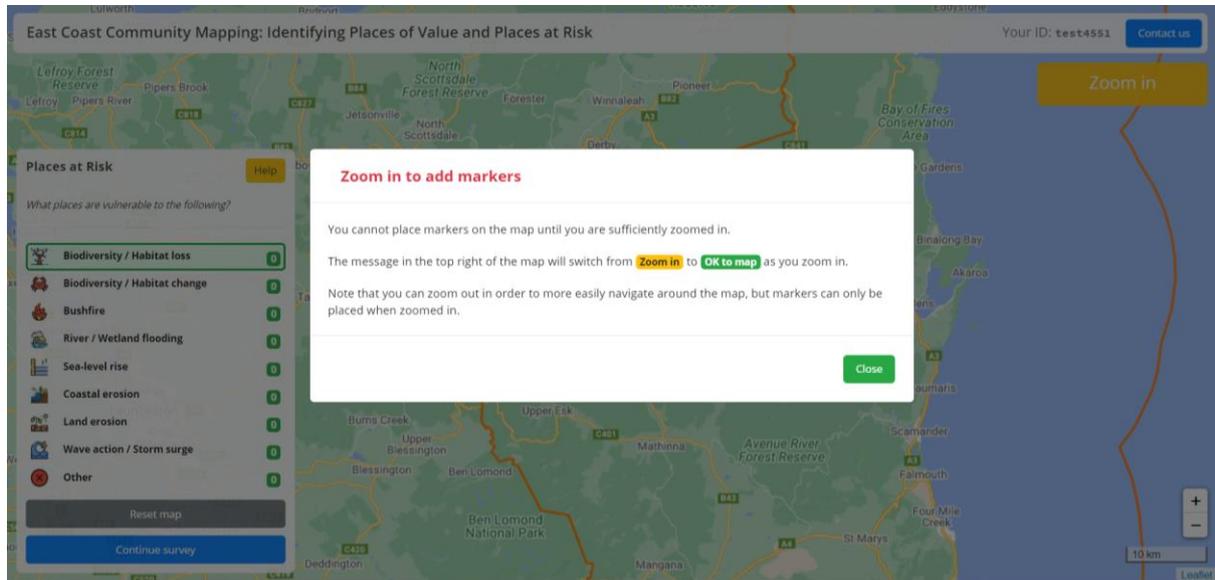


Figure 5: In this example, respondents can only map points when the mapping scale is at 1cm = 2km.

### 2.2.4. Instructions

In addition to instructional pop-up screens as can be seen in figure 3 and 5, the survey can be designed to include instructions when users hover over certain features (figure 6).

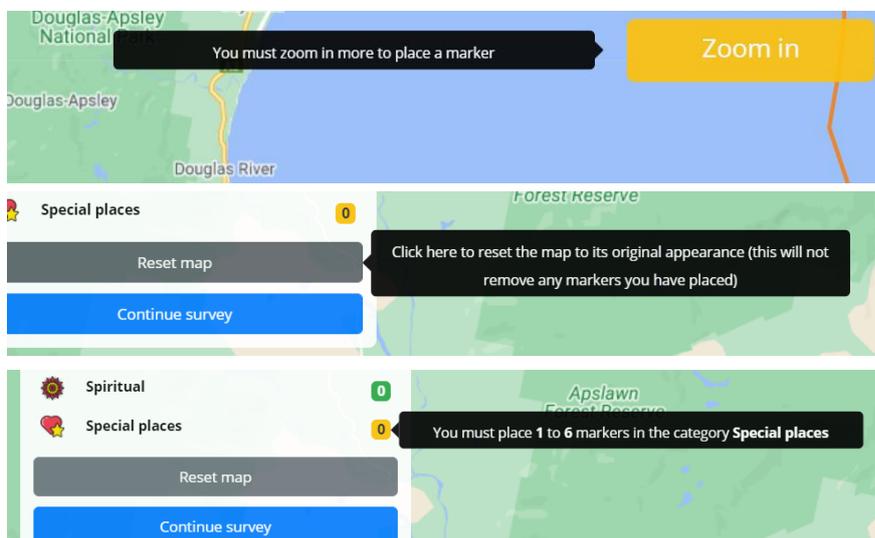


Figure 6: Examples of instructions that appear when hovering over features

### 2.2.5. Pop-Up Questions

Once a marker is placed, a pop-up question can be included for more information.

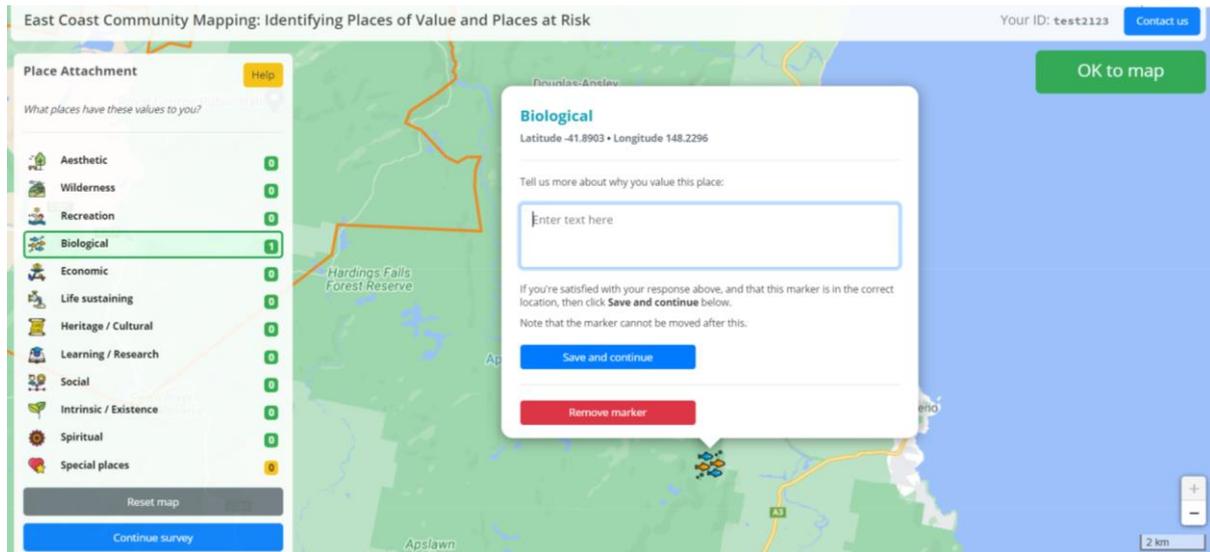


Figure 7: Example of a pop-up question

### 2.3. Data Collection

Each respondent is assigned a unique user ID at the start of the survey. Responses are recorded in real time and can be downloaded for analysis on a csv. file at any point. A response summary page can be generated to view the progress of the survey overtime (figure 8).

#### East Coast Community Mapping: Identifying Places of Value and Places at Risk

**Number of users: 287**

Note: surveys run in "test" mode are not shown below.

**Number of questions: 58**

Note: This is the number of questions in the survey including conditional questions that may not require a response, depending on the user's earlier responses. The survey is considered to be complete (100%) if the user reached the final question of the survey.

User ID	Date/Time Start	OS	Browser	Platform	Number of questions answered	Number of markers placed	% Complete (approximate)
QLlpNRpk	2021-04-26 16:24:27	Windows	Microsoft Edge	desktop	52	25	100
6AnZZnb6	2021-04-26 18:02:35	Windows	Chrome	desktop	54	39	100
M9uVVZ6Q	2021-04-26 23:16:26	Windows	Microsoft Edge	desktop	3	0	5

Figure 8: Survey summary page

## 2.4 Accessibility

The survey is accessible to users on their computer / laptop or tablet. Additionally, the tool functions on Windows and iOS operating systems and all major browsers including Google Chrome, Microsoft Firefox, Microsoft Edge and Safari.

## 3. Requirements for Set Up:

Please note that this platform is still in the process of development for independent use. At present, however, your survey design can be set up for you by the listed authors and web developer. This may incur a small *one-off cost* to you for hire and services provided.

For quick set up we will require a detailed survey structure that includes the following in the order they are to appear:

- Survey questions and responses
- Instructions to be provided to the respondents
- Marker categories and definitions to be used
- Limits on the number of markers that can be placed under each category (if any)
- Minimum and Maximum zoom limits on map
- Study region
- A shp. file of the boundary limits for marker placement

An example survey structure document can be provided for reference, upon request.

## 4. Additional Information

### 4.1. Contact Details:

For more information, please contact us via the following e-mail address:

Dimuthu Jayakody: [dimuthu.jayakody@utas.edu.au](mailto:dimuthu.jayakody@utas.edu.au)

Malcolm Johnson: [malcolm.johnson@utas.edu.au](mailto:malcolm.johnson@utas.edu.au)

### 4.2. Links:

**Website:** <http://tasvalues.com/>

**Instructional Video:** <https://www.youtube.com/watch?v=pYI5CF7IHLy>

This video was included as part of the mapping instructions for the East Coast Community Mapping survey. It provides a brief tour of the mapping interface features and will give you an idea of what to expect from this tool.

**Test Link:** <http://tasvalues.com/survey/eastcoastplaces/test>

This link will take you to a test version of the East Coast Community Mapping survey that will allow you to go through the survey yourself and test out its functions.