

Salt Marsh Working Group Project Viewer

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Salt Marsh Working Group:

Founded in 2018, over 90 salt marsh researchers and natural resource managers from state, federal, nonprofit, university and other research institutions span MA, RI, NH and ME. The SMWG's goals are to:

1. Facilitate a coordinated forum between researcher and practitioners.
2. Share best practices to assess and monitor salt marshes and restoration efforts.
3. Identify research gaps and priorities.
4. Design collaborative approaches to advance salt marsh resilience.

Challenge: Given the unprecedented federal funding available in 2022, a larger than usual number of projects will be initiated. Updating the current Project Viewer to map and communicate salt marsh research, restoration and resilience projects for coordinated collaboration is more urgent than ever.

Salt Marsh Project Viewer Goal: SMWG partners want to create a focused point of project entry to:

- Share completed, current and planned work.
- Identify where/what datasets exist or are being planned for
- Avoid duplicity and speed on-the-ground application of salt marsh resilience measures.

Methods

- Identify appropriate ESRI programs to achieve our goals:
 - **Survey123:** Create a web-based survey to collect project information from project leads
 - **Experience Builder:** design a mapping interface to show the breath of projects; Create filters so users can explore projects by research/management types, project lead, or project title.
- Engage Salt Marsh Working Group through meetings and polling to gauge preferences

Map Interface

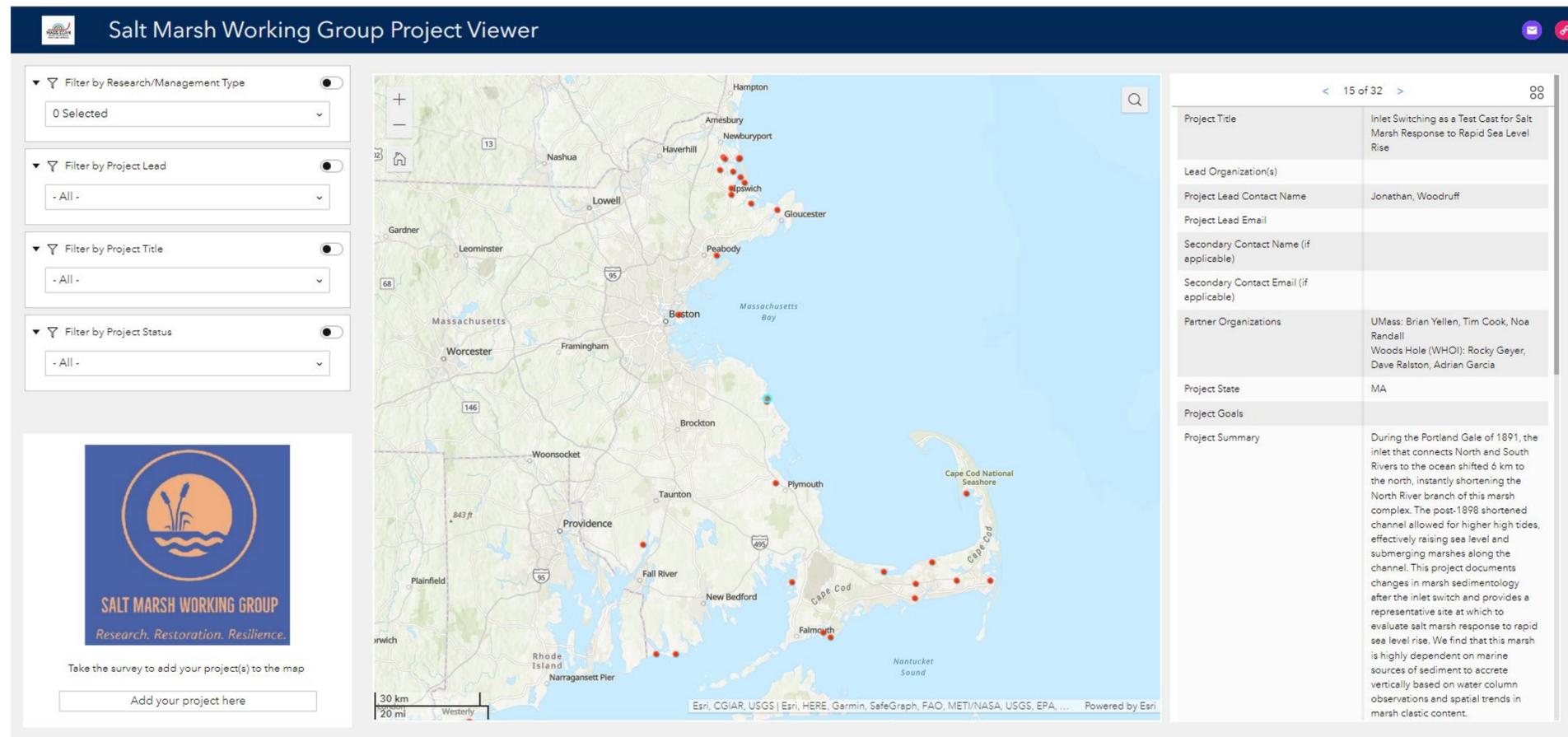


Fig. 2: Project viewer interface displaying the map and information for the selected point. On the left, the user has the option to explore projects by research / management types, project lead, or project title.

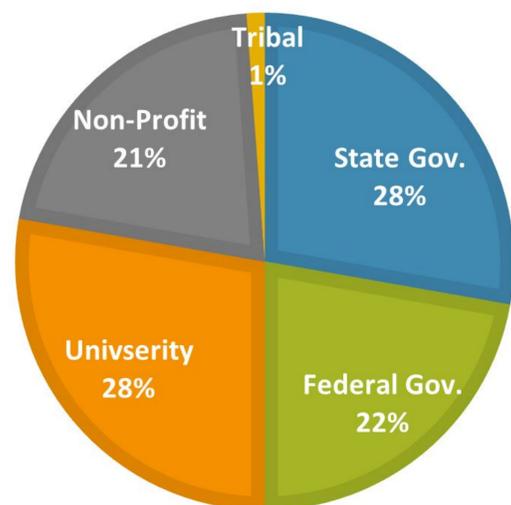


Fig. 1: SMWG Participants

Process / How it works:

1. Project lead answers survey questions (Survey 123)
2. Project location is recorded (Survey123)
3. Once submitted, a web map point is generated and all survey responses are linked to the point.
4. Users can visually access cumulative salt marsh project information, query for issues that interest them, seek collaborators, seek data sets. (Experience Builder)

Challenges Faced:

- Steep learning curve: Two new ESRI programs to learn at once
- Lots of collaborators: the SMWG is a large, collaborative group. Feedback was needed to move forward in a way that ensured the Viewer would meet their needs
- Additional, advanced programming may be needed to achieve ultimate desired functionality

Results

- 32-question survey, Divided into 6 sections for ease of data entry
- Survey takes about 10-15 minutes to complete
- New, web-based user interface to display projects

Next Steps

- Add user login so users can edit/update projects over time
- Design an advanced project location tool in the survey to allow for multiple project sampling points to be entered in one survey
- Link project information to a dashboard to show progress "by the numbers"

Acknowledgements

- Thank you Joe Kopera for GIS problem-solving
- Thank you to the SMWG for input on tool development

Survey



Fig. 3: Six survey categories.