Beta-testing workshop feedback on a new climate tool decision-support search engine for the Gulf of Mexico

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Report Summary

This report documents the second round of stakeholder engagement workshops (beta-testing workshops) for the EPA Gulf of Mexico Funded Project “Climate Change Tool and Model Decision Support Tree for Improved Coastal Community Resilience”, Cooperative Agreement #121609-00. Seven total workshops were hosted across the Gulf in November and December of 2017. These workshops allowed users to experience the first version of Gulf TREE (Tools for Resilience Exploration Engine) and voice their thoughts on which aspects of Gulf TREE were effective and which needed to be addressed. Input was provided in multiple formats: a worksheet, rotating discussions, and a large-group discussion. The results of these workshops, detailed in this report, will further refine Gulf TREE and make it an even more helpful resource that will guide users in climate tool selection.

About the Project

Gulf TREE (Tools for Resilience Exploration Engine) is a filter-based decision-support search engine designed to help users identify an appropriate climate resilience tool quickly, easily, and confidently. The project, started in 2016, is intended to address a critical stakeholder need for climate tool selection guidance. This “decision-support tree” website was intended to be a “one stop shop” where users can identify the best climate resilience tool for their needs and obtain additional information and resources.
Project Goal

Natural resource managers and local government decision-makers have access to the tools they need to make informed decisions about climate impacts.

Project Objectives

- Identify questions/needs stakeholders are trying to address when looking for appropriate climate tools.
- Develop a decision-support tree that links users to relevant climate tools that address their needs.
- Host workshops to increase awareness of the decision-support tree and provide instruction on its use.

Project Team

The Project Team includes representatives from the Gulf of Mexico Climate and Resilience Community of Practice (CoP), Gulf of Mexico Alliance (GOMA), and the Northern Gulf of Mexico Sentinel Site Cooperative (NGOM SSC), as well as end-user representatives from the natural resource and local government communities. The team reflects the diversity of our stakeholders and includes federal, state, local, and non-profit organization members. Every Gulf state (Florida, Alabama, Mississippi, Louisiana, and Texas) is also represented. Project Team members are:

Laura Bowie, GOMA                      Christina Mohrman, GOMA
Renee Collini, NGOM SSC                 Rhonda Price, GOMA / MS Dept. of Marine Resources
Melissa Daigle, CoP / LA Sea Grant      Tracie Sempier, GOMA / CoP / MS-AL Sea Grant Consortium
Marian Hanisko, CoP / NOAA              Christine Shepard, GOMA / The Nature Conservancy
Celina Gauthier Lowry, TX Community Watershed Partners / TXA&M AgriLife Extension  Will Underwood, AL Dept. of Conservation and Natural Resources (end user)
Nicole Love, CoP                        Heather Young, Tampa Bay Regional Planning Council (end user)
Steven Mikulencak, CoP / TX Community Watershed Partners / TX A&M AgriLife Extension
Background

The Gulf TREE project incorporated stakeholder engagement into each project objective (see above). To assess stakeholder needs and how users are currently selecting climate tools, a preliminary round of workshops took place from December 2016 to March 2017. Results of those workshops, which informed the development of Gulf TREE, are reported by C. Mohrman (2017) in “Feedback on climate tool use and needs from users across the Gulf of Mexico”. Following the first round of workshops addressing Objective 1, stakeholders were engaged throughout Objective 2 – the development of the Gulf TREE website. Volunteers were solicited to serve as “alpha testers” via partner meetings, the preliminary workshops, and social media. The alpha testers provided input to guide the Project Team decision-making on many aspects of site development, including look and feel, layout, colors, functionality, etc. Following the completion of Objective 2, a second round of workshops were held to allow users to experience the first version of Gulf TREE and voice their thoughts on which aspects of Gulf TREE were effective and which needed to be improved. The results of those workshops are detailed in this report.

Beta-Testing Workshops

Beta-testing workshops were conducted throughout the Gulf of Mexico with a variety of stakeholder audiences for robust input on Gulf TREE. Following the format of the first round of workshops, there were seven workshops held between November-December 2017 (see Dates and Locations). A diverse array of stakeholders were solicited (see Participation and Demographics), mixing round 1 participants and newcomers, to obtain a diverse range of stakeholder perspectives.

Workshops were held in similar locations as those from the first round, however Hurricane Harvey impacts in Texas and differing workshop requirements resulted in changes in venue and municipality. The beta-testing workshops required access to computers, which was not available at the venues for the previous workshops. Forty-one percent (41%) of organizations present at the workshops had been involved with round one workshops.
Dates and Locations

- November 2, 2018  Baton Rouge, Louisiana – Emergency Preparedness Computer Lab, Iberville Building
- November 8, 2018  Ocean Springs, Mississippi – Gulf Coast Research Laboratory, Caylor Building
- November 9, 2018  Mobile, Alabama – University of South Alabama, College of Education
- November 29, 2018  Corpus Christi, Texas – Texas A&M University at Corpus Christi, Harte Research Institute
- December 13, 2018  Cantonment, Florida – UF IFAS Extension Escambia County, Windstorm Mitigation Building
- December 14, 2018  Seminole, Florida – St. Petersburg College-Seminole

* Hosted two concurrent workshops in Houston and Corpus Christi, connected virtually using Adobe Connect and a conference phone line. (Project Coordinator was present in Corpus Christi.)

Workshop Format

The second round of workshops followed a similar format to the first round of workshops. Each workshop included a catered lunch and was a half-day in length (i.e., 3 hours, not including lunch). As shown by the sample agenda in Appendix E, each workshop began with the Project Coordinator leading the group in introductions, followed by a short presentation and Gulf TREE beta-site demonstration. The presentation detailed the project background, basics on climate tools, and information from the first round of workshops. The site demonstration included a tour of Gulf TREE as well as an example of how a user might go through the site with a certain type of project.

Following the site demonstration, attendees were instructed to explore the site, using a worksheet for guidance. The worksheet (attached as Appendix A), which participants were given 30 minutes to complete, had three parts:

1) an example problem that they would use to become accustomed to the site,
2) an independent exploration of the site using a project of the user’s choosing and two (2) questions regarding the user’s project and their results using Gulf TREE, and
3) questions, which ranged from specific questions that the Project Team had discussed internally to broader questions on site usability, bugs, etc.

In the event a participant did not finish all of the questions in time, they were told that they could finish it at the break or after the workshop. Venues were selected to provide computers to participants when possible; the Corpus Christi and Cantonment workshops, however, requested that participants bring their own laptop computers because a venue that provided computers could not be located. In the event an attendee was unable to bring a computer, the Project Coordinator and/or affiliates would provide one from a limited store.

After 30 minutes for the worksheet, attendees were separated into three equally-sized groups for the rotating discussion (also known as small-group discussion). The rotating discussion included facilitators stationed around the room with flip charts. Each facilitator had a different topic:

1) things that the participants liked about Gulf TREE,
2) things that the participants disliked about Gulf TREE, or
3) things the participants felt were missing from Gulf TREE.

Each group of participants started at a different station and discussed initial impressions as well as the topic affiliated with that station. The facilitator captured the discussion by writing notes on the flip chart. After 10 minutes, the groups rotated to the next station (e.g., the participants at Topic 1 moved to Topic 2, the participants at Topic 2 moved to Topic 3, and so on), where they had seven (7) minutes to review the previous groups comments and further add to that topic. The third round was also seven (7) minutes.

After the rotating discussion, participants were given a 10-minute break while discussion notes were synthesized. The ‘dislikes’ and ‘missing’ items were combined (i.e., repeated suggestions/notes were removed to prevent voting on duplicates). With attendees returning from the break, the facilitators reported and
summarized the notes they had taken during the exercise so that all attendees were aware of what was discussed after they had left each station.

The next activity was prioritizing, where participants used ‘sticky dots’ to prioritize the best elements of Gulf TREE and the things needing improvement (i.e., dislikes, missing). Attendees had five (5) sticky dots to use between the ‘dislikes’ and ‘missing’ flip charts and three (3) to use on the likes. Likes were prioritized so that the aspects of Gulf TREE that users liked best weren’t affected when the Project Team and contracted web developers addressed the aspects that needed improvement.

After the prioritizing exercise, the entire group was brought together for a facilitated discussion on the highest prioritized items. This large group discussion was intended for the participants to provide suggestions for any issues without obvious fixes and to generally discuss the results and voice their agreement or disagreement. Notes were taken live on a computer hooked up to a projector. The workshop then wrapped up with time for evaluations. Depending on the workshop, the event either began or ended with lunch.

**Participation and Demographics**

Seventy-seven (77) total participants from sixty-three (63) different organizations participated in the beta-testing workshops. Workshop participation (Table 1) was roughly even across all 7 workshops (10-15 participants) with the exception of Houston (6 participants).

A slim majority of workshop participants represented the academic sector (Figure 4, 24%) with a close second representing county/local government (22%). This represents a substantial increase in the academic sector, which represented 10% of workshop participants at the first round of workshops (Mohrman, 2017).

<table>
<thead>
<tr>
<th>Workshop Location</th>
<th>Participants</th>
<th>Organizations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baton Rouge, Louisiana</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>Ocean Springs, Mississippi</td>
<td>13</td>
<td>10</td>
</tr>
<tr>
<td>Mobile, Alabama</td>
<td>15</td>
<td>14</td>
</tr>
<tr>
<td>Corpus Christi, Texas</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>Houston, Texas</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Cantonment, Florida</td>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td>Seminole, Florida</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>77</strong></td>
<td><strong>63</strong>*</td>
</tr>
</tbody>
</table>

*Total number of organizations is different than the total from each individual workshop due to some organizations having different participants at different workshops.
Table 2. Returning Organizations or Communities

<table>
<thead>
<tr>
<th>Workshop Location</th>
<th>% Returning Org’s/Comm’s</th>
<th># New Org’s/Comm’s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baton Rouge, Louisiana</td>
<td>56% (5/9)</td>
<td>44% (4/9)</td>
</tr>
<tr>
<td>Ocean Springs, Mississippi</td>
<td>60% (6/10)</td>
<td>40% (4/10)</td>
</tr>
<tr>
<td>Mobile, Alabama</td>
<td>36% (5/14)</td>
<td>64% (9/14)</td>
</tr>
<tr>
<td>Corpus Christi, Texas</td>
<td>13% (1/8)</td>
<td>88% (7/8)</td>
</tr>
<tr>
<td>Houston, Texas</td>
<td>0% (0/6)</td>
<td>100% (6/6)</td>
</tr>
<tr>
<td>Cantonment, Florida</td>
<td>56% (5/9)</td>
<td>44% (4/9)</td>
</tr>
<tr>
<td>Seminole, Florida</td>
<td>50% (5/10)</td>
<td>50% (5/10)</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>41% (27/66)</strong></td>
<td><strong>59% (39/66)</strong></td>
</tr>
</tbody>
</table>

Figure 4. Participant Affiliations.

Workshop Results and Synthesis

The results of these workshops were a challenge to synthesize primarily due to the fact that the feedback was in multiple formats: a worksheet (Appendix A), notes on flip charts, and notes on
a Microsoft Word document. Another challenge was how quickly the feedback needed to be organized and prioritized into actionable solutions for site issues identified during these workshops.

**Worksheet**

Worksheets proved to be a very effective feedback format. As noted in the *Beta-Testing Workshops: Workshop Format* section, participants completed the worksheet as they explored the site for the first time (Table 3). In addition to hard-copy worksheets filled out during the workshop, we provided a short-form online survey with a link on the Gulf TREE beta-testing website for those unable to attend the workshops (Table 4).

![Table 3. Worksheet Results *](image)

<table>
<thead>
<tr>
<th>Response by location (68 total)</th>
<th>Baton Rouge, Louisiana</th>
<th>Ocean Springs, Mississippi</th>
<th>Mobile, Alabama</th>
<th>Corpus Christi, Texas</th>
<th>Houston, Texas</th>
<th>Cantonment, Florida</th>
<th>Seminole, Florida</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>9</td>
<td>15</td>
<td>11</td>
<td>6</td>
<td>9</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

**Tell us a little about the issue and/or project for which you were looking for a tool.** *(58 responses)*

Summarized: Past/current conditions, carbon emissions, erosion issues, wastewater treatment, utility vulnerability, agricultural, various types of planning and development, various types of restoration, ecosystem service valuation, sea-level rise, flooding, wetland change, future land use, engaging/communication, storm surge, invasive species, future precipitation, endangered species, project impacts due to climate change, future storms, CRS ratings, sustaining military infrastructure, and health impacts due to climate change.

**What tool, if any, did you find? Did it seem relevant?** *(57 responses; note that there were many fewer tools during the workshops (as low as 40))*

Summarized: The majority of users received either one or more matches. Of those who listed the relevance, the majority stated that at least one match seemed initially relevant. Some users, however, found matches but did not feel they were relevant. Others did not find any matches at all.

**Would you like a tutorial for how to use Gulf TREE?** *(65 responses)*

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 (62%)</td>
<td>18  (28%)</td>
<td>7 (11%)</td>
<td></td>
</tr>
</tbody>
</table>

**If yes, would you prefer a video tutorial or a written tutorial with photos?** *(48 responses; note that some participants answered without having chosen yes on the previous question)*

<table>
<thead>
<tr>
<th>Video Tutorial</th>
<th>Written Tutorial (e.g., PDF)</th>
<th>Combination</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 (23%)</td>
<td>12 (25%)</td>
<td>24 (50%)</td>
<td>1 (2%)</td>
</tr>
</tbody>
</table>

Other: Brief simulation with pop-ups
**Does calling Gulf TREE a “decision-support tree” or a “search engine” resonate better with you?** (65 responses; some multiple responses and some wrote-in other options)

<table>
<thead>
<tr>
<th>Decision-support tree</th>
<th>Search engine</th>
<th>Neither</th>
</tr>
</thead>
<tbody>
<tr>
<td>21 (34%)</td>
<td>32 (51%)</td>
<td>10 (29%)</td>
</tr>
</tbody>
</table>

*Other: “Decision-support engine”, “Decision-support tool”*

**When searching with your own project in mind, did you struggle to find the right climate change topic?** (64 responses)

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 (28%)</td>
<td>34 (53%)</td>
<td>12 (19%)</td>
</tr>
</tbody>
</table>

**If yes, please tell us what topic(s) you think needs to be added and what large category it should belong to (e.g., Built Environment, Planning and Land Use, etc.)** (27 responses)

*Response list included as Appendix B.*

**Because there are so few tools that deal with the Climate Change Topic of Species Vulnerability, we did not specify types of species vulnerability. Did this work for you or do we need specific topics?** (64 responses)

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Unsure</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 (28%)</td>
<td>14 (22%)</td>
<td>10 (15%)</td>
<td>22 (34%)</td>
</tr>
</tbody>
</table>

**If yes, what topics do you feel are necessary?** (20 responses)

*Response list included as Appendix C.*

**For the Guided Search, do you feel that the order of the questions makes sense? If not, please explain the problem.** (62 responses)

*Summarized: 47 (76%) had a semi- or fully-yes answer. Some felt that cost should be before effort, that the first question should happen later, that the Climate Change Theme should be the first question, some had specific wording preferences, wanted to see alphabetic order everywhere, or wanted various other question orders. No clear theme arose.*

**Did the question on high resolution planning (Q#3 on the guided search) make sense to you?** (66 responses)

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>33 (50%)</td>
<td>23 (35%)</td>
<td>10 (15%)</td>
</tr>
</tbody>
</table>

**If no AND you are familiar with high resolution planning, please explain how the question could be improved.** (7 responses)

*Summarized: Various rephrasing options, including ‘site-specific’ vs ‘larger geographic issue’, including ‘spatial’ in the description, making them more laymen, and problem scale.*

**On the fourth question in the Guided Search (and the Geographic Scope Question on the Filtered Search), did you feel the available options were sufficient?** (60 responses)

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Unsure</th>
</tr>
</thead>
<tbody>
<tr>
<td>52 (87%)</td>
<td>5 (8%)</td>
<td>3 (5%)</td>
</tr>
</tbody>
</table>

**What format for the Geographic Scope Question do you like?** (Please select all) (64 responses; many multiple responses)

<table>
<thead>
<tr>
<th>Visual, clickable (interactive) map</th>
<th>County list in alphabetical order</th>
<th>County list in geographic order</th>
<th>Other: _____</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 (42%)</td>
<td>50 (42%)</td>
<td>14 (12%)</td>
<td>5 (4%)</td>
</tr>
</tbody>
</table>
Other: Type-in, regional search, shoreline county classification, reference map with counties labeled [note that counties were not initially labeled on reference map]

Which of the above options would you prefer? (CHOOSE ONE) (63 responses; some multiple responses)

<table>
<thead>
<tr>
<th>Visual, clickable (interactive) map</th>
<th>County list in alphabetical order</th>
<th>County list in geographic order</th>
<th>Other: ______</th>
</tr>
</thead>
<tbody>
<tr>
<td>32 (49%)</td>
<td>26 (40%)</td>
<td>6 (9%)</td>
<td>2 (3%)</td>
</tr>
</tbody>
</table>

How was your experience using the sliders for “Cost” and “Level of Effort” (and “Level of Expertise” under More Filters)? Please be specific. (58 responses)

Summarized: Looks like Low and Free are default and already selected. Users are fine with this, but want it to function like it’s already selected (i.e., will already have ‘select’ highlights)

The Climate Change Theme filter is currently only available in the Filtered Search (Top Filters). Do you feel it should also be in the Guided Search? (58 responses)

Summarized: 53% of respondents said yes, it should be available in the Guided Search. 28% said it should not and 19% were unsure or didn’t think it mattered.

While using the Filtered Search, the filters you’ve selected appear at the top of the page. Those filters display what filter categories are on and not the specific filter you selected.

Is this sufficient or would you prefer to see the specific filters?
If neither are important to you, let us know as well. Please explain. (53 responses)

Summarized: 32% wished to see specific filters, 45% felt that the current version was sufficient, and 23% did had miscellaneous other comments.

Do you think it is important to have a cost visual before selecting a tool to view its Tool Factsheet? (e.g., this visual would be in the top-right corner on the Tool Box, seen below) ** (60 responses; 2 “N/A” write-ins)

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>47 (78%)</td>
<td>11 (18%)</td>
</tr>
</tbody>
</table>

Many tools adhere to more than one ‘tool type’ (Model, Visualization, or Decision-support). On the Tool Landing Page (shown below), the tools are color-coded and labeled based on their primary tool type.

Do you feel this works, or would you prefer all tool types be listed on this Tool Box? ** (51 responses)

Summarized: 63% felt that the current way this is done works, 29% wished to see all tool types listed, and 8% had other comments.

Did you find any glitches, issues, or apparent problems? (49 responses)

Summarized: Various comments, including that hitting the back button started the search over, that there were issues with the slider bars, occasional tool links were broken, users wanted a back button, a more obvious home button, and some issues specific to the computer system used.

Please provide any other positive or constructive feedback here. (43 responses)

Summarized: A lot of positive comments on the look and feel as well as functionality. Also included was other specific feedback on wording recommendations for various pages or filters, etc.
* Percentages may not sum to 100% as percentages were rounded to the nearest whole number.
** For the referenced graphics, see Appendix A.

### Table 4. Online Survey Results *

<table>
<thead>
<tr>
<th>Total responses</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tell us a little about the issue and/or project for which you were looking for a tool. (10 responses)</strong></td>
<td></td>
</tr>
<tr>
<td>Summarized: Various types of planning, exploring without a purpose, coastal flooding, land use impacts, species vulnerabilities, and land conservation.</td>
<td></td>
</tr>
<tr>
<td><strong>What tool, if any, did you find? Did it seem relevant? (10 responses)</strong></td>
<td></td>
</tr>
<tr>
<td>Summarized: Some could not find a relevant tool match, others found a number to choose from that seemed relevant, a few found a small number of relevant tools.</td>
<td></td>
</tr>
<tr>
<td><strong>Would you like a tutorial for how to use Gulf TREE? (9 responses)</strong></td>
<td>Yes</td>
</tr>
<tr>
<td>2 (22%)</td>
<td>6 (67%)</td>
</tr>
<tr>
<td>Added to workshop participants...</td>
<td>42 (57%)</td>
</tr>
<tr>
<td><strong>If yes, would you prefer a video tutorial or a written tutorial with photos? (2 responses)</strong></td>
<td>Video Tutorial</td>
</tr>
<tr>
<td>1 (50%)</td>
<td>0</td>
</tr>
<tr>
<td>Added to workshop participants...</td>
<td>12 (24%)</td>
</tr>
<tr>
<td><strong>When searching with your own project in mind, did you struggle to find the right climate change topic? (9 responses)</strong></td>
<td>Yes</td>
</tr>
<tr>
<td>1 (11%)</td>
<td>6 (67%)</td>
</tr>
<tr>
<td>Added to workshop participants...</td>
<td>19 (26%)</td>
</tr>
<tr>
<td><strong>For the Guided Search, do you feel that the order of the questions makes sense? If not, please explain. (5 responses)</strong></td>
<td>Summarized: Made sense/seemed intuitive.</td>
</tr>
<tr>
<td><strong>Did the question on HRP make sense to you? (7 responses)</strong></td>
<td>Yes</td>
</tr>
<tr>
<td>3 (43%)</td>
<td>4 (57%)</td>
</tr>
<tr>
<td>Added to workshop participants...</td>
<td>36 (51%)</td>
</tr>
<tr>
<td><strong>On the Geographic Scope question, did you feel the available options were sufficient? (6 responses)</strong></td>
<td>Yes</td>
</tr>
<tr>
<td>4 (67%)</td>
<td>0 (0%)</td>
</tr>
</tbody>
</table>
Which format for the Geographic Scope Question do you like? (Please select all) (6 responses; multiple responses)

<table>
<thead>
<tr>
<th>Format</th>
<th>Visual, clickable (interactive) map</th>
<th>County list in alphabetic order</th>
<th>County list in geographic order</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 (83%)</td>
<td>4 (67%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td></td>
</tr>
</tbody>
</table>

Added to workshop participants...

<table>
<thead>
<tr>
<th>Format</th>
<th>Visual, clickable (interactive) map</th>
<th>County list in alphabetic order</th>
<th>County list in geographic order</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>55 (43%)</td>
<td>54 (42%)</td>
<td>14 (11%)</td>
<td>5 (4%)</td>
<td></td>
</tr>
</tbody>
</table>

Which of the above options do you prefer? (CHOOSE ONE) (6 responses)

<table>
<thead>
<tr>
<th>Format</th>
<th>Visual, clickable (interactive) map</th>
<th>County list in alphabetic order</th>
<th>County list in geographic order</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 (67%)</td>
<td>2 (33%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td></td>
</tr>
</tbody>
</table>

Added to workshop participants...

<table>
<thead>
<tr>
<th>Format</th>
<th>Visual, clickable (interactive) map</th>
<th>County list in alphabetic order</th>
<th>County list in geographic order</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>36 (51%)</td>
<td>28 (40%)</td>
<td>6 (9%)</td>
<td>2 (3%)</td>
<td></td>
</tr>
</tbody>
</table>

How was your experience using the sliders for “Cost” and “Level of Effort” (and “Level of Expertise” under More Filters)? Please be specific. (5 responses)

Summarized: No issues, a number of respondents want cost ranges listed.

The Climate Change Theme filter is currently only available in the Filtered Search. Do you feel it should also be in the Guided Search? (5 responses)

Summarized: Some yes, some no, some mixed.

While using the Filtered Search, the filters you’ve selected appear at the top of the page. Those filters display what filter categories are on and not the specific filter you selected. Is this sufficient or would you prefer to see the specific filters? (5 responses)

Summarized: Users want to be able to change the filter by clicking on these, other ideas for a hover feature with more details, and others were fine with the way these are currently.

* Percentages may not sum to 100% as percentages were rounded to the nearest whole number.

Rotating Discussion (Small-Group Discussion - Roving Flip Charts)

As explained in the Beta-Testing Workshops: Workshop Format section, the Rotating Discussion took place after participants completed the worksheets. Participants rotated around three groups: Likes, Dislikes, and Missing. Notes on the discussion were taken by facilitators on flip charts, which were then prioritized by the attendees.

Following is an organized listing of the top prioritized items (Dislikes and Missing) for the Project Team to address. Bracketed numbers indicate the number of people that prioritized the item; multiple brackets represent separate workshops. For the full results, broken out by workshop location and category, see Appendix D.

Table 5. Organized - Dislikes & Missing

- Slider problems [4]
Large-Group Discussion

Following the rotating discussion, the Project Coordinator took notes on a Microsoft Word document (projected for the room) during a discussion with the whole group. The focus of this discussion was to determine specific ways to address any of the items that didn’t have obvious ‘fixes’.

Given the nature of the items to-be-fixed and the details obtained during the rotating discussion, the large-group discussion notes were consulted to clarify or brainstorm potential actions to address prioritized issues during data processing.

Evaluation Results

The evaluation used was only slightly modified from the version used for the first round of workshops, which was a modified version of the standard evaluation form created by the NERRs Coastal Training Program (Mohrman 2017). Workshop attendees provided overall positive feedback on the evaluations and the results were similar across all locations (Table 5).
The majority (57%) of workshop participants felt that their understanding of climate tools was increased as a result of the workshop. The majority (64%) of participants “strongly agreed” that they would use Gulf TREE in the future and the remaining participants “somewhat agreed”.

Note that there were slight adjustments to three questions after the first workshop in Louisiana. Where these adjustments may have affected the comparability of the results is noted in parenthesis.

Table 5. Workshop Evaluation Results *

<table>
<thead>
<tr>
<th>Response by Location</th>
<th>Baton Rouge, Louisiana</th>
<th>Ocean Springs, Mississippi</th>
<th>Mobile, Alabama</th>
<th>Corpus Christi, Texas</th>
<th>Houston, Texas</th>
<th>Cantonment, Florida</th>
<th>Seminole, Florida</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>12</td>
<td>12</td>
<td>15</td>
<td>13</td>
<td>6</td>
<td>11</td>
<td>10</td>
</tr>
</tbody>
</table>

| How did you hear about this meeting?  
(80 responses; some multiple responses) |
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Email</td>
</tr>
<tr>
<td>Twitter</td>
</tr>
<tr>
<td>Word of Mouth</td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>

| Participating in this workshop was a good use of my time.  
(79 responses) |
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
</tr>
<tr>
<td>Strongly Agree</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

| This workshop increased my understanding of the Gulf TREE project.  
(79 responses) |
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
</tr>
<tr>
<td>Strongly Agree</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

| I intend to use this resource in the future.  
(67 responses; This question had different answer choices during the LA workshop. Those responses resulted in 83% Yes, 8% Unsure, 0% No, 8% Not Applicable and are not incorporated into the statistics for this question.) |
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
</tr>
<tr>
<td>Strongly Agree</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

| Where might we look for evidence of this?  
(43 responses) |
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Summarized: Proposal submissions, organization or community documents, various organization websites, and recommendations for how the Project Team can track or obtain evidence of use.</td>
</tr>
</tbody>
</table>

| Did your access to resources (people, information, networks) relevant to your work with climate tools and Gulf TREE increase as a result of this workshop?  
(78 responses) |
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>Unsure</td>
</tr>
<tr>
<td>Do you intend to contact others about the information you learned as a result of this workshop? (77 responses)</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>-----</td>
</tr>
<tr>
<td>69 (90%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Please rank your understanding of climate tools BEFORE this workshop. (72 responses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all knowledgeable</td>
</tr>
<tr>
<td>--------------------------</td>
</tr>
<tr>
<td>8 (11%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Please rank your understanding of climate tools AFTER this workshop. (73 responses; 1 multiple response)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all knowledgeable</td>
</tr>
<tr>
<td>--------------------------</td>
</tr>
<tr>
<td>0 (0%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Understanding increased, remained the same, or was reduced: (72 total)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased (e.g., Somewhat to Very)</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>41 (57%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Please note your feelings about the following aspects of today’s workshop: (71 responses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Event Content</td>
</tr>
<tr>
<td>Unsatisfied</td>
</tr>
<tr>
<td>Event Format</td>
</tr>
<tr>
<td>Event Pace</td>
</tr>
<tr>
<td>Event Length</td>
</tr>
<tr>
<td>Level of Detail Provided</td>
</tr>
<tr>
<td>Event Location</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What did you find most helpful about today’s workshop? (65 responses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summarized: Hands-on aspect, facilitation was good, understanding the scope of Gulf TREE (all the tools!), group “breakout” discussions, the tutorial/demonstration, the content and process, educational, a lot of information in a short amount of time, prepared packets, the confidence that their feedback will be seriously taken into account, interaction with other participants, prioritization.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How could this workshop be improved? (35 responses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summarized: Increased time for exploring the website (i.e., users did not feel 30 minutes was enough time), more workshops in more locations, load time**, time management of Small-Group Discussions (i.e., spent most of the time hearing about previous groups' responses, some facilitators provided feedback instead of listening), less/more of an introduction (i.e., this was split), more participants, pace of workshop was a little fast, longer/shorter workshop (i.e., this was split: one user wanted all day with homework and others wanted it shorter), do</td>
</tr>
</tbody>
</table>
not do the virtual connection between multiple workshops (i.e., Corpus Christi and Houston),
more range in participating stakeholder groups.

<table>
<thead>
<tr>
<th>What aspect of this workshop was LEAST useful to you? (11 responses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summarized: Wanted more attendees that were potential users, the introduction and history of the project, the Large Group Discussion, participant introductions, rotating discussion could have been improved (e.g., one large group).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Please provide any additional comments you have about today’s workshop. (31 responses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summarized: It was fun to be guinea pigs, very useful workshop and website, wants to hear even more about Gulf TREE and be able to teach others and different cities, excited to share it with colleagues, great group of participants, would have preferred more time to network, well organized, good facilitators (and well informed), the county list was not alphabetical, broader dissemination, recommendation to have another workshop in one year to gauge Gulf TREE’s usefulness, a tutorial (video if possible) would be a good idea, no wasted time</td>
</tr>
</tbody>
</table>

* Percentages may not sum to 100% as percentages were rounded to the nearest whole number.
** At the first workshop in Baton Rouge, Louisiana, there were technical issues causing the site to be extremely slow to respond.

Next Steps

These beta-testing workshops were integral for the next step in Gulf TREE development: making site updates. Given that the project’s remaining resources for revisions were not infinite, the Project Team had to make tough decisions on which issues to address. The beta-testing workshop feedback was integral for decision-making and ensured that site updates maximized user functionality.

Analysis of the stakeholder feedback took place, followed by Project Team discussions and discussions with the team at Radish Lab (contracted web developers), which resulted in a total of fourteen (14) changes to the site. These changes included bug fixes, filter adjustments, changes for clarification, and other site functionality changes. Additionally, changes that did not require Radish Lab’s input were made by the Project Coordinator. These changes included language clarification, filter additions and changes to current filters, organizational changes (e.g., alphabetizing), and more.

The site launch took place late February of 2018 with the bug fixes completed. The remaining updates were included in a ‘secondary launch’ in March of 2018. Following and preceding the public launch, the Project Coordinator and other representatives advertised Gulf TREE at various webinars, meetings, and conferences.
Acknowledgements

This project was a significant undertaking and could not have been possible without the support and time of the following individuals and organizations. The Project Coordinator and Project Team would like to sincerely thank:

Yu-Wen Chou, TX Coastal Watershed Program / TX A&M AgriLife Extension
Casey Fulford, NGOM SSC
Margo Posten, Grand Bay NERR
Jacquelyn Schuett, St. Petersburg College
Mike Shelton, Weeks Bay NERR
Dana Sjostrom, previously Mission Aransas NERR
Carrie Stevenson, UF/IFAS Extension
Jon Truxillo, LA Dept. of Natural Resources Office of Coastal Management
Katie Wilhelm, West Florida Regional Planning Council

Grand Bay NERR
St. Petersburg College – Seminole Campus
Tampa Bay Regional Planning Council
Weeks Bay NERR
West Florida Regional Planning Council
Mission Aransas NERR

And of course all of the participants who provided critical input and perspectives to integrate into Gulf TREE to make it a strong and valuable resource for Gulf of Mexico climate resilience.
References

Appendix A. Workshop Worksheet.   

Gulf TREE  

Part 2: Seeing the Results  

Date: INSERT DATE  

Time: INSERT TIME  

Location: INSERT LOCATION  

WORKSHEET  

EXAMPLE  

Instructions: Please follow along in the example in this worksheet to work your way through the Gulf TREE website. 

Imagine you are a planner in Alabama who is looking at storm surge vulnerability for critical facilities in your state.  


2. Since you’re looking at vulnerability, select “Identifying Vulnerabilities” as what you need help with.  

3. For aspects of your topics, you care about “Critical Facilities and Services” (under “Built Environment”) and “Storm Surge” (under “Flooding”).  

Notice that the number of available tools in the bottom-left hand corner changes when you select filters.
4. You are not looking for a tool to deal with high resolution planning, so select “No”.

5. You work in shoreline counties for Alabama, so click on “Alabama” and then “Shoreline counties”. You will see those counties automatically select in the list below when you do this.

6. Let’s say you have very limited resources and time to put towards this tool.

7. You also do not have any budget for a resilience tool.

8. You should be paired with four (4) tools.

You could spend quite a while deciding between four tools, so choose “Top Filters” to the left to be more specific.
9. As a planner, you have to keep cost in mind, so you choose to add “General Economics” (under “Economics”) from the Climate Change Topics.

Notice that the number of tool matches was reduced to two (2). Given that this is a much easier decision, you choose not to go into “More Filters” on the left and move on to View Tool Matches.

Notice that “Relevant Matches” includes tools that include some, but not all, of your search criteria.

10. At this point, you would read the description in each Tool Box and decide to further explore one that is interesting to you.
INDEPENDENT EXPLORATION

Instructions: Now take about 10-15 minutes to explore the site on your own. Feel free to search whatever you want, but please make sure to do a full search – either using filtered search or the guided search – for a project you may be working on, have worked on in the past, or will work on in the future. 15-20 minutes

1. Tell us a little about the issue and/or project for which you were looking for a tool:

2. What tool, if any, did you find? Did it seem relevant?

QUESTIONS

Instructions: Take 10-15 minutes to answer the following questions. Our intentions with these questions are to understand how we can improve Gulf TREE for you. 10-15 minutes

1. Would you like a tutorial for how to use Gulf TREE?
   
   ___ Yes  ___ No  ___ Unsure

   a. If yes, would you prefer a video tutorial or a written tutorial with photos?

   ___ Video tutorial  ___ Written tutorial (e.g., PDF)
   ___ Combination  ___ Other: ______________

2. Does calling Gulf TREE a “decision-support tree” or a “search engine” resonate better with you?

   ___ Decision-support tree  ___ Search engine  ___ Neither

3. When searching with your own project in mind, did you struggle to find the right climate change topic?

   ___ Yes  ___ No  ___ Unsure

   a. If yes, please tell us what topic(s) you think needs to be added and what large category it should belong to (e.g., Built Environment, Planning and Land Use, etc.)
4. Because there are so few tools that deal with the Climate Change Topic of Species Vulnerability, we did not specify types of species vulnerability. Did this work for you or do we need specific topics?

____ Yes     ______ No     ______ Unsure     ______ N/A

a. *If yes,* what topics do you feel are necessary?

5. For the Guided Search, do you feel that the order of the questions makes sense? *If not,* please explain the problem.

6. Did the question on high resolution planning (Q#3 on the guided search) make sense to you?

____ Yes     ______ No     ______ Unsure

a. *If no AND you are familiar with high resolution planning,* please explain how the question could be improved:

7. On the fourth question in the Guided Search (and the Geographic Scope Question on the Filtered Search), did you feel the available options were sufficient?

____ Yes     ______ No     ______ Unsure

a. Which format for the Geographic Scope Question do you like? *(Please select all)*

____ Visual, clickable
     (interactive) map

____ County list in
     geographic order

____ County list in
     alphabetical order

____ Other: __________

Which of the above options would you prefer? *(CHOOSE ONE)*

____ Visual, clickable
     (interactive) map

____ County list in
     geographic order

____ County list in
     alphabetical order

____ Other: __________
8. How was your experience using the sliders for “Cost” and “Level of Effort” (and “Level of Expertise” under More Filters)? Please be specific.

9. The Climate Change Theme filter is currently only available in the Filtered Search (Top Filters). Do you feel it should also be in the Guided Search?

10. While using the Filtered Search, the filters you’ve selected appear at the top of the page. Those filters display what filter categories are on and not the specific filter you selected.

   Is this sufficient or would you prefer to see the specific filters?
   If neither are important to you, let us know as well. Please explain.

11. Do you think it is important to have a cost visual before selecting a tool to view its Tool Factsheet? (e.g., this visual would be in the top-right corner on the Tool Box, seen below)

   _____ Yes
   _____ No
12. Many tools adhere to more than one ‘tool type’ (Model, Visualization, or Decision-support). On the Tool Landing Page (shown below), the tools are color-coded and labeled based on their primary tool type. Do you feel this works, or would you prefer all tool types be listed on this Tool Box?

13. Did you find any glitches, issues, or apparent problems?

14. Please provide any other positive or constructive feedback here:

(There is room on the back for additional feedback.)
Appendix B. Climate Change Topics.

3. When searching with your own project in mind, did you struggle to find the right climate change topic?
   a. If yes, please tell us what topic(s) you think needs to be added and what large category it should belong to (e.g., Built Environment).

   - Pollution/emissions
   - It would be nice if it linked to other environmental concerns
   - Storm water ✓
   - It seemed like choosing “Agriculture” led to no tools in Nueces County…..
   - Climate change effects habitat restoration (oyster reefs). ….  
   - Too specific
   - Ecosystem recovery / Habitat impacts
   - Extreme weather - vector increase
   - Mostly under ecosystems under visualization
   - I was searching for climate (visualization) projections for SLR and storm surge and wanted in-depth information but instead of mapping layers showcased, I get model software tools.
   - Water data, temp, rainfall, DO, salinity
   - Planning and land use
   - So many similar/overlapping terms ….  
   - Native trees to increase canopy/vegetation is(&?) support pollinators  
   - The topic, erosion, was rather general ….  
   - Restoration/Ecosystem
   - Underground utilities -
     - 1. Actual locations of utility lines  
     - 2. Location of actual utility-generating sites, search boxes all utilities:  
       - 1. Water  
       - 2. Electric  
       - 3. Gas  
       - 4. phone
Appendix C. Climate Change Topic – Species Vulnerability.

4. Because there are so few tools that deal with the CCT of Species Vulnerability, we did not specify types. Did this work for you or do we need specific topics?
a. If yes, what topics?

- Endangered and Threatened Species (Species of Greatest Concern) ✔✔✔✔
  - Outdooralabama.com - conservation status of specific species
  - You might consider distinguishing already vulnerable species from those becoming vulnerable due to the various models’ projections
- NEPA Reviews
- Invasive Species ✔
- Analysis
- Infrastructure
- Plants and animals (flora, fauna) ✔
  - Vertebrates, invertebrates
- Sentinel species
- Parasites/Pathogens
- Anything that moves or disrupts a species’ habitat ✔✔
  - Habitat change: Driven migration or extirpation
  - Habitat/areas for species vulnerability are very limited. ....
- Fisheries (good tools out of URI maybe) ✔
  - Marine life - coastal fisheries
- Population/social/economic/health vulnerability
Appendix D. Rotating Discussion Results.

Following are the results for each group for each location. Check marks indicate prioritization by workshop participants. The top prioritized listings are highlighted (yellow for Likes and green for Dislikes and Missing).

Baton Rouge, Louisiana

Dislikes

- Frame of reference for what tool is vs. how to select proper filters
  - See all tools tagged SLR ✔ ✔
- Need context for cost filter ✔ ✔ ✔ ✔
  - Specific range, then option for scalable cost
- Level of Effort is also a little unclear
- Error page - change wording “thinking, soon” etc.
- Search engine should be accessible at every page ✔ ✔ ✔ ✔ ✔ ✔
- Have to click button twice on Level of Effort and Cost ✔ ✔ ✔ ✔
  - No visual indicator for selecting
- Number of matches at bottom of page - minimizes and disappears
- Back button - takes you back to home page, take back to last choice ✔ ✔
- More detail on topics - glossary
- Unclear on when to wait for tool matches to go away ✔ ✔ ✔
  - Unclear that clicking box auto filters (speed issue)
  - If we don’t get it fixed, need instructions
- Banner for preferred browsers
- Wanted to search by category ✔ ✔ ✔
- Want a list as well as boxes ✔ ✔ ✔ ✔ ✔

Likes

- Like the number of tools
- Like the counter ✔
  - Helps back up
- Like geography ✔ ✔
- Easy to teach ✔ ✔ ✔ ✔ ✔
- Diverse application ✔ ✔
- Easy to go back
  - Steps on the left
- Useful when you know what you want (top filters) ✔ ✔ ✔ ✔
- Liked the graphic - gave sense of scope ✔ ✔ ✔
- Search box ✔
  - Maybe earlier - learn about tools like this
• Like contact info ✔✔
• Direct links ✔
• Liked tracking filters ✔✔✔✔
• Level of knowledge ✔
• Abstracts ✔✔✔✔

MISSING
• Land conservation ✔
  o Invasive species and SLR - Box to check but no tools
• Future projections tools - social vulnerability ✔
• Maybe use “time” instead of effort for LoE
  o Or level of resources
  o Maybe give example
  o Be cautious not to clutter
• Do I need others to fill out (ex: CRI) vs. can I do by myself
  o Maybe include on factsheet
• Ability to type in geographic location
  o Don’t like geographic order - want alphabetical
• Ability to save/print/PDF list/search favorites list ✔✔✔✔✔✔✔
• Freeze geographic area so all searches use that area ✔✔
• Option to know if tool was a real-time tool ✔
• More guidance on answering questions ✔✔
  o Wasn’t always clear (effort, $$)
• Overview of all topics before guided search ✔✔

CANTONMENT, FLORIDA

DISLIKES
• Geographic selection ✔✔✔✔
• Too many options (topics)
  o General in the guided search, more specific in filtered ✔✔
• Sliders are confusing
  o Just have buttons because it’s not a true slider now ✔✔✔✔✔✔
• Review the counties (some might be labeled wrong)
• Guided search slider default to text not the #s ✔
• No definition for the types
• “All” county select
  o It’s only the shoreline and watershed ✔
• No matches but can we get the relevants ✔
• Drop downs are not ABCs (no organization) ✔✔✔✔

LIKES
• Like the number of tools/issues ✔✔✔✔✔
• Capacity to pick multiple options ✔✔
  • Thumbnails ✔
  • Glad go back to search results
  • Side bar tracking process
  • No ads ✔
  • Glad it opens a new tab ✔
  • Active filters still in more filters
• Variety of topics ✔
• Tool descriptions
  • Effective communication
  • Balance capacity vs technical experience ✔✔✔
• Type color coding
• Order of the guided search ✔
• Graphics / presentation
• Worksheet example ✔
• Platform flexibility ✔✔✔
  • Clean / not cluttered ✔
  • Note that they’ve been evaluated

MISSING
• Combine effort and cost ✔
  • Both questions on one page
• Specific/ballpark cost ✔✔✔
  • Understand what generates the cost ✔
  • Hover over $ or $$ for details ✔
  • More specific details could be on factsheet
• Geographic scope map, lack of county names ✔✔✔
• Question order - flip between alphabetic and geographic
• Species vulnerability - extirpation, habitat change ✔
• Easy-to-get to full tool list ✔
• Tool shows you reverse-engineered search ✔
• Advanced search needs more filters
  • Take filters out of guided search -> advanced search ✔
• Click back and forth on the left bar ✔
• Read out selections on side bar
• “Start over” button, both searches
• Add free trial to factsheet ✔
• Guided search - “Back” button
  • Near submit and skip ✔
• Keyword search ✔✔✔✔✔
HOUSTON, TEXAS

DISLIKES
- The word tool in TREE
- Definition of tool seems confusing ✔
  - A search engine designed decision support not needed?
  - An engine, not a tool
  - **Rethink narrative on homepage or remove and let the About Project section cover** ✔✔✔
  - Tool type list - more visualizing, closer to viewing...
- **Should we start with geography? Number 1 on list? ✔✔✔ ✔ ✔**
  - If you don’t click cost and effort, the default isn’t selected as it appears. Gives zero results ✔✔
  - Counties not listed alphabetically ✔✔
  - Number of tools sometimes reduces to 0 when no further selection made
  - Colors can be confusing

LIKES
- Progressive filtration ✔
- Clean interface ✔ ✔
- Help me search & filtered ✔ ✔
- Retired tools ✔ ✔
  - **Prospect for community reviews ✔ ✔ ✔**
  - How many tools lost tracking
  - Top filters and more filters
  - Tool matches at top of filters page ✔ ✔
  - **Prompting during guided search ✔ ✔ ✔**
  - Tool output filter is useful
  - Finding your way using navigation on the left
  - Use of scale on 5 and 6 verses a list (l o e and cost)
  - Strengths, limitations, target and [illeg] sometimes ✔ ✔

MISSING
- Link tool type terms to glossary by hovering ✔ ✔ ✔ ✔
- Tool cost - hover to see definition of $ vs $$ ✔
- **While filtering, view not just number of tools, but a drop down or list of those tools** ✔ ✔ ✔
  - Want to see them disappear. Use Priceline website.
- View tool matches option on guided search ✔ ✔
- Strengths, limitations not present for all
• More geographic scale... resolution or down to zip code, parcel, etc. ✔✔✔

MOBILE, ALABAMA

DISLIKES
• Side bar, Can’t move forwards ✔✔
• Slider, default select? ✔
  o Obvious bracket
• Topics too specific ✔
  o E.g., restorations
  o Disclaimer may help
• Top Filters - “more adv. Filters”
• Warning when you reach a low number of tools ✔
• **Click on HRP later ✔✔✔✔✔**
  o Only filtered search
• Guided search, location 1st ✔
• Some drop-downs to cover “submit” ✔
  o Counties, AL, LA
• Make a more prominent tool counter ✔
• CCThemes more accurate than topics ✔
• Large topics, not sub-topics ✔
  o Disagree this dislike ✔✔✔✔✔
• Explanation for why you get 0 matches ✔
• Skip button more obvious ✔
• (Not) Color blind friendly ✔
  o Texturizing

LIKES
(Impressions)
• Clean
• User friendly ✔
• Good topic choices
• Good colors (pleasing)
• Easy navigation
  o Is it a tree?

(Voting)
• The site preview ✔
• Color coordinated as well as the description of the tool type ✔
• The tool list (impressive and extensive) ✔✔✔
• **Easy navigation (no derailment) ✔✔✔✔✔✔✔✔**
• Tool match tracker
• Handy tool (helpful guide) ✔
• Direct link to tool ✔✔✔✔✔
• Current and relevant tools ✔✔✔✔✔✔✔
  • Climate change topics ✔✔
  • Resource page (when it is up) ✔✔
  • Geography map or list ✔✔✔✔
  • Good topic choices

MISSING
• Definitions ✔✔✔✔✔
  o HRP
  o Cost
  o Effort
  o Restoration
  o Etc.

• “Car max style” comparison ✔✔✔✔✔
  • Back button guided ✔✔✔✔
  • General site search button ✔✔
  • Dollar signs on result landing page ✔✔
  • Bail out button (number of matches) ✔✔✔✔✔
    o Click counter to see results
  • Help with need to download
    o Filter options add

• Save search ✔✔
  • Current “event” button ✔✔
    o Pull up tools related
    o E.g., Nate; surge tools
  • Clarification between “vis” function and getting models

OCEAN SPRINGS, MISSISSIPPI

DISLIKES
• Not obvious how to get home ✔✔
• Info on how to submit a new tool ✔
  o Not obvious / under FAQ / hard to find
• Still overwhelming for a novice - Q2
• Would be good to show expanded side menu... have the words, not just numbers, does not need to be hidden ✔✔
• Darken text on drop down menus - hard to read ✔✔
• Need to check- Top Filters ✔
  o “Extreme Weather” climate change themes + “Extreme Weather Events”
  o Changes number of tool results
• Not really a back button to go to previous question ✔✔✔✔✔✔✔
(Back arrow on browser goes to start of guided search)

- Not obvious that you can click on numbers on side menu
- Not obvious that you can skip questions – skip button does not stand out ✔✔✔
- Q1 - ecosystems not obvious / human focus / didn’t see ability to skip ✔✔
- “Species” option - not obvious that habitats/plants are part of that ✔✔
- Need more hover definitions ✔✔✔✔✔✔✔

LIKES

- Guided search ✔✔✔✔✔✔✔✔
  - Getting more specific
- Fast ✔
- Intuitive
- Utility - fewer choices
- Further filtering ✔✔✔✔✔✔✔✔
  - High resolution option ✔
  - Fact sheet
  - Color between types ✔
- Relevant matches ✔✔✔
  - Retired tools
  - Data input filter ✔✔✔
  - Images on hover ✔
    - Gauge level of expertise
  - Simple, straight-forward ✔✔
  - Purpose statements
  - Publications ✔✔✔

MISSING

- Will it work on iPad? ✔✔
- Examples of things tools can do (case studies) ✔✔✔
- Comments from users ✔
- Some way to ID users (if you’re a planner, you might like this tool) ✔
- What is your background and what are your needs? Could be a question in guided search ✔✔
- Level of effort and cost didn’t help much. Should default to ‘low’ but you need to click on it. Also define low cost/effort ✔✔
- Look across geographics (e.g., species, migration, restoration, etc. for issues that have no boundaries). Maybe a regional option or watershed map or select multiple locations ✔✔
- Tools that aren’t there yet
- A way to prioritize/analyze risks (e.g., tool function list could include this) ✔✔
- Add where data comes from, resolution etc., to fact sheets ✔✔✔✔
ST. PETERSBURG, FLORIDA

DISLIKES

• Options reduce choice ✓
  o Q1 and Q2 especially
• Very specific/vague/ambiguous
• Back button takes you out ✓
• What does Low-Medium-High effort mean?
  o Cost ✓✓✓
• NOT a search engine
• Rating system ✓✓✓✓
  o 1-5, star, Likert
• Too many options ✓✓
• Green and blue infrastructure term - build codes
• Engaging/Communicating; what does it mean
• Disclaimer for cost
• Factsheet, cost detail
• Input budget
• Be able to select broad topic (“or”) ✓✓✓✓✓✓✓
• Hover definitions ✓✓
• Have tool developer on tool box ✓
• Warning to leave the site
  o Is it necessary
• CCTopic alphabetized ✓✓✓✓✓
• Save results
• Date added ✓
• Top rated (“sort by”)

LIKES

• One stop shop
  - Mystery prize at the end ✓✓✓
• Simplicity awareness ✓✓
• Layout simple ✓
• Easy on the eyes ✓✓
• Centralized
• Tutorial
• Reviews from user community ✓✓✓
• Takes you to the tool (from tool page) ✓✓
• Educational tool ✓
• Open source search option ✓✓
• Like options and catalogue ✓✓✓
• User friendly ✔✔
• Effective search engine
• Fills a need ✔✔
• Modern
• Clean text
• Not complicated - keep it simple ✔✔
  •  Modern ✔✔

MISSING
  • Assumption we (users) should take tool for granted ✔✔✔✔
    ◦ Disclaimer!
  • Comparison tools
  • Display ratings ✔
    ◦ Multiple questions ✔
  • Filter - CRS (FEMA) ✔
  • Homepage button ✔
    ◦ Start over button ✔

CORPUS CHRISTI, TEXAS

DISLIKES
  • Orange banner covered selections (on computer)
  • Color - not clear (light green; slider too light)
  • Submit button
    ◦ Not lit up clearly/obvious
  • Indicator on top (slider) too light ✔
  • Blue page - type face too narrow (tool selection section)
  • BOO color scheme
  • Counties SHOULD be alphabetical ✔
    ◦ (or click on map) ✔
  • Too much jargon - maybe screen ahead of
    ◦ Make more approachable - time (familiarity) ✔
    ◦ Use census examples (technical vs. general public) ✔
    ◦ Don’t take options away but put in different lingo
  • Make sure mobile platform works
  • Will Mom actually be able to use this?
  • Little videos (or screenshots) to explain further (30 secs) ✔
  • Slider - default was already there ✔
    ◦ Bad site design (wouldn’t click submit)
    ◦ Shouldn’t have to click again
  • You have to go to tool website to see if information you need is in that tool (need preview)
• Glossary goes away past homepage ✔ ✔
  o Maybe keep on side bar/hover/call outs ✔
• Resolution – should be pick (box) not slide ✔ ✔ ✔
  o Low is hard to see

LIKES
• Runs smoothly ✔
• Easy to use ✔
• Layout ✔
  o Makes sense, visually appealing, clean
• Good process considering what it does ✔
• Info is helpful ✔
  o Like the info that is chosen
• Square tool matches (Tool Boxes)
  o Color coding
• Multiple filters ✔ ✔ ✔ ✔
  o Number of options
• Good idea for additional resources ✔ ✔
• Prefer guided search
• Easy-to-understand
  o Good at using less acronyms
• Prefer filtered search
  o See all filters used ✔ ✔
  o Number of options ✔ ✔
  o Easy to change filters
• Guided search good for learning Gulf TREE ✔
• Glossary helpful ✔ ✔ ✔
  o Same exact terms throughout the site
• Great idea, worthwhile ✔ ✔
• Encourage tool use
• Open to the public
• Tool counter ✔ ✔

MISSING
• Pricing info on tool fact sheet ✔ ✔ ✔
• Clearer info about outputs on fact sheet ✔ ✔ ✔
• Try and add pictures as much as possible ✔
  o Of products and results
• Add option to email or send digitally ✔
• Description of guided tour and filtered tour - what am I about to do?
• Add climate change theme question to guided search ✔ ✔
• Description of “high resolution” planning ✓
• Make it clearer about how to get back to choosing filters ✓
• Add the option to see folders/choices you’ve dropped if you choose one ✓
• Make sure circles actually take you back to the previous screen
• **Summary of all the tools – option for whole list and summaries ✓✓✓**
• Replacement of equivalent tool for ones that are retired - put it on retired tool page ✓
• Energy * tool - ways to calculate impact on climate as a tool category (Lead, etc.)
• **Tools for NEPA review and site-specific info for siting ✓✓✓**
• Change submit to next - submit should be for last question
• Indication that info and tool has been validated - QA/QC and other ways of validating data
• General economics dropdown wasn’t working
Appendix E. Sample Agenda.

**Gulf TREE**
**Part 2: Seeing the Results**
**Date:** 14 December, 2017
**Time:** 12:30 pm – 3:30 pm
**Location:** St. Petersburg College – Seminole Campus Library,
Seminole, Florida

**AGENDA**

**OBJECTIVES:**
- Experience Gulf TREE for the first time
- Determine what aspects of Gulf TREE are effective and which aspects need to be changed or addressed
- Provide participants a new mechanism for finding climate tools related to their work
- Prioritize feedback that requires action

11:30 am    Lunch – Library room 121

12:30 pm    Welcome and Introductions – Library room 117
Participants meet fellow attendees and project team members

1:00 pm      Introduction to Gulf TREE
Presentation and demonstration of the Gulf TREE website. (See Demonstration Example in Materials Folder.)

1:20 pm      Website Exploration
Participants explore the Gulf TREE website with a worksheet. (See Worksheet in Materials Folder.)

1:55 pm      Rotating Discussion, Initial Website Feedback
Provide feedback on likes, struggles/dislikes, and missing features/information.

Break

2:35 pm      Review of Initial Feedback
All potential changes and best aspects of Gulf TREE are reviewed and compiled.

2:40 pm      Prioritizing and Large Group Discussion
Attendees prioritize the best elements of Gulf TREE and the things needing improvement (dislikes, missing features). (See Colored Labels in Materials Folder.) Entire group provides suggestions for any issues with the site. (See Notecard in Materials Folder.)

3:10 pm      Wrap Up and Evaluations
Please be sure to complete your evaluation before you leave!