

**Science and Technical Advisory Committee (STAC) Meeting**  
**Virtual Meeting**  
**June 15, 2018**  
**900AM-1200PM**

**STAC Members in attendance:** Jack Barth, Elise Granek, Selina Heppell, Jan Hodder, Gil Sylvia, Shelby Walker, Craig Young

**STAC Members absent:** Bill Jaeger, Veronica Dujon

**Other invited participants:** Cristen Don (ODFW), Tommy Swearingen (ODFW), Lindsay Aylesworth (ODFW), Dave Fox (ODFW), Deanna Caracciolo (DLCD), Kreg Lindberg (OSU)

**Other participants:**

Jim Carlson  
Charlie Plybon  
Al Molina

**Information from previous meetings:**

Marine Reserves Review (April 13, 2017) [Master Document List](#)

[October STAC Meeting Notes](#)

[March STAC Meeting Notes](#)

[STAC Page-Oregonocean.info](#)

**ACTION ITEMS:**

- o **ACTION:** STAC members to review the rest of the OPAC objectives/guidelines, and the measurable questions.

**AGENDA**

**900AM**

- Welcome and introductions - *Walker (5 min)*
- Updates - *Walker (10 min)*
  - o [STAC support](#) - Shelby was successful securing support for a Fellow to support STAC. The competition for that position is open now, we expect having someone on board in this position by this September.
  - o Feedback from OPAC - Using OPAC recommendations as a foundation for the current Marine Reserves assessment. How OPAC may be involved, what type of public engagement may be appropriate for the assessment on Marine Reserves moving forward.
    - OPAC engagement-OPAC members have raised how OPAC may be involved in the assessment (no specifics indicated to date)
      - Keep in mind: OPAC selected the sites, and they were intentionally not included in the legislation related to the assessment.
      - It would be beneficial for STAC to consider a process

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before they are handed a process to implement.

- Public engagement
- [Human dimensions](#) component of marine reserves (45 min)
  - Update from Pizza Summit - *Swearingen (ODFW)* (20 min)
    - Tommy provided slides ([link to slides](#))
    - Need to stop collecting data for the report in early 2021. Monitoring will continue, but only data prior to this time will be included in the report.
    - Going to have a very difficult time determining any aggregate impacts in the data
    - In order to get at individual impacts, will conduct interviews this summer.
    - Keep in mind the audience and revise the outline of the synthesis report to reflect this organization. (State, Region, Community, Social Group, Individual)
      - Item 1: [Draft Final Synthesis Report Outline](#)
        - Organized according to the pyramid in Tommy's presentation.
        - Detailed bibliography included to identify the source material
      - Item 3: [Simplest overview of the data and what's included](#)
      - Appendixes include all survey instruments used
    - These documents are works in progress, the working group will help flesh these out, and prioritize what data needs to be completed for analysis, etc.
    - There will be some need for external support in the 2019/2021 biennium.
    - When will the working group reconvene? Depends on schedules, it will take Tommy some time to get all of this ready for them. He suspects early fall.
    - There will be several meetings between now and the end of the biennium. Also want to identify by the end of the biennium, additional data that needs to be collected and future funding sources.
    - Looking at the workflow, they've identified cash flow questions that need to be addressed in order to cover all of the data needs in a timely manner.
    - STAC will do an initial review of the outline, to make sure that it includes the needed information for the selected university to do the formal review.

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- o Feedback and Discussion - *Group Discussion (25 min)*
  - This effort is on track, ODFW doing a good job of organizing this and taking things on the large scale and working down to the small scale.
  - As you move down from statewide to the local level, you have a better chance of finding potential impacts/signals that may be there.
  - Keep in mind who the users/fisheries of those protected areas are, and what ports they use, and use those to help you identify impacts.
  - Encouraged Tommy to not just look at fisheries, but look at recreational, education and diving opportunities that the reserves have provided.
  - Over time there are new impacts, both positive and negative, the time dimension is critical to consider.
  
- External research - *Kreg Lindberg, OSU Cascades - (20 min talk, 10 min Q&A)*
  - o [Link to Kreg's slides](#)
  - o Survey done in both paper and online formats - over 1100 usable responses
  - o Also asked about Forest Reserves (had support from Forest Service for this work), allowed people to think about Marine Reserves more generally.
  - o Looked at preferences based on place (communities closer to reserves vs. further away) and preferences based on communities of interest (fisherman, recreational utilization; ocean based vs. beach based, etc.)
  - o Subjective Well-Being (SWB)- how do people evaluate their own lives
  - o Can look at how SWB changes over time, and how that relates to preferences for things such as marine reserves
  - o Explain the difference between NEP, CNS and Teddy Roosevelt scale?
    - NEP- big picture look at human use of natural resources, incorporates both the green (conservation) and brown (resource use) sides.
    - CNS - gets at the assumption that people with a stronger connectedness to nature are more likely to be "green"
    - Teddy Roosevelt scale - protecting resources to use them in the future vs. protecting them for the resources themselves
    - People can have connectedness to nature unrelated to their views on how natural resources should be used.
  - o This survey asked about awareness of reserves, but did not ask about perceived effectiveness of the reserves.
    - Ana Spaulding's class recently did a project that looked at this

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- o Sampling frame was done through DMV records; so only people with OR driver's licenses were included. Also weighted the sample based on location, age, and at least one other factor.
  - The sample was not weighted geographically around communities closer to marine reserves.
  - The information (zip codes) is available to do analysis in that way.
- o Tommy, any effort to look at surveys that were done pre-Marine Reserves?
  - Tommy is familiar with literature that informed this survey
  - Gil- More interested in how things have changed, how valid is this story based on how these surveys have been administered over time. When it relates to the time dependent questions - curious if previous and current survey help to tell that story.
  - Tommy - The same constructs of previous survey efforts were there, but the exact same questions/tools were not used. The study was not a replication.
- o Willingness to pay surveys: How do you craft the choice experiments so that people's willingness to do something and their actual likely do to something is addressed?
  - This field is continuing to evolve, there are more best practices related to choice experiments that help address this now.
  - Participants are asked about certainty to help verify their responses, time spent answering questions is also considered. There is always an uncertainty related to willingness behaviour and stated preferences.

**1030AM**

- Break

**1035AM**

- Criteria for the marine reserves evaluation- Status of development of "measurable questions" and indicators (75 min)
  - o Report from identified leads for each section - OPAC Marine Reserves Objectives and Implementation Principles and Guidelines-[Draft document](#)
    - What is the assessment column suppose to include?
      - Right now we're keeping things to the measurable question level - the assessment was the final step in all of that. That's not something that STAC is doing, that will be the task of the university doing the assessment.
    - A STAC members was assigned to each Objective/Principle, the group went one-by-one through the list of Objective/Principles and discussed their thoughts related to measurable questions,

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reflected on the linked tracking sheet.

- o A. Lead - Jan. Functional Diversity vs. Biodiversity, is Oregon focused solely on biodiversity or are we looking at other types of diversity?
  - ODFW is trying to learn more about functional diversity to determine which definition of diversity we should be focused on.
  - Functional diversity is generally considered on the broad community level, like fishes or benthic invertebrates.
  - Ask a question such as: Are the reserves in areas of a high likelihood of diversity?
    - Use habitat of a proxy of diversity, since we do not have highly detailed maps of diversity of the OR coast.
  - It's important that ODFW track the process here. What was done in the process to redefine it or characterize it, is important to note. that can help inform the next round of Marine Reserves.
  - The indicator would be the OPAC and community support documents? In terms of process, those are the historical documents.
  - If you're moving away from what was originally lined out, it's important to document why those trade-offs were made to help the legislators understand the practicality.
  - For many of the objectives there needs to be an overall summary of the planning process, include what ODFW was handed, vs. what was outlined in the OPAC recommendations.
  
- o B. Lead - Craig
  - Talks about protecting key types of habitat in multiple locations
    - How do you define key habitat? What is the range of key habitat across the state, then determine if key habitats were included in this process.
    - How do you actually measure the enhancement of resilience of nearshore ecosystems.
      - o No one knows how to do that, so how do you evaluate it?
      - o Focus on the enhancement, then reasonably assume that the resilience will follow.
    - Some collaborators are already doing things that feed info this.
    - Is the timeframe for protection even long enough to reasonably assume ecological change would take place?
      - o Selina's student has a [thesis](#) related to this question, which she will put on the shared drive.

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- Considering the short time frame; can we evaluate if the methods included are appropriate instead of trying to evaluate the results?
- When we use the word perturbation, are we thinking about something that's natural or unnatural (man-made)?
  - How do we define perturbation and over what time scale?
  - It appears that they want to look at both.
  - How was diversity monitored in Carribean example;
    - Species diversity in a limited part of the species. Species grouped according to their functional role.
- C. Lead- Selina. This one is a little more straight forward. Some aspects of this objective overlap with a later objective on the list.
  - Reviewers will need to have really good information on the process and how the Marine Reserves were chosen in order to appropriately assess this objective.
  - Were size and spacing recommendations a part of the set-up process?
- D. Lead - Jack. Would like clarity between nearshore resource management and adaptive management
  - Nearshore resource management: Marine Reserves is a small part of the whole management system. Are the methods and collections of data such that it can contribute to the larger picture? Data collected in the near shore (both in MR and out of MR) are both used in nearshore management.
  - Adaptive management: Is this more of a 2023 plan? Are we providing data that can inform adaptive management?
  - This language was drafted before the timeline for this was determined. In order to have the flexibility of doing
  - Any major changes in the management of the reserve will need to be made at the legislative level. We need to have a plan that includes advice for the future management, but also address current adaptive management scope/process.
- E. Lead - Shelby. This talks about what can be done vs. what's determined for the plan in 2023. Ties in with what was listed in row D.
- **ACTION:** STAC members to review the rest of these objectives, and the

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measurable questions.

- Topics for next meeting and schedule (*10 min*)
  - Next OPAC meeting - November?
    - Is there value in trying to hold the next STAC meeting in conjunction with the next OPAC meeting?
    - OPAC meeting in Nov 15-16 in Seaside, tied in with Land Conservation and Development meeting.
    - Shelby will communicate with the OPAC ex com to explore this idea.
  - Is there value in inviting outside researchers in to present about the work they're doing that relates/supports STAC efforts
    - New collaboration with researcher from CA, working to help make his model usable for all of OR, the Marine Reserves monitoring, etc.
    - Instead of modifying the CA model, consider working with OR researchers that have experience with this type of monitoring and model building.
  - Continue review of objectives/guidelines and measurable questions
  - Additional exploration of ecological side of monitoring/assessment?
  - Considering OPAC/public engagement in assessment process

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**Marine Reserves Evaluation ([Senate Bill 1510](#)):**

- “Draft report to the interim committee on environment and natural resources of the Legislative Assembly no later than October 1, 2022, and a final report to the Legislative Assembly in the manner provided by ORS 192.245 no later than March 1, 2023, regarding the establishment, study, monitoring, evaluation and enforcement of the pilot marine reserves, marine reserves, marine protected areas and seabird protection area described in ORS 196.540”
- “Be researched and prepared, within existing resources and without additional appropriation, by a public university listed in ORS 352.002 chosen by the scientific and technical advisory committee”
- “An assessment of social, economic, and environmental factors related to the reserves and protected areas”
- “Recommendations for administrative actions and legislative proposals related to the reserves and protected areas”
- “Any other scientifically based information related to the reserves and protected areas that the public university described in this subsection deems relevant or material”



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**Pertinent ORS**

**ORS 192.245**

**(1)** Whenever a law of this state requires a written report be submitted to the Legislative Assembly, the requirement shall be met by distribution of an executive summary of no more than two pages sent to every member of the Legislative Assembly by electronic mail and one copy of the report to the Legislative Administrator. This requirement does not preclude providing a copy of any report to a specific legislative committee if required by law. The requirements of this subsection are not met if the executive summary is distributed to members of the Legislative Assembly in paper format.

**(2)** The executive summary described in subsection (1) of this section shall include an explanation of how a member of the Legislative Assembly may obtain a copy of the report. If the report is also available on the Internet, the executive summary shall include the online location of the report.

**(3)** Notwithstanding subsection (1) of this section, if a member of the Legislative Assembly requests a paper copy of a report or executive summary, the agency or other entity responsible for submitting the report or executive summary to the Legislative Assembly shall supply a paper copy of the report or executive summary to the member. [1991 c.842 §4; 2009 c.416 §1; 2011 c.380 §1]

**ORS 196.540**

The State Department of Fish and Wildlife, State Fish and Wildlife Commission, State Land Board and relevant state agencies shall, consistent with existing statutory authority, implement:

**(1)** The November 29, 2008, recommendations from the Ocean Policy Advisory Council on marine reserves by adopting rules to establish, study, monitor, evaluate and enforce a pilot marine reserve at Otter Rock and a pilot marine reserve and a marine protected area at Redfish Rocks.

**(2)** The January 25, 2011, recommendations, limited to those related to boundaries and allowances, from the State Department of Fish and Wildlife on marine reserves by adopting rules to establish, study, monitor, evaluate and enforce:

**(a)** A marine reserve and two marine protected areas at Cape Falcon;

**(b)** A marine reserve and three marine protected areas at Cascade Head; **and**

**(c)** A marine reserve, two marine protected areas and a seabird protection area at Cape Perpetua. [2009 c.847 §1; 2012 c.27 §2]

Note: [196.540 \(Marine reserves\)](#) to [196.555 \(Reporting\)](#) were enacted into law by the Legislative Assembly but were not added to or made a part of ORS chapter 196 or any series therein by legislative action. See Preface to Oregon Revised Statutes for further explanation.

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**ORS 352.002**

The following are established as public universities in the State of Oregon:

- (1)** University of Oregon.
- (2)** Oregon State University.
- (3)** Portland State University.
- (4)** Oregon Institute of Technology.
- (5)** Western Oregon University.
- (6)** Southern Oregon University.
- (7)** Eastern Oregon University. [1987 c.246 §1; 1995 c.162 §74; 1995 c.612 §§10,11; 1997 c.11 §1; 2001 c.382 §1; 2011 c.637 §58; 2013 c.768 §24]