

Frenchman Bay Partners Goal-Session minutes

Location: Davis Conference Room, Mount Desert Island Biological Laboratory

Date and Time: November 8, 2012 from 9:00am to 2:30pm

In attendance: Bob Pulver, Diane Nicholls (Town of Lamoine liaison), Chris Petersen, Jane Disney, George Kidder, Bridie McGreavy (and undergraduate Christina), Bob DeForrest, Natalie Springuel, Emma Fox, Shannon White, Terry Towne, Theo DeKoning, Jim Norris, John Kelley, Jordan Ruff

Calling in: Marcia Brown (of Foundations of Success) and Ant Blasi, Tom Martin, Wendy Norden.

Not present: Paul Davis, Eddie Monat.

1. Introductions and background to viability assessment

The meeting was called to order and Marcia Brown (Foundations of Success) gave a brief overview of the viability assessment process, which was to inform people absent on the October 31st pre-goal-setting session and orient them to the language of a viability assessment. A viability assessment takes into account the current status of the ecological targets (eelgrass, mudflats, diadromous fishes, and subtidal benthic habitats), incorporates the concept of resilience, describes what normally sustains the targets in a good condition, and how the targets should be in the future. The viability assessment helps define the most important requirements for the target, ecological attributes related to target size, condition, and/or landscape context (such as the target's key ecological processes, its connectivity to other ecosystems). The goal for the meeting was to specify a range of variation for attribute indicators, state where the ecological targets currently are, and figure out where the targets should be. The purpose of the viability assessment was to provide a jumping-off point to make clear, measurable, and achievable goals for the near future.

2. Ecological target: eelgrass

The viability assessment process began with eelgrass, and there was some discussion about what type of key ecological attributes would be best to describe the current status of Frenchman Bay eelgrass. **Total area was decided as a key ecological attribute with acres of eelgrass as an indicator.**

Based on DMR mapping, there were 3,174 acres of eelgrass in Frenchman Bay in 1996. The latest mapping data, in 2008, revealed 1,076 acres. This is 34% of what was there.

The issue of whether or not to include Taunton Bay in the acreage calculations was discussed. In the end, it was decided that the **total eelgrass cover in 1996, more >3000 acres, would be given an indicator rating of "very good," [with 2000-3000 acres as "good," 1000- 2000 acres**

as “fair”] and < 1000 acres as “poor.” These values are subject to change but were entered into the Miradi conservation action planning software for the time being.

Growth and recruitment was suggested as a key ecological attribute with density and patch size as possible indicators. The group discussed the possible measurements and differences between variables for indicators, such as total size of patches in an area versus percentages of vegetative and flowering shoots. Though it was decided that Hadley Point has ideal eelgrass densities for the bay, no conclusion was reached about the density measurement for monitoring purposes. The indicator status ratings were tentatively decided as: **>70% density as very good, 51-70% as good, 31-50% density as fair, and <31% density as poor.** Jane and Wendy will discuss rating values in detail at a later date and make a more definite decision.

For total area, Taunton Bay had 1643 total acres of eelgrass in 1996; while the Jordan River used to have 125 acres as of 2008 (it’s all gone now). The geographic scope of each goal needs to be defined. In other words, do we want to include these areas in our goal setting?

Tentative Eelgrass Goal: By 2030, restore eelgrass to 1996 levels in Hadley Point, Thomas Island, and half of Berry Cove.

Water quality was decided as a key ecological attribute with transparency as an indicator, because it acts as a general water quality and bed health proxy measurement. Transparency relates to turbidity, which the group suggested might be connected with eelgrass die-off in the Jordan River.

Tentative Water Quality Goal: Beginning in 2013, maintain good water quality (3-4 meters transparency), and keep it at that level.

*Jane will double check the average transparency for areas in upper Frenchman Bay.

3. Ecological target: mudflats

For mudflats, total area and productivity were identified as key ecological attributes. While the group did not identify any indicators for total area of mudflats, it was decided that total *closure* area greater than 610 closed acres (the current closed area acreage) should have an indicator status as “poor.” For productivity, economic versus ecological productivity was discussed, and the number of bushels/acre and number of clams/acre were ultimately identified as indicators.

Water quality was identified as a key ecological attribute for mudflats, with shellfish bed closures and bacteria levels as indicators. The status of these indicators was not decided. There was a discussion as to which restricted areas will be the primary focus, as they will likely be the most easily accomplished openings.

Tentative Mudflat Goal: Get all mudflats closed due to bacterial pollution (610 restricted acres) open for harvesting, [beginning with Kilkenny Cove?]. [We need to set a date]

As for the sediment key ecological attribute, pH and particle size were pointed out as indicators, though the status ratings were not discussed as the current status is unknown.

Ecological target: subtidal benthic habitats

The group discussed the Maine Department of Marine Resources trawl survey data from 2000-2012. The trawl survey methods were consistent from year to year—transects were in the same locations. However, the DMR delineations for benthic habitat were unclear—were they bathymetric lines or the actual habitat type changes from intertidal mudflat to subtidal benthic?

It is clear that we know the least about the subtidal benthic habitats than any other ecological target—the group identified **benthic habitat condition, total area, water quality, and populations of key species as key ecological attributes for the target**. The group was not able to get to the level of indicators for most of the attributes, but identifying indicators through consultation with experts is a priority. For the populations of key species attribute, the following indicators were suggested: groundfish biomass, diversity, and richness; macroinvertebrate biomass, diversity, and richness; and benthic fish biomass, diversity, and richness. The indicator status ratings were not specified at the time of the discussion.

Consultation with experts (perhaps Bob Steneck, Eddie Monat, Rick Wahle, and Les Watling) is necessary, because there was disagreement as to which key species would be best proxies for total habitat health, which is why the groundfish, benthic fish, and macroinvertebrates were separated into three separate attributes. It was decided that the Frenchman Bay Partners will stick with the DMR benthic trawl surveys for our data for now, analyzing it more closely and consulting experts to achieve indicator status ratings. The plan will be to compare Frenchman Bay trawl data from year to year and to other parts of the bay to get a better idea of local health. Historical levels will also be investigated. The goals for subtidal benthic habitat will likely be more monitoring and maintenance oriented than restoration oriented for now.

4. Ecological target: diadromous fishes

The Frenchman Bay Atlas has an incomplete map of current dams in the watershed, but it was the basis of the diadromous fish target conversations. Restoration of historical runs was discussed, as well as maintenance of current diadromous fish runs. **Population status was decided upon as a key ecological attribute, with number of spawning adult alewives, number of sea-run brook trout, and number of American eels as the set of indicators for the attribute.**

Bacteria levels as well as water temperature (important for certain species such as brook trout) were specified as indicators for the habitat water quality key ecological attribute. Status ratings were not decided at the time of the meeting. **The final key ecological attribute for diadromous fishes, spawning habitat, was given four separate indicators: number of unobstructed alewife spawning runs as well as quality of alewife habitat, number of unobstructed brook**

trout runs, and number of unobstructed American eel runs. The obstructions include dams and culverts, and while there are data available for Bar Harbor, there are not available data for other areas in the watershed.

Tentative Diadromous Fish Goal: Restore diadromous fish runs on Jones Stream and Morancy Stream [both historic runs that are now obstructed]. If these fish runs are restored, the status of the alewife spawning habitat indicator would be very good, because we currently have 3 diadromous fish runs on Frenchman Bay. (5 very good, 4 is good, 3 is fair, and 2 or fewer is poor). The idea on spawning runs is to restore and then maintain.

5. Next steps

A sub-group from this meeting will pull together the missing data and make sure the goals are well-worded. Emma (AmeriCorps member at the MDI Bio Lab) will enter new data into the Miradi software program. Ideally, the goal statements, indicator status rating data, and the second draft of the Frenchman Bay Plan will be completed in six months. The sub-group will be sure to check in with Frenchman Bay Partners present at the goal-session to make sure they approve of goal-statements. During this time the Atlas will be revised and edited as well. Finally, the website will be updated with the new Miradi information as well as the next draft of the Bay Plan.

The annual meeting will be planned for some time in January where an executive committee will be voted in and sub-committees determined.

6. Meeting adjourned.