

**Humboldt Bay Ecosystem Program**  
**USFWS Conference Room**  
**January, 23, 2009**

**MEETING NOTES**

**Participants:** Jeff Anderson, Diane Ashton, Jessie Eden, Annie Eicher, Ralph Faust, Vicki Frey, Gayle Garman, Katie Glover, Chris Heppe, Tom Hofweber, Aaron Hohl, Bill Kier, Vanessa Metz, Darren Mierau, Julie Neander, Eric Nelson, Christy Prescott, Becky Price-Hall, Kirsten Ramey, Susan Schlosser, Frank Shaughnessy, Adam Wagschal, Debbie Marshall; by phone – Joel Gerwein, John Hansen, Becky Pollock.

**Miradi Software:** Handout of the conceptual model showing targets and threats, threat ratings and results chains with strategies created at the Strategic Planning workshop, Jan. 12-15. Discussion of the targets, threats, threat ratings, strategies that were developed with results chains and strategies needing results chains.

**Targets:** broad categories of ecosystems, habitats or species; ecological/biological aspects. The human factors, values and uses will be discussed next; how the human uses and benefits are included in the process

Bird Communities: target was not developed; discussion whether it should be a separate target or was it included in the other targets.

- Targets were biological/ecological, specific bird species should be included in the other targets
- Forest group included murrelets as a key ecological attribute (KEA) in the river systems; salmon were included as KEA
- Use KEAs in the other targets to include bird species
- Other group discussing bay, estuary and eelgrass decided eelgrass should be KEA rather than a target

Group decided to remove bird communities as a target and include specific species as KEA in appropriate targets.

Urban Environment; Cultural, Social and Economic: targets were not developed; Becky Price-Hall explained that ecosystem services, what humans are looking for, are related to KEAs which are attributes of the targets. Miradi is designed for conservation targets; we could use the process with EBM approach to encompass human aspects in the targets. Use consistent terminology throughout the model to describe biological/ecological/human aspects. Threats are defined by FOS as human activities. “Threats” is a term used in the software; our plan will include a range of human uses and biological/ecological threats.

- Sub-group will use process to incorporate human aspects into strategic plan; some identified targets are human uses; should they be incorporated into biological/ecological targets?
- Ecosystem services benefit people; economic uses difficult to incorporate into model
- Develop strategies within results chain to address economic aspects (ie. the levees results chain can include a strategy to preserve ag land when removing levees which would address rancher’s concerns)
- Cost/benefit analysis as step in each result chain could capture economic/human component; benefit side could include ecosystem service
- “Threats” terminology has negative connotation; Morro Bay group changed the term to “impacts”; adapt conservation tool to ecosystem-based management profile, change terminology to reflect EBM
- Manage urban environment as separate target same as the Working Waters/Fisheries target? Large area of ecosystem not covered in existing threats; urban and working waters influenced more dominated by human activities
- Threats can also be related to ecosystem services (fishing is a threat and a human service); include a strategy in each results chain that encompasses ecosystem services (human/economic trade off analysis)
- Urban ecosystem as separate discussion, incorporate human element into planning process

- Rating strategies can include human activities; indicators, objectives and opportunities not yet completed in Miradi; some of the opportunities can be human, economic, cultural, recreational
- Subcommittee to discuss urban target before next meeting: Susan Schlosser, Becky Price-Hall, Christie Prescott, Bill Kier, Aaron Hohl; ask Lisa Shikaney and Cat Kuhlman to participate; email group to ask for others interested in this discussion

**Direct Threats:** Core committee (Susan Schlosser, Becky Price-Hall, Darren Mierau, Jeff Anderson) met to discuss changes to Miradi model; decided that subcommittees should work on particular results chains before next meeting and report the changes they came up with.

Full group decided to address very high, high and medium rated threats:

- very high - climate change
- high – oil spills, existing exurban development, excessive sediment, aquatic invasive species, current logging practices
- medium – urban runoff, agricultural runoff, historical levees and dikes/shoreline alteration, road construction and maintenance

Agriculture representatives could not attend workshop so agricultural runoff was not address; Susan will set up meeting with Katherine Zeimer (Farm Bureau), Susan Ornelas (Jacoby Creek Land Trust), Dina Moore (rancher), John LaBoyteaux (farmer), Alan Bower (UCCE), Donna Chambers (RCD) for their input on process and expertise on threats

Fishermen also couldn't attend meeting; Susan will meet with them in March

Estuary: need to rate threats for estuary target; geographical scope, severity and irreversibility; could change number of threat ratings that need to be addressed

Need to deal with confidence level in Miradi model developed at workshop; expertise not available at meeting or not enough data available to assign a qualified rating; could include a confidence level tag in the detail section of the rating; have small groups review each target and threat for necessary revisions before next meeting then entire group can discuss possible changes; threats rated on existing conditions and expectations over the next ten years; need to clarify language and eliminate overlapping terminology

Oil Spills: three committees already addressing the issue so HBEP doesn't need to duplicate this process; include statement in strategic plan about high threat being dealt with by other organizations

Excessive sediment, exurban development, ag runoff, urban runoff, all interrelated; break down excessive sediment into suspended sediment and bed load; runoff relates to pollutants which should be broken down into specific components such as heavy metals; use terminology from state definition of non-point source plan; include sediment and pollutants as threats and identify strategies for dealing with urban, ag, exurban; can identify stresses related to threats (excessive sediment can be a stress, then look at the threats that contribute to that which are the types of runoff)

Discussed whether to change "threat" to "impact" or "driver"; identify different impacts and develop strategies for activities; use existing terminology to define drivers (Water Quality Control Board); broad categories – sediments, pollutants, invasive species, logging practices, fishing; remove land use practices as threats, develop strategies for those; review Miradi definitions:

*“Direct Threat* – a specific action taken by a human that degrades a conservation or resource management target. A direct threat has at least one actor associated with it.

*Stress* – Biophysical impact of that action on the target. A single stress can be caused by multiple direct threats (e.g., stress of habitat fragmentation caused by direct threats of agriculture, residential development, and logging; stress of decreased reproductive success of sturgeon caused by direct threats of industrial effluents, harvesting of caviar, and dams).

*Strategy* – A course of action with a common orientation, which mitigates threats, restores ecosystems or species populations, or provides capacity.”

Revise Miradi model and move forward; this isn't a stagnant tool, changes are expected; Strategic Plan report due March 31. Committee to review model and email changes to entire group: Susan Schlosser, Becky Price-Hall, Darren Mierau, Jeff Anderson, Tom Hofweber, Christy Prescott, Vanessa Metz, Eric Nelson

**Results Chains** – handout describing chains developed at workshop, ones to complete and people involved in subcommittee

Oil Spills: already addressed

Exurban Development: include new and existing development, urban, sprawl, urban runoff, conservation easement, transportation; combine threats and review strategy

Group: Becky Price-Hall, Joel Gerwein, Ralph Faust, Julie Neander, Tom Hofweber

Possible Participants: Vanessa Metz, Don Allan, Storm water coalition

Excessive Sediment: Incomplete chains; need to revise targets and threats

Analyze sources and sinks: Group - Greg Crawford, Jeff Anderson, Frank Shaughnessy, Craig Benson

Exclude livestock from riparian zones: Group: Tom Hofweber, Darren Mierau, Ralph Faust

Possible Participants: Donna Chambers, Dina Moore, John LaBoyteaux, Alan Bower, Katherine Zeimer, Susan Ornelas

Current Logging Practices: Group – Aaron Hohl, Kate Sullivan, Chris Heppe

Possible Participants: Craig Benson, Adona White/Cat Kuhlman, Hank Seemann, Bill Weaver, Yana Valacovich, someone from Green Diamond/California Redwood Company.

Aquatic Invasive Species: Group – Susan Schlosser, Annie Eicher, Kirsten Ramey, Vicki Frey, Jessie Eden, Adam Wagschal, Julie Neander, Joel Gerwein

Possible Participants: Eric Nelson, Andrea Pickart, Ted Romo, Frank Shaughnessy, Carole Vander Meer

Group plans to submit NCEAS proposal to work with Santa Barbara researchers to synthesize data on aquatic non-native invasive species

Historical levees and dikes: need additional expertise

Group: Adam Wagschal, Jeff Anderson, Tom Hofweber, Darren Mierau, Susan Ornelas, Joel Benegar, Craig Benson, Diane Ashton, Peter Jarausch, Paula Golightly.

Possible participants: Aldaron Laird, Julie Neander, Chad Roberts

Susan Schlosser and Christy Prescott available to facilitate groups; can use Sea Grant office or USFWS conference room for meetings

Core Team: Susan Schlosser, Becky Price-Hall, Darren Mierau, Jeff Anderson will review targets and threats, distribute revise information to entire group, develop meeting agenda, synthesize information from subcommittees into report using template to describe results chains

Humboldt Bay Institute: Entity to implement EBM. Group will discuss possibilities, benefits. Becky Price-Hall prepared organizational description of four groups; Susan will add information on San Francisco Estuary Institute (SFEI), Southern California Coastal Water Research Project (SCCWRP), HSU proposal. Group: Susan Schlosser, Maggie Herbalin, Catherine Kuhlman, Paula Golightly, Becky Price-Hall, Bill Kier.. Possible participants: Chad Roberts, Dave Hankin

**Next Meeting: February 27**