PSNERP-Nearshore Science Team (NST)
Monthly Meeting Synthesis
19 July 2007

Venue: Room 172, Natural Resources Building, Olympia, Washington
Attendance: Si Simenstad (Co-Chair; UW), Justin Boevers (UW), Guy Gelfenbaum (USGS), Fred Goetz (USACE), Bernie Hargraves (USACE), Tom Leschine (UW), Miles Logsdon (UW), Tom Mumford (DOE), Jan Newton (UW), Hugh Shipman (DOE), Randy Shuman (METROKC), Curtis Tanner (USFWS)

Guests: Randy Carmen (WDFW), Doug Myers (PSAT), Miriam Gilmur (USACE), Tim Quinn (WDFW)

Primary Meeting Topics:

1. Change Analysis to Strategic Needs Assessment
2. Shoreline Armoring Workgroup update
3. Puget Sound sub-basins recommendation

Change Analysis to Strategic Needs Assessment (Si):

- Si provided synopsis of current Change Analysis/SNAR working groups approach to SNAR; although we will have time in near future to alter datasets, etc., the approach as presented in WRIA9 pilot SNAR probably can't change too dramatically in scaling up to Sound-wide; this is time for critical NST feed-back
- Current schedule has Miriam presenting WRIA9 CA→SNAR Approach by Aug. 1st. Strong concern that this is a key NST product that will not have enough time for internal review before it is released to external review. Possible solution is to limit exactly what is released to USACE vertical team or adjust schedule.
- New schematic of PSNERP Change Analysis ➔ Strategic Needs Assessment "concept map" shows an explicit role for stakeholder involvement at multiple points of input and feedback through planning process.
- SNAR documents in as quantitative approach as possible the "known universe of impairment" as an intact/impaired mosaic based on Shoreline (SPU) and Estuarine Process Units (EPU).
- Suggestion on SNAR presentation to the public. Instead of presenting a 'repairing the past' approach it might be better to present a 'fixing the future' approach. However, to get GI product funded, dire health of Puget Sound must be communicated.
- Change and SNAR is organized by four levels (tiers) of change: (1) shoreform transition, (2) shoreline modifications, (3) adjacent buffer modifications, and (4) drainage (watershed/catchment) area modifications. When expressed as ranked metrics (1-9), they can also be expressed in one hierarchical, combined metric (i.e., X.XXX, where X = each of the four tier ranks). Ultimate discussion resulted in recommendation to <u>not</u> use combined assessment ranking initially, or at all. This method of organizing and ranking change provides a relatively simple, and easily understood way of displaying impairment at the four tiers in GIS (i.e., lines and polygons of colors corresponding of 1-9 classes of impairment).
- Impairment metrics are organized by non-metric multi-dimensional scaling (ordination) technique into nine levels of impairment based on loss in ecosystem functions, goods and services (based on Millennium Ecosystem Assessment [MEA]) for shoreform transition and a variety of metrics (e.g., extent of shoreline armoring, overwater structures, land cover, etc.) for shoreline, buffer and drainage unit modification.
- If the NST accepts the MEA as a feasible tool of assessing impairment, it offers a feasible mechanism (template) for an initial un-weighted (no value attributed to any one MEA metric) assessment based on science and then stakeholder input in the form of weighting of MEA metrics or classes of metrics? Need to evaluate this assessment for use in GI?

- Miles introduced the concept of also incorporating PU adjacency into the shoreline transition metric; but, there is a need for a continued discussion on adjacency regarding resolution and how it will be used in CA.
- Miles also offered 11 points of clarification including there is a numeric problem (adding shoreforms by MEA indicates magnitude), limited no. of typologies, limited no. of impairments, table is not a matrix (might be assumed to be so, and should be able to convert it to one).
- Si emphasized that this is a screening process and is not the ultimate assessment of technical as well as social, economic and political feasibility. We need to start discussing/deciding if it is reasonable and feasible to draw stakeholders early in process: Is it important to provide template for stakeholder involvement at multiple stages throughout portfolio development process.
- Tom Leschine raised concerns about stage of stakeholder involvement: it might not be appropriate to bring them in to weight MEA categories because they will want to know how it got to that point; stakeholder concerns might not be reflected in MEA; stakeholders might have a difficult understanding the impairment rankings—one solution could be to use pictures of what each number looks like in reality.

Shoreline Armoring Workgroup (Guy):

- Guy presented SAW update: goal, current limitations, objectives (two phases), initial tasks, timeline, and estimated budget requirements..
- PMT feedback included that nothing presented is outside of GI scope.
- SAW will prepare prospectus for SC meeting (Tim Quinn will present), including fleshing out workshops, topics of invited papers, order of workshop, etc.
- Next SAW meeting, conference call on 8/2

Puget Sound Sub-Basin (Jan)s:

- Jan Newton sought NST reaction to map of Puget Sound sub-basins recommended from PSNP, draft criteria for boundaries, and input to leadership council meeting.
- PSAMP reaction to map was positive: sub-divisions within each of seven sub-basins is inherent, but always will be some debate based on scientific focus on where to draw lines (e.g., biology vs. geology).
- NST reviewed recommended criteria to align boundaries with natural breaks in nearshore ecosystems and processes:
    - shoreline geomorphology and other nearshore structures (e.g., estuarine deltas)
    - basin water residence, turnover and mixing
    - freshwater inflow and watersheds
    - biotic assemblage community indicators
    - resident organism population distributions
    - also suggested: wind-wave regime and use of nearshore (aquaculture, recreational)
- Jan will transmit these points to PSP Leadership Council on part of NST/PSNP: there is not one map that can serve all purposes; the lines are good for terrestrial purposes, but don't highlight nearshore geomorphology and bathymetry; regional scale is too coarse to show drift cells; political jurisdiction overlap will complicate scientific basis for decision-making.

Miscellaneous:

- TRT (Mary Ruckelshaus, Bill Graeber) invited to August 22 (morning) NST meeting: NST discussed approach to explore NST-TRT working relationship, which would involve posing questions for TRT, such as "What are the perceived deficiencies in nearshore recovery actions? What are the expectations of the PSNERP by the TRT? Is there specific data that TRT expects NST to generate? And, What are the TRT's perceived nearshore restoration rules?" Si will contact Mary to develop an agenda along these lines.