

**Final HCCC In Lieu Fee Mitigation Program - IRT Meeting Notes**  
**Port Orchard, WA**  
**January 28, 2013**

**Attendees:** Brad Murphy (Ecology), Gail Terzi (Corps), Cynthia Rossi (PNPTC-Jamestown), Cyrilla Cook (WDNR), Linda Storm (EPA), Donna Frosthalm (Jefferson County), Roma Call (PGST), Steve Todd (Suquamish Tribe), Richard Brocksmith (HCCC), Patty Michak (HCCC), Randy Lumper (Skokomish Tribe), Doris Small (WDFW), Stacy Vynne (PSP), Kathlene Barnhart (Kitsap County), Paul Adamus (Adamus Resource Associates), Jim Keany (AECOM), Margaret Clancy (ESA), LCDR Frank Carroll (US Navy), Christine Stevenson (US Navy)

**Notes:** Scott Olmsted (ESA)

**September meeting notes:** Sept. meeting notes need to be reviewed by the IRT before made final.

**ACTION: June, September, and January meeting notes need to be sent out again to the IRT to be reviewed and edits submitted to HCCC, if necessary, by COB on February 22<sup>nd</sup>.**

Credit sale documents for impacts associated with the Navy's EHW2 project are on HCCC's website.

About half of the IRT members have been involved in meetings for the development of the Navy's marine functional assessment tool. To date, it has been a two-year long process. The tool is being developed by the US Navy (with support from AECOM and Adamus Resource Associate) who saw a strategic gap in the mitigation and ILF processes. Another round of draft products have been delivered and it would be valuable to fully align tool development with the HCCC ILF and IRT processes.

**Navy's functional assessment tool:** Presentation given by Jim Keany and Paul Adamus. Information on the marine functional assessment tool was sent out to the IRT last week by HCCC. Documents included: locked version of the model and a revised technical memo. A comment review matrix will be sent out to the IRT in the near future, and a copy of the powerpoint presentation. **ACTION: HCCC will put these documents on their website.**

The Navy's marine tool assesses impacts to marine aquatic resource functions. Multiple resource/function assessment tools have been developed previously for other resources; however, the Navy wanted to develop a standardized tool that could be used in Hood Canal, potentially Puget Sound, to assess the functional impacts their projects have on the marine environment. The tool is science-based, transparent, peer-reviewed, and is designed to require one day of office work, one day of fieldwork, and half day of data analysis.

The Navy has been collecting and tracking comments on the tool from stakeholders. The comment matrix contains comments that the tool is both too complex and that the tool is overly simplified. Other

comments pertain to development of user instructions, technical issues, tool outputs, and how the Navy tool compares to the interim marine/nearshore tool the HCCC ILF Program currently uses.

In the Navy's tool, the nearshore is broken into four environments: marine riparian, tidal wetland, intertidal non-wetland, and subtidal, which aligns with the HCCC interim tool habitats.

Geomorphic position has a strong influence on functions. Geomorphic position is imbedded into the context questions posed by the tool's data form, but the science team was unable to fully implement a strictly geomorphic/process-based approach.

The Navy's conceptual model: process + structures=functions (the tool uses the term Valued Ecosystem Components or VECs rather than functions).

VECs are divided into two categories = 1) physical; 2) biological productivity and diversity

During development of the Navy's tool, a large reference database for indicators of functions was compiled; it contains peer-reviewed literature, gray lit., and best professional judgment documents.

To note: functional indicators are not a direct measure of function.

To date a desk-top draft of the draft marine tool has been developed, but it has not been field calibrated. In addition, an economic evaluation has not been done; this work could be conducted in the future by Earth Economics. The economic evaluation would meld function/acre value and the associated costs (value of goods and services in totality); in addition to monies spent, this includes ecological (water purification, food web), commercial, recreational, and natural resource cost considerations. Earth Economics uses a stringent methodology to determine costs and has published numerous studies, in particular, multiple Ecosystem Services Valuation studies.

An Earth Economics evaluation would not necessarily directly translate to an estimate of mitigation credit cost because credit costs (as discussed in the HCCC ILF document) relate to construction, maintenance, etc. associated with implementing and maintaining a mitigation project. In other words, an ecosystem services approach may under or over estimate habitat replacement costs, which would need to be considered before proceeding.

The Navy's functional model was not able to capture all aspects of the ecosystem (e.g., unique habitat requirements of oystercatchers); special habitat features would need to be consider separately, and it would be the responsibility of the applicant to factor these into the functional loss assessment. For example, local governments require applicants to consider special resources that may not be captured by the Navy's tool, and determine how impacts to these special features affects functions. This typically occurs via the local CAO or SMP requirements.

Currently, the Navy's model is being developed for Hood Canal; not the entire Puget Sound basin. There is potential for the tool to be recalibrated for the entire region or parts thereof if there is interest on the part of regulatory agencies/tribes/sponsors. Similar tools like the Oregon wetland assessment have been easily re-calibrated for other regions.

The Navy's conceptual model only runs calculations for the "zones" present within the project area; however, "context indicators" are always calculated by the model. Each indicator has a weighted condition (based on the user's assessment of the indicator) and indicator weight (intrinsic to the model).

In the Navy's tool, calculations are based on the functional score of a particular habitat, multiplied by the area of the particular habitat being impacted. Cumulative effects are not explicitly addressed in the rapid assessment. This is a policy decision and a **parking lot issue**.

The IRT has concern that some projects may be too small for the tool to assess functional loss, e.g., bulkhead replacement projects that have a similar footprint. In addition, the Navy's tool may not completely capture buffer impact since there is only one indicator that assesses shading, and whether it differentiated anthropogenic vs natural. **Parking lot issue**. Field testing may reveal other indicators that help capture functional loss in buffer areas, as well as other places.

The next step in tool development is field testing. User manuals would also be a next step.

The Navy would like support and some commitment from agencies/tribes/sponsor, in the form of attending meetings and participating in the refinement of the tool, before they spend monies on further tool development (e.g., field testing for tool calibration, economic evaluation, re-calibration of the tool). LCDR Carroll will request this in writing.

EPA would like to discuss with management and with the IRT the value added by further developing the Navy's tool beyond what has been created to date.

HCCC staff thanked the Navy for their commitment to date on the effort, and noted that the draft tool has the potential to fill a potential gap in their interim approach by bringing forward more peer reviewed science. If that is well aligned with the policy discussions the IRT has already had, and stakeholders are able to commit the significant amount of time that would be needed to further develop these tools, it might improve our existing process.

Corps would like further use of the marine/nearshore interim tool to determine if it is sufficient or if the Navy's tool provides a better functional loss/gain assessment. The Corps cannot commit to using the Navy's tool at the meeting, but will discuss internally.

**ACTION: Navy will send HCCC a written request for support, which HCCC will then distribute, for agency/tribal support to continue development of the marine tool.** The request will call for

support/additional time from regulator/tribal stakeholders; representatives can take the request back to their management for a commitment of support (or not); hopefully, the request will provide a sense of time/resource commitment needed from agencies/tribes.

HCCC noted that there is a sunset period for the interim tool that is currently used by the HCCC ILF Program.

Ecology is interested in further tool development, but needs discussions with management.

The Navy is not sure when field testing of the tool would occur.

The Navy's tool could be used for: several other Navy impacting projects around Hood Canal; more generally other marine projects; or after-the-fact mitigation in Hoodsport, Mason County violation (however Mason County projects may be off-limits for the ILF for the foreseeable future).

DNR: the IRT could draft a letter outlining what the IRT feels is missing/deficient and what should be addressed/assessed by the Navy's tool.

Jefferson County: The HCCC ILF Program may be cost prohibitive for mom-and-pop projects.

PGST: would like to see how cumulative effects have been/could be factored, or not, into the Navy's tool.

EPA: Does the Navy's tool define what the nearshore is? Does the tool address functions of deeper waters, which still need to be mitigated?

Navy management should be aware that if the ILF Program chooses to use the product, the sponsor and IRT may adapt/modify the Navy tool, combining it with certain elements of the interim marine/nearshore tool.

NMFS may now be recommending Habitat Equivalency Analysis (HEA) for all nearshore projects as part of their required mitigation/conservation measures. Would this be in addition to what the interim marine/nearshore tool requires? A downside to this is that HEA is not a very transparent methodology. HEA also assumes impacts are temporary and appears to be based on salmonid functions in pristine conditions (e.g. absent of impacts).

**ACTION: the IRT would like to have a HEA presentation at some point: HCCC to contact the Corps and Jeff Fischer or Stephanie Ehinger from NOAA.**

HCCC ILF Program could potentially have two functional loss/gain assessment systems (Navy tool and interim tool) based on the type/scale of impacting project.

The Navy tool may be a good building block for further tool development. There was discussion about field testing both the Navy tool and the HCCC interim nearshore approach side by side to learn each of their strengths and weaknesses, and picking the best of each tool for future use.

**ACTION: HCCC can draft a letter stating areas of concern or deficiencies found by the IRT in the Navy's tool; the IRT would like to confirm that the content of the letter is appropriate. Agencies/tribes likely would need to respond from their own perspectives.**

Once all VECs have been assessed and scores assigned, they are then multiplied by impact area. The sum of indicator scores is averaged; this may lower functional loss results/"dumb down" impacts.

The IRT can support the Navy tool development process, but not necessarily the outputs of the tool at this point.

HEA: NMFS dictate—regional guidance in California; Section 7 consultation will require HEA. If this requirement is applied to projects in WA, it would not work well with the marine/nearshore interim tool currently used by HCCC ILF Program as they aren't directly comparable and could set up differing requirements and thus dual mitigation.

Vancouver, WA: in February, EPA, NOAA, USFWS, Corps, etc will have a training to talk about mitigation banking/ILF programs. NMFS is setting up banks that are not developed for 404 impacts, which creates complexity in the mitigation system given lack of alignment between various authorities.

**Watershed Characterization, Draft Identification of Receiving Sites:** Presentation given by Scott Olmsted and Margaret Clancy.

The State's water flow model and freshwater habitat models were used as coarse-scale filters to identify Assessment Units (AUs) potentially well suited for receiving sites. In the State's model, high priority restoration AUs have important water flow processes that have been degraded.

The models compare AUs to other AUs within the same WRIA.

Water flow results are presented at two scales: overall results and submodel results (for surface storage, delivery, discharge, and recharge).

Water flow submodel results are based on the following:

Surface storage: Importance: depression wetlands and unconfined floodplains; Degradation: loss of depression wetlands and floodplains.

Delivery: Importance: precipitation and/or rain on snow events; Degradation: impervious surface, forest loss, and/or dams.

Discharge: Importance: slope wetlands and permeable floodplain soils; Degradation: slope wetlands/floodplains and road and well density.

Recharge: Importance: precipitation and permeable soils; Degradation: development density.

Freshwater habitat model results are also based on: depressional wetlands and undeveloped floodplains, quality and quantity of salmonid habitats within the AU, quality and quantity of salmonid habitats downstream from the AU. ESA considered freshwater habitat scores between 7-10 as "high" scores; this was a somewhat arbitrary rationale threshold but we could consider AUs with lower scores (i.e. 6).

Once high restoration priority AUs that are aligned with high freshwater habitat score AUs are identified, submodel results can be assessed to determine which water flow processes could be restored to improve water flow functions within the WRIA. In addition, finer-scale data can be assessed to I.D. potential types of restoration projects that are appropriate for a particular AU.

ESA's draft assessment results point to the following partial list as potential receiving site areas:

#### WRIA 15

- Headwaters and mouth of Tahuya River
- Upstream and middle reaches of Union River
- Stand-alone AUs associated with Dewatto River and Boyce Creek

#### WRIA 16/14b

- southern portion of WRIA 16 service area, within the Skokomish River drainage system

#### WRIA 17

- Big and Little Quilcene rivers, Donovan Creek, and the mouth of Thorndyke Creek; AUs associated with Leland Creek, Tabroo Creek, Thorndyke Creek, and Shine Creek

When selecting potential receiving sites, other factors in addition to watershed characterization results should be considered, including: previous work within or near the AU, upstream AU conditions, areas of future potential impacts, and finer-scale data (e.g., riparian cover data). Also, submodel results can be used to support restoration efforts that have been prioritized by other assessments/plans, even when overall results do not identify an area as high priority restoration.

Generally, the IRT believed using watershed characterization data was a good initial assessment method to I.D. potential receiving areas.

There was a conversation about using public lands for mitigation; how feasible is it, what are the limitations, and is that more preferred than working on private lands?

Ecology was interested in examining model results for AUs that received a development/restoration rating and were associated with high preservation priority AUs upstream.

There was a suggestion to analyze watershed characterization results in combination with federal and local permit data (to assess development trends).

Another suggestion was to examine AUs that rated high for preservation in combination with AUs that received high freshwater conservation scores.

Watershed management area boundaries can be overlaid onto the characterization results to help understand individual AU ratings in the context of a larger drainage area, which is how Ecology recommends the data be interpreted.

As a case study, HCCC could examine impacts associated with EHW2 and use the characterization to identify receiving site(s).

**ACTION: HCCC will have discussions with Jefferson and Kitsap County to go over the watershed characterization results and see how they align with local mitigation plans/efforts.**

The previous discussion has been about freshwater roster sites. What about marine roster sites? HCCC staff responded that to date the focus has been on further development of the list of site-specific opportunities in the marine area that was previewed at the September meeting.

**ACTION: HCCC will clean up the excel file that details potential marine mitigation receiving sites at a conceptual level, and seek broad input. HCCC will continue to work with their partners to identify additional marine sites.**

There may be potential for marine mitigation/immediate marine benefit that involves replacement of public dock surfaces with open grating. **ACTION: Skokomish Tribe will send a list of potential piers to WDFW and HCCC.**

HCCC put out a request for ideas for potential receiving site projects in the local paper; multiple ideas were received, most of which were already on the existing lists.

**Next meeting:** Spring to discuss calibration (field testing) of the Navy's tool; to discuss roster sites in detail considering input from the IRT; discuss mitigation concepts associated with EHW2. **ACTION: HCCC to send out doodle poll.**