HCCC IRT FINAL MEETING MINTUES
CENTER FOR URBAN WATERS, TACOMA, WA
February 7, 2012

Attendees: Tom Hruby (Ecology), Brad Murphy (Ecology), Gail Terzi (Corps), Kathleen Barnhart (Kitsap County), Cynthia Rossi (PNPTC-Jamestown), Cyrilla Cook (WDNR), Linda Storm (EPA), LaJane Schopfer (Mason County), Donna Frostholm (Jefferson County), Roma Call (PGST), Steve Todd (Suquamish Tribe), Richard Brocksmith (HCCC), Nancy Brennan-Dubbs (USFWS), Randy Lumper (Skokomish Tribe), Margaret Clancy (ESA).

Notetaker: Scott Olmsted (ESA)

Freshwater Wetland Tool Review

Tom H led the IRT through a presentation on how to use Ecology's freshwater (FW) wetland credit-debit tool and described considerations that went into developing the tool. Tom's presentation and the corresponding Q&A session comprised the first two hours of the meeting. The following notes highlight some aspects of the freshwater tool that are most applicable to the HCCC ILF Program—this is not a full summary of Tom's presentation.

Studies show that a temporal loss ratio of 1.5:1 is adequate for use as a baseline value; temporal loss can be adjusted to address different cases; Ecology has added considerations to their tool that result in adjustments to the ratio based on multiple factors. In addition, applicants can negotiate with regulators all of the scoring values found in the tool as long as it is documented and agreed upon; the numbers provided in the freshwater tool are for guidance and are not rule.

Can mitigation banks and ILF programs "bank" excess credits to be used to offset debits from other projects? Corps and Ecology allow advance mitigation as long as it is the same applicant that wants to use the excess credits. There was a distinction made between an applicant using these excess credits for their own projects and selling the excess credits to someone else – which is not allowed for ILF because that process describes banking. Tom had a slide that he showed that stated that the Corps and Ecology were had a "rule" concerning advance mitigation and I pointed out that this was not accurate because first it is not a rule but a guidance paper and secondly the guidance has not to date been finalized. We are working on finalizing the guidance in the next month or so.

The freshwater tool is not intended for monitoring/performance standard purposes.

Ecology does not have a standard preservation ratio, but there has been a shift in policy to support the use of preservation because it is able to protect functions. The IRT is able to determine their own policy with regard to preservation, and can require additional mitigation in tandem with preservation, altered preservation ratios, etc.

The IRT wanted to be clear that the freshwater tool does not fully consider priority or listed species. Some IRT Members asked that the HCCC ILF consider checklists and other tools that would help to account for such species when making mitigation decisions. It was noted that effects on priority/listed

species and mitigation for those effects (reasonable and prudent measures or conservations measures) are or will be addressed through other regulatory mechanisms.

At the March meeting, the IRT will discuss what other additions to the FW tool/or kinds of check list (e.g., a check list that factors in priority/listed species) need to be developed and potentially incorporated into the interim nearshore tool. Consideration for listed species presence is currently factored into the risk factor component of interim nearshore tool.

King County ILF-they may be able to factor in ESA-listed species mitigation in addition to wetland mitigation as part of their program due to the proximity of known roster sites to waterbodies utilized by federally listed fish species. They are proposing a tiered approach to Section 7 ESA consultation for projects wanting to use ILF using proximity. The proposed approach has been vetted by NMFS but not USFWS and thus is likely to be revised and can't be immediately incorporated into the HCCC ILF Program. Receiving sites will be individually reviewed as they are proposed under a programmatic consultation for restoration activities. In general, there is an inherent disconnect between ILF Programs and ESA mitigation because of the allowed delay in mitigation implementation (3 growing seasons per the Federal Rule).

The freshwater tool has gone through two peer reviews, and the feedback has been minor. Two main issues raised in the peer review are: 1) people want a simpler method; 2) people are having problems understanding the risk and temporal lag numbers, which are less than one—people are not used to dealing with conversion factors less than one.

Review of November, December, and January Meeting Minutes

No additional comments were received for the November meeting minutes. The IRT provided input on these minutes at a previous meeting and the track changes were incorporated. November meeting minutes are FINALIZED. Comments were received from three IRT members for the December meeting minutes and the sponsor has incorporated them into the document. The December meeting minutes are FINALIZED.

A policy topic has been clarified by the Corps for the January meeting minutes: debit projects will not go before the IRT for formal review as part of the IRT HCCC ILF program review process. However, IRT members are free to examine how debits are calculated for impacting projects on their own, and the HCCC has said they will consult with the IRT on marine credits sold using the interim approach (see below).

The Skokomish Tribe clarified a statement from the January meeting; they have concerns about how treaty right impacts and cumulative impacts have been addressed and/or considered by the Corps throughout the history of interaction between the two groups. **ACTION: the Skokomish Tribe will send the sponsor language to be used in the January meeting minutes to help clarify this point.**

Also, Corps PMs said they always consider Tribal comments, and **(ACTION:) the Corps would like specific examples, from any tribe who has this concerns, of projects where tribal comments on mitigation projects were not fully considered.**

Corps clarified that it is not the role of the IRT to decide if a project may impact "irreplaceable" resources, or what the federal rule calls "difficult to replace" resources, specifically calling out bogs, fens, springs, streams, and Atlantic white cedar swamps. The applicant, sponsor, and applicable regulatory PMs need to address/workout how these impacts will be mitigated, with review and consultation with IRT. Here is what the rule specifically says about this subject located at 33 CFR Section 332.3(e)(3) – Mitigation type. "For difficult-to-replace resources (e.g., bogs, fens, springs, streams, Atlantic white cedar swamps) if further avoidance and minimization is not practicable, the required compensation should be provided, if practicable through in-kind rehabilitation, enhancement, or preservation since there is greater certainty that these methods of compensation will successfully offset permitted impacts." After the IRT meeting, Gail provided additional materials from the rule and its preamble on this topic. It is appended to these notes for future reference.

HCCC can always refuse to sell credit to project proponents. HCCC has proposed to notify and consult with the IRT on projects that may be impacting difficult to replace resources. The sponsor has committed to consulting with the IRT before selling credits for all marine projects during the interim phase. The applicant will need to provide the HCCC with a draft ILF use plan and provide rationale for the number of required debits/credits. The IRT would like impacts to certain habitat types (i.e. difficult to replace) to require a higher level of scrutiny or require conversations between the ILF sponsor and applicable regulatory PMs, so that these highly valuable resources are not being lost. The IRT wants to make sure the applicant is and sponsor are providing adequate information to determine resource impacts, including impacts to ESA-listed species. **ACTION: at the March IRT meeting the IRT would like to develop sideboards of topics that should be considered, beyond only assessing wetland impacts.** The Puget Sound Characterization tool may help in the development of these sideboards.

Review of debit projects, to ensure the interim nearshore tool is being applied appropriately, is the role and responsibility of the applicable regulatory agencies, not the IRT. But nothing precludes the sponsor from consulting with the IRT before the sponsor accepts a debit project (with exception of time constraints, which could be significant); HCCC is committed to this for projects considered with the interim nearshore approach. **ACTION-come up with language discussing how the sponsor would work with the IRT to review/gets advice on marine debit projects that use the interim tool (this language cannot explicitly state that marine debit projects must go before the IRT for approval). This new language should be placed in Appendix D.2 and a "no more than 45 day" IRT review timeline should be included so that it coincides with the NWP (among others) mitigation review timeline.**

During the initial phase of interim marine tool use, the sponsor will focus on in-kind/in-proximity mitigation to ease concerns about no-net loss of functions in the marine environment and "decoupling" of impacts by area, but in-kind/in-proximity mitigation is not always available, sustainable, advisable, or preferable, so this is only considered a short-term approach. The in-lieu fee requirement to use a

watershed approach must be balanced with some IRT members' preference for in-kind mitigation. The sponsor will attempt to propose in-kind/in-proximity mitigation, and if this type of mitigation is not feasible or sustainable, the sponsor will look for other mitigation project sites located in expanding proximity to the impacting site, moving further out geographically until the appropriate site is found.

As the IRT becomes more comfortable with the interim tool or when the marine debit/credit tool is approved, this mitigation strategy may be revised

Mitigation banks located in some Corps districts often require additional credits the further the impacting project is located from the mitigation bank; these banks have tiered service areas. This is not practiced in Seattle District. It is also not done with ILF programs since one does not know where the mitigation project will be located at the time credits are sold.

Regarding the Federal Rule's mitigation hierarchy-if an ILF program had generated "extra" credit because some of the mitigation projects have performed better than anticipated or generated more credits than would be needed to fulfill advance credits or ILF debits in the Service Area, even if a bank operates in the same service area, the ILF program could be the preferable choice when mitigation sites have better proximity to impact sites than that of the mitigation bank/impact sites. (This may not be an issue in Hood Canal in the foreseeable future as there are no banks proposed.)

The IRT agrees that three years is an acceptable sunset period to re-assess use of the interim tool, especially since the IRT can propose adjustments to the use of the interim tool at anytime. There is no need to shorten the sunset date.

Edits to Text of Instrument Appendices

Appendix F—third paragraph-the program will be a good option for violations. Donations and grants are not part of the ILF program and should not be on the ILF ledger—they cannot be used to operate the program and cannot be used to purchase mitigation sites; however, grants can be used to support the establishing and processing of the ILF Program, such as the work necessary to compile a list of roster sites. Monies associated with violation projects should be tracked in the same account as monies from permitted projects, but violations should be called out in the ledger so that the IRT knows that the monies are associated with enforcement actions/after the fact permits. A column can be added to the ledger to track violation transactions.

Pg 35-"mitigation fees cannot…"---ILF mitigation sites are not intended to have unregulated public access. If a mitigation site is constructed on land in public ownership, the text in the instrument should make clear that ILF funds cannot be used to maintain the public land (e.g., funds cannot be used to maintain a public park, funds need to be used for the establishment and operation of the ILF program only). However, the ILF funds can be used to maintain the mitigation site in accordance with the mitigation and Long-term Management and Maintenance plans.

Service area accounts-the HCCC ILF program will have each of these four accounts for each service area. **ACTION: Need an alternative name for "Service Area Accounts" at the program level and need to clarify that the four accounts are unique to each service area.**

ACTION: At the IRT's request the sponsor has added higher percentage allotment for the contingency account (from 15 to 20 percent); the administrative account (from 8 to 10 percent); and the long-term management account (from 8 to 10 percent). Land costs are tallied separately, so this would leave approximately 60 percent of the monies paid to the ILF when credits are sold to be used for implementation (i.e., design, construction, short-term monitoring/maintenance) of mitigation projects.

The IRT does not determine the price of a credit, but does review the fee schedule to ensure that full cost accounting is being considered when these prices are set, so that the sponsor does not run out of funds to operate the ILF program into the future.

F.3.1-King County was able to calculate freshwater mitigation costs (per acre credit), but HCCC was not able to do this because the freshwater tool has not been applied to watersheds surrounding Hood Canal. HCCC has adopted King County's calculations under the assumption that if King County can carry out their projects with the calculated fees, then this can be done in the Hood Canal area where costs should be less. **ACTION: Incorporate the associated exhibit from King County's instrument.**

Under the Credit fees-**ACTION: DNR lease costs for the private use of public land (beds of rivers and tidal lands) should be factored in.** DNR charges the water dependent rate, which is 70 percent off of the market rate. DNR would likely issue a conditional easement to HCCC for the use of these lands for mitigation projects for as long as the impacting project is in place. HCCC would pay one time. This would be part of the land fee not the credit fee. However, the sponsor would like some flexibility to consider paying DNR fees and leases with credit fees, if appropriate and approved by the IRT.

Regarding Table 6 in Appendix F—how can one determine land fees the applicant must pay if one does not know where the mitigation is going to be located? Table 6 used more than 3 years of land costs data to calculate land prices for each county and habitat type. These prices can be considered as representative/a starting place since credit fees and land fees can be updated periodically by the sponsor as the program proceeds and economics change. The IRT suggested breaking estuary costs into more categories (e.g., developable vs non-developable). Also, zoning information may be useful. The sponsor noted that that essentially has happened already, with estuary rates representing unbuildable wetlands for the most part and shoreline residential representing estuarine and nearshore areas with development potential. **Action: Table 6 should be adjusted, potentially making the habitat types broader while keeping fees conservative.** Land costs will probably be changed to reflect cost of residential shorelines and floodplains. It is difficult to more accurately determine land costs since HCCC does not have the ability to determine where mitigation is going to be located without roster sites; King County was able to do this, and HCCC may be able to as well in the future.

F.6-"annual reports must include"—The IRT wanted to know if the reports would assess whether the ILF program is meeting the no-net-loss criteria in each service area. Reporting on no-net loss is discussed in

Appendix G (but see discussion below); Appendix F has more to do with financial accounting. **ACTION: Provide maps in the annual reports/ledger of impacts and mitigation site location and indicate the type of impact and mitigation.**

F.5-"concurrent with initial IRT review"- The Federal Rule states that disbursement of ILF funds must be authorized by the DE, but to reduce the need for lots of paperwork and approvals the Corps has determined that the sponsor could spend 75 percent of the program administrative costs generated from each credit sale without IRT/Corps/Ecology approval. Beyond the 75%, spending monies from the administrative account must be authorized via a spending agreement. **ACTION: Remove "concurrent" and state that the Corps and Ecology will consult with the IRT based on the spending action plan and mitigation plan to determine if the DE should release monies for the construction of projects.**

Appendix G does not explicitly state that no-net loss will be tracked—although the fourth bullet is close. **ACTION: Add that no-net loss will be tracked by the ILF program.** The IRT can review all project debit information to ensure that mitigation needs are being met. The sponsor emphasized that each project will be mitigated to achieve no net loss, but if there is a decoupling of functions the program can look back at deficiencies within the operating area over time and work to correct these. Corps concurred.

G.1—The IRT would like more baseline conditions/monitoring data to be collected and provided than that associated with the credit/debit tools. Performance standards and associated monitoring are designed to capture this information, so no changes to the appendices were recommended.

Buffer impacts—The IRT wanted to know if buffer impacts are going to be tracked separately? Tribes were concerned about this with King County's ILF. If it is a buffer only impact, this information would be contained in a separate ledger or potentially an additional column added to the ledger. If the Corps and/or Ecology is involved with a project and there are buffer impacts, they will require buffer mitigation and it can be addressed along with CWA impacts on the ledger. **ACTION: Verify that HCCC has a buffer-only ledger or a buffer-only column on the ledger. Gail made the following notes after the meeting: "**If the Corps and/or Ecology are involved and there is a buffer impact, then that will go into the ledger because the ledger will be broken out by impacting projects within a Service Area. Local jurisdictions require mitigation for buffer only impacts and hence the discussion of how to handle these impacts which the Corps and Ecology won't even see."

Appendix J—third paragraph-add "tribal" to state, local…. The sponsor added this during the meeting.

Appendix J—"grant making"—**ACTION: remove "grant making" and state there will be a transfer of ownership and monies so that the entity can carry out necessary responsibilities---HCCC will still be responsible for the success of the mitigation site even though there has been a transfer of mitigation site management.** The transfer is pre-approved by IRT and DE/Ecology.

EPA and others are working on a west coast stream credit debit tool, but its release is several years out. A national stream tool is being developed by EPA and USFWS (it is Rosgen based and is east coast focused) and it may be available this spring. No change to current approach of case by case necessary.

Appendix K.2-in the discussion at the end of this section—**ACTION: the IRT would like the sponsor to add a statement about the number of credits a mitigation site is estimated to generate.**

K.1.3-last sentence—**ACTION: changed to "in consultation with" instead of discretion of.**

Middle of page 83-**ACTION: change status of non-wasting endowment account to status of interest accrued in the accounts.**

Page 86, second paragraph-change to "Corps and Ecology, in consultation with the IRT…"-Remove the first paragraph. This was done during the meeting. **ACTION: Make a global change so this language is used consistently throughout the instrument.**

K.3—**ACTION: add public notice for the mitigation action plan between step 8 and 9.** This step may be modified/streamlined/removed in the future depending on the extent of public comments on mitigation projects. **ACTION: Also, add--obtain all permits necessary to implement mitigation plans before step 12.**

ACTION: K.3 #4 add public lands to privately owned.

K.4-is three growing seasons always the best time limit to implement a project, especially if an applicant grades for hydrology? If they need multiple years of baseline condition this section provides some flexibility beyond the three growing seasons. The federal rule states that "land acquisition and initial physical and biological improvements must be completed by the third full growing season after the first advance credit in that service area is secured by a permittee, unless the district engineer determines that more or less time is needed to plan and implement an in-lieu fee project." Obviously the word "initial" lends itself to some flexibility but depending on the situation a mitigation project that is not completed for a long period of time would incur additional temporal lag impacts and credits may need to be adjusted. There is an additional, inherent incentive to complete a project since the HCCC cannot receive any credit until the project is implemented and performing as planned.

ACTION: Change globally—from the Federal Rule—make sure Instrument says "the initial biological and physical improvements must be completed within 3 years…"

ACTIONS: Appendix P—1) HCCC cannot hold their own easement, change this; 2) the Corps has a preference for conservation easements (as opposed to restrictive covenants) , so the sponsor should state there is a preference for these and will seek to use conservation easements held by appropriate third parties where practicable. This section will have substantial updates applied.

ACTION: Appendix L—second paragraph-specific provisions of the LTMMP-add a reference exhibit or appendix.

ACTION: First paragraph of Appendix L-change project performance period to establishment phase.

To address concerns the IRT may have about mitigation site maintenance--Long-term stewards are approved by the IRT and the LTMMP will be assessed by the IRT at the end of establishment phase

before moving on to the LTMMP phase. The final LTMMP does not get approved until entering into that particular phase, as opposed to when the mitigation plan is approved earlier in the mitigation site approval process. The sponsor, with IRT concurrence, can potentially change how often a site is monitored, if the site is clearly sustainable and performing well; this can be negotiated.

Appendix M—under "Actions"- add language about health and vigor of the plant in addition to surviving. Done at the meeting.

ACTION: There needs to be a final review of the interim tool.

ACTION: Appendix N.3(2) remove permittee.

ACTION: N.1-4th paragraph—after the "purpose of monitoring" sentences, add monitoring will be continued until performance standards are achieved.

Appendix O-4th paragraph. Page 93—check the federal rule "benefits are comparable" quote. Fixed at the meeting.

If the sponsor is unable to obtain a conservation easement and documents this, then they should use a restrictive covenant. In the past, it was difficult to find third parties that would hold CEs for small sites, but this is changing. If a mitigation site is on state or federal park lands then the sponsor would need to utilize the existing integrated natural resource management plan (INRMP), or something of equivalence. The existing INRMP would need to be reviewed and potentially have a specific amendment to it that deals with the ILF mitigation site (e.g. the existing INRMP may include uses that are incompatible with a mitigation site). **ACTION: Joe Brock at the Corps and TNC will review this Appendix P.**

ACTION: Appendix P--HCCC cannot be the conservation easement holder; it has to be a third party. Change this.

ACTION: Page 97, "approval by the IRT" should say approval by the Corps and Ecology in consultation with the IRT. Change globally.

ACTION: The Corps will inquire about what "general inspection permits" are from King County.

Appendix Q—no comments.

ACTION: Appendix R-second bullet-change 15 to 20 percent.

The last sentence of page 100 is correct. If program is in default, the co-chairs can direct the sponsor to disburse fees to a third party.

ACTION: the sponsor will ensure that the appendices are consistent with the basic agreement.

As an additional financial assurance, HCCC may need to provide a political promise (King County went to their council—and the council will entertain allocation of funds if the program needs them). **ACTION:**

This additional financial assurance, above and beyond all the others already in the document, needs to go before the HCCC board to see if the board would entertain providing additional funds should the program need them. This is not required in the Federal Rule. Not sure what the new Seattle District DE will require on this issue.

Appendix S.1.1-last sentence—if adaptive management is not successful, the mitigation project is delinquent.

ACTION: Appendix S.1.2.--regarding at least 60 days--look at the what the Federal Rule states and add some timeline bookends---the sponsor must respond in writing to the IRT <u>within</u> 60 days to propose corrective measures to the IRT. This will need some wordsmithing.

ACTION: Appendix T—first sentence…according to the watershed approach…should be according to the compensation planning framework. Second sentence—county, local…add tribal to this list. Review this section to see if it was copied from the King County instrument and make changes accordingly.

ACTION: Appendix T--Last sentence in first paragraph—Remove this sentence. The IRT will support the regulatory agencies in verifying that any agreements are consistent with the ILF Program Instrument.

ACTION: Global review—IRT should become Corps and Ecology/Corps or Ecology in consultation with the IRT.

<u>Next Steps</u>

The next IRT meeting is March 7th in Port Orchard, in a different room at Public Works building. The April 9th IRT meeting is at the Center for Urban Waters.

The IRT can provide instrument comments at anytime to the sponsor. **ACTION: The last of the preliminary comments on the subsections the IRT hasn't submitted on yet should be sent to the sponsor after the March IRT meeting, by March 21.**

ACTION: at the end of March, clean and track changes versions of the final draft instrument will be sent to the IRT. The IRT will have until April 20th to send final comments in on these documents.

Appendices H and I will be discussed at the March meeting. As will whether special habitats (eelgrass) should be considered with more scrutiny by the IRT.

ACTION: An example of the revised interim marine/nearshore tool will be emailed to the IRT in next couple weeks. If there is time at the March meeting, a few project examples that use the interim tool can be reviewed.

<u>END OF MEETING</u>

Excerpts from the federal rule and preamble, provided after the February meeting by Gail Terzi, Mitigation Program Manager for the US Corps of Engineers.

Excerpts from: Flexibility and Clarifications Provided in the Preamble to the Mitigation Rule (33 CFR Part 332)

§ 332.3(e) Mitigation Type. In-kind mitigation does not mean compensating for impacts to degraded aquatic resources by providing degraded compensatory mitigation projects. A compensatory mitigation project should result in high quality aquatic resources that provide optimum functions within its landscape context, taking into account unavoidable constraints. *(Page 19632)*

Although out-of-kind mitigation may not offset all aquatic resource functions and services provided by the aquatic resource being affected by the permitted activity, out-of-kind mitigation may be important for restoring or improving watersheds, especially in cases where certain aquatic resource types have been disproportionately lost from a watershed (see the 2001 NRC Report). *(Page 19632)*

§ 332.3(h) – Preservation as Mitigation. Preservation will be provided in conjunction with aquatic resource restoration, establishment, and/or enhancement activities, unless the district engineer waives this requirement in a situation where preservation has been identified as a high priority using a watershed approach. If the district engineer makes such a waiver, a higher compensation ratio shall be required. *(Page 19635)*

The 2001 NRC Report stated that wetland preservation is an important tool for maintaining wetland diversity in a watershed, and achieving the goals of the Clean Water Act in that watershed. Preservation is particularly valuable for protecting unique, rare, or difficult-to-replace aquatic resources, such as bogs, fens, and streams, and may be the most appropriate form of compensatory mitigation for those resources. We recognize that wetland preservation does not, in the short term, result in new wetland resources and thus contribute to the "no overall net loss" goal, but over longer time periods preservation helps reduce wetland losses by removing the protected wetlands from the pool of wetlands that may be subject to future development activities that require DA permits. *(Page 19635)*

Excerpts from the preamble to the federal rule regarding difficult-to-replace resources

Compensatory Mitigation Standards for Streams

Many commenters stated that compensatory mitigation for stream impacts should not be addressed in this rule. Some stated that there is no scientific evidence that streams can be established (i.e., stream creation) or that other approaches taken in this rule such as stream restoration can compensate for stream losses. They suggested that the agencies should conduct further research on stream mitigation and demonstrate its success before including standards for

stream mitigation in the rule. Some also noted that the statutory language in the NDAA refers only to wetlands.

On the other hand, other commenters expressed support for applying the rule to streams and other open waters. These commenters believe that physical alteration of aquatic resources should be mitigated to the extent practicable to support the objectives of the Clean Water Act and that because section 404 of the Clean Water Act authorizes discharges of dredged or fill material into lakes, streams, and wetlands, mitigation for those impacts should be required (and addressed in this rule) as well.

As noted in the preamble to the March 2006 proposal, we believe this rule should apply to compensatory mitigation for all types of aquatic resources that can be impacted by activities authorized by DA permits, including streams and other open waters. We recognize that the scientific literature regarding the issue of stream establishment and re-establishment is limited and that some past projects have had limited success (Bernhardt and others 2007). Accordingly, we have added a new paragraph at 33 CFR 332.3(e)(3) [40 CFR 230.93(e)(3)] that specifically notes that there are some aquatic resources types that are difficult to replace and streams are included among these. It emphasizes the need to avoid and minimize impacts to these 'difficult-to-replace' resources and requires that any compensation be provided by in-kind preservation, rehabilitation, or enhancement to the extent practicable. This language is intended to discourage stream establishment and re-establishment projects while still requiring compensation for unavoidable stream impacts in the form of stream corridor restoration (via rehabilitation), enhancement, and preservation projects, where practicable. District engineers will evaluate compensatory mitigation proposals for streams, and assess the likelihood of success before deciding whether the proposed compensation should be required.

We recognize that the science of stream restoration is still evolving and that more research is needed; however, the lack of a fully-developed set of tested hypotheses and techniques does not mean that stream mitigation (particularly via restoration, enhancement and preservation) cannot be successfully performed or that it should not be required where avoidance of impacts is not practicable. As noted by Bernhardt and others (2005), ''stream and river restoration can lead to species recovery, improved inland and coastal water quality, and new areas for wildlife habitat and recreational activities.'' There is a growing body of research that documents successful outcomes for stream restoration projects, examines stream restoration techniques and provides recommendations for effective stream and river restoration.

Three commenters supported adding a provision which states that district engineers should not permit out-of-kind mitigation for rare or hard to replace wetlands. Two commenters also stated that such a provision would eliminate compensatory mitigation for those habitat types that are not the easiest to recreate or those that would not have a relatively high likelihood of success. Some commenters objected to the inclusion of ''relative likelihood of success in establishing different habitat types'' as it allows impacts to higher quality, difficult-to-replace wetlands (*e.g.*, fens or forested wetlands), without requiring their replacement. One commenter added that meeting ecological needs should take priority over the likelihood of a compensatory mitigation project's success. One commenter noted that a strict preference for on-site, in-kind mitigation

often results in compensatory mitigation projects that have relatively little ecological value, are more difficult to establish, and are less likely to be sustained over the long term.

To reduce losses of difficult-to-replace aquatic resources, we have added § 332.3(e)(3) [§ 230.93(e)(3)] which states that, in cases where further avoidance and minimization is not practicable, the required compensatory mitigation must be provided through in-kind rehabilitation, enhancement or preservation to the extent practicable. When evaluating a request for a section 404 permit for an activity that would result in the loss of a difficult-to-replace aquatic resource, the district engineer will determine whether the proposed activity fully complies with the 404(b)(1) Guidelines, including requirements to avoid and minimize impacts to those resources to the maximum extent practicable and to consider alternatives. The likelihood of success must be considered when evaluating compensatory mitigation proposal. If the potential for successfully satisfying the objectives of a compensatory mitigation project is low, then an alternative compensatory mitigation project with a higher likelihood of success should be required instead. There will always be some risk and uncertainty associated with compensatory mitigation projects, but risks and uncertainties need to be minimized as much as possible so that the objectives of those projects will be achieved.

(h) Preservation. Many commenters supported the use of preservation as a form of compensatory mitigation. Several commenters said that preservation is needed in urban and coastal areas. Other commenters stated that preservation is important to sustainable ecosystems and to protect watershed health. Several commenters recommended that the rule require the use of a permanent legal instrument to ensure the protection of the preserved site. Several additional commenters argued that compensation ratios should be greater than one-to-one for preservation mitigation projects. Some commenters supported a requirement that any use of preservation should be the result of a watershed plan or a watershed approach. One commenter said that the requirement for the preserved resource to ‘‘contribute to the ecological sustainability of the watershed’’ is too vague.

The 2001 NRC Report stated that wetland preservation is an important tool for maintaining wetland diversity in a watershed, and achieving the goals of the Clean Water Act in that watershed. Preservation is particularly valuable for protecting unique, rare, or difficult-to-replace aquatic resources, such as bogs, fens, and streams, and may be the most appropriate form of compensatory mitigation for those resources. We recognize that wetland preservation does not, in the short term, result in new wetland resources and thus contribute to the ‘‘no overall net loss’’ goal, but over longer time periods preservation helps reduce wetland losses by removing the protected wetlands from the pool of wetlands that may be subject to future development activities that require DA permits. Aquatic resource preservation, when combined with restoration or establishment activities, can provide important aquatic services in a watershed. Section 332.3(h)(1)(v) [§ 230.93(h)(1)(v)] requires the site containing the preserved resources to be permanently protected through appropriate instruments.

Decisions on whether to allow preservation as part of a compensatory mitigation package will be made by the district engineer, based, to the extent appropriate and practicable, on the watershed approach. We have modified § 332.3(h)(1) [§ 230.93(h)(1)] to clarify that all five criteria must

be met for preservation to be used as compensatory mitigation for DA permits. We have also modified § 332.3(h)(1)(ii) [§ 230.93(h)(1)(ii)] to state that the resources to be preserved must provide a significant contribution to the ecological sustainability of the watershed. In determining whether this requirement is met, the district engineer may also consider whether the resource to be preserved is unique, rare, or hard to replace. To support compliance with that requirement, this provision also requires the district engineer to use appropriate quantitative assessment tools, in cases where such tools are available. The district engineer will also decide whether a proposed preservation site contributes to ecological sustainability of the watershed, based on case-specific factors.

Many commenters stated that preservation alone is not an acceptable form of compensatory mitigation and preservation does not promote ‘‘no net loss’’ of wetlands. Several commenters said that preservation and enhancement should only be used to augment aquatic resource restoration and establishment. Other commenters recommended that only a small percentage of credits for a particular compensatory mitigation project should be given for preservation and only when it is used in conjunction with restoration, enhancement, and/or establishment.

As stated in § 332.3(h)(2) [§ 230.93(h)(2)], preservation will be provided in conjunction with aquatic resource restoration, establishment, and/or enhancement activities, unless the district engineer waives this requirement in a situation where preservation has been identified as a high priority using a watershed approach. If the district engineer makes such a waiver, a higher compensation ratio shall be required. For each mitigation bank and in-lieu fee project involving preservation, the district engineer, in consultation with the IRT, will determine the number of credits that will result from that preservation activity.