US Army Corps of Engineers

Special Public Notice

Public Notice No. 18-40 Date: December 11, 2018

Nashville District

Application No. **N/A** Expires: January 5, 2018

Please address all comments to: Nashville District Corps of Engineers, Regulatory Branch (Attn: Joshua Frost) 3701 Bell Road, Nashville, TN 37214

SUBJECT: Announcement of the Completion and Availability of the Tennessee Stream Quantification Tool (TN SQT) Version 1.0; Tennessee Department of Environment and Conservation (TDEC) Public Notice on the TN Stream Mitigation Guidelines, including the Draft Tennessee Debit Tool; and Solicitation of Comments on Proposed Corps of Engineers Nashville and Memphis Districts, Temporal Loss Assessment and Proximity Factor Assessment for Compensatory Mitigation

PURPOSE: The purpose of this public notice is to announce to Department of the Army (DA) permit applicants, sponsors, consultants, industry, and the general public the availability of the TN SQT; promote awareness of TDEC's notice for public comment on the Draft Stream Mitigation Guidelines, including the TN Debit Tool; and to solicit comment on the Nashville and Memphis Districts' consideration of Temporal Loss and Proximity Factor assessments for compensatory mitigation. Comments on the Tennessee Debit Tool and associated supporting documents are being accepted by TDEC through January 10, 2019. All comments can be emailed to Vena.L.Jones@tn.gov. Comments on the Temporal Loss and Proximity Factor assessments will be accepted by the Corps within 30 days from the date of this notice.

TN DEBIT TOOL AVAILABILITY AND APPLICABILITY: The Nashville and Memphis U.S. Army Corps of Engineers (Corps) have worked as partners with TDEC, US Environmental Protection Agency, Stream Mechanics, LLC, the Tennessee Interagency Review Team (IRT), and others to develop a regionalized stream assessment. The IRT is comprised of the following agencies: TDEC, U.S. Environmental Protection Agency (EPA), U.S. Fish and Wildlife Service (USFWS), Natural Resources Conservation Service (NRCS), Tennessee Wildlife Resources Agency (TWRA), Tennessee Valley Authority (TVA), and Corps (IRT chair). The TN Debit Tool is an application of the TN SQT specifically for calculating functional loss associated with permitted impacts, developed to assist the public and regulatory agencies in assessing streams to support permit decisions. Links to the TN Debit Tool and supporting documents are provided below:

TN Debit Tool (Draft)
https://www.tn.gov/environment/ppo-public-participation/ppo-public-participation/ppo-water.html

Data Collection and Analysis Manual (Draft)
https://www.tn.gov/content/dam/tn/environment/water/documents/ppo_water_arap-tn-sqt-data-collection-and-analysis-manual-DRAFT.pdf

Rapid Data Collection Methods
https://www.tn.gov/content/dam/tn/environment/water/documents/ppo_water_arap-tn-sqt-rapid-data-collection-methods-DRAFT.pdf

Spreadsheet User Manual
https://www.tn.gov/content/dam/tn/environment/water/documents/ppo_water_arap-tn-sqt-spreadsheet-user-manual-DRAFT.PDF

List of Metrics
https://www.tn.gov/content/dam/tn/environment/water/documents/ppo_water_arap-tn-sqt-list-of-metrics-113017.xlsx

Tennessee Stream Quantification Tool v 0.99
https://www.tn.gov/content/dam/tn/environment/water/documents/ppo_water_tn-sqt-tool-v0.99.xlsx

Our intent in participating in the development of the TN Debit Tool is to provide an assessment methodology that will provide clear expectations to the public, a consistent and more efficient review that is rooted in sound science and is compliant with all applicable laws. Additionally, the resulting joint development effort with TDEC, Nashville and Memphis Districts will support the use of the TN SQT by both state and federal agencies across the state of Tennessee, further supporting a consistent regulatory review.

The TN SQT and Debit Tool are not certified for use in Corps Civil Works ecosystem restoration and mitigation projects. In May 2005, the Corps established a Model Certification process known as the Planning Models Improvement Program (PMIP) to review, improve and validate analytical tools and models for Corps Civil Works business programs [Engineering Circular (EC) 1105-2-412]. The EC requires use of certified models for all planning activities and tasks the Ecosystem Restoration Planning Center of Expertise (ECO-PCX) to evaluate the technical soundness of models used in ecosystem restoration and mitigation projects. The TN SQT and TN Debit Tool are not encumbered by the EC and will undergo separate evaluation by ECO-PCX should Corps Civil Works Planning have an interest in using this assessment methodology.

TEMPORAL LOSS BACKGROUND: Temporal loss is the time lag between the loss of aquatic resource functions as a result of permitted impacts and the replacement of aquatic resource functions at the compensatory mitigation site. The Federal Mitigation Rule states that compensation ratios of greater than 1:1 can be applied to account for factors including temporal loss and the difficulty of restoring or establishing certain wetlands/aquatic resources (33 C.F.R. 332.3 (f)). Implementation of the compensatory mitigation project shall be, to the maximum extent practicable, in advance of or concurrent with the activity causing the authorized impacts. The district engineer shall require, to the extent appropriate and practicable, additional compensatory mitigation to offset temporal losses of aquatic functions that will result from the permitted activity (33 C.F.R. 332.3 (m)). The Final Mitigation Rule stipulates that ILF Programs must complete land acquisition and initial physical and biological improvements by the third full growing season after the first advance credit in that service area is secured by a permittee, (33 C.F.R. 332.8 (n)(4)). When the compensatory mitigation project is initiated prior to, or concurrent with, the permitted impacts, the district engineer may

determine that compensation for temporal loss is not necessary, unless the resource has a long development time (33 C.F.R. 332.3 (f)).

TEMPORAL LOSS ASSESSMENT APPLICABILITY AND RATIONALE: The Nashville and Memphis District, is soliciting comments regarding the evaluation of temporal loss in permit decisions. For every Nashville and Memphis District permit action requiring compensatory mitigation, in which the applicant proposes to use ILF Program Advance Credits, or provide permittee-responsible mitigation (PRM) after the permitted impacts have occurred, the district shall offset temporal loss by adding a 3% per year multiplier to the required mitigation amount. If impacts are proposed to be offset through the purchase of advanced credits from an ILF Program Provider that has not sold its first advanced credit within a particular service area, the temporal loss multiplier would be assessed at 12%, considering ILF Programs have three full growing seasons to implement the initial physical and biological improvements on a project once the first credit is sold, plus one year for the site to begin providing functions post construction. Additional temporal loss multipliers would be utilized if the ILF exceeded the standard timeframe to implement the initial physical and biological improvements, provided the proposed mitigation was determined to be appropriate. If PRM is determined appropriate to compensate for permitted losses, an additional 3 % per year temporal loss factor would be assessed for PRM projects constructed after the permitted impacts occurred. The same practice would apply for PRM projects that have been determined unsuccessful during or after the required monitoring period by the Corps, and a time lag has occurred between impact and mitigation construction to replace loss functions.

The methodology for adopting this specific percentage for compensating for temporal loss was adapted from the economic discount rate used in Habitat Equivalency Analysis (HEA), which is a Damage Assessment and Restoration Program utilized by the National Oceanic and Atmospheric Administration. The economic discount rate is based on the standard economic assumption that the public places a greater value on having resources available in the present rather than having their availability delayed until the future. The economic literature supports a discount rate of approximately 3% per year.

PROXIMITY FACTOR BACKGROUND: If the district engineer determines that compensatory mitigation is necessary to offset unavoidable impacts to aquatic resources, the amount of required compensatory mitigation must be, to the extent practicable, sufficient to replace lost aquatic resource functions (33 C.F.R. 332.3 (f)(1)). The district engineer must require a mitigation ratio greater than one-to-one where necessary to account for the distance between the affected aquatic resource and the compensation site (33 C.F.R. 332.3 (f)(2)).

PROXIMITY FACTOR APPLICABILITY AND RATIONALE: The Nashville and Memphis District is soliciting comments on a draft proximity factor tool to assess compensatory mitigation that is proposed to offset unavoidable impacts to waters of the United States in areas outside the impact 8 digit HUC, ecoregion, approved mitigation bank or in-lieu fee service areas, etc. With the exception of wildlife habitat support for some species, most functions are best offset within the same watershed and ecoregion. The agencies recognize that the relevance of a mitigation effort is diminished as the primary watersheds of the mitigation site and impact site become further removed. Diminishing relevance expresses the relationship of the compensatory mitigation area and how it relates to the impact site. We also need to evaluate the relative importance of these functions to the watersheds of the impact site and

the mitigation bank. To do this, the proportion of functions performed in the watershed of the impact site is compared to the sum of the amount of functions available in both the impact site and mitigation bank watersheds. A simple way to numerically score this concept is to proportionally relate the HUC area of the impact site watershed to the total area of both watersheds. The proximity calculator should generally be used to evaluate impacts and compensatory mitigation occurring within the same Major River Drainage or same Level III Ecoregion. Mitigation proposed outside Major River Drainages or Level III Ecoregions will be reviewed on a case-by-case basis. For mitigation that may occur outside a Major River Drainage or same Level III Ecoregion, we are soliciting comments on how mitigation amounts should be assessed for these instances. We are also soliciting comments regarding considerations for a proximity factor for ILF programs. ILF programs must utilize a compensation planning framework to cite mitigation sites in accordance with 33 C.F.R. 332.8(c). However, factors such as economic viability, urban vs. rural areas, etc. are considered in developing service areas, which can result in larger service areas (33 C.F.R. 332.8(d)(6)(ii)(A). In these instances, mitigation sites may not be developed in close proximity to impacts. Additionally, compensatory mitigation proposed to occur more than 3 HUCs from the impact site would require additional consideration during permit application review. Other methods to calculate a proximity factor may be considered on a case-by-case basis. The proximity factor tool is located at the following website: https://www.lrn.usace.army.mil/Portals/49/docs/Regulatory/Scott-Website%20Content/DRAFT%20TN%20Proximity%20Calculator%20for%20Public%20Comment.xlsx?ver=2018-12-06-095553-967

PUBLIC HEARING REQUESTS: In accordance with 33 C.F.R. 325.3, any person may request, in writing, within the comment period specified in the notice, that a public hearing be held to consider this action. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing.

SOLICITATION OF COMMENTS: The Nashville and Memphis District is soliciting comments from the public, Federal, State, and local agencies and officials, Indian tribes, and other interested parties in order to consider and evaluate the impacts of the addition of the draft Temporal Loss and Proximity Factor assessments. Comments associated with the TN Stream Mitigation Guidelines, including the TN Debit Tool, can be emailed to Vena.L.Jones@tn.gov. We appreciate your awareness and participation in the development of procedures to provide regulatory decisions that are consistent, transparent, rooted in sound science and compliant with applicable laws.

CONTACT INFORMATION: Written statements received in this office within 30 days from the date of this notice will become a part of the record and will be considered in the determination. Any response to this notice should be directed to the Nashville District Corps of Engineers, Regulatory Division, Attention: Mr. Mark G. McIntosh at the above address or by email: mark.g.mcintosh@usace.army.mil.

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Tammy R. Turley
Chief, Nashville Regulatory Division

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