

WORKING DRAFT
"GUIDELINES ON THE ESTABLISHMENT, OPERATION AND USE
OF WETLAND AND STREAM MITIGATION BANKS IN GEORGIA"

I. PURPOSE AND SCOPE: This document was developed jointly by the US Army Corps of Engineers, Savannah District (USACE); the US Environmental Protection Agency (USEPA); the US Fish and Wildlife Service (USFWS); the National Marine Fisheries Service (NMFS); and the Georgia Department of Natural Resources (GADNR). These agencies comprise the Interagency Review Team (IRT), previously known as the Mitigation Bank Review Team (MBRT). On a case-by-case basis, and as needed, other federal and/or state resource agencies may participate on an IRT for a specific proposed mitigation bank. This guidance is intended to assist the IRT, bank sponsors, and other interested parties with the development and operation of wetland and stream mitigation banks in the State of Georgia, and with meeting the goals of the Clean Water Act (CWA), to restore and maintain the chemical, physical and biological integrity of the Nation's waters. Fundamental to this guidance is the recognition by all parties that prior to use of credits from a commercial mitigation bank, it is the permit applicant's responsibility to demonstrate that the proposed discharge would comply with the mitigation sequencing requirements of the Section 404(b)(1) Guidelines of the CWA, as follows:

A. Avoid wetland, stream and open water impacts through practicable upland alternatives;

B. Minimize wetland, stream and open water impacts using all reasonable actions; and

C. Mitigate for unavoidable direct and indirect wetland, stream and open water impacts that result in a loss of aquatic function(s).

II. APPLICABLE ENVIRONMENTAL LAWS AND REGULATIONS: Projects deemed appropriate for off-site compensation in a mitigation bank must demonstrate full compliance with existing Federal statutes and regulations. Relevant laws, regulations, and guidance are listed in Appendix A. This document, "Guidelines on the Establishment, Operation and Use of Wetland and Stream Mitigation Banks in Georgia," does not modify existing mitigation policies, regulations, or guidance. Bank sponsors and users must familiarize themselves with Regulatory Guidance Letter 02-02 (RGL 02-02), a copy of which is attached at Appendix B. RGL 02-02 is the primary guidance on which this document is based.

III. AGENCY ROLES: The USACE will appoint a Project Manager to lead each IRT formed to review and evaluate a proposed mitigation bank. The USACE Project Manager will strive to reach consensus among all IRT agency representatives prior to the USACE making final decisions with regard to establishment, operation and/or use of a mitigation bank. The other participating Federal and state resource agencies will assign a representative to the IRT for a proposed bank, if appropriate, and this representative will provide technical assistance to the USACE and the bank sponsor.

IV. ESTABLISHMENT OF MITIGATION BANKS: This section provides an overview of the procedures for establishing a mitigation bank to be used in Georgia. The establishment of a mitigation bank is a technically and administratively complex process. Because of this, it is highly likely the bank sponsors will require the services of a consulting firm(s) with expertise in aquatic resource restoration/enhancement, silviculture, hydrology, soils, civil engineering/design, etc.; as well as the services of legal counsel to facilitate perpetually protecting the bank site. The following Sections A through G outline a stepwise process that expedites the mitigation bank approval process and meet the needs of the IRT. Thus it is imperative that all participants in the bank establishment process are familiar with the procedures and requirements outlined in this guidance document in order to minimize the potential for misunderstanding and to increase predictability of the outcome. The mitigation bank establishment process and an approximate time line for Banking Instrument (BI) approval is attached at Appendix C. These procedures are as follows:

A. Site Selection: Selection of a mitigation bank site must be primarily based on the potential to restore or enhance aquatic function. The bank sponsor should also be aware of the following:

1. Additional factors that should be considered in selecting a bank site are, but not limited to: existing resource value; size; location; acquisition and/or development costs; present and future mitigation needs within the proposed site's service area; historical, current, and adjacent land uses; presence of contaminants; ability to perpetually protect aquatic functions; and potential for developmental intrusion such as utility rights-of-way.

2. For wetland mitigation banks, the resource agencies place a high priority on siting banks in hydrologically and/or vegetatively degraded bottomland hardwood systems with a high potential for restoration and/or enhancement (e.g., wetlands that have been converted to agricultural or silvicultural uses. For stream mitigation banks, there is preference for channel restoration or stabilization actions on high priority first order and intermittent streams where there is also some degree of control of the watershed. A site will not be considered acceptable for banking if impacts to the site were accomplished in violation of Section 404 of the CWA or other federal, state, or local laws.

3. A site that requires wetland creation should only be considered as a last resort. Where wetland creation is proposed, establishment of a mitigation bank will only be considered on an upland site with little existing ecological value and on a case-by-case basis.

4. Preserving wetlands, streams, and/or riparian corridors alone will not be acceptable for mitigation banking since these actions would not result in a net gain of wetland acres, linear feet of stream, or aquatic function. Preserving wetlands, streams, and/or riparian corridors will only be considered for banking when proposed in conjunction with restoration and/or enhancement of wetlands and streams, and only: (a) if the preserved resource(s) will augment the functions of newly restored or enhanced aquatic resources; (b) in exceptional circumstances; and (c) on a case-by-case basis. If preservation is proposed as part of a mitigation bank, the bank sponsor

must demonstrate that the wetland, stream and/or other aquatic resource: (a) performs important physical, chemical or biological functions, the protection and maintenance of which is important to the watershed where those aquatic resources are located; and (b) is under demonstrable threat of loss or substantial degradation from human activities that might not otherwise be avoided. The existence of a demonstrable threat will be based on clear evidence of destructive land use changes that are consistent with local and regional (i.e., watershed) land use trends, and are not the consequence of actions under the bank sponsor's control. **Under no circumstances** can preservation of existing wetlands, upland buffers, streams, or other aquatic resources be used to generate more than 50 percent of the total credits in a mitigation bank.

5. A mitigation bank site should contribute to overall water quality improvements in the watershed and protect the ecological integrity of adjacent habitats (e.g., use of upland buffers).

6. Where practicable, fish and wildlife migrational corridors should be provided between the mitigation bank site and other high quality aquatic and upland habitats.

7. A mitigation bank site should be ecologically self-sustaining. Every effort must be made to avoid establishing a bank that requires regular and intensive maintenance. Exceptions will be made only when the IRT determines that adequate procedures exist to insure the permanent viability of the bank site.

B. Bank Prospectus: Once a potential bank site has been identified, the bank sponsor must submit a Mitigation Bank Prospectus (BP) to the USACE and the appropriate resource agencies. The BP must include: (a) Bank Sponsor (i.e. Current Site Owner), (b) Baseline Site Conditions, (c) Vicinity Map, (d) Site Boundaries on a USGS Quadrangle Sheet, (e) Site Boundaries on a Soil Map, (f) Site Boundaries on a National Wetland Inventory Map, and (g) General Description of the enhancement/restoration/preservation actions proposed at the site. The required outline for a BP is attached at Appendix D. The USACE will independently review the BP and determine whether the proposed site may have the potential for sufficient aquatic functional lift to warrant establishing a bank. If necessary, the USACE will inspect the site to assist in this determination.

C. Initial (1st) IRT Meeting: Provided the USACE has reviewed the BP and determined that a proposed bank site warrants further review, a **one hour** meeting will be scheduled between the bank sponsor, their consultant(s) and the resource agencies. The USACE facilitates monthly IRT meetings, alternating between the Savannah District Office and the Morrow Field Office. The USACE Project Manager assigned to the proposed mitigation bank will facilitate the meeting and keep the scheduled time frames. [NOTE: In December of each year, the USACE issues a public notice advertising a schedule for monthly agency meetings during the following year. Mitigation bank sites proposed for counties in the Savannah District's Southern Section will only be scheduled for a Savannah IRT meeting, and bank sites proposed for the Northern Section counties will only be scheduled for a Morrow Field Office IRT meeting. See Savannah District's web site for a map that depicts the counties located in the Savannah District's Southern and Northern Sections.]

Once the 1st meeting is scheduled, the bank sponsor is responsible for submitting a copy of the BP to each of the resource agencies. The USACE Project Manager will identify the resource agencies that will participate on the IRT and will provide the bank sponsor with the name, mailing address and e-mail address of each agency representative. **At least two weeks prior to the date of the scheduled meeting, the bank sponsor must submit a copy of the BP to the resource agencies. Should the resource agency not receive the BP two weeks prior to the date of the meeting, the 1st meeting will be cancelled. A cancelled meeting cannot be rescheduled until the next monthly IRT Meeting, approximately 60 days later.**

The primary purpose of the 1st meeting is to provide the bank sponsor with preliminary resource agency opinions concerning the feasibility of bank approval. Preliminary resource agency opinions will be based on information in the BP, and should only reflect whether the proposed site appears to have sufficient functional lift necessary to become an approved mitigation bank. Should one or more of the resource agencies express concern with bank approval, the USACE would likely advise the bank sponsor to give serious consideration to further pursuit of a bank at the site. With consensus among the resource agencies concerning the possibility of approval of a BI for the proposed bank site, the USACE would advise the bank sponsor to proceed to the next step in establishing the bank, i.e., developing a draft Banking Instrument (BI).

The USACE Project Manager will facilitate the meeting and serve as the chairperson for the IRT. Within 10 days of the 1st meeting, the USACE Project Manager will provide all participants with meeting minutes. Meeting minutes will provide general details of the meeting and identify commitments made by the bank sponsor, IRT representatives, and the USACE Project Manager.

Although not a required procedural step in the bank establishment process, the bank sponsor can request that the IRT representatives provide preliminary written comments on the BP. If requested, IRT representatives would provide any preliminary comments they may have to the USACE, via e-mail, within 30 days of the date of the 1st meeting. Preliminary IRT representative comments will only be submitted to the USACE Project Manager, who then consolidates comments and forwards them to the bank sponsor. The bank sponsor acknowledges that the purpose of preliminary comments is to provide assistance in preparing the BI, and would not necessarily reflect the final opinion or position of the IRT representative concerning the proposed bank site.

During the 1st meeting, the USACE representative will schedule an inspection of the proposed bank site. The USACE Project Manager will attempt to schedule a site visit on a date, and at a time agreeable to all parties. However, only one site inspection will be scheduled for the IRT, unless the IRT determines that an additional inspection(s) is necessary.

D. Banking Instrument (BI): A draft BI for a proposed mitigation bank site must follow the outline attached at Appendix E, and must include all requested information, with no exceptions.

An issue of particular concern to the IRT in developing a BI is the measuring and reporting of adequate "baseline data," (i.e., historical and existing hydrologic and vegetative site conditions). Baseline data are essential for the IRT to assess the degree of functional impairment of the mitigation area and thus evaluate the banker's proposed degree of functional lift. At a minimum, baseline hydrologic data will be taken during one entire growing season, as defined by the NRCS soil survey for the bank area. This requirement applies to all wetland enhancement areas, restoration areas, and suitable reference sites. In order to be considered "suitable," the reference sites must represent a target level of functionality that allows for establishment of a quantified success criteria (i.e., lift) when compared to the proposed enhancement and/or restoration areas. This minimum length of time for collecting baseline data is required for all wetland mitigation banks unless the IRT determines that the potential for lifting hydrologic function can be documented in a shorter time frame. If the bank proponent believes that the shorter time frame is appropriate for the potential bank site, it will be his/her responsibility to provide definitive information which documents that collection of hydrologic data for less than one growing season is sufficient to quantify the potential for lift. If, based on the information provided by the bank proponent, the IRT determines that less than one full growing season sufficiently quantifies the lift potential, the IRT will specify the amount of time the proponent is required to collect data. Bank proponents are strongly encouraged to submit baseline data collection and monitoring plans to the IRT for review and/or comment prior to conducting these activities; this will ensure that the data collected is compatible with bank goals.

Modeling data may be proposed in-lieu-of collecting baseline data; however, definitive, measurable hydrological success criteria are required (e.g. increase the period of saturation from 30 days/year to 90 days/year to match the modeled conditions of a reference site). All sites must, at a minimum, meet the hydrologic criteria contained in the US Army Corps of Engineers 1987 Wetland Delineation Manual; however, meeting this minimum will not be considered as a success criteria.

For stream mitigation projects there is also a considerable level of baseline data regarding stream stability, water quality and biology, as outlined in the SOP. Once again, there needs to be data from both the subject stream reach and a reference reach. This applies to all stream reaches, even those for which the mitigation action is exclusively in the riparian buffer. It is incumbent on the banker to demonstrate that the proposed buffer activity will have measurable instream functional improvement(s). Riparian buffer preservation should complement other instream or riparian buffer restoration actions and should not be proposed on independent, disconnected stream reaches.

Overall, the IRT strongly encourages bank sponsors to coordinate plans for collecting baseline data early in the bank establishment process and prior to drafting a BI.

Proposed Mitigation Banks are subject to compliance with Section 106 of the National Historic Preservation Act and Section 7 of the Endangered Species Act. Please be aware that cultural resources and/or endangered species surveys may be necessary, as determined by the USACE, for proposed mitigation banks.

The service area of a proposed bank shall conform to the Mitigation Bank Service Area Maps, with no exceptions. The Mitigation Bank Service Area Maps are available on the Savannah District's web site, at www.sas.usace.army.mil/permit.htm. The service area maps distinguish between primary and secondary service areas for a bank. As further described in Section VI, the primary service area for a bank will be generally acceptable for any applicable impact. The secondary service area is restricted to use for projects authorized under a nationwide permit or for linear projects. Primary service areas have priority over secondary service areas. For example, for a project located in Bank A's primary service area and Bank B's secondary service area, Bank A will have priority over Bank B for the mitigation credit.

The most recent version of Savannah District's "Standard Operating Procedure, Compensatory Mitigation, Wetlands, Open Water & Streams (SOP)," shall be used to calculate bank credits, with no exceptions. The SOP is also available on the above web site. Bank sponsors for wetland mitigation banks are encouraged to use the Hydrogeomorphic (HGM) functional assessment methodology to assist in predicting functional lift and assigning appropriate hydrologic and vegetative net improvement factors to SOP worksheets. Based on functional assessment information, SOP worksheets, site inspections and other information, **the USACE** will determine the total number of SOP credits the bank can potentially generate.

The credit release schedule for a proposed bank shall conform to the schedule found at Appendix F, with no exceptions.

Individual site-specific banking instruments must specify that the bank sponsor is responsible for the long-term success, perpetual protection, and/or passive management for the bank, and for providing alternative compensation if the bank fails. To evaluate the long-term success of operational mitigation banks, annual monitoring and reporting will be required for the first seven years of bank operation. Thereafter, reporting will be continued at a regular interval, to be determined by the IRT. Monitoring may be discontinued after all credits have been withdrawn from the bank, provided a minimum of five years has elapsed since the bank was determined to be functioning successfully. Guidance is provided at Appendix G for development of appropriate success criteria, and at Appendix H for monitoring. All banks are required to continue to report on the status of the bank and credit sales as long as credits are available, even if this extends well beyond the monitoring period and final release of credits. The form found in Appendix I will be used by all mitigation banks for tracking credit generation and use.

The Bank Sponsor must own Mitigation Bank sites before final approval of the BI can occur. Mitigation banks must be perpetually protected by a Declaration of Covenants and Restrictions, whereby the owner of the property places permanent conservation restrictions on identified mitigation property. The restrictive covenant prohibits development and requires that the land be managed for its conservation values in perpetuity. The draft model and instructions for use with the Declaration of Covenants and Restrictions is located on the USACE, Savannah District, web site. The restrictive covenant is prepared by an attorney for the property owner in consultation with the environmental consultant. Property owners should make allowances for any foreseeable

circumstances (e.g., utility lines, power lines, road crossings, ditch maintenance, etc.) that may conflict with recording a restrictive covenant on the mitigation bank site. Once a mitigation bank site is protected by restrictive covenant, further adverse impacts to that property are prohibited.

E. Follow-up (2nd) IRT Meeting: As stated above, the bank sponsor must submit a copy of the draft BI to each IRT representative at least two weeks prior to the date of the 2nd IRT Meeting. Failure to provide this information in a timely manner will result in meeting cancellation.

The primary purpose of the 2nd IRT Meeting is to discuss substantive agency issues/topics of concerns regarding the draft BI. The USACE representative will facilitate this meeting by identifying specific issues/topics where IRT representative consensus exists, and issues/topics of concern.

The USACE will request formal written comments from the other IRT representatives. All outstanding issues/concerns that an IRT representative may have with the BI will be documented and provided in writing, via e-mail, to the USACE within 30 days of the date of the 2nd IRT Meeting. Any subsequent issues/concerns, not documented in writing by an IRT representative, will not be accepted by the USACE Project Manager after the end of the 30-day comment period. Should a IRT representative fail to provide written comments to the USACE Project Manager within this time frame, the USACE Project Manager will assume that the IRT representative and/or the represented resource agency does not have comments regarding the BI, as drafted. The USACE Project Manager will not grant an IRT representative an extension to the 30-day comment period, with no exceptions.

Within 10 days of the 2nd IRT meeting, the USACE Project Manager will provide all participants with meeting minutes. Meeting minutes will provide general details of the meeting and identify commitments made by the bank sponsor, IRT representatives, and the USACE Project Manager.

F. Public Notice: The USACE Project Manager will issue a Public Notice within 21 days of receiving a draft BI, or a site addendum. The purpose of the Public Notice is to notify adjoining and downstream property owners, the local County and/or City government(s), and other interested parties. The Public Notice will only contain the following information: vicinity map; location map depicting the property boundary of the mitigation bank site; and a general description of the proposed restoration, enhancement, and/or preservation activities proposed on the site. It is the responsibility of the Bank Sponsor to provide accurate names and mailing addresses for **all** adjacent landowners.

G. Final (3rd) IRT Meeting: The primary purpose of this meeting is to insure that all IRT comments have been acceptably addressed, and to reach consensus on the BI approval. The bank sponsor must submit a copy of the final draft BI to each IRT representative at least two weeks prior to the date of the 3rd IRT Meeting. This is to include a cover letter that summarizes how the IRT's comments were addressed. Failure to provide this information in a timely manner will result in meeting cancellation

V. OPERATION OF MITIGATION BANKS

Based on the information provided by the bank sponsor, information obtained from site inspections, criteria contained in the BI, and input from the other members of the IRT, the USACE shall:

- A. Determine when credits are to be released to the bank for use.
- B. Determine the number of credits to be released to the bank for use.
- C. Oversee operation of the bank.
- D. Evaluate and approve monitoring plans and reports.
- E. Evaluate and approve remediation plans and efforts, if required.
- F. Suspend the BI until any and all non-compliance issues are resolved.
- G. Determine when a bank has met all applicable success criteria, and approve the final release of credits. A final inspection of the bank site may be made by the IRT prior to the final release of credits.
- H. Evaluate and approve all proposed BI amendments (i.e. any/all changes, additions, deletions, property sales, etc.) if the amendment is determined to be in the best interest of the USACE Regulatory program.

VI. USE OF COMMERCIAL MITIGATION BANK CREDITS: Regulatory Guidance Letter (RGL) 02-02 (Appendix B) provides specific guidance with regard to the appropriate use of on-site mitigation (adjacent or contiguous to the discharge site) or off-site mitigation (in close proximity to the discharge site, in the same geographic area and, to the extent practicable, in the same “State of Georgia Hydrologic Map Cataloging Unit” {8-Digit HUC}). In most circumstances, the Savannah District considers commercially available mitigation bank credits to be off-site and out-of-kind mitigation. Furthermore, RGL 02-02 provides specific guidance with regard to the appropriate use of in-kind and out-of-kind mitigation. The following are circumstances in which the use of mitigation credits would be considered appropriate compensation:

- A. Use of mitigation bank credits is appropriate to compensate for aquatic impacts associated with projects that meet the criteria for authorization under the Nationwide Permit Program for projects in the primary and secondary service areas.
- B. Use of mitigation bank credits is appropriate to compensate for aquatic impacts associated with Individual Permit Applications for private, non-profit, non-commercial and/or non-

governmental projects that would impact less than 3 acres of non-tidal wetland and/or less than 500 linear feet of perennial/intermittent stream for projects in the primary service area.

C. Use of mitigation bank credits is appropriate to compensate for aquatic impacts associated with Individual Permit Applications for projects that only involve impacts to man-made lakes and/or jurisdictional borrow pits having limited aquatic function in the primary service area.

D. Use of mitigation bank credits is appropriate to compensate for aquatic impacts associated with linear projects, such as highways; installation, removal, and expansion of culverts; and installation of utility lines/pipelines that generally result in numerous minor impacts, but cumulatively could be considered more than minimal. The bank credits for each impact should come from the primary and secondary service areas bank that services the area of the impact.

E. For Individual Department of the Army permits, and under certain circumstances, the use of mitigation bank credits must include documentation of the various mitigation alternatives considered. This documentation must address and include the following minimum information:

1. On-Site Mitigation. A discussion of the availability, feasibility and/or practicability for providing on-site mitigation, and whether this mitigation could provide adequate functional replacement.

2. Off-Site Mitigation. The applicant must conduct a reasonable search for available, feasible and practicable off-site mitigation within the “State of Georgia Hydrologic Map Cataloging Unit (i.e., 8-Digit Hydrologic Unit Code {HUC}),” in which the discharge site is located. Verification of this search must include a map with the location of the discharge site, the off-site search area, each site evaluated and the mitigation bank proposed for use. For each site evaluated, provide the acreage, current land use(s), vegetative cover type(s), encroachments that transect the site (i.e., roads, easements, sewer mains, etc.) and the potential for the site to provide functional replacement. In addition, for a project with wetland impacts greater than 1.0 acre and/or stream impacts greater than 300 linear feet, the applicant must provide a discussion of why the number of sites evaluated adequately justifies that off-site mitigation is not a viable option.

3. Multiple Mitigation Banks. For a project located within the service area of two or more approved mitigation banks, the applicant should place priority on the use of the bank(s) that is located within the same watershed or primary service area as the project site, if applicable. A proposal to use either an out of watershed mitigation bank, or purchase credits in a secondary service area of a mitigation bank, must include the information necessary to verify that the proposal is based on advantageous environmental, aquatic resource, and/or functional replacement considerations, and not solely on economic concerns. Compensation at a mitigation bank for impacts at a site that is not within either the primary or secondary service area is not acceptable.

4. Proposed Mitigation Plan. A discussion of why the mitigation options contained in the proposed plan were selected over other available mitigation alternatives, and how the mitigation proposed in the plan would adequately offset aquatic functions that would be lost as a result of unavoidable project related impacts.

G. Use of mitigation bank credits is generally not appropriate to compensate for aquatic impacts associated with:

1. Projects where on-site compensatory mitigation is determined to be appropriate, practicable, economical, preferable, and the most environmentally beneficial means of replacing lost aquatic function(s).

2. Projects that adversely affect important aquatic habitats, streams, stream corridors utilized by Federally listed endangered or threatened species, Federal species of management concern, and State listed and rare species.

3. Projects that adversely affect a rare wetland and/or stream type and/or functionally unique wetland and/or stream (e.g., salt marsh, mountain bog, Carolina Bay, migratory and spawning areas for anadromous fish species, estuaries, trout streams, etc.).

4. Projects for which a valid alternatives analysis has not been performed.

5. Projects for which adverse impacts are so significant that, even if alternatives are not available, the discharge may not be permitted regardless of the compensation proposed.

VII. DISPUTE RESOLUTION: Decisions made by the IRT with respect to final approval of a BI, and subsequent modification of a BI, will be reached by consensus. The USACE will have the responsibility of making the final decisions regarding the terms and conditions of the BI where consensus cannot otherwise be reached in a reasonable timeframe. IRT members may raise bank use issues to the attention of the USACE through the permit evaluation process. IRT members may initiate review of a pattern of concern by the full IRT through written notification to the IRT Chair. The IRT Chair will convene a meeting within 20-days of receipt of the notification, to resolve the concerns. However, any such effort will not delay pending decisions before the USACE.

VIII. DEFINITIONS: For the purpose of this guidance, the following terms are defined:

Banking Instrument: Document drafted by the bank sponsor to describe, in detail, the physical and legal characteristics of the bank, and how the bank will be established and operated.

Bank Sponsor: Any public or private entity responsible for the successful establishment and, in most circumstances, operation of a mitigation bank. In most circumstances the Bank Sponsor will owner of the property where the bank is located.

Compensatory Mitigation: For purposes of Section 10/404, the restoration, enhancement, or in exceptional circumstances, preservation or creation of wetlands, streams, and/or aquatic resources expressly for the purpose of compensating for adverse impacts that remain after all appropriate and practicable avoidance and minimization have been achieved.

Consensus: A process by which a group synthesizes its position to form a general agreement acceptable to all members.

Conservation Easement: A legally binding, recorded instrument that conserves a mitigation bank site in perpetuity. In addition to the restrictive covenant requirement, additional credit may be obtained by the granting of a conservation easement by the owner of the property, to a qualified third party grantee. The grantee must be a holder as defined by the Georgia Uniform Conservation Easement Act, O.C.G.A. § 44-10-1 et seq. In addition, the conservation easement is required to have certain language and meet the standards set out in the guidance. The guidance on conservation easements accepted for credit is located on the Savannah District web site under the file titled, "Conservation Easements." The conservation easement is prepared by the attorney for the owner of the property in consultation with the grantee and reviewed by the USACE.

Credit: Using the most recent version of the Savannah District "Standard Operating Procedure, Compensatory Mitigation, Wetlands, Streams and Open Waters (SOP)," a unit measure representing the accrual or attainment of aquatic function at a mitigation bank. Also using the SOP, a unit measure representing the loss of aquatic functions due to a construction activity at an impact or project site.

Credit Schedule: The timing of mitigation in relation to adverse impacts to aquatic sites. Mitigation schedules are reviewed and approved by the Mitigation Banking Review Team.

Ecoregion: Physiographic province, such as Blue Ridge, Ridge and Valley, Piedmont, Coastal Plain, etc.

8-Digit HUC: State of Georgia Hydrologic Map Cataloging Unit

Ephemeral stream: A stream that has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral streambeds are located above the water table year-round. Rainfall is the primary source of water for stream flow.

Function: Any number of physical or biological processes performed by wetlands, streams, and/or stream corridors. Commonly recognized functions are food chain production, furnish fish and wildlife habitat (e.g., feeding and resting sites, migration routes, spawning grounds, shelter, etc.), shoreline protection, movement of sediment, storm and floodwater storage, groundwater recharge and discharge, and water quality maintenance.

In-Kind Compensatory Wetland Mitigation: The replacement of a specific wetland type with the same wetland type. Type is defined by the U.S. Fish and Wildlife Service's Cowardin et al. (1979) Wetland Classification System.

In-Kind Compensatory Stream Mitigation: The relocation, restoration, enhancement, or preservation of a stream of the same or general order and/or morphological classification. Stream order and morphological classifications are based on Rosgen (1994) A Classification of Natural Rivers.

Intermittent Stream: A stream that has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water.

Mitigation: The three step process outlined in the 404(b)(1) Guidelines: first, avoid adverse impacts associated with a proposed project through selection of less damaging practicable on-site or off-site alternatives; then minimize the impact of the selected alternative to the extent appropriate and practicable; and finally, compensate for remaining unavoidable impacts to the extent appropriate and practicable.

Mitigation Bank: A site where wetlands, streams, and/or other aquatic resources are restored, enhanced, or in exceptional circumstances, preserved or created expressly for the purpose of providing compensatory mitigation in advance of authorized impacts to similar resources.

Interagency Review Team (IRT) [Previously the **Mitigation Bank Review Team (MBRT)**]: The interagency group of Federal, State, tribal, and local regulatory and resource agency representatives that work to reach consensus on the establishment, use and operation of mitigation banks. For the purposes of this agreement, the IRT for any given mitigation bank will be comprised of at least one representative of the US Army Corps of Engineers, Savannah District, and representatives from one or more the following agencies: the US Environmental Protection Agency, Region IV; the US Fish and Wildlife Service, Southeast Region; the National Marine Fisheries Service, Southeast Region; and the Georgia Department of Natural Resources

Morphologic Alteration: The act of channelizing, dredging, or otherwise altering the established or natural dimensions, depths, or limits of a stream corridor.

Off-Site Compensatory Wetland Mitigation: A mitigation site not located adjacent or contiguous to the discharge site.

Off-Site Compensatory Stream Mitigation: Mitigation site further than ½ mile from the discharge site and within the same 8-digit HUC.

On-site Compensatory Wetland Mitigation: For purposes of searching for on-site mitigation, a location adjacent or contiguous to the discharge site.

On-site Compensatory Stream Mitigation: Onsite means within ½ mile up or downstream of the discharge site and within the same 8-digit HUC.

Open water: An area during a year with normal patterns of precipitation that has standing or flowing water for sufficient duration to establish an ordinary high water mark.

Operation: The actual conduct of credit withdrawal transactions in a functioning wetland and stream mitigation bank in order to compensate for unavoidable wetland losses. Operation also includes activities such as monitoring, remediation, etc.

Out-of-Kind Compensatory Wetland Mitigation: Replacement of a specific wetland type with a wetland of another type.

Out-of-Kind Compensatory Wetland Mitigation: Replacement of lost functions of a stream with a stream of different morphological classification or order (>2 stream order difference).

Perennial stream: A stream that has flowing water year-round during a typical year. The water table is located above the streambed for most of the year. Groundwater is the primary source of water for stream flow.

Practicable: Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

Restrictive Covenant: A legally binding, recorded instrument that conserves a mitigation bank site in perpetuity. In the event that the property changes ownership, the Restrictive Covenant will be contractually included in the sale.

Riparian Restoration, Preservation, and Habitat Improvement: Riparian restoration, preservation, or habitat improvement, will not be allowed on Fully Impaired streams.

- **Riparian restoration** is the reestablishment of well-established stands of deep-rooted native vegetation (trees, shrubs, and herbaceous species) in areas adjacent to riverine systems.
- **Riparian preservation** is the conservation of already well-vegetated buffers adjacent to riverine systems. Riparian buffer preservation may account for no more than 50% of the credits generated by a mitigation bank or required to mitigate for a single and complete project.
- **Riparian habitat improvement** is implementation of activities to improve the biological function of an existing buffer. Riparian habitat improvement may include planting of understory species, planting of desirable canopy trees, and/or timber stand improvement. Riparian habitat improvement is applicable only in buffers that already support well-established stands of deep-rooted native vegetation.

Service Area: Based on hydrologic, edaphic, and biotic criteria, the designated area (e.g. watershed) wherein a bank can reasonably be expected to provide appropriate compensation for impacts to wetlands, streams, stream corridors, and/or aquatic resources.

SOP: The Standard Operating Procedure for Calculating Compensatory Mitigation Requirements for Adverse Impacts to Wetlands, Open Waters and/or Streams; developed as a tool for administration of wetland and stream mitigation sites in current use by the Savannah District of the Army Corps of Engineers. For the purposes of mitigation banking in Georgia, use of the SOP is required.

Streambank Repair: The stabilization of localized lateral streambank erosion using bioengineering techniques such as fascines, branch packing, brush mattresses, live cribwalls, tree revetments, or coir fiber logs, supplemented with use of erosion control matting and live staking for long term stability. Streambank stabilization alone does not constitute Priority 4 Stream Channel Restoration.

Stream Channel Restoration: Actions to convert an incised, unstable stream channel to a natural stable condition, considering recent and future watershed conditions. Stream channel restoration will be appropriate for streams described under Existing Conditions as Fully Impaired, and with Corps' discretion, on streams described under Existing Conditions as Somewhat Impaired. Restoration or relocation of a stream that is considered Fully Functional will not be considered for mitigation credit.

Stream Relocation: To move an existing stream channel and reconstruct it, in a new location to allow an authorized project to be constructed in the stream's former location. Only Priority 1 restoration is acceptable for stream relocation projects. Restoration or relocation of a stream that is considered Fully Functional will not be considered for mitigation credit. Note: Fill of the original channel for a stream relocation is considered an impact.

- **Priority 1 Restoration/Relocation** involves excavation of a stable Rosgen Class C or E stream channel, on previous floodplain, to replace an entrenched Rosgen Class G or F stream channel.
- **Priority 2 Restoration** involves establishment of a stable Rosgen Class C or E stream channel and floodplain, at the current or higher (but not original) channel elevation, to replace an entrenched Rosgen Class G or F stream channel.
- **Priority 3 Restoration** involves converting to a new stream type without an active floodplain but containing a floodprone area (example, Rosgen Class G to B stream, or Rosgen Class F to Bc).
- **Priority 4 Restoration** involves stabilization of an incised stream channel in place using instream structures and bioengineering. Typical instream structures for bank stability

include crossvanes, J-hook vanes, other rock vanes, single and double wing deflectors, and root wads that divert the thalweg from the streambank and/or absorb water energy. Bioengineering techniques include fascines, branch packing, brush mattresses, live cribwalls, tree revetments, or coir fiber logs, supplemented with use of erosion control matting and live staking for long term stability.

Success Criteria: The measurable standards required to establish the jurisdictional status and ecological self-sustainability of the site to meet the objectives for which mitigation was established. Standards may include hydrologic, soil, and vegetative characteristics.

Umbrella Banking Instrument (UBI): Bankers may establish a UBI that outlines aspects of a mitigation bank encompassing multiple sites that will consistent for all sites. Each site is then added to the UBI as an addendum, which reference the standard conditions of the UBI, and focuses on the individual site mitigation plan. Establishment of a UBI is recommended for banks with multiple sites that may be added over time as a way to expedite approval of each site. However, multiple landowners may not participate under the same UBI. The UBI Sponsor will be required to own the sites operated under the UBI.

Watershed: The drainage area for a river/stream system.

Wetlands: Those areas inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. For the purposes of this guidance, the U. S. Army Corps of Engineers 1987 “Jurisdictional Wetland Delineation Manual,” will be used to identify and/or delineate wetlands.

Wetland Enhancement is the manipulation of the physical, chemical, or biological characteristics of a wetland (undisturbed or degraded) site to heighten, intensify, or improve specific function(s) or to change the growth stage or composition of the vegetation present. Enhancement is undertaken for specified purposes such as water quality improvement, flood water retention, or wildlife habitat. Enhancement results in a change in wetland function(s) and can lead to a decline in other wetland functions, but does not result in a gain in wetland acres. This term includes activities commonly associated with enhancement, management, manipulation, and directed alteration. Proposed enhancement mitigation plans must include an explanation of what values or functions are being enhanced and to what degree, and a narrative description of how the enhancement will be accomplished. The plan must also include a narrative description of how a functional assessment methodology (i.e., reference site, HGM, WRAP, etc.) would be used to document that identified values and/or functions are enhanced to the degree proposed.

Wetland Establishment (Creation) is the manipulation of the physical, chemical, or biological characteristics present to develop a wetland on an upland or deepwater site, where a wetland did not previously exist. Establishment results in a gain in wetland acres. In designing creation mitigation, the selection of high quality upland habitat for conversion will generally not be acceptable. For example, a cutover area or former agricultural field would be ecologically preferable to a mature forested area as a candidate for alteration. Mature forested areas will generally not be approved as suitable creation areas. Proposals for establishment mitigation must include an explanation of what values or functions are to be established and to what degree, and a narrative description of how the establishment will be accomplished. The plan must also include a narrative description of how a functional assessment methodology (i.e., reference site, HGM, WRAP, etc.) would be used to document that identified values and/or functions are established to the degree proposed.

Wetland Preservation is the permanent perpetual protection of existing wetlands, or other open water aquatic resources may be an acceptable form of mitigation when these areas are preserved in conjunction with establishment (creation), restoration, and enhancement activities. Preserved resources should augment the functions of newly established, restored, or enhanced aquatic resources. In **exceptional circumstances (as determined by the USACE)**, the preservation of existing wetlands or other aquatic resources may be authorized as the sole basis for generating credits as mitigation projects. Natural wetlands provide numerous ecological benefits that restored wetlands cannot provide immediately and may provide more practicable long-term ecological benefits. If preservation alone is proposed as mitigation, it must be demonstrated that the wetlands or other aquatic resources perform important physical, chemical or biological functions, the protection and maintenance of which is important to the region where those aquatic resources are located; and are under demonstrable threat of loss or substantial degradation from human activities that might not otherwise be avoided. The existence of a demonstrable threat will be based on clear evidence of destructive land use changes that are consistent with local and regional (i.e., watershed) land use trends, and that are not the consequence of actions under the control of the party proposing the preservation.

Wetland Restoration is the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural or historic functions to a former or degraded wetland. There are two categories of restoration as follows: (a) Re-establishment, which results in rebuilding a former wetland and results in a gain in wetland acres and (b) Rehabilitation, which results in a gain in wetland function but does not result in a gain in wetland acres. Proposals for restoration mitigation must include an explanation of what values or functions are being restored and to what degree, and a narrative description of how the restoration will be accomplished. The plan must also include a narrative description of how a functional assessment methodology (i.e., reference site, HGM, WRAP, etc.) would be used to document that identified values and/or functions are restored to the degree proposed.

Point of Contact. Copies of this document are available at Savannah District's Regulatory Office or at www.sas.usace.army.mil/permit.htm. Questions regarding use of this policy for specific projects must be addressed to the Project Manager handling the action. Other inquiries or comments regarding this document should be addressed to:

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