2018 Compensatory Mitigation Standard Operating Procedure (SOP) - Public Comments - July 28, 2018 Public Notice				
Comment #:	Commenter:	Subject:	Comment Description:	Corps Response:
1	AA Shaw	No Net Loss	The commenter believes, as the 2018 SOP fails to maintain the 1.8:1 wetland compensation ratio established by the 2004 SOP, that the 2004 wetland SOP does not require modification.	The goal of the 2018 SOP is not to maintain the 1.8:1 areal wetland compensation ratio that was established by the 2004 SOP. Rather, the 2018 SOP is intended to provide functional replacement for impacts to aquatic resources proportional to the functional loss, which in some cases may be lower than the 1.8:1 areal ratio.
2	AA Shaw	No Net Loss	The commenter is of the opinion that the 2004 SOP appropriately addresses the goal of "no net loss" of wetlands both areal and functionally. It is their opinion that the 2004 SOP existing condition, lost kind, and rarity factors all "formulate" to the function of the impacted wetland. Further, the commenter does not believe that the impact calculations should change, as the 2004 SOP is currently resulting in nearly twice the areal compensation of impacted wetlands.	The "no net loss" goal of the Clean Water Act is to provide proportional replacement for unavoidable losses of aquatic resource function. As a result, the goal of the 2018 SOP is to better assess the relative existing and proposed aquatic resource functions, in order to compensate proportionally for the functional loss.
3	AA Shaw	Supply and Demand	The commenter is of the opinion that the 2018 SOP will dramatically decrease the number of wetland credits sold, particularly in South Georgia. The biggest concern is associated with the proposed use of Hydrogeomorphic Approach (HGM) to establish the existing functional capacity from proposed wetland impacts. Three examples were presented characterizing the disparity between the wetland credit requirements, for hypothetical cases, when applying the proposed 2018 versus 2004 SOP. Using HGM to establish the functional capacity index (FCI) for wetland impacts, the commenter suggested that the difference between the 2018 to 2004 compensation ratio for impacts ranged from 0.31:1 to 0.62:1. No worksheets were provided to support these reported credit ratios. The commenter believes that the proposed change in the compensation ratio will result in financial harm to existing bankers.	The 2018 SOP is intended to provide in-kind functional replacement for impacts to aquatic resources proportional to the functional loss. In an effort to address concerns regarding the use of HGM for the assessment of proposed impacts, the current proposal is that most projects would utilize the Qualitative Assessment Worksheets to determine existing the function of aquatic resources. These assessments provide a qualitative score that is then converted into a functional category score. Quantitative Functional Assessments of proposed impacts would be reserved for use at the discretion of the District Engineer.
4	AA Shaw	Grandfathering	The commenter is of the opinion that the 2004 wetland equation should be left unchanged, and solely modifying the 2004 SOP for streams in the most logical way to move forward.	The Corps believes that modifying the 2004 SOP would not achieve the primary goal of the 2018 SOP, which is to provide functional replacement for impacts to aquatic resources proportional to the functional loss.
5	AA Shaw	Grandfathering	The commenter does not believe that the currently proposed wetland conversion factor is large enough for low and moderate functioning wetlands. The commenter suggests a multiplier of 13 to 25 would render the compensation ratio of the 2018 SOP comparable to the 2004 SOP.	In the revised 2018 SOP, the Corps has proposed use of the Wetland Qualitative Assessment to establish existing functional scores for aquatic resource impacts authorized by both General and Standard Permits. The Corps is of the opinion that this revision will provide adequate compensation for most wetland impacts.
6	The Nature Conservancy	Watershed Approach	The commenter is of the opinion that the 2018 SOP fails to indicate what analyses, plans, or other information mitigation Sponsors should consult to determine the needs of each watershed. The commenter recommends that the Savannah District develop watershed plans as the basis for implementing the watershed approach, in accordance with the methodology outlined within the Environmental Law Institute's 2014 Watershed Approach Handbook.	In an effort to address concerns regarding the use of the proposed Watershed Assessment Tool, the Corps intends to develop a more robust watershed assessment methodology based upon existing databases of watershed characteristics. At this time, the Inter-agency Review Team (IRT) will continue to assess the watershed analysis for each mitigation proposal on a case by case basis.
7	Enfoque Consulting	Supply and Demand	The commenter is of the opinion that the 2018 SOP changes the supply and demand balance of wetland credits.	The goal of the 2018 SOP is to assess the existing and proposed aquatic resource functions, in order to compensate for the functional loss proportionally to the loss. The Corps is aware that the transition into the application of the 2018 SOP may have an effect on the commercial mitigation market.
8	Enfoque Consulting	Supply and Demand	The commenter believes that the 2018 SOP creates more credit supply in the market and less incentive for new banks.	The Corps is cognizant that impacts to lower functioning wetlands will require less compensation under the 2018 SOP, but will not create any additional credit supply. The proposed new credit types may provide greater incentives for the development of mitigation proposals, particularly in watersheds where a specific wetland or stream credit type is in demand.
9	Enfoque Consulting	Credit Types	The commenter is of the opinion that the 2018 SOP will create confusion for credit buyers by concurrently introducing new credit types in conjunction with existing grandfathered bank credits.	The adverse impact worksheets provide specific fields for both new and grandfathered credit types in order to clarify required credits.
10	Corblu	Error in text	The commenter states, the SOP manual indicates the acres or linear feet (of wetlands or streams) should be multiplied by the grandfathered ratio, while the worksheets place the multiplier on the 2018 credit numbers, which are functionally based. It is assumed that the worksheet is the intended methodology, therefore, the relevant text within the SOP manual should be updated.	The SOP guidance document has been revised to correspond with the grandfathering calculations in the s Adverse Impact Worksheets.
11	Corblu	Credit Generation	A conceptual wetland mitigation project (28 acres of wetland restoration, 65 acres of wetland preservation) was presented to illustrate a comparison of wetland credit generation under the 2004 and 2018 SOPs. The commenter's analysis of credit generation for the conceptual wetland mitigation project resulted in the difference between credit generation under the 2004 SOP and the Draft 2018 SOP at a ratio of 14:1, as compared to the 8:1 grandfathering ratio proposed in the 2018 SOP manual.	The Corps acknowledges that the existing credit supply in certain service areas may not support new mitigation proposals under the 2018 SOP until the current supply of credits has been absorbed. In addition, the Corps has determined that preservation of high functioning resources should be valued at 20 percent of the existing function, which would increase the credit generation scenarios under the 2018 SOP.
12	Corblu	Supply and Demand	The commenter provided an analysis comparing wetland credit absorption under the 2004 and 2018 SOPs. Wetland mitigation banks developed under the 2018 SOP would be able to service a smaller number of Nationwide Permits than under the 2004 SOP (ratio of 1:191). The commenter is of the opinion that this modification would likely affect credit pricing and availability of credits. The commenter also recommended increasing the wetland conversion factor for grandfathered banks.	Under the example presented, the Corps interprets the calculations regarding wetland credit absorption ratio of the 2018 SOP versus the 2004 SOP to be closer to 1:1.30. With preservation valued at 20 percent of the existing function, the wetland credit absorption ratio of the 2018 SOP to the 2004 SOP would in turn be 1.02:1
13	Corblu	Credit Calculations	A conceptual stream mitigation project (3,000 linear feet of Priority 1 stream restoration, with 200 foot riparian buffers) was presented to illustrate a comparison of stream credit generation under the 2004 and 2018 SOPs. The commenter's analysis of the conceptual stream mitigation project resulted in a difference between credit generation under the 2004 SOP and the 2018 SOPs a ratio of 60:1, as compared to the 12:1 grandfathering ratio proposed in the SOP manual. The commenter believes that the primary factors for the discrepancy in the ratios is as a result of the watershed assessment and the inability to achieve a high change in the stream functional condition score under the Stream Quantification Tool (SQT).	The Corps has removed the watershed assessment tool from the calculations of mitigation credits in the revised 2018 SOP. Further, the Corps has developed the Interim Georgia Stream Quantification Tool for the evaluation of stream mitigation proposals, which provides more opportunity for the generation of functional lift by focusing solely on those functions that can reasonably be improved within the active monitoring period.
14	Corblu	Supply and Demand	The commenter provided an analysis comparing stream credit absorption under the 2004 and 2018 SOPs. Under the commenter's analysis, stream mitigation projects developed under the 2018 SOP would be able to service a smaller number of Nationwide Permits than under the 2004 SOP (ratio of 1:4.06). The commenter is of the opinion that this modification would likely affect credit pricing and availability of credits. The commenter also recommended increasing the stream conversion factor for grandfathered banks, and also the capacity for credit generation.	The Corps acknowledges that the grandfathering conversion factor within the 2018 SOP would increase the credits required for comparable impacts to stream resources. As proposed, this increase is intended to provide functional replacement for stream impacts not currently provided under the 2004 SOP.
15	Corblu	Credit Calculations	The commenter is of the opinion that the 2018 SOP does not incorporate the benefits of permanent protections into credit generation. Credit generation is only associated with the demonstrated improvement of functions over a relatively short time. The commenter believes that this may cause many viable mitigation projects to become less feasible, as credit generation capacity is reduced while the costs to develop the project remain the same.	While real property protections are an important component of a mitigation proposal, the Corps is currently only supportive of a proposal for credit generation in conjunction with permanent protections of preservation mitigation.
16	Corblu	Quantitative Assessments	The commenter believes that many sites in Georgia have a diversity of wetland types, including emergent wetlands and beaver-influenced wetland. As a result, use of the Southeastern Coastal Plain Alluvial Valleys Wetland HGM to assess the credit generation of those wetland types may hinder the ability of a mitigation Sponsor to develop a project.	In response to this concern, the Corps has developed an Interim HGM Tool for the evaluation of wetland mitigation proposals, which provides more opportunity for the generation of functional improvement as a result of the focus on those functions that can be improved within the active monitoring period.
17	Corblu	Watershed Approach	The commenter is of the opinion that use of the watershed assessment tool to reduce credit generation may greatly limit the capacity of mitigation Sponsors to establish mitigation projects in the Savannah District.	In an effort to address concerns regarding the use of the proposed Watershed Assessment Tool, the Corps intends to develop a more robust watershed assessment methodology based upon existing databases of watershed characteristics. At this time, the IRT will continue to assess the watershed analysis of each mitigation proposal on a case by case basis.

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18	Corblu	Quantitative Assessments	The commenter believes that the North Carolina SQT was not designed for streams in the Savannah District. The SQT contains the following list of variables that are of concern: all biological variables (as they are based upon North Carolina sampling methodologies); width to depth ratio/aggradation ratio; and percent riffle. The SQT also provides full functional credit for buffers of 200 feet in width, while the Savannah District's Stream Mitigation Calculator reduces credit generation for buffers less than 250 feet in width. The SQT is also difficult to use for dam removal projects, and the 2018 SOP does not provide a methodology for demonstrating functional improvement in such cases. Finally, the commenter believes that the Savannah District should specify the number of variables, within the initial SQT analysis, that a mitigation Sponsor must include when the completing existing condition assessment.	In response to similar concerns, the Corps has developed the Interim Georgia SQT for the evaluation of stream mitigation proposals, which provides more opportunity for the generation of functional improvement as a result of the focus on those functions that can be improved within the active monitoring period. In development of this interim SQT, the Corps has identified specific variables that must be assessed for all mitigation proposals.	
19	Corblu	Credit Types	The commenter states that it does not appear that the 2018 SOP addresses impacts to open waters. The commenter requests that the Savannah District provide additional guidance concerning the calculation of mitigation requirements to open waters within the 2018 SOP.	The Corps intends to address the compensation for impacts to open waters on a case by case basis. Mitigation for impacts to open water habitats would only be required if the Corps Project Manager were to determine that there was a functional loss requiring compensation.	
20	Corblu	Credit Generation	The commenter suggests that a minimal credit unit be established within the 2018 SOP.	The Corps has clarified the minimal credit unit for both wetlands and streams within the revised 2018 SOP.	
21	Corblu	Qualitative Assessments	The commenter observes that the text of the 2018 SOP manual indicates that the categorical scores of the Wetland and Stream Qualitative Assessments are assigned corresponding functional score ranges of 1.00-0.76 for "high", 0.75-0.26 for "moderate", and "0.25-0.00" for low, while in Appendices 12.4 and 12.5, these values are identified as three discrete functional scores of 1.00, 0.75, and 0.50, respectively. The commenter requests the Savannah District provide additional information regarding the wetland and stream qualitative assessment methodology to better elucidate either the method for deriving the functional score or consider using the numerical value calculated directly from Appendices 12.9 and 12.10.	The SOP guidance document has been revised to correspond with the functional category scores within the Adverse Impact Worksheets.	
22	Corblu	Qualitative Assessments	The commenter observes that the Stream Qualitative Assessment utilizes catchment land use in the multiple functional categories, thereby heavily weighting this factor for determining the existing functional score of a stream resource. The commenter suggests that the under the chemistry function, other variables could be included, such as location within a 303(d)/305(b) listed reach.	The commenter is correct that the assessment of catchment land use is heavily weighted in the Stream Qualitative Assessment, as that factor is strongly correlated with stream resource functions.	
23	GERA	2004 SOP	The commenter suggests that the Corps issue an addendum to the 2004 SOP that would address known shortfalls in compensatory stream mitigation (e.g., University of Georgia "No Net Loss" Study). The commenter is of the opinion that the addendum should address the following issues: 1) Because the 2004 SOP has resulted in a 0.36:1 areal compensation ratio, an increased purchase factor of 2.78 should be applied to all future stream credit purchase under the 2004 SOP to achieve a 1:1 areal compensation ratio; 2) Impacts to ephemeral streams should be mitigated through stream credits, but at a reduced factor (e.g., maximum of 60% assessed function) when utilizing 2004 SOP stream credits, since ephemeral channels only provide functions described in the first three levels (out of five) of the Stream Functions Pyramid Framework.	The goal of the 2018 SOP is to provide functional replacement of impacts to aquatic resources, which we determined the 2004 SOP was unable to objectively achieve. In order to address the difference of flow regime, the Corps has prorated the total stream credits owed for intermittent and ephemeral streams to 60 percent of the total calculated assessment score. The resulting score is then applied to the calculation of grandfathered stream credits owed (i.e., 2004 stream credits). This approach is based on the assumption that ephemeral and intermittent streams are unable to consistently support physio-chemical and biological functions.	
24	GERA	Qualitative Assessments	The commenter indicates that their goal would be to support the issuance of a "Qualitative SOP" utilizing improved qualitative assessments for General Permits, and an expanded qualitative assessment for Standard Permits and mitigation projects. The commenter is of the opinion that the improved "Qualitative SOP" should only be issued once existing data gaps within the current 2018 SOP qualitative assessments have been fully addressed.	As part of the revised 2018 SOP, the Corps has developed interim HGM and SQT mitigation tools to address the commenter's perceived data gaps.	
25	GERA	Applicability	The commenter believes that all pending banks, for which the public notice has been advertised prior to the date of the issuance of the public notice for the revised 2018 SOP, should be reviewed under the 2004 SOP.	The Corps has incorporated this comment into the revised 2018 SOP.	
26	GERA	No Net Loss	The commenter recommends that the following be incorporated into Section 1.2 "Goals" of the 2018 SOP Manual:ensure a 'No Net Loss' of aquatic resource functions and services by achieving a minimum of x:x areal to impact ratio. The commenter suggests that the values for "X:X" should be "2:1" for both stream and wetlands in Georgia.	The "no net loss" goal of the Clean Water Act is to provide proportional replacement for unavoidable losses of aquatic resource function. As a result, the goal of the 2018 SOP is to better assess the relative existing and proposed aquatic resource functions, in order to compensate proportionally for the functional loss.	
27	GERA	No Net Loss	The commenter suggests that Section 1.3 "Background" reiterate that the previous version of the SOP in Georgia did not clearly specify areal compensation ratio goals.	In Section 2.1 of the revised 2018 SOP, the Corps has clarified that the 2004 SOP did not specify areal compensation ratios.	
28	GERA	Applicability	The commenter requested that Section 1.4 "Applicability" be updated to address the applicability of the SOP with respect to compliance and enforcement actions undertaken by the Corps and/or USEPA.	In Section 3.3, the Corps has clarified that the revised 2018 SOP is applicable for use in compliance and enforcement actions by the Corps, and at the discretion of USEPA for compliance and enforcement actions in which they are the federal lead agency.	
29	GERA	Other Guidance	The commenter requests that Section 1.5 "Regulation & Other Guidance" should be updated to address the 2011 Bank Credit Purchase Guidelines, unless that guidance is being rescinded as a part of the 2018 SOP Issuance.	In Section 4.2. (Savannah District's Bank Credit Purchase Guidance) of the revised 2018 SOP, the Corps has addressed the applicability of the Bank Credit Purchase Guidance.	
30	GERA	Credit Types	The commenter requested more guidance on aquatic resource types that may be considered under the 2018 SOP.	In Section 5.2.and 5.3. of the revised 2018 SOP, the Corps has provided more guidance on wetland and stream credit types.	
31	GERA	Credit Types	The commenter requests more guidance on determining stream where no "blue line" streams may exist.	The Corps is no longer utilizing stream order as a means of stratification for stream credit types within the revised 2018 SOP.	
32	GERA	Out-of-kind Credits	The commenter requests more guidance on which type of stream or wetland credit would be preferred if either no grandfathered credits or in kind 2018 credits are available, and whether or not a multiplier factor would be applied for out-of-kind credit purchases.	In Section 5.5. (Out-Of-Kind Replacement) of the revised 2018 SOP, the Corps has provided additional guidance regarding out-of-kind credits purchases.	
33	GERA	Credit Types	The commenter requests more guidance on whether the Mitigation Liaison would need to be involved in the case-by-case functional loss determinations of open waters, ditches, and/or canals.	Case-by-case determinations on open waters, ditches and canals will not require input from the Mitigation Liaison.	
34	GERA	No Net Loss	The commenter is of the strong opinion that the 2004 SOP conversion factors should result in either: a) a minimum 1:1 areal compensation ratio or, b) the same areal compensation ratio typically afforded to banks on a sale-by-sale basis under the 2004 SOP - whichever is greater.	The "no net loss" goal of the Clean Water Act is to provide proportional replacement for unavoidable losses of aquatic resource function. As a result, the goal of the 2018 SOP is to better assess the relative existing and proposed aquatic resource functions, in order to compensate proportionally for the functional loss.	
35	GERA	Credit Calculations	The commenter recommends the following grandfathered conversion factors for each resource type: 4.8x for Zero and 1st Order Ephemeral Streams; 8x for all other stream types; 7.5x for all wetland types with low Wetland Functional Capacity (WFC) index scores; 6.25x all wetlands with moderate WFC index scores; and 5x for all wetlands with high WFC index scores. The commenter qualifies that the recommended conversion factors provided are based and contingent upon adjusting the impact scale from 1.00 to 1.60.	The proposed conversion factor appears to be intended to achieve a greater than 1:1 areal compensation ratio, which is not the goal of the 2018 SOP.	
36	GERA	Grandfathering	The commenter requests more guidance on the applicability of grandfathered credits with respect to freshwater tidal and saltwater tidal wetland impacts.	In Section 5.6. and 5.6.1. in the revised 2018 SOP, the Corps has provided additional guidance regarding the applicability of grandfathered credits in conjunction with tidal resource impacts.	
37	GERA	Credit Calculations	The commenter recommends removing the concept of "Timing of Mitigation Completion" from the Adverse Impact Worksheets.	The Corps has incorporated this comment into the revised 2018 SOP.	
38	GERA	Qualitative Assessments	The commenter generally supports the use of the Qualitative Assessments as proposed, but is of the opinion that there could be improvements made through continued collaboration.	The Corps intends to continue to improve the qualitative assessments over time, through subsequent comments from stakeholders following implementation of the revised 2018 SOP.	
39	GERA	Credit Calculations	The commenter is of the opinion that the Impact Scale factor used in the Adverse Impact Worksheets should be increased from 1.00 to 1.60 in order to achieve an areal compensation ratio of 2:1 (for 2018 SOP mitigation projects) and to account for factors such as temporal loss, use of preservation, uncertainty, distance of impacts sites from mitigation sites, and risk.	The proposed conversion factor appears to be intended to achieve a greater than 1:1 areal compensation ratio, which is not the goal of the 2018 SOP.	
40	GERA	Quantitative Assessments	The commenter suggests that the Corps not move ahead with the quantitative assessments until additional coordination and calibration of the HGM and SQT tools can occur.	The Quantitative Assessments have been modified within the revised 2018 SOP, and are only proposed for the assessment of mitigation credit generation.	

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41	GERA	Quantitative Assessments	Should the Corps postpone the implementation of the SQT until additional data can be collected, the commenter suggests developing expanded qualitative assessment forms to be used for Standard Permits and mitigation projects.	The Quantitative Assessments have been modified within the revised 2018 SOP, and are only proposed for mitigation credit generation assessment.	
42	GERA	Quantitative Assessments	The commenter is of the opinion that the SQT may not be appropriate for all types of stream restoration (e.g. "valley restoration" methods,	The Corps believes that the SQT provides flexibility to appropriately assess all proposed restoration actions.	
			coastal headwater streams, etc.), and the applicability of this assessment tool to these types of restoration methods and/or resource types should be addressed.	The assessment of non-traditional mitigation measures may require IRT consultation to develop appropriate metrics for credit generation, which can then be incorporated into the SQT framework.	
43	GERA	Credit Calculations	The commenter suggests incorporating the following compensation ratio calculations into the Adverse Impact Worksheets: 1) Areal Compensation Ratio: 2018 Credits; 2) Areal Compensation Ratio: Grandfathered Credits. The commenter also requests that guidance be updated to reflect that area (compensation calculates that area (compensation) and an annual compensation of the second secon	The comment appears to be suggested in support areal compensation ratios, which is not the goal of the 2018 SOP.	
44	GERA	Watershed Approach	The commenter suggests moving the watershed factor for impacts from the Qualitative Assessment Worksheets to the Stream and Wetland	In an effort to address concerns regarding the use of the proposed Watershed Assessment Tool, the Corps	
			Adverse Impact sheets in order to be more consistent with the approach used on the mitigation worksheets.	intends to develop a more robust watershed assessment methodology based upon existing databases of watershed characteristics. At this time, the IRT will continue to assess the watershed analysis of each mitgation proposal on a case by case basis.	
45	GERA	Credit Calculations	The commenter is concerned that the minimum 50 feet buffer requirement may not be in compliance with the requirements of the 2008 Final Rule, which states, "If buffers are required by the District Engineer as part of the compensatory mitigation project, compensatory mitigation credit will be provided for those buffers." In its current form, the commenter is concerned that no credit is being provided for the first 50 feet of buffer for streams, since it is regarded as a "minimum" buffer requirement necessary to generate any stream credit.	The riparian buffer credit calculation has been changed and now provides stream credit for the first 50 feet of riparian buffers for stream mitigation projects.	
46	GERA	Watershed Approach	The commenter recommends that "IRT override flexibility" be incorporated into the guidance for the Watershed Approach factor, in order to allow for the inclusion of additional considerations to be proposed by mitigation bank Sponsors.	In an effort to address concerns regarding the use of the proposed Watershed Assessment Tool, the Corps intends to develop a more robust watershed assessment methodology based upon existing databases of watershed characteristics. At this time, the IRT will continue to assess the watershed analysis of each mitigation proposal on a case by case basis.	
47	GERA	Credit Calculations	The commenter recommends that "IRT override flexibility" be built into the proposed guidance for the riparian buffer calculation factors, to allow for practicability considerations.	Riparian and upland buffer credit calculations have been modified within the revised 2018 SOP.	
48	GERA	Credit Calculations	The commenter recommends the removal of the reduced factors from preservation mitigation credit generation.	The Corps has determined that preservation of high functioning resources should be valued at 20 percent of the existing function under the revised 2018 SOP.	
49	GERA	Documentation	The commenter suggests adding language clarifying that the Corps can request additional documentation and/or site inspections on a case-by case basis.	In Section 9.0. (Required Documentation) of the revised 2018 SOP, the Corps has maintained the discretion to require additional documentation and/or site investigations on a case-by-case basis.	
50	Eco-Capital Advisors, LLC	Credit Types	The commenter expresses concern regarding the use Coastal Plain Alluvial Valleys HGM, which may not provide applicable results when applied to wetlands occurring outside the Coastal Plain alluvial valley reference domain.	In response to this concern, the Corps has developed an Interim HGM Tool for the evaluation of wetland mitigation proposals, which provides for regional differences within wetlands across the State.	
51	Eco-Capital Advisors, LLC	Credit Calculations	The commenter requests clarification on how the Wetland Functional Capacity Potential Index is calculated when HGM provides separate functional capacity indices for each of four wetland functions.	The Corps has addressed this issue within the Interim HGM Tool of the Revised 2018 SOP.	
52	Eco-Capital Advisors, LLC	Restoration Objectives	The commenter requests additional guidance regarding the achievable target condition that should be used to calculate the increase in Wethard Europianal Capacity Reporting they beging conditions. The commenter clarifies " If a wethard at baceling consists of an	The target condition of a mitigation resource is based on the approved goals of the mitigation project. If the	
			arcultural field, would the target condition be a seven-year old scrub-shrub wetland (wetland type that typically exists after the seven-year monitoring period) or a mature forested wetland?"	points of exore a basis and or second and the project's relation would be the integration target. Potential credit generation corresponds to the project's relations would be the integration target. performance documented during the monitoring period.	
53	Eco-Capital Advisors, LLC	Restoration Objectives	The commenter inquires whether early successional wetlands should be used as reference to assess hydrologic (surface and groundwater) performance standards, if an early successional wetland is the restoration target.	Reference ecosystems should be directly related to project goals. If the project goal is to restore an early successional wetland, then it may be appropriate to identify an early successional wetland reference. However, credit generation is directly related to the project goal for the wetland and realized outcomes within the monitoring period. All restoration goals are also coordinated with the IRT to determine whether the restoration target is amongrate.	
54	Eco-Capital Advisors, LLC	Definitions	The commenter recommends that further definition be provided for the Upland Buffer Impact Factor in the Quantitative Worksheet for	The Corps has removed this factor within the revised 2018 SOP. Upland buffer credit generation is now	
55	Eco-Capital Advisors, LLC	Real Property Protections	Wetano Mitigation Actions. The commenter inquires whether Upland Buffers selected in the Quantitative Worksheet for Wetland Mitigation Actions would have to be leadly understead with either a restrictive overage or concervation easement.	addressed in the interim HGM. Upland buffers and riparian buffers must be legally protected to be eligible for credit generation.	
56	Eco-Capital Advisors, LLC	Watershed Approach	The commenter expresses a number of concerns regarding the development and application of the watershed approach tool.	In an effort to address concerns regarding the use of the proposed Watershed Assessment Tool, the Corps intends to develop a more robust watershed assessment methodology based upon existing databases of watershed characteristics. At this time, the IRT will continue to assess the watershed analysis of each mitigation proposal on a case by case basis.	
57	Georgia EPD, Coastal Resources Division	Qualitative and Quantitative Assessments	The commenter recommended that both the qualitative and quantitative worksheets, developed for use in Coastal Georgia, be based on the 2007 Regional Guidebook for Applying the Hydrogeomorphic Approach to Assessing the Functions of Tidal Fringe Wetlands Along the Mississippi and Alabama Guif Coast (Shafer, et al.). The commenter also suggested a series of questions, which were derived from the Tidal Fringe HGM manual, to be incorporated into a qualitative worksheet.	As a component of the revised 2018 SOP, the Corps has incorporated these recommendations into the proposed Saltwater Wetland Qualitative Assessment. In addition, the Corps also intends to develop a quantitative assessment for saltwater wetland mitigation, to be based on the Tidal Fringe HGM manual (Shafer et al., 2007), at a later date.	
58	Georgia EPD, Coastal Resources	Quantitative Assessments	The commenter requested the development of a quantitative worksheet based on the Tidal Fringe HGM, be incorporated into this SOP.	See previous response.	
59	Georgia EPD, Coastal Resources	Quantitative Assessments	The commenter requested that a plant list be developed for incorporation into the quantitative assessment for Georgia's Tidal Fringe	When the Corps initiates the development of the quantitative assessment for saltwater wetland mitigation,	
60	Division Georgia EPD, Coastal Resources	Grandfathering	wettantos. The commenter provided the following discussion regarding grandfathering: "Grandfathered banks that do not have their existing credits	plant lists for the associated saltwater wetlands types will then be developed. The Corps has determined that proposed approach for grandfathering of existing bank credits (both released	
	Division		categorized under these new wetland classes will not adhere to the 2008 Rule requiring in-kind mitigation and it would be highly desirable to find some way to make it attractive for grandfathered banks to voluntarily amend their existing MBIs to have their remaining credits (both released and unreleased) reclassified in to the classes in the new SOP. One method that was discussed during the IRT webinar was to place a limit of 50% on the "unclassified" credits, similar to what was done in Fort Worth [District] for riparian credits. Projects may purchase 50% of their required mitigation from banks that have "unclassified" credits and must purchase the remainder from a classified bank. IF, or permittee-responsible site. This would provide incentives for banker to amend their MBIs. Additionally, it would get at the problem of grandfathered banks having such large service areas. The size of the service area would not be of such great concern if both the impacts and the mitigation credits were classified, and truly in-kind, according to wetland class a great suggestion[would be] to allow only those credits that have been RELEASED at an existing bank to be grandfathered for class and requiring future releases of the potential credits to fail under the new SOP. This seems a very effective way to obtain true in-kind mitigation much more quickly and gets us closer to following the 2008 Rule."	and potential credits) is the only equitable method to honor the terms of existing, approved banking instrument agreements entered into with project sponsors prior to the 2018 SOP.	

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61	Georgia EPD, Coastal Resources Division	Credit Calculations	The commenter recommended that the second index value for the duration factor, embedded within the Adverse Impact Worksheets, be renamed: "2) Short Term – Less than 1 Year is defined as persisting less than 1 year (i.e., less than 365 days, but greater than 90 days)".	The Corps has incorporated this comment into the revised 2018 SOP.	
62	Georgia EPD, Coastal Resources Division	Credit Calculations	The commenter proposed changes to the definitions for the "Timing of Mitigation Completion" factor, within the Adverse Impact Worksheets.	As a result of a previous public comment, the Corps has decided to remove this factor from the 2018 SOP.	
63	Georgia EPD, Coastal Resources Division	Credit Calculations	The commenter recommended adding a "Conversion of Kind" wetland impact index for converting tidal wetlands to non-tidal wetland and vice versa (e.g. converting saltwater wetlands to freshwater wetlands by installing a tidegate or road).	A "Conversion of Kind" wetland impact factor has been added to the list of Secondary Adverse Impacts within the Tidal Wetland Adverse Impacts Worksheet. This impact factor would only be assessed when directly associated with a primary impact resulting from the discharge of dredged or fill material.	
64	Georgia EPD, Coastal Resources Division	Credit Calculations	The commenter recommended using HUC 8 scale instead of a HUC 12 scale for the Watershed Approach Assessment Index.	In an effort to address concerns regarding the use of the proposed Watershed Assessment Tool, the Corps intends to develop a more robust watershed assessment methodology based upon existing databases of watershed characteristics. At this time, the Inter-agency Review Team (IRT) will continue to assess the watershed analysis for each mitigation proposal on a case by case basis.	
65	US Fish and Wildlife Service	2004 SOP	The commenter indicated: "The scaling factor, back when the 2004 SOP was drafted, was a big deal for EPA and FWS, and a major Savannah District concession regarding the increased degree of impact to stream systems as the amount of fill increased." the commenter indicated that they intended to delay, "commenting on loss of the scaling factor until we see how the new SOP, and the Savannah District's new emphasis on secondary impacts, factor into mitigation crediting."	The Corps is of the opinion that the 2018 SOP will provide appropriate compensation and functional replacement to offset unavoidable impacts to aquatic resources.	
66	US Fish and Wildlife Service	Credit Types	The commenter is of the opinion that the proposal to merge lacustrine fringe and riverine wetlands into a single wetland class is incorrect as these two wetland types are very dissimilar based on water source, landscape position and hydro-dynamics.	Lacustrine Fringe Wetlands are predominantly a result of anthropogenic impacts to stream resources. Specifically, these wetland types occur along the fringes of large reservoirs and smaller impoundments throughout the State. The Corps has proposed incorporation of lacustrine fringe wetlands with riverine wetlands as a single wetland type, in part, because lacustrine fringe wetlands are not typically a target wetland type that would be approved as component of a proposed mitigation project.	
67	US Fish and Wildlife Service	Credit Types	The commenter expressed concern over the proposal to use stream order for classification of stream resources, and rather would prefer to focus solely on upstream watershed size, since size and biodiversity are closely related.	The Corps has incorporated this comment into the revised 2018 SOP.	
68	US Fish and Wildlife Service	Grandfathering	The commenter requested more information on the origins of the proposed stream grandfathering conversion factors.	The credit conversion factors were developed based on the findings of the 2018 No Net Loss Study by the University of Georgia River Basin Center, which documented that stream resource impacts have been substantially under-compensated.	
69	US Fish and Wildlife Service	Credit Calculations	Discharge of dredged material, as proposed within the SOP, deviates significantly from the official definition at 33 CFR 323, which defines the term discharge of dredged material to mean "any addition of dredged material <u>into, including</u> redeposit of dredged material other than incidental fallback within, the waters of the United States". The definition should also include the information at 33 CFR 323, about ditching, channelization, in-stream mining or other earth-moving activity being considered discharge of dredge material.	The Corps has incorporated this comment into the revised 2018 SOP.	
70	US Fish and Wildlife Service	Credit Calculations	Timing should specify less than or equal to 365 days (otherwise, Day 365 is neither covered under permanent nor temporary).	The Corps has incorporated this comment into the revised 2018 SOP.	
71	US Fish and Wildlife Service	Credit Calculations	Discharge of fill material, as proposed within the SOP, represents only half of the definition in 33 CFR 323 – it should also include "replacing any portion of a WOTUS with dry land."	The Corps has incorporated this comment into the revised 2018 SOP.	
72	US Fish and Wildlife Service	Credit Calculations	The commenter recommends including a new impact category for downstream hydrologic alterations in a stream that alter the duration, degree, and/or frequency of the stream's hydro-period (unless this would be covered by secondary adverse impacts). This altered downstream hydrology is a major secondary adverse impact on streams below dams and other fill regulated by the Corps.	The Corps has not proposed a impact category for this type of hydrologic alteration of streams (i.e., downstream of dams/impoundments) in this SOP. However, the Corps will consider proposals to objectively quantify this type of impact, within its Scope of Analysis, for incorporation into the 2018 SOP.	
73	US Fish and Wildlife Service	Credit Calculations	The commenter requested clarification regarding which of the adverse impact factor would address channelization.	Channelization would typically be categorized as "Discharge of Dredge Material".	
74	US Fish and Wildlife Service	Credit Calculations	The 2018 SOP needs to clarify which types of hard engineering structures are associated with adverse morphological alteration – in order to avoid inclusion of in-stream restoration structures (cross vanes, J-hooks) in this classification.	The Corps has clarified that typical restoration structures will be categorically exempted from this definition, if the structure is permitted as part of a restoration project (i.e., Nationwide Permit 27).	
75	US Fish and Wildlife Service	Credit Calculations	The commenter requests a discussion with the Corps regarding secondary adverse impacts. Specifically, the commenter referenced the Oct. 2, 2018, letter sent by James C. Dalton (Corps HQ) to FWS Assistant Director, Gary Frazer, outlining which secondary impacts resulting from Corps permit actions should be considered as a component of Endangered Species Act (ESA), Section 7 consultation. The commenter believes this clarification may establish guidance for what the 2018 SOP should consider as secondary impacts.	The referenced letter expressly clarifies the ESA, Section 7 consultation process as conducted during the evaluation of Corps permit actions. The Corps does not believe that this guidance is directly applicable to the compensatory mitigation of aquatic resource impacts; rather this requirement is instead addressed under the Section 404(b)(1) Guidelines.	
76	US Fish and Wildlife Service	Credit Calculations	The commenter suggested that all impact definitions should include examples (e.g., changes in downstream hydrology due to a dam, increased stormwater runoff associated with urban development).	The Corps does not intend to provide further examples of secondary impacts within this document.	
77	US Fish and Wildlife Service	Definitions	The commenter requested further explanation of how the "Stream Functional Capacity" and "Stream Mitigation Functional Capacity Potential" are calculated.	The Stream Functional Capacity, within the Qualitative Worksheet for Stream Adverse Impacts, is derived from the Stream Qualitative Assessment. The Stream Mitigation Functional Capacity Potential is now calculated utilizing Interim Georgia Stream Quantification Tool.	
78	US Fish and Wildlife Service	Definitions	The commenter requested that the Corps further define the term "secured" within the definition of the "Timing of Mitigation Completion" factor.	The Corps has decided to remove the Timing of Mitigation Completion factor from this SOP.	
79	US Fish and Wildlife Service	Definitions	The commenter requested clarification regarding how purchase of credits from the In-Lieu-Fee (ILP) Program could meet the intent of compensation prior to the commencement of impacts in the "Timing of Mitigation Completion" factor. The commenter expressed concern that the ILF program may not have sufficient funds to initiate a project for many years after the initial credit purchase.	The ILF Program has 3 years from the receipt of funds associated with the purchase of "advance credits" to implement a mitigation project and/or to complete a credit purchase from an approved mitigation bank. However, the commenter's question was directly related to the "Timing of Mitigation Completion" factor, which the Corps has decided to remove from this SOP.	
80	US Fish and Wildlife Service	Credit Calculations	The commenter requested clarification regarding whether the primary and secondary morphological alterations incorporated within the Definitions section are considered adverse stream impacts.	These activities are considered adverse stream impacts.	
81	US Fish and Wildlife Service	Watershed Approach	The commenter requested clarification as to who would would be responsible for identification of watershed needs using Watershed Approach Assessment Tool and how the corresponding index value would be calculated.	In an effort to address concerns regarding the use of the proposed Watershed Assessment Tool, the Corps intends to develop a more robust watershed assessment methodology based upon existing databases of watershed characteristics. At this time, the Inter-agency Review Team (IRT) will continue to assess the watershed analysis for each mitigation proposal on a case by case basis.	
82	US Fish and Wildlife Service	Watershed Approach	The commenter requested that additional factors be incorporated into the Watershed Approach Assessment Tool to address watershed needs and connectivity to protected areas.	See previous response.	
83	US Fish and Wildlife Service	Definitions	The commenter requested further explanation of how the "Wetland Functional Capacity" and "Wetland Mitigation Functional Capacity Potential" in the Definitions section are calculated.	The Wetland Functional Capacity, in the Qualitative Worksheet for Wetland Adverse Impacts, is derived from the Wetland Qualitative Assessment. The Wetland Mitigation Functional Capacity Potential is now calculated utilizing Interim Wetland HGM Mitigation Worksheet.	

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<u>84</u> 85	US Fish and Wildlife Service US Fish and Wildlife Service	Wetland Types Qualitative Assessments	The commenter provided a number of comments critiquing the use of the proposed Dichotomous key For Wetlands of Georgia. The commenter provided the following comments on the Riverine Wetland Qualitative Assessment Worksheet: "These [qualitative] assessment categories don't seem to be a good fit with lacustrine wetlands, as defined in the Dichotomous Key to General Wetland Types within Piedmont/Mountain Physiographic Regions – Savannah District; since, by definition, they're herbaceous, have no bankfull events, and are permanently flooded. Lacustrine wetlands shouldn't be in the same category as riverine wetlands, since they are opposite things due to their hydrology."	The Dichotomous key for the Wetland of Georgia has been removed from the 2018 SOP. Lacustrine Fringe wetlands are predominantly a result of anthropogenic impacts to stream resources. Specifically, these wetland types occur along the fringes of large reservoirs and smaller impoundments throughout the State. To better assess the functional capacity of these wetlands, the Corps has added detail within the water storage and biogeochemical cycling function assessment questions to evaluate the functional impairments to wetlands that are attributed to man-made impoundments. As a result of these revisions, the Corps is of the opinion that the revised "Riverine - Lacustrine Fringe - Freshwater Tidal Qualitative Wetland Assessment" is appropriate for evaluation of Lacustrine Fringe wetlands.	
86	US Fish and Wildlife Service	Qualitative Assessments	The commenter suggested that the qualitative assessment question (within the Water Storage function), regarding the presence of above- grade fills or structures obstructing hydrologic flows in or out of the wetland, should be expressed as a numeric value based on fill/structures/disches/arcs of wetland, so it can be quantified.	This assessment question has been revised to spatially limit the assessment of hydrologic impairment as measured from 100 linear feet of the center of the Wetland Assessment Area (WAA).	
87	US Fish and Wildlife Service	Qualitative Assessments	The commenter requested that the Corps define the term "contributing basin", as used within the wetland qualitative assessment.	The contributing drainage basin is the local watershed area providing hydrologic inputs to the subject WAA.	
88	US Fish and Wildlife Service	Qualitative Assessments	The commenter requested that the term "woody debris" be further defined within the respective qualitative assessments.	Woody debris has been further defined in the hover text within each of the qualitative assessments worksheets.	
89	US Fish and Wildlife Service	Qualitative Assessments	The commenter suggested that the term "adversely" be incorporated into the vegetative community alteration assessment question (e.g. has the site been partially or totally clearcut).	The Corps has incorporated the term "adversely" to the assessment question.	
90	US Fish and Wildlife Service	Qualitative Assessments	The commenter indicated that the worksheet drop-down list, associated with the vegetation community assessment question for the "Maintain Characteristic Wetland Community" function, is not working properly.	This field does not utilize a drop down menu by design, as it is now automatically calculated based on a previous selection within the worksheet.	
91	US Fish and Wildlife Service	Qualitative Assessments	The commenter provided the following suggestion regarding the assessment questions developed for the "Maintain Faunal Habitat" function: "These criteria don't address faunal habitat (and are highly duplicative of ones above). Could this section be revised to focus on wildlife habitat characteristics on the site, like percent loss of forest cover on the site over the past 20 years, age of wetland trees on site, diversity of species on site, percent of trees on site with cavities, percent composition hard and soft mast species, presence of mid-story canopy?".	The Corps developed the list of assessment questions based on the quantitative metrics utilized within the HGM Guidebook for Forested Wetlands in Alluvial Valleys of the Coastal Plain (Wilder et al, 2013). The specific assessment questions were developed to assess the contributing watershed conditions, the presence of woody debris (and vegetative structure complexity), and alteration of the vegetative community within the WAA. While the current list of questions remains unchanged in the revised 2018 SOP, the Corps may consider alternative wetland faunal habitat assessment questions for this qualitative assessment in the future.	
92	US Fish and Wildlife Service	Qualitative Assessments	The commenter recommended that the contributing drainage basin assessment focus on the change in forest cover over the previous 20 years (e.g. has forest cover in the drainage basin declined by more than 5% over the past 20 years).	The Corps believes that the current assessment question appropriately assesses the condition of the contributing drainage basin for the WAA.	
93	US Fish and Wildlife Service	Credit Calculations	The commenter requested clarification regarding how the "Stream Functional Capacity" score for the Qualitative Worksheet for Stream Adverse Impacts was calculated and the which criteria were utilized.	The Stream Functional Capacity score within this worksheet is calculated using the Stream Qualitative Assessment worksheet.	
94	US Fish and Wildlife Service	Credit Calculations	The commenter inquired as to why the list of secondary adverse impacts is limited to just "Impoundment", within the Qualitative Worksheet for Stream Adverse Impacts.	The list of secondary impacts included within this worksheet also includes "Secondary Morphological Change".	
95	US Fish and Wildlife Service	Credit Calculations	The commenter was of the opinion that the incremental increase proposed within the "Timing of Mitigation Completion" within the Adverse Impact Worksheets for mitigation delay is too small (10% increase when mitigation is 5 years after the impact). The commenter recommended a 50% increase after 5 years, or 10% each year to compensate for temporal delay.	The Corps has removed this factor from the Qualitative Worksheets for both Stream and Wetland Adverse Impacts.	
96	US Fish and Wildlife Service	Credit Calculations	The commenter provided the following comment: "A 1:1 ratio of feet impact to number of credits under the new SOP is obtained only when each impact factor is set at its maximum level. How does this compare to the existing SOP, which UGA research shows already is well below a 1:1 no net loss ratio?"	The goal of the 2018 SOP is not to maintain the 1:1 areal stream compensation ratio, that is suggested by the 2008 Mitigation Rule, included as a minimum compensation ratio only if impacts are not assessed and compensated for functionally. In contrast, the 2018 SOP is intended to provide functional replacement for impacts to aquatic resources proportional to the functional loss, which in some cases may be lower than the 1:1 areal ratio.	
97	US Fish and Wildlife Service	Credit Calculations	The commenter requested clarification regarding how "Total 2018 Wetland Credits Owed", within the Quantitative Worksheet for Wetland Adverse Impacts, compares to required credits as calculated using the 2004 SOP?	The number of "Total 2018 Wetland Credits Owed" is a new currency based solely on wetland function, and as a result is not directly comparable to Wetland Credits Owed under the 2004 SOP.	
98	US Environmental Protection	Effective Date	The commenter requested clarification regarding the specific phase of the banking instrument approval process that the Corps would consider an application to be complete and not be subject to the 2018 SOP	If the public notice for a given project Prospectus is published prior to the effective date of the 2018 SOP, the project would be processed under the 2004 SOP (unless the sonosor requested otherwise)	
99	US Environmental Protection Agency	Regulations & Other Guidance	The commenter clarified that the order of the citation reference in Section 4.1. of the SOP was in error and should be referenced as (USEPA/USEACE, 2008).	The Corps has incorporated this comment into the revised 2018 SOP.	
100	US Environmental Protection Agency	In-Kind Replacement	The commenter inquired as to what options would be available to a permit recipient if in-kind credit purchase opportunities have been exhausted, and the Corps decides that an alternate resource credit type is not appropriate.	In the scenario in which out-of-kind credit types were determined to be inappropriate, the Corps would encourage applicants to review the list of mitigation alternatives outlined in the mitigation hierarchy of the 2008 Mitigation Rule to develop an appropriate in-kind compensatory mitigation plan.	
101	US Environmental Protection Agency	Credit Types	The commenter recommended combining Sections 5.2. (HGM Classification) and 5.2.1. (HGM Wetland Classes) into a single paragraph.	Section 5.0. (Aquatic Resource Types) has been revised and reformatted in the revised 2018 SOP.	
102	US Environmental Protection Agency	Credit Types	The commenter requested clarification of the source of the following statement within Section 5.2.1.: "With the greatest weight given to water source, the following list of wetland credit classifications will be applied to wetland impacts and wetland compensation in Savannah District"	The Corps was the source for this statement.	
103	US Environmental Protection Agency	Credit Types	The commenter requested clarification of the source for the proposed definition of Saltwater Tidal Wetlands.	The source of this definition is the Official Code of Georgia Section 12-5-282(3).	
104	US Environmental Protection Agency	Credit Types	The commenter expressed concern with the proposal to combine riverine and lacustrine fringe wetlands into a single credit type, as they do not perform the same functions, have entirely different hydroperiods (i.e. hydrodynamics), and different primary water sources.	Lacustrine Fringe Wetlands are predominantly a result of anthropogenic impacts to stream resources. Specifically, these wetland types occur along the fringes of large reservoirs and smaller impoundments throughout the State. The Corps has proposed incorporation of lacustrine fringe wetlands with riverine wetlands as a single wetland type, in part, because lacustrine fringe wetlands are not typically a target wetland type that would be approved as component of a proposed mitigation project.	
105	US Environmental Protection Agency	Credit Types	The commenter provided the following recommendation, "The characterization of hydrodynamics in this draft SOP is somewhat inconsistent with descriptions provided in Brinson (1993) and Smith et al. (1995). Proposed editys to these paragraphs largely follows Table 1 in Smith et al. (1995), and is consistent with Figure 13 and Table 5 in Brinson (1993)."	The Corps has incorporated this comment into the revised 2018 SOP.	
106	US Environmental Protection Agency	Credit Types	The commenter expressed concern regarding "Zero-order" streams being incorporated into the stream credit classifications.	The proposed stream credit types have been revised and are no longer based on stream order.	

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107	US Environmental Protection	Credit Types	The commenter requested the Corps to define "ditch" and "canal." Further, the commenter inquired if the Corps would consider a	For the purposes of the 2018 SOP, ditch and canal are both descriptors of an anthropogenic modification of	
	Agency		channelized stream a ditch or canal, or would a ditch or canal pass only through uplands and drain only uplands. The commenter also inquired how the Corps would consider a ditch excavated to drain wetlands.	a wetland or stream resource. The 2018 SOP provides Corps project managers discretion to request compensatory mitigation for impacts to these resources when a functional loss is assessed.	
108	US Environmental Protection Agency	Grandfathering	The commenter inquired whether the proposed grandfathered credit type would apply to all potential credits to be generated over the lifespan of a mitigation project, or only those credits that were released prior to the effective date of the 2018 SOP.	This matter has been clarified in the revised 2018 SOP.	
109	US Environmental Protection Agency	Grandfathering	The commenter recommended that the Corps provide additional discussion and rationale for the proposed Grandfathering Conversion Factors.	The Corps has incorporated this comment into the revised 2018 SOP.	
110	US Environmental Protection Agency	Definitions	The commenter inquired whether "minor grading" should be included within the Clearing and Grubbing definition.	Minor grading would typically be categorized as "Discharge of Dredge Material".	
111	US Environmental Protection Agency	Definitions	The commenter believes the definition provided for "Permanent/Recurring", for the duration of impacts, does not clearly capture the nature of reoccurring impacts; additional language is needed to clarify that duration need not be limited to consecutive days.	Additional language has been added to this definition to clarify that the assessment of recurring impacts is not limited to consecutive days.	
112	US Environmental Protection Agency	Definitions	The commenter recommended changing the definition of "Discharge of Fill/Structure" as follows: "Discharge of Fill/Structure is defined as the placement of (i.e., soll, rock, and other materials) or a structure within the boundary of a wetland and/or below the ordinary high water mark of the a stream or open water that has the effect of changing the bottom elevation"	The Corps has incorporated this comment into the revised 2018 SOP.	
113	US Environmental Protection Agency	Definitions	The commenter requested that a list of impact categories be added to the definition of "Primary Adverse Impacts".	The Corps has incorporated this comment into the revised 2018 SOP.	
114	US Environmental Protection Agency	Credit Calculations	The commenter believes that the proposed approach for the "Timing of Mitigation Completion" factor is unduly complicated. The commenter proposed the following categories to characterize mitigation timing: 1) Prior to impact (e.g. approved mitigation banks, advanced Permittee- responsible mitigation); 2) Concurrent with impact - occurring less than or equal to six months of the initial discharge of dredged or fill material; and 3) After the impact - occurring more than 6 months after the initial discharge of dredged or fill material.	As a result of a previous public comment, the Corps has decided to remove the Timing of Mitigation Completion factor from the revised 2018 SOP.	
115	US Environmental Protection Agency	Watershed Approach	The commenter believes that the proposed "case-by-case" approach to the assessment of watershed needs and connection to existing protected areas, within the Watershed Approach Tool, provides practitioners with insufficient guidance.	In an effort to address concerns regarding the use of the proposed Watershed Assessment Tool, the Corps intends to develop a more robust watershed assessment methodology based upon existing databases of watershed characteristics. At this time, the IRT will continue to assess the watershed analysis of each mitigation proposal on a case by case basis.	
116	US Environmental Protection Agency	Watershed Approach	The commenter requested clarification of the rationale for the Corps' selection of specific numerical thresholds for land cover categories included in the Watershed Assessment Tool. The commenter referenced Denisse Carroll's PhD dissertation research in the Georgia Piedmont as a potential data source to consider for incorporation into the land cover assessment categories.	See previous response.	
117	US Environmental Protection Agency	Qualitative Assessments	The commenter recommended that Section 7.1. (Qualitative Resource Assessments) be revised so qualitative assessments are applicable solely to "minor impacts capable of authorization by General Permits."	In the revised 2018 SOP, the Corps has extended the use of Qualitative Resource Assessments to be applicable to impacts capable of both authorization by General and Standard Permits.	
118	US Environmental Protection Agency	Qualitative Assessments	The commenter indicated that hydrogeomorphic was not hyphenated in (Wilder et. al., 2013).	The Corps has incorporated this comment into the revised 2018 SOP.	
119	US Environmental Protection Agency	Qualitative Assessments	The commenter inquired why the hydrologic function of wetlands, within the Wetland Qualitative Assessment, is limited to only water storage, as wetlands not only "store" water, they also convey water. The commenter also stated that the Wetland Qualitative Assessment (Appendix 12:2) seems overly simplistic. Finally, the commenter expressed concern regarding the lack of consideration, within Riverine Wetland Assessment worksheet, of the connection between a wetland and its adjacent river/stream, as part of the "Water Storage" function.	The Wetland Qualitative Assessment was based on the higher level wetland functions outlined in Wilder et al, 2013. The Corps acknowledges that certain wetland classes do support conveyance functions. Any impacts to conveyance functions would be assessed within the first assessment question of the hydrology function outlined in the Wetland Qualitative Assessment. If additional assessment questions are proposed to further assess the conveyance of hydrology, the Corps may consider them for incorporation into the Wetland Qualitative Assessment in the future.	
120	US Environmental Protection Agency	Qualitative Assessments	The commenter inquired for a rationale as to why streams have four qualitative functional categories, but wetlands have only three.	This approach was in error and has been changed in the revised 2018 SOP.	
121	US Environmental Protection Agency	Qualitative Assessments	The commenter expressed concerns regarding the clarity of the questions within the qualitative assessment worksheets, without providing more specific guidance.	The Corps has provided additional clarification for each of the assessment questions by including hover text within the revised 2018 SOP worksheets.	
122	US Environmental Protection Agency	Qualitative Assessments	The commenter recommended that the assessment question regarding surface and groundwater hydrology of the channel, within the Stream Qualitative Assessment (Hydrology Function, Question 1), should included "reservoirs or ponds" in the list of examples.	The Corps has incorporated this comment into the revised 2018 SOP.	
123	US Environmental Protection Agency	Quantitative Assessments	The commenter expressed uncertainty regarding the applicability of the reference "Harman and Jones, 2016" in Section 7.2.2. (Stream Quantitative Assessments), as that publication is currently under revision.	Section 7.2.2. has been changed in the revised 2018 SOP, and reference to "Harman and Jones, 2016", has been removed.	
124	US Environmental Protection Agency	Quantitative Assessments	The commenter believes that the SQT is a great tool, but it will require regionalization or verification that adjacent states' data is applicable to streams in Georgia.	The Corps is in agreement with this comment. Within the revised 2018 SOP, the Corps has developed an Interim Stream Quantification Tool, which has been regionalized for use in Georgia.	
125	US Environmental Protection Agency	Quantitative Assessments	The commenter believes that practitioners will require additional guidance in order to consistently implement the "Function Lift Quantification Tool for Stream Restoration Projects in North Carolina" for the assessment of stream mitigation functional improvements.	The Corps is in agreement with this comment. Within the revised 2018 SOP, the Corps has developed an Interim Stream Quantification Tool which has been regionalized for use in Georgia. A user manual has been developed to support this tool, which will assist practitioners with its use.	
126	US Environmental Protection Agency	Quantitative Assessments	The commenter believes that the collection of wetland hydrological data should be required for all mitigation projects.	The Corps is in agreement with this comment. This comment addresses "additional assessment datasets" in Section 9.1 (Quantitative Worksheets For Mitigation Actions). The original discussion of the collection of additional assessment datasets was not included in the draft 2018 SOP due to the qualitative nature of the assessment of wetland hydrology within HGM (e.g., height of berm, depth of ditch). The Corps has developed an interim Wetland HGM for Mitigation Actions in the revised 2018 SOP bet now requires collection of wetland hydrologic data (typically continuous, shallow groundwater monitoring).	
127	US Environmental Protection Agency	Quantitative Assessments	The commenter requested that "Forested Buffer," as used in the drop-down menu of the Quantitative Worksheet for Wetland Mitigation Actions, must be explained/defined.	The Quantitative Worksheet for Wetland Mitigation Actions has been replaced by the Interim Wetland HGM for Mitigation Actions in the revised 2018 SOP. The assessment of upland buffers within the Interim Wetland HGM has also been revised.	
128	US Environmental Protection Agency	Quantitative Assessments	The commenter expressed concerned with the proportion of mitigation credit that could be generated solely by establishment of wide riparian buffers.	Credit generation for riparian buffers has been revised within the Interim Stream Quantification Tool in the revised 2018 SOP.	

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129	US Environmental Protection	Quantitative Assessments	The commenter inquired how the functional capacity score for a preserved aquatic resource would have the potential for improvement.	The Corps acknowledges that application of the term "functional capacity change score" in the context of	
	Agency			preservation (in Section 9.2, Preservation) may have led to confusion. In the revised 2018 SOP, the Corps has	
				developed both a Interim Stream Quantification Tool and Interim Wetland HGM For Mitigation Actions,	
				which more clearly distinguishes among mitigation activities (e.g., restoration, enhancement, and	
				preservation).	
130	US Environmental Protection	General	The commenter believes that the administrative execution of this draft SOP is overly complicated. The commenter recommends that the	The Corps has reduced the number of worksheets and external references required to complete a resource	
	Agency		structure, format and content of the draft SOP be reevaluated for opportunities to consolidate the separate worksheets and references	assessment within this revised 2018 SOP.	
			required to use the SOP.		