

Minutes from the April 8, 2013 GPTQ Meeting

Welcome and Introductions

- Attendance list is attached

Updates (Meg Hedeem – GDOT)

- New GDOT Ecologists
 - 4 new ecologists: Jeff Jackson, Jay Tenney, Will Pruitt, Megan Pulver
 - 3 open ecologist positions may be advertised soon
- Indiana Bat Memorandum of Agreement (MOA)
 - MOA signed between GDOT, USFWS and FHWA for this survey season
 - Select minor projects can proceed with ROW acquisition with future survey commitment
 - Doug Chamblin (GDOT) will provide to consultants
- Document Reviews
 - Atkins contract to review consultant documents expires December 31, 2013
 - GDOT Senior Ecologists (Jaime Collazo, Brian Davis and Chris Goodson) are focusing on reviews
- Updating Project Database
 - GDOT and Atkins are working to update GDOT's project database
 - Data may be requested on survey/coordination dates and other project details
- Special Provisions (SPs)
 - GDOT review procedures
 - GDOT ecologists send SPs to the project manager, designer, Construction office, Engineering Services office, Environmental Compliance Bureau and the Legal Office for review prior to their approval and transmittal
 - Internal review procedures add time to the document review schedule – plan ahead when creating a project delivery schedule
 - Potential Template SPs
 - GDOT may forego internal review for common SPs, like those for migratory birds
 - Pre-approved templates for other more commonly encountered species, such as bald eagle and wood stork, may be developed in the future
 - Check for standard Special Provisions for species before drafting new ones
 - SPs for bald eagle and wood stork may be removed following discussion with USFWS and FHWA unless a nest is known within or in close proximity to the project corridor
 - Review Check
 - FHWA (Katy Allen) requested that a procedure be developed to ensure that the most current SPs were being used in the NEPA documents
- Future Focus
 - Report Transmittals
 - Addresses and Carbon Copy Template forthcoming
 - FHWA requests that transmittal letters reference the GDOT NEPA analyst
 - Ecology Addendum Template
 - Suggestions are welcomed and encouraged as GDOT develops this template
 - Possibility to form a GDOT/consultant work group to develop template

- Send suggestions and/or your interest in participating in a work group to Meg Hedeem (mhedeem@dot.ga.gov)
- Species Survey Methodologies – Updates/Creation
 - GDOT will continue to develop new species methodologies to expedite pre-survey coordination between consultants, GDOT and resource agencies
 - Any consultant interested in developing species methodologies in their area of expertise is encouraged to speak with Meg Hedeem
 - GDOT will not approve deviations from approved methodologies without justified cause
- Electronic Report Submittals/Reviews
 - GDOT has begun to experiment with electronic document reviews (using Adobe Professional) and may be transitioning to this review method in the future
 - Comments are embedded in the PDF and comment summaries are available
 - Electronic reviews eliminate transmittal times as each document hard copy must be checked in, then be routed through NEPA before arriving in Ecology
- Next GPTQ
 - Tentatively scheduled for July
 - Catherine Samay (GAEPD) will be attending
 - Provide Meg Hedeem or Jordan Myers (jordan.myers@arcadis-us.com) with meeting topics/ideas

USFWS Survey & Coordination Procedures (Pete Pattavina – USFWS)

- Habitat Assessments
 - Ecology reports need more robust discussion of species habitat, including associate species, soil suitability and suitable habitat characteristics that are either present or absent
 - Resources include Protected Plants/Animals of Georgia, soil maps, geology maps, Google Earth (aerials from 1993 – present), etc.
- Document Submittals
 - Send only electronic copies of Ecology Reports to USFWS
 - Send hard copies of IP applications to USFWS
- T&E Survey Frequency
 - Flora: Unless high quality/cryptic habitat is present, additional surveys are not needed (after a no finding survey during the appropriate survey season)
 - Fauna: Surveys should be in accordance with approved methodologies and additional surveys in appropriate habitat will likely be needed depending on species' mobility and detectability
 - Eastern Indigo Snake (EIS)
 - Annual surveys required on all projects within the TIP/STIP+2
 - Long range projects can be pulled in when funding is available = projects must receive annual surveys or risk not being “shelf-ready” (Katy Allen – FHWA)
- Fish & Wildlife Coordination Act (FWCA)
 - USFWS requested that GDOT work on a report format that would group waters descriptions, avoidance/minimization and any necessary stormwater requirements for each water resource
 - USFWS requested current/proposed culvert slopes be included in all streams impact descriptions
 - USFWS requested that GDOT revise the Joint Coordination Procedures (JCP) to allow minor impact changes not to affect prior FWCA concurrence
 - Reduction in impacts to a water would not require re-initiation of FWCA coordination
 - An overall reduction in water impacts where some individual water impacts increase would require re-initiation of FWCA coordination

- Protected Bat Analysis
 - Habitat Analysis
 - Describe the likelihood of a project corridor containing potential maternity roost habitat
 - Peeling bark (of trees such as shagbark hickory) are less ideal than flaking bark (snags) for maternity roosts
 - Smaller trees in the suitable roosting tree range (down to 4" dbh) are less ideal than larger trees for maternity roosts
 - Surveys
 - Georgia has very few netting data points thus far
 - GDOT project surveys will help fill in the gaps to determine the range of Indiana bat, gray bat and the northern long-eared bat (likely to be listed as threatened soon)
 - Future survey needs may go up or down, depending on the results of current surveys
 - Track/band any male and female Indiana bats caught during surveys
 - Consultants can use Anabat or any other comparable acoustic survey devices
 - Some bat species, such as *Myotis*, may be easier to detect with netting than acoustic
 - Acoustic surveys are valuable, even if data analysis software is flawed
 - There is no approved software for acoustic data analysis
 - Methodology Clarification
 - 1 Anabat and 1 net site per linear kilometer
 - 1 net site consists of **two** net locations that are not closer than 30 meters apart
 - Current and Future Agreements
 - MOA signed between GDOT, USFWS and FHWA for this survey season allows pre-selected minor projects ROW authorization with a future survey commitment
 - USFWS is working on a Programmatic Agreement for bats

Reminders (Meg Hedeem – GDOT)

- Report Submittals
 - Format – check with GDOT before submitting a report that does not match the Environmental Procedures Manual (EPM) or the Combined Report Template
 - Quality – All documents shall be thoroughly reviewed before submittal to GDOT
 - GDOT is receiving far too many documents with obvious spelling & content errors
 - Numerous errors in documents slows down review time significantly
 - Addenda – follow format of the Ecology Report from the EPM and include total project impacts
 - Transmittal Letters – need to be submitted for all documents when submitted for review, including Pre-Construction Notifications
- T&E
 - IPaC queries (always by county, not project area polygon) shall be included in all Ecology Reports
 - GDNR list for county shall be included in all Ecology Reports
 - GDNR HUC8 List shall be included in all Ecology Reports
- Impact Calculations
 - Be sure to check all calculations
 - Riprap and culvert aprons are impacts
 - When taking GPS data in the field, take at least 3 control points
- Buffer Variance Applications
 - Requesting that Catherine Samay (GAEPD) review the plans before the application is submitted can be very helpful and reduce the likelihood of revisions during the application process

- Review GAEPD's mitigation requirement guidance (attached)
- Permit Applications
 - Be sure to list the banks that have available credits in the permit application transmittal letter
 - Be sure to attach the PCN checklist with PCN submittals
- GPTQ Meeting Notes
 - Share notes/information with your firm

Action Items

- Doug Chamblin (GDOT) will transmit bat MOA to consultants
- Consultants should review GAEPD's mitigation requirement guidance (attached)
- Consultants should email Meg Hedeem with suggestions for an Ecology Addendum template (or if interested in participating in a work group for the development of this document)
- Consultants should email Meg Hedeem if interested in helping create species survey methodologies in their areas of expertise
- Consultants should email Meg Hedeem or Jordan Myers with future meeting topics or ideas

New Guidance

- FWCA Coordination
 - Reduction in impacts to a water would not require re-initiation of FWCA coordination
 - An overall reduction in water impacts where some individual water impacts increase would require re-initiation of FWCA coordination
- Bat Survey Methodology Clarification
 - 1 Anabat and 1 net site per linear kilometer
 - 1 net site consists of **two** net locations that are not closer than 30 meters apart



Stream Buffer Mitigation Guidance

This guidance serves as a framework to provide predictability and consistency for development, review and approval of compensatory mitigation plans for stream buffer variances. It provides a method for determining mitigation requirements for variance application.

While this guidance is not intended for use as project design criteria, appropriate use of the methods described here should reduce uncertainty in the development of mitigation plans, and allow quicker review of applications.

These procedures should not be interpreted as a promise or guarantee that a project satisfying the criteria or guidelines presented will be assured a stream buffer variance. The Georgia Environmental Protection Division (EPD) Director has the responsibility to consider each project on a case-by-case basis and may determine in any specific situation that a buffer variance should be denied, modified, suspended, or revoked. This guidance does not preclude or modify any requirements in the Georgia Erosion and Sedimentation Act of 1975 O.C.G.A. 12-7 or 391-3-7-.05 DNR Rules on Buffer Variance Procedures and Criteria.

On-going and future stream buffer studies may lead to changes to this document.

Georgia's Customer Service Initiative

On July 25, 2006, Governor Sonny Perdue kicked off the employee awareness phase of his Customer Service Initiative to raise the level of customer service in State government. The Governor's Initiative focuses on the theme of "Faster, Friendlier and Easier" service to customers.

As a part of these efforts, the EPD NonPoint Source Program was tasked with developing two documents: *Stream Buffer Mitigation Guidance* and *Streambank and Shoreline Stabilization Guidance*. These documents will provide consistent and uniform guidance and recommendations for individuals planning to implement these types of projects.

When Mitigation is Required

As stated in Section 391-3-7-.05 (Buffer Variance Procedures and Criteria) of the DNR Rules for Erosion and Sedimentation Control, only 11 project categories (criteria 391-3-7-.05(2) a-k) exist for which the EPD Director will review a buffer variance application. For each project category or criterion, EPD staff will evaluate the applicant's need to mitigate impacts to the buffer. Whether mitigation is necessary for a variance applicant applying under criteria (a) through (g) will be determined by the project's potential impact. However, any applicant applying under criteria (h), (i), (j) or (k) is required to mitigate the buffer disturbance based on guidance described below. Landowners are required, regardless of project criterion, to mitigate for impacts that occurred without the issuance of a variance. Please note that minor land disturbing activities, such as home gardening, home landscaping, etc. and other activities identified in EPD's *Minor Land-Disturbing Activity Guidelines* are not subject to these requirements.

Mitigation Requirements

A buffer extending out from a stream serves three main functions: hydrologic, water quality, and aquatic/buffer habitat protection. The following mitigation requirements were established to address all three functions. All applicants applying for a stream buffer variance before impacting the buffer must comply with the following three components:

1. Hydrologic Protection – The applicant must use on-site minimum stormwater management standards that conform to guidance established in Section 1.3 of the Georgia Stormwater Management Manual (or “Blue Book”). These practices reduce downstream bank and channel erosion; reduce downstream flooding; and by capturing run-off from the first 1.2” of rainfall ensure an 80% reduction in total suspended solids (TSS). If applicable the applicant must also use on-site minimum stormwater management standards that conform to the guidance established in the Coastal Stormwater Supplement to the Georgia Stormwater Management Manual. If hydrologic protection cannot be addressed on the site, justification must be provided and mitigation credits will be required as a substitute.

2. Water Quality Protection – The applicant must implement on-site best management practices (BMPs) that address common post-construction pollutants other than TSS. Practices used to address these other pollutants can be selected from Appendix A. The applicant must choose an appropriate BMP or “treatment train”; that is, a combination of BMPs, to fully address all pollutants of concern generated on site. For the first 1.2” of rainfall, the BMP or treatment train must result in at least 60% pollutant removal efficiency from the site run-off for each pollutant of concern. (Please refer to Section 3.1.6 of the Blue Book for calculating removal rates of treatment trains). Should the applicant choose practices not listed in Appendix A, documented and proven pollutant removal efficiency rates must be submitted with the proposed practice and be accepted by EPD during the application review process. Developments with significant parking spaces and/or high-volume traffic areas must implement BMPs addressing oil and grease as pollutants. Pollutant removal efficiencies for these oil and grease BMPs must be included in the stream buffer variance application. If water quality protection cannot be addressed on the site, justification must be provided and mitigation credits will be required as a substitute.

3. Aquatic/Buffer Habitat Protection – To protect aquatic and buffer habitats, an applicant must comply with either (a) or (b) below.

- a. If a U.S. Army Corps of Engineers (USACE) Section 404 Permit is required, complete the USACE requirements for Section 404 Permitting included in their published Standard Operating Procedures.
- b. If a USACE Section 404 permit is not required, mitigation credits must be purchased in accordance with the Standard Operating Procedure in Appendix B.

Additional Information

Impacted Area

The area of impact, as used in this document, includes stream buffer areas impacted by filling, piping, re-routing, other buffer impacts and/or other ecological effects relevant to DNR Rule 391-3-7-.05 (2)(h), (i), (j) and (k).

Buffers

According to the Georgia Erosion and Sedimentation Act of 1975 O.C.G.A. 12-7-3(2) a buffer is defined as “the area of land immediately adjacent to the banks of state waters in its natural state of vegetation, which facilitates the protection of water quality and aquatic habitat.” There is an established 25 foot buffer along banks of all state waters, as measured horizontally from the point where vegetation has been wrested by normal stream flow or wave action, except where the EPD Director determines to allow a variance that is at least as protective as a 25 foot buffer of natural resources and the environment. There is an established 50 foot buffer, as measured horizontally from the point where vegetation has been wrested by normal stream flow or wave action, along the banks of any state waters classified as “trout streams.” Therefore, mitigation areas must be adjacent to state waters and will not be considered acceptable if they do not include a minimum width of 25 feet or 50 feet, respectively. In addition, buffer mitigation areas must be permanently protected through a restrictive covenant as discussed above under “Mitigation Requirements.”

For a complete listing of the Buffer Variance Procedures and Criteria in the Rules for Erosion and Sedimentation (391-3-7), please go to: http://www.gaepd.org/Documents/rules_exist.html

Maintenance

An essential component of a comprehensive stormwater management program is the ongoing operation and maintenance of the various components of the stormwater drainage, control, and conveyance systems. Failure to provide effective maintenance can reduce the hydraulic capacity and the pollutant removal efficiency of stormwater controls and conveyance systems. See Chapter Seven, “Stormwater System Operations and Maintenance” of the *Georgia Stormwater Management Manual, Volume 1* for a complete definition of maintenance.

<http://www.georgiastormwater.com/vol1/gsmmvol1.pdf>

Native Riparian Plant Species

Native riparian plant species should be species that are adapted to riparian forests and/or stream edges in Georgia and the Southeast. The applicant should use the information in EPD’s *Streambank and Shoreline Stabilization Guidance* or contact either the local Cooperative Extension Office or National Resources Conservation Service (NRCS) Office to determine the most appropriate species for the area. The web site for the Georgia Cooperative Extension Service is:

<http://www.caes.uga.edu/extension/index.html>

Contact information for the NRCS district offices in Georgia can be found at:

<ftp://ftp-fc.sc.egov.usda.gov/GA/PI/areamap.pdf>

Restrictive Covenants

A restrictive covenant is one in which a property owner places permanent conservation restrictions on the property. A restrictive covenant prevents development and requires that the land be managed for its conservation values. Property owners should make allowances for any

foreseeable circumstances (e.g., utility lines, power lines, road crossings, ditch maintenance, etc.) that may conflict with the inherent restrictions of the covenant.

For the USACE's "Restrictive Covenant Guidance," please go to: <http://www.saw.usace.army.mil/wetlands/Mitigation/Documents/restrictive%20covenants8-03.pdf>

Mitigation Scheduling

As much as possible, mitigation should be done at the same time or as, or even before, authorized buffer impacts. This can reduce loss of buffer functions and facilitate compliance. However, it is recognized that, because of equipment availability, job scheduling, and other factors typical of construction projects, it may be necessary to do mitigation during the overall project development, but after the buffer impact. This is usually acceptable provided the time between impacts and mitigation is minimized and the mitigation is completed within one growing season after the adverse impacts have occurred. Credit purchase must occur at least 14 days prior to any land disturbance on site.

Wrested Vegetation

Wrested vegetation is vegetation that has been disturbed, moved, or removed by flowing water creating a clear demarcation between water flow and vegetative growth.

Coordination with Section 404 Permits

Applicants for a stream buffer variance under criterion (h) in Section 391-3-7-.05 of the DNR Rules on Buffer Variance Procedures and Criteria must also apply for and obtain a federal Clean Water Act (CWA) Section 404 permit from the USACE. EPD will review such variance applications at the same time the USACE is reviewing the Section 404 application. Mitigation for the buffer variance may include mitigation required for the Section 404 permit as well as mitigation required to address EPD's buffer variance rules.

Appendix A Pollutant Removal Efficiency Rates by Practices

| Structural Control | Total Suspended Solids | Total Phosphorus | Total Nitrogen | Fecal Coliform | Metals |
|------------------------------|------------------------|------------------|----------------|----------------|--------|
| Stormwater Ponds | 80 | 50 | 30 | 70* | 50 |
| Constructed Wetlands | 80 | 40 | 30 | 70* | 50 |
| Bioretention Areas | 80 | 60 | 50 | ~ | 80 |
| Sand Filters | 80 | 50 | 25 | 40 | 50 |
| Infiltration Trench | 80 | 60 | 60 | 90 | 90 |
| Enhanced Dry Swale | 80 | 50 | 50 | ~ | 40 |
| Enhanced Wet Swale | 80 | 25 | 40 | ~ | 20 |
| Filter Strip | 50 | 20 | 20 | ~ | 40 |
| Grass Channel | 50 | 25 | 20 | ~ | 30 |
| Organic Filter | 80 | 60 | 40 | 50 | 75 |
| Underground Sand Filter | 80 | 50 | 25 | 40 | 50 |
| Submerged Gravel Wetland | 80 | 50 | 20 | 70 | 50 |
| Gravity (Oil-Grit) Separator | 40 | 5 | 5 | ~ | ~ |
| Porous Concrete | ** | 50 | 65 | ~ | 60 |
| Modular Porous Paver System | ** | 80 | 80 | ~ | 90 |
| Alum Treatment | 90 | 80 | 60 | 90 | 75 |
| Proprietary System | *** | *** | *** | *** | *** |

* If no resident waterfowl population is present

** Due to the potential for clogging, porous concrete and modular block paver systems should not be used for the removal of sediment or other coarse particle pollutants

*** The performance of specific proprietary commercial devices and systems must be provided by the manufacturer and should be verified by independent third party sources and data

~ Insufficient data to provide removal efficiency

Source: Georgia Stormwater Management Manual, Volume 2, Section 3.1-7

Appendix B Standard Operation Procedure Calculation of Stream Buffer Credits

The highest number of stream credits that any USACE approved mitigation bank can generate per square foot of stream restoration/preservation is 0.046 stream credits. This includes the restoration/preservation of the stream channel and associated stream buffer. Using this number as a basis, mitigation banks are encouraged to maximize the riparian areas (i.e., stream buffer areas) surrounding restored/preserved streams within the mitigation bank boundaries.

Since USACE mitigation banks are located off-site from potential buffer encroachments, a 2.5 multiplier is applied to the mitigation calculations. Therefore, the proposed buffer mitigation alternative requires the procurement of 0.115 stream credits per square foot of stream buffer impact.

Example 1:

2500 sq ft of buffer impact X 0.046 credits per sq ft X 2.5 factor for off-site = 287.5 stream credits = **288 total stream credits**

To encourage the use of USACE mitigation banks in close proximity to the buffer encroachment, if the applicant purchases credits from a mitigation bank in the same 12-digit HUC, a multiplier of 0.9 will be placed on the number of stream credits needed to serve as mitigation for the proposed buffer impact. However, if the applicant purchases credits outside the 12-digit HUC, but within the larger 8-digit HUC, a multiplier of 1.0 will be placed on the number of stream credits needed to serve as mitigation for the proposed buffer impact. If the applicant purchases credits outside the 8-digit HUC, but within the Primary Service Area (PSA)/Secondary Service Area (SSA) serving the 8-digit HUC, a multiplier of 1.1 will be placed on the number of stream credits needed to serve as mitigation for the proposed buffer impact. Equivalent out of kind mitigation bank credits (i.e., wetland) will be considered if no stream mitigation credits are available in the PSA/SSA.

Example 2:

2500 sq ft of impact X 0.046 credits per sq ft X 2.5 factor for off-site = 287.5 stream credits

287.5 stream credits X 0.9 in-watershed multiplier = 258.75 stream credits = **259 total stream credits**

Example 3:

2500 sq ft of impact X 0.046 credits per sq ft X 2.5 factor for off-site = 287.5 stream credits

287.5 stream credits X 1.0 in-basin multiplier = 287.5 stream credits = **288 total stream credits**

Example 4:

2500 sq ft of impact X 0.046 credits per sq ft X 2.5 factor for off-site = 287.5 stream credits

287.5 stream credits X 1.1 out of basin multiplier = 316.25 stream credits = **317 total stream credits**

If hydrologic or water quality protection components (see page 2 of this guidance) cannot be addressed on the site, justification must be provided and mitigation credits will be required as a substitute.

When applying under **criterion (k)**, a multiplier of 1.1 or 1.2 will be placed on the number of stream credits needed to serve as mitigation for the proposed buffer impact. If only one component cannot be addressed, use a multiplier of 1.1. If both components cannot be addressed, use a multiplier of 1.2.

Example 5:

2500 sq ft of impact X 0.046 credits per sq ft X 2.5 factor for off-site = 287.5 stream credits

287.5 stream credits X 1.1 out of basin multiplier = 316.25 stream credits

316.25 stream credits X 1.1 multiplier for hydrologic **or** water quality protection = 347.875 stream credits = **348 total stream credits**

Example 6:

2500 sq ft of impact X 0.046 credits per sq ft X 2.5 factor for off-site = 287.5 stream credits

287.5 stream credits X 1.1 out of basin multiplier = 316.25 stream credits

316.25 X 1.2 multiplier for hydrologic **and** water quality protection = 379.5 stream credits = **380 total stream credits**

When applying **under criteria (h), (i) or (j)**, a multiplier of 1.1 or 1.2 will be placed on the number of stream credits needed to serve as mitigation for the proposed buffer impact. The mitigation is an additional credit purchase based on not addressing hydrologic or water quality protection components (see page 2 of this guidance). The additional credits are calculated by first determining the number of stream credits required according to the State's Standard Operating Procedure. The applicant then calculates the number of stream credits with the multiplier of 1.1 or 1.2 for not addressing hydrologic or water quality protection components. Lastly, the applicant calculates the difference between the two stream credit calculations. This difference is the amount of stream credits that must be purchased to offset not addressing hydrologic or water quality protection components.

Example 7:

2500 sq ft of impact X 0.046 credits per sq ft X 2.5 factor for off-site = 287.5 stream credits

287.5 stream credits X 1.1 out of basin multiplier = 316.25 stream credits

316.25 X 1.1 multiplier for hydrologic **or** water quality protection = 347.875 stream credits

347.875 stream credits – 316.25 stream credits = 31.625 stream credits = **32 additional stream credits**

Example 8:

2500 sq ft of impact X 0.046 credits per sq ft X 2.5 factor for off-site = 287.5 stream credits

287.5 stream credits X 1.1 out of basin multiplier = 316.25 stream credits

316.25 stream credits X 1.2 multiplier for hydrologic **and** water quality protection = 379.5 stream credits

379.5 stream credits – 316.25 stream credits = 63.25 stream credits = **64 additional stream credits**

For all projects, the applicant must identify and provide a rationale for the chosen bank as part of the stream buffer variance application. In addition, the applicant must provide a letter from the USACE documenting that the water body identified in the stream buffer application is not considered a jurisdictional water under Section 404 of the Clean Water Act.

All stream buffer impacts that are granted by EPD via a variance will have a discrete document number. This document number generated by EPD will be the reference for tracking the sale of stream credits and will be used to report sales of stream credits to the USACE. The mitigation bank from which the stream credits will be purchased has the responsibility of notifying the USACE of the credit transaction by way of inputting the credit transaction into the RIBITS system via the Internet.

Credit purchase must occur at least 14 days prior to any land disturbance on site. If the applicant purchases mitigation credits after this deadline, a multiplier of 1.5 will be placed on the number of stream credits needed to serve as incentive to comply with the aforementioned deadline. Once the transaction has been completed, the mitigation bank will provide the applicant with sales receipt verifying the transaction. This receipt shall be forwarded to EPD by return receipt certified mail (or similar service) by the applicant to document buffer mitigation compliance.