Appendix I

DMS Compensation Planning Framework

DMS applies multi-scale watershed planning to set and achieve goals for maintaining and improving aquatic resources throughout North Carolina. To comport with the 2008 Mitigation Rule, DMS's watershed approach shall focus on functional replacement and provide watershed-specific data to inform all mitigation efforts across the State of North Carolina. Function-based priorities support linkages between all watershed stressors and project specific goals of compensatory mitigation projects.

DMS develops River Basin Restoration Priority Plans (RBRPs) for each river basin within the state. To better comply with the 2008 Federal Mitigation Rule (33 CFR Parts 325 and 332), DMS shall apply function-based watershed priorities. Targeted Resource Areas (TRAs) are delineated based upon baseline functional resource conditions and opportunities for functional improvement. TRAs support the CFR requirements for a watershed approach by identifying and prioritizing areas where aquatic resource restoration, enhancement and preservation of existing aquatic resources are important for maintaining and improving aquatic resource function (33 CFR Part 332.3(c)(2)(iv)). As DMS transitions to TRAs, DMS will continue to incentivize project implementation within currently defined priorities at the USGS 14-digit watershed scale.

DMS develops Regional Watershed Plans (RWPs) and Local Watershed Plans (LWPs) to focus on watersheds with unique resources that are at risk of future threats based upon distributions of aquatic resource impacts and associated mitigation needs. Through multi-scale functional assessments and evaluations of existing and future land use, DMS is able to identify the types and locations of compensatory mitigation that provide functional uplift and conservation in dynamic landscapes.

Geographic Service Area(s) (CFR sections i)

The defined geographic services areas are sized to ensure that the aquatic resources provided by mitigation will effectively compensate for permitted environmental impacts. In accordance with the federal rule, the economic viability of the in-lieu fee program was also considered in determining the size of service areas. DMS utilized a number of data sets to determine the final geographic service areas including:

- USGS National Watershed Boundary Dataset[1]
- Functional loss and replacement opportunity
- Ecoregion boundaries (Level III)
- Habitat types (thermal regimes)
- History of mitigation delivery (impacts, pricing and opportunities)
- Size and connectivity to adjacent CU

Analysis of Aquatic Resources (Historic and current condition, documentation of threats) (CFR sections ii-iv)

DMS evaluates multiple data sources to inform both historic and current aquatic resource condition and evaluate existing threats. Data analyses incorporated as part of River Basin Restoration Priority (RBRPs) plans, Regional Watershed Plans (RWPs) and Local Watershed Plans (LWPs) examine water quality, habitat and hydrology through examination of land use/land cover, physico-chemical water quality data, and biological monitoring data. In addition, DMS evaluates watershed plans and reports developed by other agencies and organizations and solicits feedback from local watershed stakeholders to pursue maximum data capture. Current aquatic resource conditions and mitigation opportunities are further informed by field evaluations, evaluating responses from Requests for Mitigation proposals and DMS Project Managers. Population trends, projected DOT impacts and In-Lieu-Fee types, amounts and locations of receipts are considered in conjunction with current resource conditions to identify current and future threats to aquatic resources.

The above data provide multiple lines of evidence to describe current aquatic resource conditions and future threats. DMS uses these data to support identification of watersheds that exhibit the best opportunities to address watershed functions threatened by existing or future impacts. As additional data sources become available, DMS will evaluate their utility for informing functional condition.

Aquatic resource goals and objectives for each service area (CFR sections v)

Data analyses and stakeholder input are used to identify goals and objectives at various watershed scales. DMS re-evaluates data from existing watershed plans and RBRPs to identify stressors and assets associated with water quality, habitat and hydrology. Aquatic

[1] USGS National Watershed Boundary Dataset (WBD) 20140924 National Shapefile File Geodatabase Feature Class, Accessed September 2014

resource goals and associated management recommendations are linked to functional improvement priorities for each service area.

Prioritization strategy for selecting and implementing compensatory mitigation activities (CFR Section vi)

DMS will seek traditional and alternative mitigation opportunities that support watershed improvement goals identified for each GSA. This may include implementation of traditional stream and wetland projects as well as alternative mitigation projects (eg. Regenerative Stormwater Conveyance, stormwater wetlands) that contribute to functional improvement and support the long-term sustainability of the aquatic resource. This supports DMS's approach to integrate sound science and data to implement projects that optimize uplift given the specific conditions and constraints in the watershed and the project boundaries.

DMS will analyze higher resolution data for individual CUs and incentivize implementation of projects in priority watersheds that address functional restoration goals identified in the analysis (detailed in ii-iv above). All projects will be technically evaluated. Projects that link watershed stressors and restoration goals with project design, monitoring and success criteria will be prioritized for mitigation funding. Further incentives are provided for projects located in existing watershed planning areas, projects that address identified stressors and special watershed study areas identified by other agencies and organizations (ex. Division of Water Resources, US Fish and Wildlife Service).

Preservation objectives (CFR Section vii)

Preservation projects identified through watershed analyses will be linked to the watershed goals and objectives and implemented according to project delivery mechanisms outlined in Section IV.H.1(d). Projects will demonstrate landscape significance and support long-term sustainability of the aquatic resource. Sites identified as priorities by other agencies or stakeholders and that provide unique functional uplift will be incentivized. These projects may include, but are not limited to, habitat for federal or state threatened or endangered species.

Public and private stakeholder involvement (CFR Section viii)

DMS incorporates stakeholder input in its prioritization and implementation process through evaluation of multiple state, regional and local data sources as well as consideration of localized planning efforts and feedback from resource professionals. In addition, DMS solicits feedback from mitigation providers on existing aquatic resource conditions and opportunities within the GSAs through project proposal briefings and online surveys.

Long-term protection and management strategies (CFR Section ix)

DMS will transfer responsibility for the long-term management of mitigation sites to an approved stewardship entity as described in Section IV.K.8.

Periodic evaluation and reporting (x)

Watershed data for GSAs are updated as new data become available and/or based upon changes in watershed conditions or extensive impact projections. Watershed planning results and updates will be reported through the DMS website. DMS will provide briefings to the IRT upon request. DMS further documents the linkage of watershed goals to individual mitigation projects through individual project mitigation plans, pre-and post-project monitoring and project closeout summary reports.