



St. Lucie Basin Basin Management Action Plan March 24, 2010

Allocation Procedure

Introduction

The Florida Department of Environmental Protection (FDEP) has adopted a Total Maximum Daily Load (TMDL) for total nitrogen (TN) and total phosphorus (TP) in the St. Lucie Basin. The load is divided among several tributaries that flow to the river and the estuary.

According to Section 403.067, Florida Statutes (F.S.), BMAPs may provide for detailed allocations, phased implementation, and give load reduction credits to responsible parties that have implemented load reductions. In order to implement the TN and TP load reductions identified in the TMDL, the St. Lucie BMAP will include allocations to responsible parties in the basin. Allocations are appropriate in the St. Lucie basin due to its geographic and political scale. The St. Lucie Basin TMDL did not allocate TN and TP loads to point source facilities because all of the facilities discharged only during extreme storm events or discharged cooling water only. The TMDL did not specify detailed allocations for other sources; rather the TMDL assigned a percent reduction of TN and TP to individual WBIDs. Through the BMAP process, detailed allocations will be made to the appropriate entities within these watersheds.

Entities in the St. Lucie basin include two counties (Martin and St. Lucie), two cities (Stuart and Port St. Lucie), all or most of two water control districts (WCD) (North St. Lucie and Troup Indiantown Drainage District), parts of two water control districts (Pal Mar and Hobe St. Lucie Conservancy District), Florida Department of Transportation (FDOT) District 4, and agriculture. The allocation procedure equitably assigns pollutant load reductions among the entities by considering each entity's loads.

Methodology for Allocations

The steps to calculate each entity's allocation for the BMAP are a Geographic Information System (GIS) based process, which uses a base map shapefile that contains land use information and entity boundary information.

The base map shapefile will be clipped (removed from the base file) into various categories, discussed below. Note that all shapefiles created by clipping or exporting will be saved out as shapefiles and contain all of the data in the attribute table that was included in the base map shapefile. At the same time, the clipped area and its associated data are removed ("erased") from the base map shapefile.

The following areas will be clipped sequentially from each project zone shapefile, saved as its own new shapefile, and then erased from the base map shapefile:

- FDOT roads and right-of-ways (based on information provided by FDOT);
- Water control districts;
- Areas with agricultural land uses; and
- All areas occupied by cities and towns, each to its own jurisdictional boundary.

Once these areas have been clipped and erased, the remaining project zone shapefile will be the county responsibility.

Finally, each entity's (including counties) municipal separate storm sewer system (MS4) boundary will be clipped and erased from their jurisdictional boundary resulting in two files: (1) a load allocation (non-MS4 allocation); and (2) a wasteload allocation (MS4 allocation), where appropriate.

Calculations

The shapefiles and associated data will be used to calculate each entity's 2000 loading for each WBID. Then, using the overall acres in each project zone, a target load per acre will be calculated using the target load for the WBID from the TMDL. The allowable load for each entity will be calculated by multiplying its total acres by the target load per acre. The required reduction for each entity is then the entity's 2000 loading minus its allowable load.

As part of the allocation calculation process, a *de minimus* loading value for TN and TP will be determined. Any entity that has 2000 starting point loads below the *de minimus* values will not receive an allocation in this iteration of the St. Lucie Basin BMAP. However, both the TN and TP starting point loads must be below the *de minimus* values in order to not receive an allocation. FDEP is currently determining the appropriate *de minimus* loading values for the basin.

Next Steps

After, jurisdictional boundaries and MS4 boundaries (if applicable) are received and/or confirmed by the entities, FDEP will begin the GIS processing steps to create the shapefiles needed for the allocation calculations. Once the GIS files are available, the allocations to each responsible entity will be determined, and any entities that meet the *de minimus* requirements will be noted and removed from the allocations in this iteration of the St. Lucie Basin BMAP.