One Water Task Summary

The following is a summary of One Water Tasks discussed in this iteration of the Plan. For additional information on these tasks as well as the Visions and Pathways that drive them, please see the associated section of this document.

Monitoring, Modeling, and Watershed Improvement Planning	
Task Type	**Vision Task**
	Install comprehensive water flow and elevation monitoring system to track pollutant loading rates, identify areas of flood and tidal surge risk, and calibrate/validate predictive flow and pollutant loading models.
	Build initial iteration of the *Spatially Integrated Model for Pollutant Loading Estimates* (SIMPLE) pollutant loading model to identify possible sources and drivers of pollutant discharges in the county.
	Coordinate with regional partners to initiate Charlotte Harbor and Lemon Bay water circulation study to determine hydrologic dynamics in areas experiencing chronic annual macroalgae and cyanobacteria blooms.
	Begin developing restoration plans based on prioritization described in this plan. For those impaired waterbodies recommended for TMDL development, confer with relevant partners to request FDEP's prioritization of these areas for modeling and restoration strategy development.
	Participate in and support implementing recommendations emerging from the regional harmful algal bloom working group.
	For waterbodies indicating potential water quality impacts but for which no impairment designation has been established, determine data needs as applicable and implement enhanced monitoring in the area to support assessment by FDEP. In addition, expand current monitoring program to account for impacts from National Pollutant Discharge Elimination System (NPDES) wastewater discharge facilities and other point sources.
	Create Charlotte Harbor nutrient loading reduction and management strategy, to be integrated with regional agencies' management strategies for restoring the health of Charlotte Harbor. Work with partner agencies to develop an annual "state of the estuary" one-pager to describe current water chemistry and ecological health of Charlotte Harbor, in order to maintain focus on addressing management gaps. Participate in and support implementing recommendations emerging from the regional Charlotte Harbor/Lemon Bay harmful algal bloom working group.
	Implement central data management, review, and storage warehouse for all water quality and quantity monitoring efforts collected or funded by the county.
	Partner with regional monitoring agencies as needed to create complimentary, cooperative monitoring programs. Assist partner agencies in streamlining data review and management processes to maximize the efficiency and accuracy of monitoring activities in our estuary.

Stormwater Management	
Task Type	**Vision Task**
	Initiate the first phases of the stormwater maintenance optimization process, identifying waterway-specific maintenance needs and upgrading maintenance communications/logistics.
	Review and Revise the County Stormwater Master Plan as needed, incorporating portions of the county not currently included in the Plan, and identifying opportunities for enhancing stormwater treatment and levels of service considering revised 2024 stormwater rule, and newly acquired information on flood risks due to current and future coastal storm surge scenarios.
	Install water elevation monitoring networks to track flow rates, flood risk, and tidal influence on water drainage in the region.
	Based on output from the county Vulnerability Assessment and Watershed Master Plan, develop predictive tools as needed for stormwater runoff and drainage rates to assist in: -prioritizing enhanced water management in areas of higher flood risk. -developing predictive flood risk tools to assist in evaluating impacts of changing land use in an area.
	Based on modeling and observed drainage characteristics, establish adaptation action areas, identify opportunities and options for neighborhood-scale detention and water quality improvement to serve residential and/or commercial areas as needed.
	Implement pilot eelgrass planting projects in select waterways to evaluate water quality improvement efficacy and considerations related to flood control.
	Pilot the installation of floating canal barrier systems to sequester and minimize the spread of nuisance floating vegetation throughout the canals, to reduce the frequency/need for treatment.
	Pilot installation of stormwater filter/infiltration system in association with canal systems exhibiting higher pollutant concentrations than other waterways in the region.
	Develop pond monitoring and stewardship program to assist residents in identifying opportunities for enhancing private residential ponds. Evaluate options for including cost-share program to implement remediation solutions such as plantings and aeration structures.

Drinking Water and Wastewater Management	
Task Type	**Vision Task**
	Conduct a needs and cost analysis of expanding sewer and potable water service to portions of west Port Charlotte.
	Increase groundwater elevation and salinity monitoring network to track saltwater intrusion trends in the region, especially in areas with higher densities of groundwater withdrawal wells.
	In cooperation with other relevant departments (such as Community Development), identify opportunities to organize and implement enhanced education and enforcement process to reduce construction-related breaks in water supply and wastewater transmission pipes.

	Initiate reclaimed water user irrigation education campaign, providing guidance on water content and application to reduce fertilizer use and inappropriate irrigation application.

**** NOTE:** The Utilities Department has developed multiple plans with recommendations related to water supply and treatment processes while addressing water quality and quantity considerations. The measures in those plans should be considered components of the county's One Water Program, with the recommendations in this document intended to be complimentary to those efforts.*

Policy, Programmatic, and Organizational Activities	
Categories	**Task**
	As a component of the proposed citizen science program, initiate a comprehensive stewardship marketing campaign to better inform the public of the part they play in maintaining a healthy water system from house to harbor.
	Establish Environmental Analyst, Technician, and Programs Coordinator positions to assist with reporting, prioritization, analysis, and recommendations associated with the county water quality program.
	Prioritize green stormwater infrastructure (GSI) implementation at county properties, to serve as demonstration measures for private and residential development and be held as a benchmark in the county for integration of comprehensive water management/ treatment processes.
	Evaluate the need, feasibility, cost/benefit, and authority to alter the current fertilizer ordinance based on recent research regarding timing and duration of fertilizer bans.
	Establish water program steering and collaboration board comprised of residents, representatives from local government entities, and water-related commercial interests.
	Implement Comp Plan FLU Policy 2.3.2 by formalizing collaborative efforts with the regional water protection agencies through the implementation of Charlotte County Water Improvement Workgroup.
	Support and participate in the development of a statewide One Water coalition.
	Create central online water resource education hub to provide information to the public on water management considerations in the region as well as address frequently asked questions/concerns posed to county departments.
	Support and assist in the renewal of Conservation Charlotte.

Initial Implementation Schedule

Near Term (complete within 1 year of Plan acceptance):

- Initiate water quality/quantity monitoring infrastructure and pollutant loading models to support development of Reasonable Assurance Plans (RAP) and other pollutant reduction/minimization products.
- Initiate RAP development based on prioritization scheme recommended in the plan, with additional focus on creating the data/modeling resources needed to support RAP development for Charlotte Harbor.

- Centralize and standardize county data storage, retrieval, and evaluation processes.
- Implement water treatment/management pilot projects to determine feasibility for more widespread adoption (e.g eelgrass-based treatment, floating vegetation sequestration barriers, further sediment nutrient analysis and remediation measures).
- Expand water elevation network and conduct flow/elevation data gap analysis for flow and stormwater model development.
- Identify and commence development of additional outreach programming related to function and stewardship of canals and drainage ways.
- Initiate the first phases of the stormwater maintenance optimization process, identifying waterway-specific maintenance needs and upgrading maintenance communications/logistics.
- Initiate comprehensive stewardship marketing campaign to better inform the public of the part they play in maintaining a healthy water system from house to harbor.
- Establish water program advisory and collaboration board comprised of residents, representatives from local public entities, and water-related commercial interests.
- Create central online water resource education hub to provide information to the public on water management considerations in the region as well as address frequently asked questions/concerns posed to county departments.
- Advocate, promote, and participate in regionalized efforts to address systemic water quality/quantity issues in Charlotte Harbor and contributing basins, such as the statewide One Water consortium.
- Determine needs for increased groundwater elevation, quality and salinity monitoring network to track water quality trends in the region, especially in areas with higher densities of groundwater withdrawal wells.
- Evaluate current education and enforcement process around construction-related breaks in water supply and wastewater transmission pipes and investigate opportunities and feasibility of enacting additional proactive measures to reduce frequency of breaks.
- Initiate reclaimed water user irrigation education campaign, providing guidance on water content and application to reduce fertilizer use and inappropriate irrigation application.

Mid Term (initiate upon Plan acceptance, completion dependent on scope of task):

- For waterbodies not impaired, develop watershed management/stewardship plans.
- For those impaired waterbodies recommended for TMDL development, confer with relevant partners to request FDEP's prioritization of these areas.
- Coordinate with partner agencies in regionalizing predictive stormwater modeling efforts.
- Conduct a needs and cost analysis of expanding sewer and potable water service to currently undeveloped regions of west Port Charlotte.
- Identify feasibility and funding options for upgrading certain transmission systems in the county.