

RESTORE Act Ecosystem Restoration Project Proposals
for consideration in the Gulf Coast Ecosystem Restoration Council's Comprehensive Plan
2014

Contact Information: Michael Jones, Sarasota County Water Resources, mjones@scgov.net , (941) 650-9926				Date of Submittal: October 2014			
Name of Project: Dona Bay Environmental Restoration				Org and Rank: Sarasota County / 1			
Project Description: This is a multi-phase implementation for the Dona Bay Watershed Management Plan (DBWMP). The existing Dona Bay watershed has been significantly impacted by man-made drainage activities, which increased the efficiency and volume of freshwater being discharged to its tidal estuary. The DBWMP was completed in 2007 and recommended a phased implementation to achieve five objectives: 1) Provide a more natural freshwater/saltwater regime in the tidal portions of Dona Bay; 2) Provide an opportunity for alternative water supply development; 3) Provide flood protection; 4) Provide pollutant load removal; and 5) Provide rehydration of wetlands. Phase 1 - The Dona Bay Conveyance System project will construct a 100-acre stormwater storage facility; increase the storage capacity in two existing lakes (total of 180 acres); and rehydrate 83 acres of wetlands. The project is estimated to remove over 18,000 pounds of nitrogen from the system annually at a cost of \$34 per pound of nitrogen removed. In addition to the nitrogen removal, the Dona Bay Conveyance System project will also reduce the volume of fresh water conveyed to Dona Bay and remove suspended solids and phosphorus from the system. The project design is complete and was advertised for construction in September, 2014. The anticipated construction start is early spring 2015. Phase 2 - The second phase of the project will construct a piped system to transfer the water from the wetland rehydration area to a 380 acre lake which was a former mine. Phase 2 of the project implements the DBWMP by diverting freshwater volume from Dona Bay; increasing the wet detention treatment capacity; and providing storage for future potential beneficial uses such as re-use supply and potable water supply. The pipe system for Phase 2 is designed and permitted and the enhancements for the existing 380 acre lake are in design.							
Project Location: Sarasota County, Florida							
Responsible Party: Sarasota County				Partners: Southwest Florida Water Management District			
NEP: : Charlotte Harbor		Project Cost: \$16,000,000			Dollars Needed \$3, 500,000		
Start: March 2015				Completion: June 2017			
Status of Project Design and Permitting: Some components of the conveyance system have received applicable permits.							
What Date or Year could Construction Feasibly Begin: March 2015							
Your Proposed Timing of Funding (given permits, phasing, staging, etc.)							
FY	14/15	15/16	16/17	16/17	17/18	18/19	Total
	\$1,750,000	\$1,750,000					\$3,500,000

Quantify Environmental Results and How to Measure Them:

Environmental results will be quantified by reduction of flows to the estuary measured by stage heights and discharge curves. Phases of the project are estimated to reduce excess flows by 15% to 80%.

Economic Benefits (including ecosystem services): Quantified economic benefits are estimated based on pollutant load removal. Phase 1 has the potential to remove up to 18,500 lbs of nitrogen a year. At \$750 per pound this is close to \$13,500,000 million dollars per year benefit.

Estimated number of Jobs Created or Preserved: 50 to 100 jobs based on agency oversight, construction personnel etc.

How much Habitat will be restored and conserved?: The water shed itself is 75 square miles. The hydrology for a 120 acre freshwater wetland habitat will be restored in later phases and the estuary itself is approximately 3000 acres.

Quantify pollutant reductions: 18,500 lbs reduction of nitrogen per year. Up to 3,500 lbs of phosphorus reduction per year.

What living coastal/marine resources will be improved and by how much?:

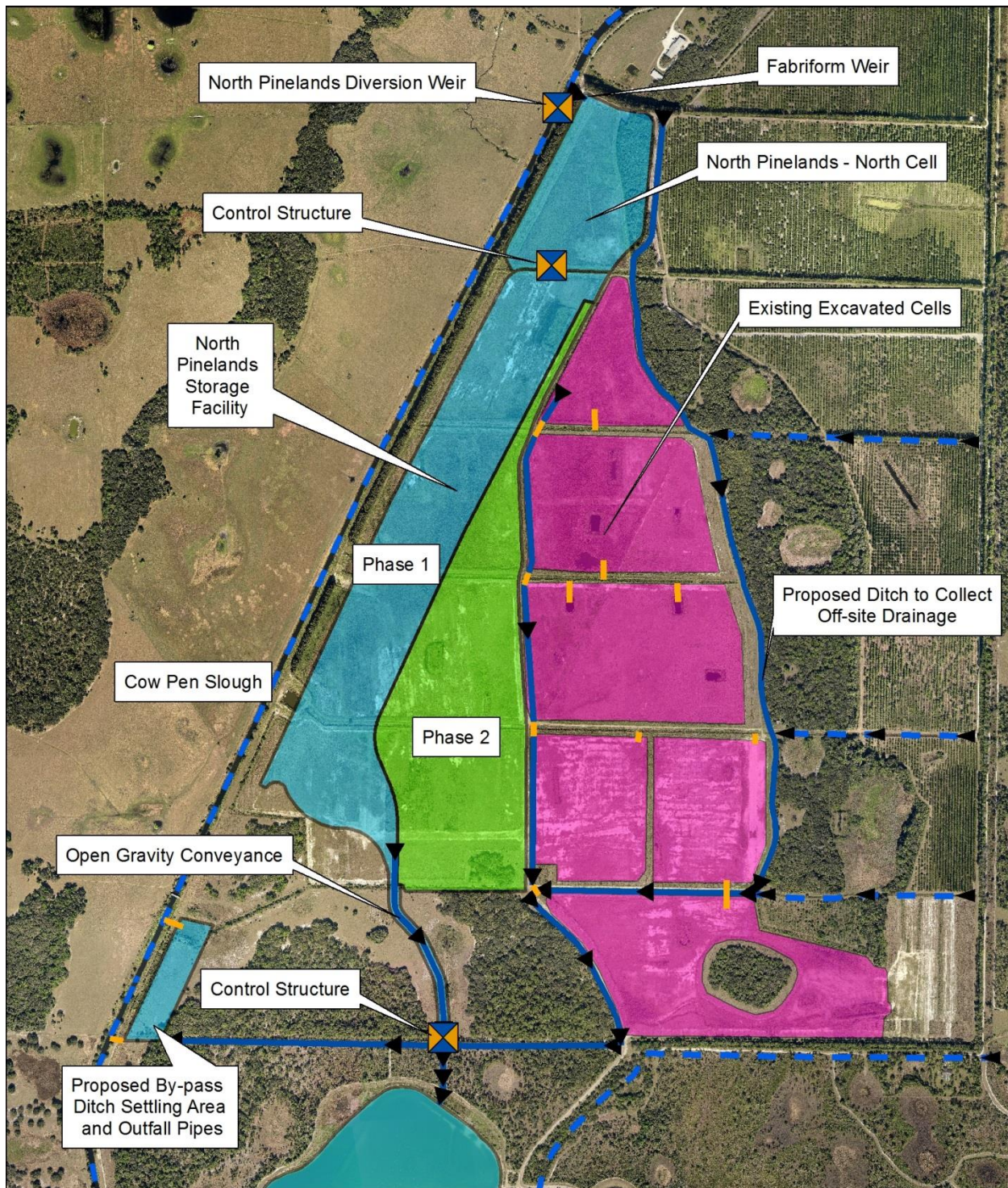
Oyster beds will become more stable, benthic and juvenile fish restoration due to more stable salinity regime.

How will community resilience be enhanced?

Stabilizing the salt freshwater regime and reduction of excess freshwater discharge will make ecologic communities more stable.

Additional Justification:

Add any photos or maps that explain project:

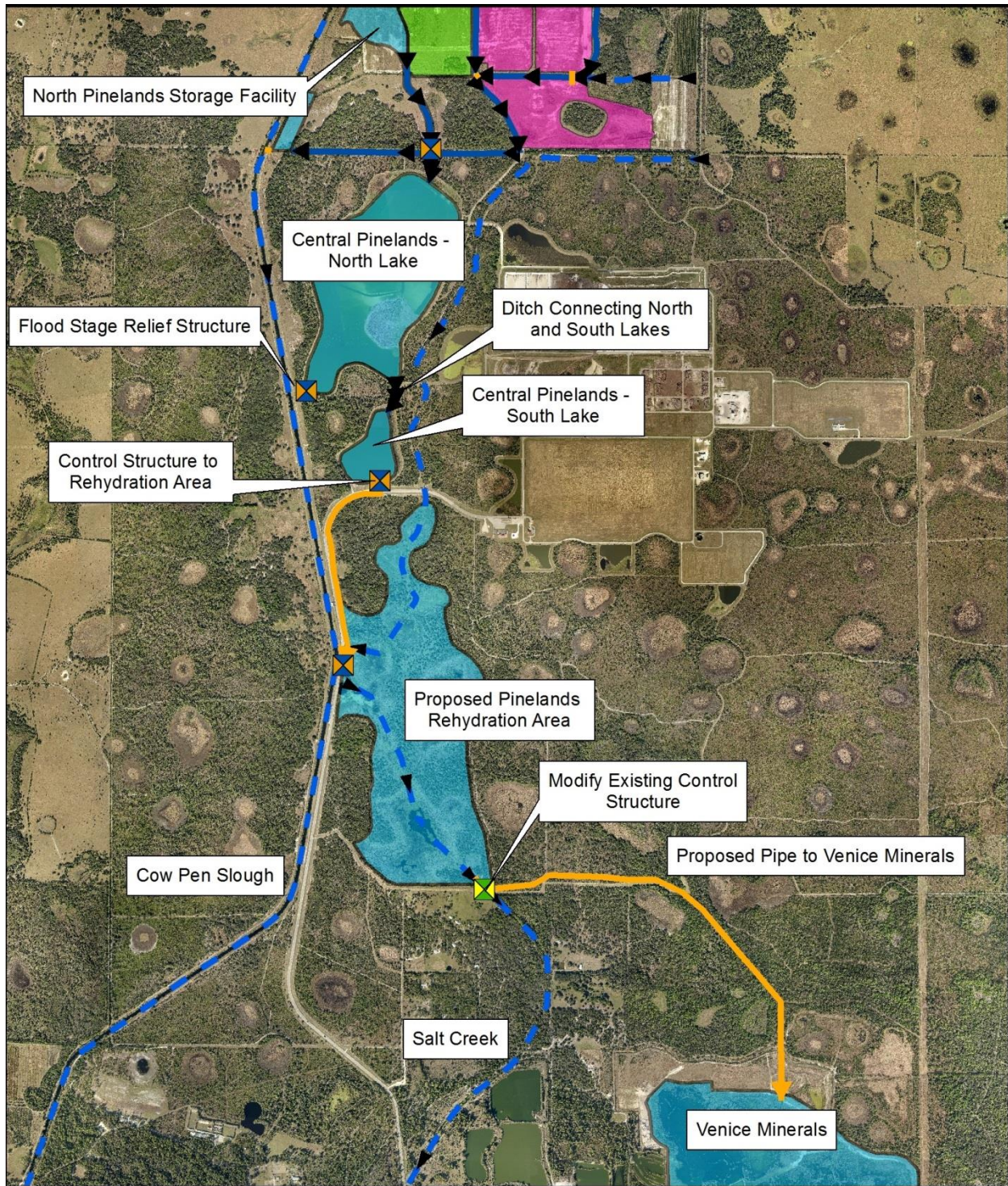


Legend

- Proposed Storage, Phase 1
- Proposed Storage, Phase 2
- Existing Shallow Excavation
- Existing Ditch/Canal
- Proposed Control Structure
- Proposed Pipe
- Proposed Ditch/Canal



Not to Scale



Legend

- | | |
|-----------------------------|----------------------------|
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| Proposed Storage, Phase 2 | Proposed Pipe |
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Not to Scale