GOLDEN GATE 
WATERSHED IMPROVEMENT PROGRAM (GGWIP) 
TECHNICAL ADVISORY AD HOC 

COMMITTEE MEETING 
Friday, October 23, 2015 
9:00 a.m. 
Growth Management Department Building, Conference Room 609/610 
2800 N. Horseshoe Drive, Naples, Florida 34104 

AGENDA 

1. Roll Call 

2. Agenda Approval 

4. Staff Announcements – Tabitha Stadler, Principal Planner, Stormwater Planning Section, Collier County Government  
   • Welcome 
   • Committee Status and Future Appointments 
   • Roadmap for Review of the RESTORE Proposal 
   • Committee Business 

5. Workshop Session  
   • Overview of RESTORE Funding – Gary McAlpin, Manager, Coastal Zone Management, Collier County Government  
   • Overview of Belle Meade Flow-way Restoration Master Project – Gary McAlpin 

7. New Business 

8. Member and Citizen Comments 

9. Reminder of next meeting date (9 a.m. November 6, 2015) 

10. Adjournment 

NOTE: All public speakers will be limited to three (3) minutes unless the Chairman grants permission for additional time. Individuals selected to speak on behalf of an organization or group may be allotted 5 minutes to speak on an item if so recognized by the chairman. Persons wishing to have written or graphic materials included in the GGWIP agenda packets must submit said material a minimum of 10 days prior to the meeting.
RESOLUTION NO. 2015-32

A RESOLUTION ENDORSING THE INITIATIVE TO DEVELOP THE GOLDEN GATE WATERSHED IMPROVEMENT PROGRAM (GGWIP)

WHEREAS, The coastal communities of Southwest Florida are consistently impacted by freshwater discharges from associated watersheds impacting the ecology of our waters, the quality of life of our citizens, area businesses, and having a lasting effect on our local economy. Discharges occur as a result of our man-altered landscape of flood control projects, channelization, and other land use changes that have occurred throughout the region over the past century. The current condition is much different from the original undeveloped state. The system we have today delivers water to the coast very quickly with little to no water treatment. This has resulted in our estuaries receiving too much water during the wet season and not enough water during the dry season. Untreated surface water runoff is laden with excessive nutrients that can stimulate harmful algal blooms.

WHEREAS, Tourism and real estate tax revenue in Collier County generates billions of dollars annually. Local water quality can have a tremendous influence on consumer confidence and can greatly impact tourism and our local economy. In addition to impacts on our local economy, too much or too little freshwater delivered to the coast can effect critical estuarine resources such as seagrasses, oysters and fishes. The combined impacts on the local economy and the ecology of our waters can greatly influence the quality of life of Collier County residents.

WHEREAS, Collier County has conducted several studies, including the Belle Meade Area Stormwater Management Master Plan (2006) and the Horsepen Strand Conservation Area Feasibility Study Phase 1 (2008), that served as the groundwork for the Collier County Watershed Management Plan (WMP), adopted by the Board of County Commissioners in 2011. The WMP is the County’s guiding document that describes strategies to restore historical water quantity and estuarine discharges, improve water quality within the watersheds and estuaries, and address flood control and water supply issues (WMP, 2011).

WHEREAS, The WMP prioritizes capital improvements projects (structural projects) for each of the County’s main watersheds based on a methodology that evaluated potential projects on their viability to be permitted and constructed; the benefits yielded though performance measures; estimated cost; and calculated benefit versus cost (B/C) ratio. Additionally, the WMP proposes complementing the recommended structural projects with non-structural initiatives in order to achieve the plan’s restoration goals.

WHEREAS, The purpose of this initiative, Golden Gate Watershed Improvement Program (GGWIP) is to develop and implement actions to manage water management system
strategies with high potential for overarching impact to Collier County in accordance with the WMP.

WHEREAS, This initiative, GGWIP, focuses on the watersheds that are generally within the boundaries of the County’s WMP’s recommended list of capital improvement projects: Golden Gate-Naples Bay; Rookery Bay; Cocohatchee-Corkscrew; and Faka Union. The estuaries impacted by these watersheds are: Naples Bay; Rookery Bay; Wiggins Pass; and the Ten Thousand Islands.

WHEREAS, This initiative, GGWIP, also proposes to devise recommendations based on environmentally sustainable management system strategies aimed at protecting, preserving, and restoring the resource in areas, within the watersheds mentioned above, that have experienced the highest impact due to human activity, while encouraging efficient urban development in areas with the highest existing and potential urban development in the County.

WHEREAS, To develop and implement this initiative, GGWIP, it is necessary that the County works in concert with government agencies and/or non-governmental organizations that will be directly impacted by the implementation of the program.

NOW, THEREFORE, BE IT RESOLVED BY THE COUNTY BOARD OF COUNTY COMMISSIONERS OF COLLIER COUNTY, FLORIDA, THAT:

The Board of County Commissioners hereby endorses the initiative to develop the Golden Gate Watershed Improvement Program (GGWIP).

THIS RESOLUTION ADOPTED after motion, second and majority vote favoring same, this 16th day of February, 2015.

ATTEST: DWIGHT E. BROCK, CLERK

By: [Signature]
Deputy Clerk
Attest as to Chairman’s signature only.

Approved as to form and legality:

[Signature]
Heidi Asston-Cicko
Managing Assistant County Attorney

BOARD OF COUNTY COMMISSIONERS COLLIER COUNTY, FLORIDA

By: [Signature]
Tim Nance, Chairman
RESOLUTION NO. 2015 - 25

A RESOLUTION OF THE BOARD OF COUNTY COMMISSIONERS OF COLLIER COUNTY, FLORIDA, ESTABLISHING THE GOLDEN GATE WATERSHED IMPROVEMENT PROGRAM TECHNICAL ADVISORY AD HOC COMMITTEE.

WHEREAS, Collier County Ordinance No. 2001-55, as amended, provides that the Board of County Commissioners may, by resolution, appoint an ad hoc or task force committee for a specific project, if the duration of the committee does not exceed three years duration; and

WHEREAS, the Board of County Commissioners desires to establish the Golden Gate Watershed Improvement Program Technical Advisory Ad Hoc Committee to advise County staff and the Board of County Commissioners on the development and implementation of the Golden Gate Watershed Improvement Program (GGWIP).

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF COLLIER COUNTY, FLORIDA, that:

SECTION ONE: Creation and Purpose of the Golden Gate Watershed Improvement Program Technical Advisory Ad Hoc Committee.

Pursuant to the provisions of Collier County Ordinance No. 2001-55, as amended, the Board of County Commissioners (Board) hereby establishes the Golden Gate Watershed Improvement Program Technical Advisory Ad Hoc Committee (Committee) to advise County staff and the Board on the development and implementation of the Golden Gate Watershed Improvement Program (GGWIP).

SECTION TWO: Appointment of Members, Terms of Office, Attendance Requirements.

A. There shall be seven regular members to this Committee, who shall serve a one year term. Members shall be comprised of one representative from each of the following agencies:

1. South Florida Water Management District/Big Cypress Basin Service Center
2. City of Naples
3. City of Marco
4. Collier Soil and Water Conservation District
5. Florida Department of Environmental Protection
6. Rookery Bay National Estuarine Research Reserve
7. Florida Fish and Wildlife Conservation Commission

B. Members shall be recommended by his or her respective agency to the Board for consideration for appointment to the Committee. Appointment of members to the Committee shall be by resolution of the Board.

C. Removal from office and attendance requirements shall be governed by Collier County Ordinance No. 2001-55, as amended, or its successor ordinance.

D. The members of the Committee shall serve without compensation, but may be reimbursed for travel, mileage, and/or per diem expenses if approved in advance by the Board.

SECTION THREE: Officers and Quorum.

At the Committee’s first meeting, the membership shall elect a Chair and Vice-Chair. The presence of a majority of the members shall constitute a quorum. The Committee shall follow Robert’s Rules of Order for the transaction of business and shall keep records of the meetings, findings, and determinations.

SECTION FOUR: Functions, Powers, and Duties of the Committee.

The functions, powers, and duties of this Committee shall be to aid and assist County staff and the Board regarding the development and implementation of the Golden Gate Watershed Improvement Program (GGWIP).

SECTION FIVE: Dissolution of Committee.

Unless extended by Resolution of the Board, this Committee shall automatically sunset without further action one year from the date of this Resolution.
THIS RESOLUTION ADOPTED after motion, second and majority vote favoring same, this 10th day of February, 2015.

ATTEST:

DWIGHT E. BROCK, CLERK

By: [signature]
Deputy Clerk

Attest as to Chairman's signature only.

Approved as to form and legality:

[Signature]
Heidi Ashton-Cidko
Managing Assistant County Attorney

BOARD OF COUNTY COMMISSIONERS
COLLIER COUNTY, FLORIDA

By: [Signature]
Tim Nance, Chairman
RESOLUTION NO. 2015 - 88

A RESOLUTION OF THE BOARD OF COUNTY COMMISSIONERS OF COLLIER COUNTY, FLORIDA, APPOINTING INITIAL MEMBERS TO THE GOLDEN GATE WATERSHED IMPROVEMENT PROGRAM TECHNICAL ADVISORY AD HOC COMMITTEE.

WHEREAS, on February 10, 2015, the Board of County Commissioners (Board), via Resolution No. 2015 – 25, established the Golden Gate Watershed Improvement Program Technical Advisory Ad Hoc Committee (Committee) to advise the Board and County staff on the development and implementation of the Golden Gate Watershed Improvement Program; and

WHEREAS, Resolution No. 2015 – 25 states that the Committee shall consist of seven regular members who are representatives of specified agencies; and

WHEREAS, Collier County staff has provided the Board with its recommendation for appointment.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF COLLIER COUNTY, FLORIDA, that the initial appointments to the Golden Gate Watershed Improvement Program Technical Advisory Ad Hoc Committee are as follows, each being appointed to serve a term expiring on the sunset date of this Committee, which is February 10, 2016:

1. JOCELYN NAGEON DE LESTANG, P. E., Principal Engineer, representing Big Cypress Basin Service Center, South Florida Water Management District;
2. DANA DETTMAR, Environmental Specialist, representing the City of Marco Island;
3. GREGG STRAKALUSE, P.E., Streets and Stormwater Director, representing the City of Naples;
4. DENNIS P. VASEY, Supervisor, Seat 3, representing Collier Soil and Water Conservation District;
5. JULIE NEUROHR, TMDL Coordinator, South District Office, representing Florida Department of Environmental Protection;
6. BRENT BACHELDER, Biological Scientist III, representing Florida Fish and Wildlife Conservation Commission; and
7. JEFFREY A. CARTER, Stewardship Coordinator, representing Rookery Bay National Estuarine Research Reserve.

THIS RESOLUTION ADOPTED after majority vote on the 12th day of May, 2015.

ATTEST:
DWIGHT E. BROCK, Clerk
By: [signature]

BOARD OF COUNTY COMMISSIONERS
COLLIER COUNTY, FLORIDA
By: TIM NANCE, CHAIRMAN

Heidi F. Ashton-Cicko
Managing Asst. County Attorney
1. With the July 2, 2015 Agreement in Principle, BP has agreed to settle all Federal and State claims arising from the Deepwater Horizon oils spill for $18.732 Billion.

2. The $18.732B settlement is broken down as follows:
   - $7.332B for Natural Resources damages that will have no financial impact on Collier County
   - $5.9B for Economic Claims which is intended for entities that sustained economic damage and in general, will not affect Collier County government.
   - $5.5B for Clean Water Act civil penalties which will have a direct and indirect impact on Collier County estuaries, watershed and potentially economic programs.
   - Of the $5.5B in the Clean Water Act civil penalties, 80% will be allocated to the Restore Act funding or $4.4B. The State of Florida will receive approximately $572M.

3. Collier County will directly receive in Direct Component Funding (Pot 1) approximately $5.4M ($308M coming to FL times 25% for all of the 18 unaffected Counties times 7.03% for Collier County’s share of the 18 County portion).
   - This money is in addition to the approximately $1M the County has already received in Pot 1 from the Transocean settlement.
   - The money will be paid out over 15 years and will be managed through Treasury via the Multi Year Improvement Project (MYIP) procedures.
   - Interest will be accrued and paid on a separate schedule.

4. The indirect benefit for Collier County will be Spill Impact Component (Pot 3) which will be an additional $242M available on a competitive state wide basis for restoration, economic and water quality projects administered by the 23 county State Consortium.

5. In an August 2015 workshop with the Restore State Consortium, funding splits for pot 3 funds for each county was discussed and approved by the 23 county State Consortium. If this formula was approved by Treasury and restore guidelines are met then Collier’s portion would be approximately $10M.

6. Atkins is under contract along with ESA and Lago to support Collier in developing a comprehensive watershed project sufficient enough to apply for Restore (Pots 2), FWS, FWC, FDEP stormwater and other state and/or federal funding.

7. A grant application will be submitted for the Comprehensive Plan Component - Category 2 funding in November 2015.

8. Category 1 - Direct Component Category funds will need to be redirected to support this comprehensive program. The Multi year Improvement Program development in this phase can likely support additional definition and project development.
Distribution of Clean Water Act Penalties to Gulf Recovery

Per the RESTORE Act

80% Gulf Coast Restoration Trust Fund

30% to Gulf Coast Ecosystems

30% to Coastal Parishes

25% to other coastal counties, based on allocation formula

70% to most impacted counties, based on allocation formula

30% to coastal parishes based on allocation formula

Governor's Office

Department of Environmental Quality

Alabama Gulf Coast Recovery Council

Clean Water Act Penalties

20% Liability Trust

Oil Spill

Funeral Benefits for Families of those affected by the oil spill

Restoration Council

Federal Register

National Gisting Board

Environmental Protection Agency

Department of the Interior

Department of Commerce

Department of Justice

Department of Defense

Hawaii

0.5%

Texas

Louisiana

Florida

Ala.

2.5%

2.5%

2.5%

30%

30%

35%

48.5%
Collier County Comprehensive Watershed Improvement Program (CWIP)

Project Goals

- Primary Goal is to reduce the excessive amount of freshwater flows to Naples Bay, to rehydrate wetlands in the Belle Meade region, and to reestablish historical freshwater inflow quantities into Rookery Bay at the same time improving the estuary habitat.
  - The Naples Bay watershed has increased in size from 10 sq mi to 120 sq mi, with much of this increase coming from areas that previously flowed to Rookery Bay and resulting in channelized freshwater shock load to aquatic biota of the bay during the wet season.
- Improve the balance, timing and distribution of fresh and salt water in both Naples Bay and Rookery Bay
- Multiyear, multi phase project that is:
  - Permitted
  - Is realistic (cost effective and fundable)
  - Can be accomplished in phases over a 10 year period
  - Has a significant impact on Collier County
  - Fundable or partially fundable by RESTORE
  - Has a very broad support base with local stakeholders, regulator, the environmental community, affected municipalities and State and Federal Agencies
  - Golden Gate is a small piece of a much larger CWIP Project

Staff is conceptually proposing a project that:

- Potential for a maximum of 15% wet weather freshwater flow reduction of into Naples Bay
  - A first phase diversion of 100 cfs in wet season flows from the Golden Gate Canal
  - Increased areas with appropriate ranges of salinity for oyster reefs
- Reductions in loads of nitrogen and phosphorous to Naples Bay
- Diverting water not through Henderson Creek but through North and South Belle Meade flow way. This will allow:
  - Water quality treatment via sheetflow should reduce nutrient loads to Rookery Bay to ambient concentrations
  - Rehydration of perhaps in excess of 10,000 acres of wetlands
  - Habitat restoration
  - No disruption to Hydric Flatwoods vegetation
  - Reduced frequency of forest fires
  - Environmental enhancement of the region supporting eco-tourism
- Restores 45 to 50 cfs freshwater flows into Rookery Bay in two areas where freshwater flows have diminished from historical wet weather flows.
  - Restores hydrology to Rookery Bay
  - Re-establishes natural salinity ranges to pre-disturbance conditions
- Support from multiple agencies and organizations
  - USACE CERT program, utilizes all previous studies, FWS support, FDEP SWIM program for Naples Bay and Rookery Bay/FDEP program.
- Exceptionally Significant Program - likely more than 10,000 acres of total benefit
- Cost of approximately $20M - $25M with potential funding from Restore Category 1, Category 3 and the ability to submit for Category 2 funding.
- Category 3 funding approximately $10M, Redirected Category 1 funding of $6M currently available over 15 years.
Extensive use of Collier County’s TDR land use policies for land acquisitions

**Key Comments**

- No new major studies have been undertaken in the development of this project. Comprehensive hydrologic-hydraulic modeling and ecological analysis performed in several existing studies, over the last decade supplemented with specific project definition have been used in the development of this project.
- Variable speed pumps will be used at the Golden Gate Canal and the I-75 pump station to provide for operational flexibility and capacity adjustments.
- Flow conveyance via new canal from the Golden Gate canal to a distribution spreader swale north of 75. The existing rock quarries are not available for acquisition. Layout, land availability and potential sending land restrictions in North Belle Meade will limit a new reservoir capacity (300 acre-feet) and only provide for an additional 2 week hydration in the dry season. Sheet flow conveyance through North Belle Meade is a priority B project due to resolution of the TDR program, long term maintenance and land ownership.
- The existing culverts under I-75 are sufficient to handle the incremental non-critical period pumping requirements of South Belle Meade.
- The recent Rockery Bay modeling studies have identified two portions of the Rockery Bay watershed (Belle Meade 9 and Bridge 37) where wet weather flows have decreased from historical levels. These two areas represent 45-50 cfs combined inflow loss and will be the Rockery Bay restoration focus of this project.
- Fresh water flows through South Belle Meade and the Picayune Strand State Forest to the northern dike of the Belle Meade Ag area are well defined. Flows into Rockery Bay to hydrate the wet weather fresh water deficit areas will be accomplished in phases. The Belle Meade 9 flows are easily defined and will be accomplished first. Flows to the Bridge 37 fresh water deficit can best be handled by flow ways through the Belle Meade Ag area or through channeling via the east of the Ag area. This area is more problematic and will be defined in the future.
- Several privately owned land parcels exist in the Picayune Strand State Forest flow way.
- Key state and federal partners will need to be FWS, FDEP, FDOF and the SFWMD/USACE for Picayune Strand east side flow way. Their support is critical.
Collier County Watershed Program

Naples Bay/Rookery Bay Restoration (South)

- Modify Existing Belle Meade-1 Structure to force additional flow east
- Area within Rookery Bay with Freshwater Inflow Deficit
- Sabal Palm Spreader System
- Existing Bridge Culverts Conveying Water South through Existing Flowways
- Potential Future Flowways within Agricultural Areas
- Six L's Agricultural Lands
- Area within Rookery Bay with Freshwater Inflow Deficit

Map showing project areas and water flow directions.
Table of Contents

COLLIER COUNTY
COMPREHENSIVE WATERSHED IMPROVEMENT PROJECT

1. Executive Summary

2. History of Region

3. Existing Vegetation versus Historic Vegetation

4. Summary Historical Flow Rates - BCB

5. Studies Completed & Summary of Findings

6. Approach to Project Design
   • Use existing studies (not recreating wheel)
   • Confirmation and what’s changed
   • Conceptual design 15%
   • Back bone – project added later
   • Significant project
   • Permittable
   • 10-year planning horizon

7. Scope Summary
   • Naples Bay fresh water bypassing rates/capacity
   • Flow-way design – North Belle Meade/South Belle Meade
   • Water quality
   • Salinity
   • Rookery Bay flows (9 Belle Meade – 37 bridge)
   • Wetland Hydration, historical flows
   • 6L destination into Rookery Bay

8. Scope Summary by Project Component

9. Project Cost estimates

10. TDR Program

11. Critical Issues Addressed

12. Schedule Implementation

13. Funding & Grants

14. Recommendations/Endorsement