

## Meeting Minutes

### Collier County Comprehensive Watershed Improvement Plan (CWIP)

#### Kick-Off and Knowledge Transfer Workshop

August 24, 2018

Collier County Growth Management, 2800 N. Horseshoe Drive, Naples FL 34104

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Introductions and project roll (see sign in sheet for attendee contact information)

- Gary McAlpin – Collier County, Program Manager
- Dave Tomasko – ESA – focus on water quality and natural resources
- Pam Latham – Research Planning, Inc. – focus on NEPA, biological issues
- Mindy Collier – Collier County PM Stormwater – focus on RESTORE grant process and tracking
- Peter deGolian – Lago Consulting & Services – focus on groundwater/surface water modeling
- Keith Laackonen – FDEP Director RBNERR – focus on Rookery Bay issues
- Jeff Carter – FDEP Stewardship Coordinator Rookery Bay – focus on Rookery Bay issues
- Kim Dryden – USFWS Biologist – focus on large scale planning and permitting; heavily involved in Picayune Strand
- John Loper – Taylor Engineering’s Project Manager – focus on overall project delivery and groundwater/surface water modeling
- Michael DelCharco – Taylor Engineering’s Principal in Charge – focus on delivering quality project
- David Stites – Taylor Engineering – focus on ecological systems, permitting, water quality
- Jenna Phillips – Taylor Engineering – focus on grant funding
- Emilio Robau – Robau and Associates – focus on data collection, historical context, project integration, and design
- Matt DeFrancesco – Robau and Associates – focus on data collection
- Jeremy Sterk – Earth Tech Environmental – focus on environmental data collection, well installation, and data collection

**Funding:** RESTORE Pot 1 – \$6.5M; Pot 3 – \$18M (Gulf Consortium). Project costs estimated at \$32M. County intends to get remaining budget from Pot 2. Pot 2 – set aside for 5 affected states, **FL to submit funding apps at end of 2019** (important). FDEP will be holding money for Pot 2 (Phil Corum). Permits must be in hand for this funding application – critical path. Must identify potential project killers and obtain permits.

#### Work completed prior to this point; discussion on Water Quality, Water Quantity/H&H, and Habitat

##### Water Quality: Dave Tomasko

- WQ in Golden Gate Canal (GGC) – elevated nitrogen and phosphorous compared to Rookery Bay watershed
- Upstream water use limits the amount of water that can be removed from GGC. Estimates of water available to be removed from GGC were provided by the BCB.
- Naples Bay water diversion to Henderson Creek Canal would not provide appropriate freshwater distribution in Rookery Bay.

- Discrepancies exist between various reports and models regarding freshwater volumes entering Rookery and Henderson, wet vs. dry season.
- Proposed project includes diverting flow out of GGC when sufficient water is available, moving water through the south Belle Meade pump stations to Picayune Strand, past Sabal Palm Road, and then around/through Six Ls flow way.
- Project constraints: Maximum diversion of 100 cfs (daily average). Equal to about 65 mgd. Totality of inflows to Rookery Bay no more than about 50 cfs – fits within model estimates of wet season inflow deficits for Rookery Bay and hydro-periods of south Belle Meade wetlands; estimated to lose 50% via losses to infiltration and evapotranspiration. These numbers will be revisited in the modeling conducted for this project.
- Cardno 2015 water quality report for City of Naples – only able to divert 8% of the wet season flow entering Naples Bay; 11% of the days
- Naples Bay – expectation of 20% difference in salinity and an average salinity difference of 2 ppt or higher, when system is operating. 400 acres of Naples Bay would benefit by having salinity adjustment; diversion of fresh water flows sets stage for future sea grass and oyster bed increases.
- How much nutrient load from GGC would be delivered to Rookery Bay? 2 step process – relationship between removal efficiency of nutrient reduction (TN and TP) compared to area normalized nutrient loads (grams/m<sup>2</sup>/yr). Applied only to northern flow way (5,000 foot length, north of (I-75); output becomes input to rest of the flow path
- Nutrient loading to Rookery Bay...As of yesterday the DEP has listed Rookery Bay as impaired for DO, nutrients, chlorophyll, but they are not listed as impaired due to NEW criteria. Those numbers were with respect to old criteria.
- There is a discrepancy between NNC and WBID boundaries. Right now, NNC includes Marco Island – which it shouldn't. The Conservancy has identified this issue. This will be addressed through Taylor contract – not using Restore funds but through County funds. There are several issues to work through here but would be best to get in front of the DEP now. Gary wants to get this rolling in the next month.
- Need to research FDEP comprehensive impaired list dated December 2018 on website.

**Action Item:** Taylor Engineering and Dave Tomasko to work with FDEP to pull together program to revise water quality process and evaluations – will have major implications for project. Need to get in front of NOAA and other key decision makers. This needs to be a priority within the next month.

- Marco Island has been taking their own water quality measurements.
- Kim has working knowledge of how water quality and water inflow will affect melaleuca. Typically, they do better in areas impacted by wildfire. So, wetter conditions could possibly be a benefit in controlling melaleuca.
- Introducing nutrients to an impaired water body may be an issue for Water Management District (just as case with Dona Bay Phase II).
- FDEP has request on file with District to have additional water coming into water body – Big Cypress is involved and aware of it.
- Per Kim, Henderson Creek was an Everglades Restoration project – recommends we use documents and summary page to support request.

## **Water Quantity/H&H: Peter deGolian**

- The proposed pump at I-75 is 100 cfs capacity now but would be able to expand to 200 cfs. That would be south of I-75 and puts water into a spreader canal. The pump has to get the water over a small ridge into the strand.
- County has easements through canals through 6 Ls farms. Issue may be to ensure water does not pick up additional nutrients going through farm land.
  - County has not yet started discussions with the 6 L's owners. Another option to look at is discharge into Fiddlers creek.
  - Water cannot flow to Henderson Creek. FDEP owns parcel of land to the west of 6 L's that can take some water.
  - 6 L's has told Kim that they don't have a water quality problem b/c they have BMPs – must verify. Kim indicated that County could get in on 6 Ls water quality study/review without starting new one now.
- The developments near Fiddlers Creek and others – have capacity to handle sheet flow. But that is current conditions, not sure how much additional flow they can handle?
- USACE and WMD have periodic meetings – Taylor should be involved in those meetings. USACE is conducting groundwater modeling now; have not had meeting in several months. Latest model result indicated upwards of 2200 cfs ground water flow from federal site. USACE won't allow any groundwater flow from west to east related to County project. Gary M./County believes project will see some groundwater flow from east to west into project area resulting from USACE project.
- Outfalls from Six Ls – 6 different points, operations estimated from reported pumping data and permit caps. Not explicitly represented in GSSHA model. Corps has monitoring well data within Six Ls site that we don't have. The Team will need to get that monitor well data for calibration – will be vital part of understanding impacts of two project interactions. Also need SGT well data (DBHYDRO).
- GSSHA Modeling. Very simple surface water system – has Faka Union but not even Henderson Creek. No stormwater outfalls from US 29 on east to Henderson Creek on the west. The USACE is really focused on Picayune Strand and the SW protection feature project – with a berm that shunts flow around Six Ls to the east.
- GSSHA and MIKESHE models have very little detail on the Six Ls. The flow paths need better resolution. Prior to the fall planting season, they may pump 6 or 8 weeks to remove water from their fields. MIKESHE does have irrigation in the model. There are some monitoring wells in the area, but not captured in GSSHA model. They may be working on it. Recommendations for future modeling: update/calibrate MIKESHE to include details from Six Ls; compare pre-project calibration with GSSHA and get buy in from Interagency Modeling Center (IMC) and 6 Ls; build model with PSRP represented and compare with GSSHA. Draft USACE design for southwest protection feature – what corps calls DER design. Design must be vetted. Need to verify that permit agencies won't hold up our project to see what federal project will result. County goal to complete project and obtain permits before federal project.

## **Habitat: Pam Latham**

- Picayune Strand State Forest (PSSF) size approx. 70,000 acres; purchased as part of the CARL program for restoration purposes. 10-year Resource Management Plan for PSSF. So, it would be good to understand their permitting issues, so we can address them up front.

- See the Picayune Strand Biologic Opinion – USFWS has Opinions from 2004-2009. And, there are some more recent ones.
- The NMFS ESA and MMPA (with Jax Biological Opinion) is of concern to this project. Small tooth small fish is a species of concern. As are manatees.
- Everything in the County plan is covered in a federal plan. So, that should help get permits.
- Potential ecological impacts:
  - Management of State Forest – Level of service (roads), fire, listed species. Permitting for wetlands federally listed species: USACE 404b, SFWMD ERP, USFWS, ESA, MMPA, NMFS, JaxBO 2017. All listed species received a ‘not likely to impact’. Mitigation for wood stork, FL panther, and wetlands.
  - Was an issue with Red Cockaded Woodpeckers (RCWs) – but met with FDEP to review the specific habitat requirements of the specific species. Need flat hydric habitat, no upland pine habitat for example. Impacts to RCW not allowed, most sensitive species.
  - However, panthers will also be considered. Note that project should be described as temporary loss but long term will be ‘neutral or beneficial’... b/c wild fires/frequent burning of panther the habitat and project will rehydrate the area and reduce frequency of fires. Need to work with Forestry.
- Division of Forestry (DOF) – needed their support and worked with Director. Jim Carrols was supportive. Forestry wants to be active participant in developing project, how to control flow way, and to ensure no impacts to RCWs, and wants to maintain access roads and improve the Sabal Palm Road. Forestry division has several new personnel – may need to go directly to upper management. One idea from previous meetings according to Dave T. was to set up monitoring program to ensure that Sabal Palm Rd. would not be washed out (forestry concerned that road be flooded and would not be able to access wild fires).
- Need to work with DOF to identify where to place the wells and set up monitoring program – soon. County said Sabal Palm will be issue throughout entire project duration.
- Need to get new maps showing RCW nests with both active and inactive habitat – park wants to expand habitat and new maps show areas where there are plans to expand. Many of the nests have been burnt out.
- Bonnet Bats are also endangered – all project area is considered bat habitat.
- Ground surveys of vegetative materials have not been performed in several years – may need to do updated ground survey by foot. FNAI (FL Natural Area Inventory) is doing one in Picayune Strand – contact them to obtain data – it may include our project area.
- USFWS discussed what we could expect to concern them. A) Drainage patterns – what water is going where? And how much? B) What’s the current vegetation? C) What do you expect to change?
- Points of contact – reach out to all of these agencies: FFWCC, Big Cypress Basin/SFWMD, City of Naples, FNAI, FWS, FL Wildlife Fed., Conservancy of SW FL, Audubon of Western Everglades, Co Watershed Technical Advisory Committee, Rookery Bay National Estuarine Research Reserve.
  - Reach out to Muriel Blasedale – USACE head of Ft. Myers Regulatory office

**Action Item:** Create a list of points of contact and make sure we have a plan to contact them all.

### **Monitoring Plan Development**

- Establish a pre-project condition on what groundwater levels are both inside and outside project impact area.
- The number (60) of wells can change, can revisit the distribution.

- Present plan for installing 60 wells over 10,000 acres – 170 acres per well plus required to place wells outside of project area as controls.
- Monitor wells for water quality and for elevations. For restoration, must show that there's a benefit (i.e. change in water levels, frequency of inundation, etc.) and to protect the County from issues that might arise whether project was implemented or not but occurred concurrent with or after project.
  - Kim has 4-page write up on how well sites were selected in Golden Gate community.
  - Well points, 4-8 ft deep, with recording devices.
  - Will also do vegetation transects.
- Rookery Bay has need for data collection downstream of freshwater outfalls such as Fiddlers Creek, Traviso, and Lely Resort. Consider those areas in monitoring.

**Action Item:** Review grant award and physical needs of well monitoring, such as need to document pre- and post-conditions. Develop well monitoring location plan.

### Forestry Plan Development

- Forestry Management Plan is being modified and updated – need to obtain from County for David Stites review.
- County would like to develop private-public partnership with FL Land Trust (Bill Barton) to work with county to acquire properties, identify land price, etc. May need to do TDR's for purchase of properties that may be affected within path of flow way.
- Need to develop map of potentially impacted properties.
- Kim indicates that several properties out there are mitigation properties – review initial map with Kim. Some sites may not yet have been given to the state.

### Miscellaneous Items

- Need to check to see if a QAPP is needed for the monitoring. (See FAC Chapter 62-160)
- Gary mentioned using County lab for WQ. This needs to be confirmed.
- Quarterly reports to Mindy – provide on the 15<sup>th</sup> of month prior to end of quarter in order. First report due Oct. 30<sup>th</sup> Must have sign in sheets for meetings, meeting minutes.

### Summary of Near-Term Action Items:

Item	Person Responsible	Estimated Date
Setup meeting to resolve WBID/NNC basin boundary issue with DEP	D. Tomasko, J. Loper, J. Stites	9/30/18
Create Stakeholder/Permit Agency Communication List	J. Loper and team	9/30/18
Contact USACE about status of modeling and engagement with modeling group	P. deGolian and J. Loper	9/15/18
Develop preliminary well location plan, discuss with DOF	J. Loper, D. Stites, and J. Sterk	10/30/18
Contact SW FL Land Trust (Bill Barton) Re: status of private lots in project area/TDR	E. Robau	9/30/18
Create list of immediate data requirements and most likely source(s)	J. Loper and D. Stites	9/15/2018