



Southwest FL Oyster Working Group Meeting 1
Tuesday April 24, 2012
12:30 am – 4:00 pm
SWFRPC, 1926 Victoria Ave., Fort Myers, FL 33901

You may also join the meeting remotely via Teleconference &/or WebEx:

- **To view via WebEx:** In your internet browser, enter <https://suncom.webex.com/>, click on the *Meeting Center* tab & then on the *Browse Meetings* link. Click on the *Weekly* tab & find *April 22-28*. Scroll down to *Tuesday April 24* & click on the *SW FL Oyster Working Group*. Click on the *Join Now* button & you will be able to see the host computer screen.
- **To hear via Teleconference:** Dial (888) 808-6959 and enter Conference Code 3382550 when prompted.

AGENDA

Purpose: The purposes of the Southwest FL Oyster Working Group Meeting 1 are:

- Explain the CHNEP Oyster Restoration Plan development approach & schedule.
- Identify types, gaps & sources of data needed to identify suitable oyster restoration sites.
- Refine the outline for the CHNEP Oyster Restoration Plan.

Agenda:

- Welcome & Introductions
- Overview of CHNEP Oyster Restoration Plan Approach & Schedule
- CHNEP Oyster Restoration Plan Objectives
 - Implement CHNEP CCMP
 - Enable Restoration of Oyster Habitats & Related Ecosystem Functions (historic, sustainable, harvestable?)
 - Develop Monitoring Plan for Measuring Success
 - Develop Regional Oyster Restoration Partnerships
- Permitting Considerations
 - Endangered Smalltooth Sawfish Critical Habitat
 - Florida Aquatic Preserves/OFWs
- CHNEP Oyster Restoration Goals (What will success look like?)
- Define Process to Identify Suitable Oyster Restoration Locations (Step 1 in TNC's Conservation by Design)
 - Historical distribution
 - Permitting considerations
 - Water quality & salinity (e.g. DO)
 - Water quantity & velocity
 - Substrate/bottom-type
 - Oyster diseases & Harmful Algal Blooms (HABs)
 - Larval sink
 - Site-specific causes of decline (e.g. sedimentation, HABs, pollutants) & potential to resolve the causes
 - Other Priorities (e.g. "trap estuaries", no-harvest areas, etc.)
- Identify Gaps in Data and Possible Sources
- Review Oyster Restoration Plan Outline
- Next Tasks, Duties & Schedule

THIS MEETING IS OPEN TO THE PUBLIC

Two or more members of the Everglades West and Caloosahatchee Basin Working Groups, Peace River Basin Management Advisory Committee, Peace River Basin Management Working Group, or Southwest Florida Regional Planning Council may be in attendance, and may discuss matters that could come before the respective body.



Southwest FL Oyster Working Group Meeting 1
Tuesday April 24, 2012
12:30 am – 4:00 pm
SWFRPC, 1926 Victoria Ave., Fort Myers, FL 33901

MEETING MINUTES

Meeting Attendees:

Katie Laakkonen, City of Naples; Jim Culter, Mote Marine Laboratory; Kathy Meaux, Sarasota County; Rene Janneman, Sarasota County; Jim Beever, SWFRPC; Lisa Beever, SWFRPC; Erin Rasnake, FDEP; Heather Stafford, FDEP-CAMA; Eric Milbrandt, SCCF Marine Laboratory; Holly Downing, City of Sanibel; Andrea Graves, TNC; Anne Birch, TNC; Ed Sherwood, TBEP; Paul Zajicek, Division of Aquaculture-FDACS; Phil Stevens, FFWCC; Gregg Poulakis, FFWCC; Judy Ott, CHNEP; Jaime Boswell, CHNEP Sub-contractor

Purposes:

- **Explain** the CHNEP Oyster Restoration Plan development **approach & schedule.**
- **Identify types, gaps & sources of data** needed to identify suitable oyster restoration sites.
- **Refine the outline** for the CHNEP Oyster Restoration Plan.

Agenda with Discussion Notes:

- **Welcome & Introductions** – Judy Ott & Group
- **Overview of CHNEP Oyster Restoration Plan Approach & Schedule** – Judy Ott & Group
 - **Approach**
 - ~ CHNEP Collaborative Partnerships for Working Together to Improve Water Quality & Ecological Integrity of Study area
 - ~ CHNEP Technically Sound, Consensus Based Approach
 - ~ Restore Oysters & Maintain Estuarine Diversity & Productivity
 - ~ Help Partners Efficiently Design & Implement Restoration Consistent with Plan
 - ~ Make Collaborative Projects More Competitive for Funding Support
 - ~ Foster Community Stewardship of Oysters & Estuaries & Watershed
 - **Schedule**
 - ~ Requested by TAC in 2010
 - ~ CHNEP Shellfish Restoration Workshop in Feb 2011
 - ~ TNC Shellfish Restoration Regulatory Meeting in Feb 2011
 - ~ 1st Meeting of SW FL Scallop Working Group April 2011
 - ~ Funding Support from TNC to CHNEP Feb 2012
 - ~ 1st Meeting of SW FL Oyster Working Group April 2012
 - ~ Draft CHNEP Oyster Restoration Plan to CHNEP TAC July 2012
 - ~ Draft SW FL Scallop Restoration Plan August 2012

Questions/Discussion:

- Are there restoration plans in other areas of FL? No, nor in GoM; See TNC Guidelines.
- Oyster Mapping to date focuses on open water bars; are many mangrove & salt marsh areas that are really oysters; especially in Myakka R.
- TNC interested in additional mapping; especially areas that come up as priority restoration areas in CHNEP;
- Traditional mapping methods only capture small percent of oysters.



Southwest FL Oyster Working Group Meeting 1
Tuesday April 24, 2012
12:30 am – 4:00 pm
SWFRPC, 1926 Victoria Ave., Fort Myers, FL 33901

- Sarasota mapping will be done by end of year/beginning of 2013; working on quantifying now.
 - Raises questions about how to map CH oysters – too far to walk.
 - Need to separate out submerged & relic oysters (those not alive).
 - CHNEP 2010 shoreline survey update included oysters along the shoreline.
 - 5 years ago FGCU did mapping of Estero Bay/Caloosahatchee/10,000 Islands.
 - South Carolina just remapped oysters (contact: Nancy Hadley) – Paul will check for contact information.
 - SCCF with ESC trying to determine Rapid Assessment Method – tiered approach: visual description & percent cover.
 - Can't assume all mangroves/seawalls/rip rap will have oysters.
 - Does Sarasota mapping include % live? Use qualitative scale.
 - FGCU mapping of Caloosahatchee & Estero Bay probably was just presence/absence
 - Remember even healthy oyster bars have some percent dead; also consider size classes.
- **CHNEP Oyster Restoration Plan Objectives** – Jaime Boswell & Group
 - **Implement CHNEP CCMP**
 - ~ **Restore Native Plant & Animal Communities (FW-F)**
 - ~ **Restore Natural Hydrology (HA-a)**
 - ~ **Provide Public Opportunities in Research, Monitoring & Restoration (SG-B)**
 - ~ **Serve as Environmental Indicators**
 - ~ **Meet Shellfish Harvesting Standards**
 - **Enable Restoration of Oyster Habitats & Related Ecosystem Functions (historic, sustainable, harvestable?)**
 - **Develop Monitoring Plan for Measuring Success**
 - **Develop Regional Oyster Restoration Partnerships**

Questions/Discussion:

- Be flexible about options for restoration techniques; provide a suite of techniques.
- Include clear goals & objectives for each restoration project & develop correct monitoring techniques. What's total timeframe for restoration? If long term, need to consider how oysters will move, especially with sea level rise (SLR) & hydrologic changes; suggest 2100.
- Do we want to restore natural balance of oysters or include additional oysters to adapt to climate change or other human goals?
- Anticipate other changes people are planning for the estuaries; i.e.: water withdrawals & hydrologic alterations which would change oyster distribution & permitting future developments.
- So consider changing shorelines & land uses & hydrology.
- Need to include these questions & checks & balances when selecting priority restoration sites.
- What about “reef stacking” to enhance existing reefs to adjust to SLR?
- Remember the GIS Model will be an adaptive model which can include new info & plan will be flexible, too.
- Need to look at CERP & effects on hydrology in Caloosahatchee R – may slam between extremes.
- Can't restore all oysters in CH so start with the “easy” ones.
- Ideally plan will include map of where group agrees is the priority area for restoration; an organized plan of how restoration will proceed in CH.



Southwest FL Oyster Working Group Meeting 1
Tuesday April 24, 2012
12:30 am – 4:00 pm
SWFRPC, 1926 Victoria Ave., Fort Myers, FL 33901

- What does develop consistency between projects mean? Similar goals – i.e.: a different target density; don't want to require so much consistency that looks the flexibility to allow different projects.
- Can target both oyster restoration & other habitat benefits with 1 project (i.e. erosion).
- Monitoring needs consistency – especially relating to techniques.
- May have different targets for each project, but plan will include comprehensive list of targets & related monitoring techniques.
- Could consider Functional Assessment Method for submerged habitats (i.e. oysters...) – consider this may in effect be creating a guide book for mitigation.
- Add an objective to secure funding for restoration & monitoring.
- Make sure restoration projects include monitoring.
- Some restoration & monitoring can be done by volunteers; allows for basic design monitoring & long term support & sense of reward & ownership.

The following objectives will be edited to address discussion topics:

1. Implement the CHNEP CCMP
 2. Develop the plan through a SW FL Oyster Working Group for the purposes of information sharing, developing consistency between projects, and for forming partnerships for future restoration projects.
 3. Discuss permitting requirements and other management considerations.
 4. Identify appropriate science based restoration sites, techniques & monitoring.
 5. Identify priority restoration sites for the ten estuaries within the CHNEP region.
 6. Identify appropriate restoration techniques.
 7. Define success criteria for oyster restoration projects.
 8. Develop an oyster habitat monitoring plan that can be used to test success of individual projects.
 9. Develop a long-term monitoring plan for oyster habitat as an environmental indicator.
 10. Identify potential funding sources for restoration & monitoring projects
 11. Require restoration projects to including monitoring.
- **Permitting Considerations** – Jaime Boswell & Group (see notes in Plan outline)
 - **Endangered Smalltooth Sawfish Critical Habitat**
 - **Florida Aquatic Preserves/OFWs (258 FS & 18-20 FAC)**
 - **State Lands Authorization (18-21 FAC)**
 - **US Army Corps of Engineers**

Questions/Discussion:

- Encourage going through early & informal consultation.
- Consider essential fish habitat & sea grasses & other SAV.
- For aquaculture programmatic general permit (good for 5 years; include multiple activities); could consult with ACOE as lead agency.
- Will also have to consult on other ES - manatee & piping plover & state endangered species – reddish egret (i.e. Bunch Beach).
- In Sawfish Recovery Plan – 1 of the things they need is better understanding of how habitat is used – target is to complete study within 5 years; Gregg P. – 2009 Recovery plan; since then



Southwest FL Oyster Working Group Meeting 1
Tuesday April 24, 2012
12:30 am – 4:00 pm
SWFRPC, 1926 Victoria Ave., Fort Myers, FL 33901

looking at general habitat use & “hot spots” (i.e. in Peace & Caloosahatchee); looking at boundaries & flows, etc; will be revising recovery plan in 2013; may address canals.

- As we begin to identify priority oyster restoration areas – keep in mind how we can avoid sawfish hot spots & move toward consistency between 2 plans.
- Is it possible to do a general/programmatic umbrella approach? Aquaculture is a single operator with different locations – i.e. 1 responsible party with in FDACS; if there is a central responsible party could get a programmatic permit.
- Did FGCU get 5 year? Erin had individual permit for 1 year for 1 estuary; CHNEP might not want to get programmatic permit.
- CHNEP could work on permitting guidelines – develop it with NOAA NMFS guidelines & anyone doing restoration within priority areas within plan & follow these guidelines, would be easier to get permits.
- Cape Coral is going through process associated with docks & sawfish – need to keep up-dated.
- Consider navigability & kayak trails/Blueways; don’t want to impair on-going utilization.
- Another concern might be whether it is harvestable or non-harvestable; in general restoring oysters as an ecological base, not for harvest.
- FDACS posts shellfish harvest areas on maps (www.floridaaquaculture.com); Does FDACS have concern about oyster restoration in non-harvestable areas? Not really; review shellfish harvest areas every 5 years for FDA; FDACS can get us the GIS layers for shellfish harvest areas & aquaculture lease areas;
- **CHNEP Oyster Restoration Goals** (What will success look like?) – Judy Ott & Group
 - **Historic Acres based on Best Available Data (+2,700 acres)**
 - **Minus “Non-Restorable Areas” (ICW, filled causeways, etc.) (+1,800 acres for SAVs)**
 - **Compare to Results of GIS Model of Current Oyster Habitat Suitability**

Questions/Discussion:

- What is metadata for Current Benthic Habitat Maps? Lisa - 1999 oyster data from SFWMD SAV mapping; SFWMD doesn’t do oyster mapping with their SAV because of minimum mapping unit (mmu); in 2004 CHNEP contracted with Avineon to estimate 1999 oysters from SAV aeriels.
- Haven’t looked at historic vs. current locations in detail yet.
- Need to distinguish between tidal flats & oysters.
- In TBEP Michael Drexler mapped new oyster habitats in TB that were undocumented in the past & added to those observed in aeriels – Ed will forward methods.
- Caution if start considering oysters on seawalls.
- Also did functional assessment between natural oysters & artificial substrate reefs.
- Need to look in more detail of causes of loss; was also oyster mining for shell for road bed (1850s -1880s); what about anecdotal information & data, too – i.e.: civil war & Navy uses; see historic logs; commercial oyster fisherman & military folks; see historic navigation charts from Pre-Develop Mapping & Basin Mapping (geo-rectified); 1960s paper from Charlotte County with some qualitative data on oysters – Kent Woodburn; Charles LaBuff didn’t mention oysters in Sanibel Causeway; now there is a big oyster reef across from Punta Rasa.
- At a minimum compare the 1950 & 1999 GIS layers.



Southwest FL Oyster Working Group Meeting 1
Tuesday April 24, 2012
12:30 am – 4:00 pm
SWFRPC, 1926 Victoria Ave., Fort Myers, FL 33901

- Mike Savarese has identified oysters under the sediment & estimate where they were pre-historically – using cores; Harold Longless studied this in Everglades; historically isohaline has shifted further up-estuary & oysters have moved up with the change in salinity.
- **Define Process to Identify Suitable Oyster Restoration Locations** – Jaime Boswell & Group
 - **Historical Distribution**
 - **Permitting Considerations**
 - **Water Quality & Salinity (e.g. DO)**
 - **Water Quantity & Velocity**
 - **Substrate/Bottom-type**
 - **Oyster Diseases & Harmful Algal Blooms (HABs)**
 - **Larval Sink**
 - **Site-specific Causes of Decline & Potential to Resolve the Causes**
 - **Other Priorities**

Discussion: see attached GIS Model Outline

- **Identify Gaps in Data and Possible Sources** – Jaime Boswell & Group

Discussion: see attached GIS Model Outline

- **Review Oyster Restoration Plan Outline** – Judy Ott & Group

Discussion: Due to lack of time please send any additional comments via email.

- **Next Tasks, Duties & Schedule** – Judy Ott & Group
 - Compile Missing Data & GIS Layers
 - Continue GIS Analyses
 - Begin Writing Text
 - Meet *May 9* to:
 - ~ Identify Restoration Methods
 - ~ Identify Monitoring Methods
 - ~ Identify Success Criteria
 - Meet *May 25* to:
 - ~ Review & Finalize Priority Oyster Restoration Area Maps
 - Meet *June 19* to:
 - ~ Review Draft CHNEP Oyster Restoration Plan