DRAFT

Myakka River Management Coordinating Council
Lemon Bay Park
570 Bay Park Blvd.
Englewood, Florida 34223

October 5, 2012
9:00 A.M. – 10:55 A.M.

MINUTES

The meeting began at 9:00 A.M. with Jono Miller presiding. This meeting was advertised in the Herald Tribune on Friday, September 21, 2012.

MEMBERS IN ATTENDANCE

Jono Miller - Sierra Club
Mary Jelks - Friends of Myakka
Ed Flowers - FFS
Tom Williams - FFS
Lou Kovach - Homeowner
Mike Chouinard - Homeowner
Belinda Perry - Sarasota County
Bill Byle - Charlotte County
Peggy Morgan - FDEP
Robert Bendus - Div of Historical Resources
Mark Schultz - FDOT
Jerry Cattelane - Myakka Commun.
Greg Blanchard - Manatee County
Maya Burke - SWFWMD
Lisa Beever - CHNEP
Jim Beever - SWFRPC
Bill Byle -Charlotte County
Elizabeth Wong - City of N. P.
Paul W. Thomas - FWC
Suzanne Lex - FDEO
Corky Pezzati – LWVSC

INTERESTED PARTIES

Dee Allen - Mosaic
Diana Donaghy – MRSP
Natalie Cole - FPS
Jamie Scudera - Charlotte Co.
Judy Meents – FPS

BUSINESS MEETING:

- **Call to Order, Roll Call and introductions were made.**
- **There were no public comments.**
- **Additions to the Agenda:** Peggy Morgan, DEP
- **Revision and Approval of the Meeting Minutes from June 22, 2012 Council Meeting.** Lou Kovach moved adoption of the Minutes. Greg blanchard seconded. The Minutes were adopted.
- **Correction in the February Minutes: spelling of Brie Anderson should be Brie Ondercin.**

OLD BUSINESS: NONE

NEW BUSINESS:

Bill Byle – Charlotte County:
Bill has been working on a project at a large upscale development called Riverwood. It has one of the top 10 golf courses in the state. In order to maintain the conservation areas free of exotics, Bill and Jamie Scudera were asked to do an extensive analysis of the golf course for exotics.

At the last meeting Bill announced the county approved a large upscale RV resort and it has been under construction for the last few months. There were some wetland areas along the river and that were able to be conserved. Other than that, there were no other major issues.

Bill has been working for the last year to do a water quality improvement program for Port Charlotte Canal System, which is probably two hundred miles of canals, lined with houses all on septic tanks. The canals drain out towards the County's beach park. They have officially begun a program like the one done for the Godfried Creek Watershed. They will try to include North Port in this watershed program since their canals were all originally designed as part of the same project.

Belinda Perry – Sarasota County Update:
Acquisition: 1) Conservation Foundation of the Gulf Coast acquired 1.5 acres on the west side of the Myakka River south of US 41. It will be available as a public landing area. 2) County acquired 5 acres on Manasota Beach Road to fill in a gap on the Manasota Scrub Preserve.

Old Myakka Preserve: 1) FWC Habitat Restoration Funding Assistance approved to restore gopher tortoise habitat on 55 acres of overgrown scrub on this preserve. 2) Contractual mechanical treatment to reduce the height and density of scrub oaks and Florida slash pine will provide for the safe application of fire.

Myakka River Bridge Replacement: 1) On June 26th consultant proposal/qualifications were received. 2) During July-September proposals were reviewed and design firms ranked. 3) Within days of this meeting a Notice of Recommended Award to be posted on County's website. 4) During October-November the scope of services will be developed with the County and the selected consulting firm. 5) In December 2012, the project will be present to the Board for approval design award early in the month. It will be about an additional 4 months before a design is developed following the Board approval.

I-75 Widening: FDOT submitted its ERP application to SWFWMD for the widening of I-75 in south Sarasota County. The proposed retention/stormwater ponds between River Road (Exit 191) and Sumter Blvd. (Exit 182) located in the right of way and not on public conservation lands.

Snook Haven Addition: Parks & Rec. staff is developing a scope of work with an engineering firm to begin conceptual plans, review site constraints, and coordinate efforts with the existing Snook Haven Park.

Myakka River/US 41 site: The park was officially named "Senator Bob Johnson's Landing" (Johnson's Landing) by the County Commission on 8/21. Staff met with FDOT officials who recommended a left hand turn lane (southbound) and realignment of the proposed entrance to the existing median cut. Additional research is underway prior to taking the project to the County Commission. Parks and Recreation staff will come at the next meeting to provide a little more detail.

Maya Burke – Southwest Florida Water Management District Update:
No lands were identified in the Myakka River Watershed for surplus. The closest lands that were identified for surplus were in Manatee County on the Tierra Ceia area property called Frog Creek. Six acres were proposed for surplus. The paperwork was submitted to DEP several months ago. They have had verbal confirmation from DEP that they're expected to approve the surplus of those lands.

The minimum flows and levels (MFLs) focus for riverine systems is up in the north part of the district on the Chassahowitzka and Homosassa Rivers. Once they have been completed they expect to focus all their energy on the Braden and Manatee Estuary System.

The lower segment of the Myakkahatchee Creek has been added to the MFL priority list for focus in 2016. That's included in their 2013 Priority Listing Schedule in its draft form on their website. It is scheduled to go to the governing board for approval on October 30th.

Greg Blanchard – Manatee County Update:
The County Commission has decided to allow the Natural Resource Dept. to enforce many of it's ordinances with a citation system. They have all been trained as code enforcement officers.

His program, the Air and Watershed Management Section, reviews environmental monitoring programs that may be required by their land development code, the DRI process, etc. They have not been doing this for the mine operating permits, since their county has a whole program designated for reviewing mine operating permits and restoration plans, etc. This year he has decided to start insinuating himself into that process on a more regular basis. He believes they can improve the product that the mines are giving and improve the rigor of the program.

On October 4th, Lisa hosted a conference in Punta Gorda to go over the Restore Grant process. The program is related to coastal estuary management. Think about what you want funded courtesy of BP. It's a very broad based program that will have very short deadlines.

Natalie Cole: Myakka River Biologist Update:
In the beginning of August there was an alligator poaching incident near SR-72 Bridge. A total of 6 alligators were shot, two were over 10 feet, and the smallest was 2.5 feet long. Scott Kirsch at FWC was the officer on the case. Some gun casings were recovered near the bridge, but no fingerprints were recovered and the case was closed. In the same month a large alligator was poached and found near Snook Haven missing its head and tail.

There have been manatee sightings in Myakka River State Park. There were reports in July of up to 6 manatees in Upper Myakka Lake. An additional observation of 3 manatees was made at Deep Hole in the beginning of September. Diana Donaghy and Natalie have not seen them but park staff members have seen them in between the Upper Lake and the park bridge near the power line in the river. Diana has been in contact with Denise Boyd from FWC due to concern for stranding when the water level reduces. Additionally, Diana stated Island Apple snail eggs have been found in the upper lake near the birdwalk.

There is continued coordination between the Myakka Wild & Scenic River Program and Sarasota County. Another workday along parts of the Carlton and Sleeping Turtles was treated for cogon grass during September.

Peggy Morgan – DEP Update:
DEP has reorganized all the district boundaries. Starting January 1st, 2013 Sarasota County and Desoto County will be served from the South District instead of the Southwest District. All outstanding matters will be handled by Southwest District but anything that comes in after January will be directed to the South District in Ft. Myers. John Inglehart was suggested as the contact person for the South District.

PRESENTATIONS:

Jim Beever – Climate Change Vulnerability Assessment and Adaptation Opportunities for Salt Marsh Types in Southwest Florida:
This was a 3-year study looking at the salt marshes within the boundaries of the Charlotte Harbor National Estuary Program (CHNEP). Funded by Environmental Protection Agency, the purpose was to ascertain where and what types occur in the study area from the south end of Estero Bay and Lee County up to Donna and Roberts Bay in Sarasota County. It included the Myakka River, Peace River, Caloosahatchee River and all the other tributaries as far as their tidal extents.

There are many different types of salt marshes. This is the first mapping of salt marsh types for any national estuary program (NEP). We also looked at was what would happen to salt marshes with regard to climate change. They inventoried the marshes, determined their vulnerability to climate change, and identified the opportunities and needs for avoidance, minimization, mitigation and adaptation (AMMA strategy) and developed strategies to implement these options. Overall about 64 different sites were

looked at up and down the estuaries with very concentrated study. Their protocol was very involved examining water quality, animal life, plant life. Some work was done from the water other work was done from the land. They began work in January 2010 and finished June of 2012. The report is complete and posted on their website at the Regional Planning Council on their climate change page.

The salt marshes are highly fragmented within the landscape. They are not one continuous entity. There are about 14,846 acres of salt marshes in the watershed. What is interesting about this figure is that the distribution has been changing through time. Donna and Roberts Bay has lost quite a bit of salt marsh from earlier mappings. Whereas, a lot more salt marshes than has been previously estimated has been seen for Matlacha Pass and for Pine Island Sound.

Charlotte Harbor proper has the most salt marshes, followed by Estero Bay, Matlacha Pass and the Peace River. Myakka River has about 9% of the total salt marsh extents in the NEP. Looking just at the Myakka River one can see a different relative proportion of the types of salt marshes. 80% of the salt marshes on the Myakka are black rush marsh followed by mixed high marsh meadow.

In other parts of the world, around Georgia and the Carolinas the most common salt marsh type is Smooth Cordgrass, *Spartina alterniflora*. We don't have much smooth cordgrass, only 2.81 acres in the whole NEP, found mostly in our northern watersheds and in the middle of "donut islands" (mangrove islands within Pine Island Sound where water levels have risen and the interior of the island is now being flooded out). What was once basin black mangrove forest in earlier aerials is now an open water body and there are fringes within the island of smooth cordgrass.

In the course of their study they identified 12 types of salt marshes in CHNEP. Blackrush is the most common low marsh type with 3,593 acres.

Leather fern marsh (*Acrostichum danaeifolium)* which is not documented in the literature for Florida.

Saltmarsh bulrush has never been mapped clearly exists on the Peace River and on Shell Creek. It also occurs as individual plants or small groups of plants in the Myakka.

Shrub Black mangrove typically no higher than knee height. These shrubs grow like bonsai, the roots extend further out than the crown.

Algal high marsh there is no other vegetation except algae, both interstitial within the sands making a variety of colors (pinkish and pinkish-reds are most common). There is also paraphytic algae which will float up as the tides come in and settle back down again. These areas are very popular with the birds and are up and above and behind the shrub black mangroves. More than 100 species have been documented from algal salt marshes here in Florida.

Salterns have no vegetation whatsoever on them not even algae. Nothing can survive. This is the area documented as a high tide marker where there is no interruption of the shoreline in southwest Florida. It gets super high salinities and the highest high tides in the autumn settle on this area. The water evaporates and creates salt flats. At some places you literally see salt crystals on the surface. But there is life: fiddler crabs, brine shrimp, crustaceans, etc and the birds love it. To see them go at night. It is very harsh: very hot during warm months and very cold during winter.

Succulents have adapted to incorporate the salt water within themselves. This can be harvested and is sold for $10 per pound as a salad supplement in NY City. When they break off the seeds are immediately available for fish food.

Mixed high marsh succulents mixed in with herbaceous plants. It is the most common high marsh throughout the whole NEP

High marsh grasses are classified as a fresher salt marsh that are dominated just by grasses such as saltgrass, Key grass, knot grasses. It's great for rodents and small mammal activity which draws hawks.

High marsh (*Spartina bakeri)* and leather fern together is a low salinity salt marsh. It was found on the interior ridges of Sanibel Island and Cayo Costa. It seems to form by dune islands packing against each other with the inter-dune swales. It is possible this had been fresher in the past. Hurricane events and sea level rise bringing up the saline water table may have salinated it more. There is evidence that salinity seems to be rising.

Shrub buttonwoods are found at the upper end and more at the southern watersheds like Estero Bay and Matlacha Pass, not in the Myakka River.

Salt marshes occur over a range of elevations. Relative position to waterfront and other conditions such as a salt marsh on the mainland, a barrier island or a peninsula determines the zonation of a salt marsh. An interesting thing found for bigger salt marshes such as around Estero Bay Buffer, the Charlotte Harbor Buffer Preserve, is that elevations can actually be higher closer to the water and lower as you go in though the salt marsh like a scooped out basin.

Two hundred seventy-three species of animals were found in the study. The salt marshes of the NEP are a land of resident insects and arthropods with many visiting birds. The diversity is low, but the individuals are abundant. The eastern pygmy blue butterfly feeds as a larvae on the succulents and spends its life on the high marsh. The black-necked stilts, least terns, nighthawks and killdeer were found nesting on salterns. Large amounts of white pelicans swimming together and feeding as a group can be found at algal marshes and high tide. A number of animals go to salt marshes to die. Manatees and dolphins were found within the channels. The highest number of different species was in the high marshes of Estero Bay near the Bunch Beach in Hendry Creek.

There are nine species of reptiles in the salt marsh, four species of amphibians with the Cuban treefrog present in the high marsh. Of the fishes found the only exotic was the African jewel fish up in the Caloosahatchee River, but none were found in the salt marsh. The mosquito fish was the most common.

There are 112 species of arthropods and 18 species of dragonflies in the salt marshes most in the high marshes. In the course of 3 years of going to all the salt marshes, they were not bitten by mosquitoes in areas with no mosquito control. They mosquitoes were being eaten by fish or predacious insects. Butterflies like the Mangrove buckeye and the Southern white were observed along the mangrove-salt marsh interface. Other insects included diving beetles, tiger beetles, and crane flies. The grasshopper is the major herbivore in the arthropod community. They are able to eat the salt marsh grasses and herbaceous plants. Spiders are the top arthropod predator. Species observed were the web spider, ground-hunting spider, water spider, and one exotic, the sea roach (L*igia exotica*).

About 26 species of mollusk, including many small species such as the coffee snail, etc.

There are 119 species of plants within the salt marsh. The mangrove is the most common species across all salt marshes.

Water quality data was as extreme as expected. Salinity ranged from 62 to 0.26 ppt. Dissolved oxygen ranged from 7.5 to 0.13 mg/l depending on which salt marsh. pH ranged from basic to acidic. There were big temperature extremes. Salt marshes are a very bad place to be in terms of water quality situations over the whole year period. That is why life is very tough.

They have measured landward migration of salt marshes, conversion to another marsh type; drowning in place; freezing (leather ferns) and expansion of areas of plants and animals. We have had about 8 inches of sea level rise since 1910 for Key West. It's about 9 inches at the Ft. Myers tide station. Another inch has come up in the last 10 years in the Ft. Myers area.

By comparing aerials from 1953 and 2010 we were able to show that salt marshes have been actually moving. In some cases they are being stopped due to barriers. On average where they were able to measure salt marsh migration the salt marshes in the NEP have moved the length of a football field landward since 1953. Looking at the literature it is the largest measured movement of salt marshes so far.

Barriers to salt marsh movement include borrow pits, spreader waterways, mosquito control ditches, bulkheads, riprap, berms, roadway berms, drainage canals and navigation channels. Adaptations were developed to try to keep salt marshes within the system. We can provide corridors for salt marshes and other associated habitats as the sea level rises. Instead of having riprap on the shoreline we can build a living breakwater and have a shoreline that is vegetative so the salt marsh can continue to move with a sloped vegetative shoreline. The biggest barrier problems are roads. As sea level rises it the

wildlife underpasses and culverts be enough to allow the salt marshes move further up into the system? We need to do more all along our coast and take a look at River Road for this and places like Burnt Store Road. The mosquito control ditches need to be backfilled. A project located in Charlotte Harbor has been very successful. Mosquitoes can be reduced if the berms are broken down and more fish can get in. Even just making the ditches shallower can help marshes survive better.

Where there is no place for the marshes to move there is a design that comes from the east coast called sediment augmentation. Suspend sand hydraulically in water and with hoses very gradually just run a thin layer of sand. Do this every two years and let the salt marsh grow up on the new sand. This has been practiced in Louisiana and been successful.

At one foot sea level rise 52% of our salt marshes would go under water; 2 feet sea level rise 73% would go under; and 3 feet rise 75% would go under water assuming they don't move.

Questions and answers followed.

Lisa Beever – Water Atlas Overview:
The Sarasota Water Atlas has been simplified. It's changed from 7 buttons at the top to 4 with MAP, ANALYZE, LEARN and PARTICIPATE. It's much more user friendly especially for the citizen. Charlotte Harbor is planning on transitioning their water atlas to this more simplified version. They are also doing some enhancements to the water atlas. Their water atlas has more parameters for the contour mapping and they will add fecal coliform to their list. Unfortunately there is not good fecal coliform information in the Charlotte County portion of the estuaries. This map will help highlight that need of information. They will also take many of the mapping files that the NEP has developed over the years and put that on the advanced mapper system.

They already have three program pages, one for the Charlotte Harbor Estuaries Volunteer Water Quality Monitoring Network, one for the Coastal Charlotte Harbor Monitoring Network, and Canal Watch in Cape Coral. They will replicate that with Pond Watch in Lee County. They are working with other volunteer groups in providing them a mechanism to put their data on the system.

They are also working with Mote Marine this year to develop a tool to take chlorophyll, turbidity and color to estimate the amount of light that can get through to sea grasses with photosynthetic active radiation. They will be able to use this tool to back cast the amount of light that sea grasses had available in order to see trends more easily. They will work with USF to put that tool onto the Water Atlas.

Under "LEARN" they are developing a new tool where they GEO code documents. If you wanted all the documents of a particular area you can pull those

Jono Miller adds: Dr. Aaron Dean at New College has been training students to do oral histories. You can go on line where you will find an interview with Dr. Jelks, Ernie Estevez, Jono and Bob Johnson. There are images recorded with their responses. The students prepared transcripts of their full interview. Slowly, a record is being amassed of people that have been involved in water resource issues throughout Sarasota and Manatee County.

Future Agenda Items:

- Fertilizer preemption – Jim Beever will work on the presenter who will also talk about what the legislation is at the time.
- DEP revision to the ERP rules for standardization – Maya and Peggy.
- CUPCON – Consumptive Use Permitting Consistency
- Status of Dona Bay watershed – Belinda
- Status of Management Plan
- Sea level rise-how it will affect the management plan – Ernie Estevez
  Jim states he can provide some resources
- Elections for Chair and Vice-chair
- Status of EIS
- Myakka Conservancy presentation

Next Meeting Date:
It was decided to use Doodle website for members to select a Friday in January.

Lisa Beever moved to adjourn Dr. Mary Jelks. The meeting was adjourned.

The meeting ended at 10:55 a.m.