DRAFT

Myakka River Management Coordinating Council
Lemon Bay Park
570 Bay Park Blvd.
Englewood, Florida 34223
November 14, 2014
9:03 A.M. – 12:51 P.M.

MINUTES

The meeting began at 9:03 A.M. with Jono Miller presiding. This meeting was advertised in the Herald Tribune on Friday, November 5, 2014.

MEMBERS IN ATTENDANCE

Jono Miller - Sierra Club
Greg Blanchard -Manatee Co.
Lou Kovach - Homeowner
Becky Ayech - ECOSWF
Eric Strickland - Myakka State Forest
Marlene Guffey – Homeowner
Betsy Roberts - Manasota 88
Dr. Mary Jelks - Friends of Myakka
Mike Chouinard - Homeowner
Jim Beever - SWFRP
Martin Horwitz - FDOT
Melissa Dickens - SWFWMD
Bill Byle - Charlotte Co.
Howard Berna - Sarasota Co.

INTERESTED PARTIES

Chris Oliver - FPS
Rob LaDue - S.C. Parks, Rec. & Nat. Res.
Lee Amos - Conservation Foundation
Dee Allen - Mosaic
Juliette Jones - Friends of Warm Min. Spgs.
John Webb - Property Owner
Claire Muirhead - SWFWMD
Lisann Morris - SWFWMD
Dave Kramer - SWFWMD
Mike Heyl - SWFWMD
Tom Mallett - FFS
Judy Meents - FPS
Tara Poulton - SWFWMD
Becki Babb - Property Owner
Hugh Dinkler - ESA
Jacqueline DeAngelo - Sarasota Co.
Mike Dalsis - SWFWMD
Ashley Ellis - Sarasota Co.

BUSINESS MEETING:

- **Call to Order and Roll Call was made.**
- **Public Comments:** Lee Amos made an announcement regarding the Myakka Island Conservation Corridor (MICC) proposal, a 7500-acre project, 3 ranches on or near the Myakka River that was submitted to the State of Florida for inclusion in the Florida Forever Program. It is going through the process. The next step is a regional meeting at Bradenton City Hall on December 2nd, 2014. The meeting is from 5 to 6 pm at the Bradenton City Council Chambers, 101 Old Main Street,

Bradenton. That information goes on to the Acquisition Restoration Council for their meeting later in December.

- **Becky Ayech** requested that letters and other documents be attached to the Minutes. Jono suggested that documents authorized during the meeting be available on the website or attached to the Minutes.
- **Approval of Meeting Minutes were delayed until additional members arrived.**

OLD BUSINESS: NONE

NEW BUSINESS:

Greg Blanchard – Manatee County Update:
Greg stated that there were no issues to bring forth to the Council. A question was asked if Manatee County had taken any position on the Triangle Ranch Acquisition. Greg was not aware of any.

Lee Amos stated that the Conservation Foundation had met with the Commissioners. They have individual letters of support as well as from Charlie Hunsicker the director of their Parks and Natural Resources Department.

Bill Byle – Charlotte County Update:
Bill stated the County did not elect many years ago to be a part of the Wild & Scenic program noting that the County may not qualify anymore due to development. The opposition to the program back then was by waterfront owners regarding the regulations. It has been many years since the County was invited to be part of the Wild & Scenic River program. It might be worth the Council revisiting this.

There is one area on the west side of the river north of the road to Englewood…the County has about 110 acres that may be at least a half mile of riverfront that is basically conservation lands. There have been a number of developers approach the County in the past to buy this property.

Charlotte County probably looks at, at least, 10 applications a day. Most are in the Cape Haze, Rotunda area which has a canal system that does come out to the river. They do make a special effort to make sure each project is not adversely impacting the estuarine water quality.

Howard Berna – Sarasota County Update:
Sarasota County is moving slowly in the permitting world. A recent boat lift was permitted on an existing dock along the river in the Myakka Country Estates neighborhood.

The Board of County Commissioners held a public hearing early in October for Myakka River Protection Zone variance on a property along Starfish Circle in Myakka Shores. They granted approval for construction of a new home within 30 feet of the river. Back in 2005 the Board had granted a similar variance to the previous owner.

The bidding process on the C.R.780 Bridge is underway and due to end in December. Construction of the bridge would likely begin in the spring of 2015 and likely end in the spring of 2016.

Becky asked about water quality on the river. Becky asked if the Council could get a report. Jim Beever noted the CHNEP Water Atlas has continuous records as they come in.

Jono had heard that USGS was removing a gauging station somewhere in the basin. A request was made to find out the reason.

Eric Strickland – Florida Forest Service Update:
Eric has now transferred up to Bradenton and started a new position as CFA Forester. The new forester for Myakka State Forest is Tom Mallett who just started this week.

Tom introduced himself to the Council.

Eric noted that the wet summer limited work at the forest. From May to November they had 48 ½ inches of rain. A contract for exotics commences this week. They plan to work 42 acres mostly cogon grass, Brazilian pepper, Melaleuca, air potato, rosary pea and lead tree. This area is near the canoe launch which is still in need of some engineering information for the FDEP.

The Forest Service is attempting a cattle lease on the Winchester Tract west of Winchester Road. (The area under consideration is about 400 acres.)

Some numbers for State Forest include: 4,151 day use passes, 109 overnight passes since the beginning of August. The apiary lease continues with 10 sites. Hunting season started and the hunters have taken 7 hogs so far. They are just starting back with their burn program due to the wet summer. Last week they burned a few hundred acres.

Juliette Jones stated Brazilian pepper is a big part of the honey flow and asked where the Brazilian pepper removal is occurring.

Eric noted the main contract work is being done on the Myakkahatchee Tract near North Port.

Discussion moved to control of air potato and the use of cattle leases.

Jim Beever stated the air potato beetle was very effective in reducing air potato noting the process for obtaining these biological controls from the State.

Chris Oliver – Myakka Wild & Scenic River (MWSR) Biologist Update:
Chris stated that monthly wildlife surveys have been conducted. Several invasive workdays with Sarasota County staff also occurred, their focus was on lygodium and cogon grass right on the riverbank areas.

A special survey was conducted above the Wild & Scenic designated section by Chris with Lee Amos and a photographer working with the Conservation Foundation. This was of the Triangle Ranch portion which is a part of the MICC proposal that Lee Amos mentioned earlier in the meeting. It was a fantastic but difficult journey in late August.

Regarding permitting: the FDOT scour counter measuring permit on the bridge across the Myakka River was completed on September 4th. FDOT also removed some Australian pines in the area. The County came in later and removed more Australian pines and Brazilian pepper in advance of the dedication event that was October 28th for Senator Bob Johnson's Landing.

The transfer of the permit authority to DEP Regulatory Office in Ft. Myers continues. Presently the MWSR office processes the permits for the Wild and Scenic River activities under 62D-15 (F.A.C.).

Regarding resource management: speeding is a major issue with several complaints mainly from kayakers. Most of the complaints from people are boating way too fast in the area between Laurel Road and Snook Haven. When speeding is observed law enforcement (LE) is notified but it's a tough issue because of understaffing and the difficulty in accessing this area.

During the last inspection there was an increase in large-scale camping areas. One was one mile south of the state park's southern boundary. It had four or five big fire pits and many trees had been taken down in preparation for future fire pits. Locations were GPS'd and sent to the county land manager and LE. Similar activities were observed at the campsites just north of Venice Myakka River Park at the end of Laurel Road. Every year people camp there and cut down trees, leave chairs and trash.

On a positive note, there is manatee activity in Myakka River State Park. That trend has been solid since 2010. This year there were 13 confirmed sightings; eight since the last meeting; the last reported November 5th right at the park bridge. The hot spot this year has been between the Park Bridge and just south of Upper Lake.

Bill inquired about the impact to manatees from water hyacinth in MRSP. Bill was especially concerned about the potential impact from herbicides.

Discussion of water hyacinth blockages and the difficultly of controlling of aquatic vegetation occurred.

Jono concluded that the current management strategy was developed when manatees were not in this area of the park. He suggested that the Council could have SWFWMD look at this new issue.

More discussion of air potato, the illegal campsites, and the invasive island apple snail also occurred.

Approval of the Meeting Minutes from August 15, 2014 Council Meeting.
Becky Ayech moved for approval of the Minutes with two minor corrections. Greg Blanchard seconded. The Minutes were adopted as Amended.

PRESENTATIONS:

Rob LaDue, Manager, Sarasota County Parks & Rec, Natural Resources, Park Planning & Capital Program Division – Snook Haven Addition Conceptual Plan.

In December of 2010 the County purchased this 2.92-acre site through the Neighborhood Parkland Acquisition Program. April/May of 2012 the County had public meetings both in Venice and North Port; joint meetings to discuss both the Snook Haven Addition and the site now known as Senator Bob Johnson's Landing. Some of the comments received from the public were to preserve the park's pristine condition, minimize intrusive development, add rest rooms and move the boat ramp from Snook Haven.

In June of 2014 the Draft Conceptual Site Plan was created and in July it was reviewed by Parks Advisory Recreation Council and they unanimously recommended approval of the Concept Plan with some indications that there should be some control of the event parking so that it wasn't utilizing the Snook Addition area which, of course, was to be reserved for water access.

In September of 2014 the plan was presented to the Board of County Commissioners which they unanimously approved. The Board did request modifying the boat dock to allow more queuing of small boats versus just one.

Rob displayed a diagram for Phase I, noting the plan to take advantage of the existing drive and create a one-way traffic flow pattern. Ideally, they plan to preserve as many trees as possible. Currently the plan will include 12 to 14 MPP (Manatee Protection Plan) consistent trailer parking spaces. There will also be regular car parking and connectivity with some trails and picnicking.

The engineers have determined that the boat ramp will need to be replaced. It is not in shape to be used by the public. There will be a dock, ADA parking with a sidewalk that will lead down to the dock.

Phase II would probably involve the demolition or repurposing of the existing residence to build a small restroom with picnic pavilion.

The design work has been finalized and there will be some modifications associated with the permits. They are expecting to get their permits by the summer of 2015 and begin Phase I construction in summer/fall. The hope is to have the site open to the public for use by fall or winter of 2015. For Phase II, County Staff plans to discuss that with the Board as part of a fiscal year 2016 budget. Hopefully by then there will be more design details about the pavilion, restroom, and other aspects.

Discussion followed Rob's presentation regarding the emergency fire access, stormwater, use of the existing house, composting toilets, shoreline restoration and the location of the pavilion planned for Phase II.

Additional discussion occurred on the need for the Sheriff's Department to monitor and enforce rules in the park including how to limit the number of boats using the park.

Rob indicated that the limited number of parking spaces, posted signage and any necessary law enforcement by the Sheriff would ensure compliance.

Hugh Dinkler suggested that staff should consider dedicating one parking space to law enforcement.

Jim Beever suggested that the residence be kept and offered to a law enforcement officer at least until a choice has been made for the house. It would provide a presence against vandalism, crime and other problems.

BREAK from 10:35 to 10:45 a.m.

Lisann Morris and Mike Dalsis – SWFWMD Myakka River Watershed Initiative and Flatford Update.

Lisann started the presentation with a brief background on the watershed then discussed one of the more important features: the Flatford Swamp in the top portion of the watershed. Back in the early 1990s the District purchased approximately 2,300 acres in the Flatford Swamp. Soon after the purchase the District began to get reports of abnormal tree die-off within the swamp. Early reports indicated that this was a result of an increase in dry season flows from surrounding agricultural areas which impacted the hydroperiod. The District partnered with many of the farmers around the Flatford Swamp area to promote projects using surface water instead of ground water. Also when permittees would come in to renew their water-use permits the regulatory staff would encourage them to talk to FARMS **(**Facilitating Agricultural Resource Management Systems**)** and to use conservation BMPs. They had some success with that but still needed something more comprehensive. So the District started the Myakka River Watershed Initiative to look closer at the hydrology and the natural systems.

The watershed management program was used to evaluate the watershed. The first portion is the topographic information which is gathering all the data on the terrain that sits at the baseline for modeling efforts. Next is an inventory of the watershed including features such as storage areas, pipes and channels. Data on soils and land use is gathered.

This is entered into a GIS database. Finally, the District moves into the watershed management plan phase. Here the computer modeling is done, setting up the tools that will help evaluate the watershed. With this project various BMPs were examined as tools and modeled in different scenarios.

The watershed was broken up into different sub-basins to evaluate. Digital elevation models developed for the project are the result of several different LIDAR projects. For the inventory process three different consultant firms did field investigations in all the sub-basins. After all the data was entered into the GIS database modeling could begin. There were several different models in this project.

The first model was the Upper Myakka River Water Budget Model. It was used to determine excess flows in the Flatford Swamp. This area covered from SR 72 to the upper area of the watershed. MikeSHE was used instead of ICPR3 which is more of an event model.

A very new model, the ICPR4 was also used because of its 2D elements. ICPR4 was used for the Deer Prairie Watershed, but more importantly, for the main stem of the Myakka which was important since that model had not been updated since the 1970s. Big Slough, Howard Creek and the Lower Myakka River were either already in process or just completed so the District did not require more work there. All the sub-basins then were connected to that main stem model.

The District then began running different conceptual scenarios. These included Tatum Sawgrass Restoration, Clay Gully Elimination, Upper Myakka Lake Weir Modification, Blackburn Canal Flow Reductions, and Flatford Swamp Hydrologic Restoration.
The first scenario was the Tatum Sawgrass Restoration. Conceptually, the model busted a hole in the dikes and modified some other parts of the property that would allow the flow at the lower frequencies to wash back and rehydrate the area. The model showed a drop in the peak of the hydroperiod and an increase in recession limb of the hydrograph. (A NRCS Conservation Easement was negotiated on this property and restoration efforts are now being coordinated by that agency)

The Clay Gully Elimination concept uses a weir to try to force more water back into the main stem. The model did not show much difference; the biggest difference seen was in the mean annual storm with a 0.15 foot increase and about 9% more flow went into the main stem. With the 25-yr and 100-yr modeling there was not much difference about 4% so, conceptually, there was not much “bang for the buck” there.

In researching the Upper Myakka Lake Weir some very old reports had complaints about upstream flooding after the weir went in. The model tested lowering the weir and found that in the higher storm events there is really no difference. And also for the mean annual there was a little bit of a decrease.

The Blackburn Canal Flow Reduction model incorporated a weir to reduce freshwater flows (leaving the Myakka River). This excess freshwater adversely impacts the

Robert's Bay estuary system. The model indicated an increase in stages upstream in the Myakka from 0.02 Foot for the 100-yr. to 0.52 for the mean. The model also showed an increase in inundation height. For the known slab elevations, the model did not show any additional structures impacted. The District does not have all slab elevations for all structures within that area; something that definitely would need exploring before going forward with this option. The largest increase in flow down the Myakka was for mean annual which was 122 cfs.

For the Flatford Restoration, the District will continue with the FARMS Project, but also looked at an interception scenario in order to get closer to the 1950s historic hydroperiod. The concept was to take water at Coker-Ogleby Creek, Maple Creek and a north Myakka River point. Then pipe the excess water to a central collection point. Different scenarios were explored concerning what to do with the water once removed. One option was to send it to the Manatee River, but this is a long distance and the MFL for the Manatee River is still in process. The other options were aquifer injection or piping the water up to Mosaic for beneficial use.

Mosaic was the most promising alternative so a feasibility study that was funded 50/50 by the district and by Mosaic. Mosaic looked at some of the different options the water could be used for. Models considered a range from 4 to 8 MGD. One model found a 0.5 foot rebound in the Florida Aquifer using the scenario that utilized surface water sent to Mosaic instead of the groundwater.

Jono asked how that compared to the aquifer injection benefits. Lisann responded that it depends but rebound may be closer to 0.8 or 0.9 because the aquifer injection would be closer (to the Flatford Swamp).

Mike Dalsis, Environmental Scientist in the Surface Water Improvement Management Program:

Mike started with an overview of the existing vegetation at Flatford Swamp and displayed a detailed map based on the Florida Land Use Code Classification System. There is a really good baseline of the existing vegetation on site which can be monitored depending on the strategies the District implements with the hydrological modification. He noted Myakka River, Long Creek, Maple Creek, and Coker-Ogleby Creek on the map which all have monitoring transects. The District hired consultants, Jones Edmonds and the University of Florida (UF) to do some biogeochemical analyses of the soils along those transects in addition to some vegetation monitoring. This was the first effort to get existing conditions, so that as they move forward depending on what strategy, whether injection or (piping to) Mosaic, for the hydrological modification, they will at least have a baseline.

The Pre-Hydrological Modification Monitoring Plan (PHMMP) determines priority areas for restoration beyond the hydrological restoration. The District implemented a BACI (Before-After Control-Impact) design. It is designed to assess the success of the restoration efforts, vegetation recovery and water quality. Pre and post monitoring at

water quality stations, remote sensing and additional vegetative mapping will occur on site. Mike noted that Dr. Todd Osborne from UF made some recommendations for continued monitoring of the biogeochemical soils and sediment analyses. Dr. Osborne & associates will shortly publish a technical memorandum that they developed for the District. If anyone is interested Mike will be glad to provide this information.

Some of the possible parameters being looked at are pH, sediment, moisture content, organic content, nutrients, specific gravity and DO. The PHMMP was established, implemented, and completed in 2011/2012. The report recommendations from UF were provided to the district in 2012.

Post Hydrological Modification & Restoration Plan promotes enhanced biodiversity and ecosystem function in the Flatford Swamp through reduction of the hydroperiod. To accomplish this need targeted restoration treatments are based on prior evaluation. Examples include appropriate prescribed burn frequency in target areas especially in those with higher organic matter. As the hydroperiod is being reduced, more of the fringe of Flatford Swamp is more accessible to prescribed burning.

Another example is exotic vegetation removal like Lygodium which is being treated, cogon grass as well. There is also a bio-control moth for Lygodium that has been released in the swamp. So far the results are not impressive but monitoring will continue.

If recommended, and depending on conditions, there may be supplemental plantings for some of the Tupelo that was lost in the previous conditions, perhaps some Cypress as well. The dominate vegetation cover is, unfortunately, exotic nuisances: Primrose willow and the Carolina willow which is native but it's also a nuisance. These are an indicator of disturbance and increased hydroperiods as well. There is also a lot of native vegetation: holly trees and mixed hardwoods are persisting. With targeted restoration there can be an increase in valuable habitat.

An additional recommendation from the technical memorandum supplied by UF was to continue monitoring for a minimum of 10 years. This includes continuing the annual BACI, annual remote sensing, with soil, sediment, biogeochemical reevaluation on a three to five year frequency. And that is the plan.

Lisann noted that the District is pursuing the Flatford Swamp option. Both management at the District and Mosaic are discussing whether to move into the design phase.

Questions and answers followed including; a general discussion occurred regarding difficulties of prescribed burning in the Flatford area, and a discussion about the sources of the excess water and potential solutions.

Becky asked specifically how much was the excess in the Flatford Swamp in MGD.

Lisann confirmed there is "at least 11 MGD of excess water" in the swamp.

Becky stated that we know that the excess water is coming from the lateral seepage from farms mostly in the dry season resulting from bed preparation. She applauded the Districts efforts in promoting conservation via BMPs with irrigation but suggested that the real solution was to address the main sources of excess water from bed preparation.

Jono asked if other strategies beyond intercepting/redirecting were explored.

Lisann stated that other strategies for reducing flow into the swamp were modeled too. A Water Budget Model for Future Conditions was mentioned. Also a Reduced Irrigation model where they took larger farm operations out of it and made those areas pastoral. That model still had excess water, but less in the dry season.

Marlene Guffey brought up drainage concerns regarding Blackburn Canal. A discussion on original intent and current conditions of Blackburn Canal occurred.

Mike Heyl – SWFWMD Minimum Flows and Levels (MFL) Program Update:
Mike began his presentation with an overview of the pertinent statutes and rules starting with MFLs, at the state level, which are in 373.042, F.S. and 373.0421, F.S. The latter is the establishment and implementation. District's rules for water levels and rates of flow are included in 40D-8, F.A.C. The actual rule by system, for a specific waterbody, is in 40D-8.041.

The District has rules for prevention and recovery strategy. If the District completes an MFL on a system and finds that the permitted quantities are already causing significant harm then they are obligated by the state to come in and develop a recovery strategy to bring these things back to the desired levels. Also, if something is going to have serious problems, then the District has to come up with a prevention strategy.

DEP has their water resource implementation rule with a chapter for guidance to the District regarding seasonal flows to keep the hydrological regime. Keeping the hydrological regime is not common in the U.S. Most permitting agencies allow X million gallons a day from a system. Florida is very different. Here we use something called a percentage flow pioneered by Tom Fraser and Sid Flannery. The idea of taking a different percentage each season as opposed to a fixed amount in order to retain the hydrologic flow, the regime that changes with the season.

A minimum flow is a limit in which further withdrawals would be significantly harmful to the water resources or ecology. From the MFL standpoint there has to be an additional withdrawal. The statue requires the MFL be calculated using the best information available.

The statute also requires the District to prepare a priority list which is then approved by the District Governing Board and then the DEP. This list establishes what the District intends to do over the next period of time. Currently the District has completed about 200 systems: springs, estuaries, etc. In the next nine years the goal is to pick up another 11 springs, 10 estuaries, 15 freshwater systems and 40 lakes.

Getting on the priority list is based on the importance of the water body to the region or the state, the existence or potential for significant ecological harm. If it looks like projected withdrawals within the next 20 years are going to cause problems then the district has to begin the recovery plan. By statute the District has to include all first magnitude springs or second magnitude springs within state or federally-owned lands that were purchased for conservation purposes. Finally, it requires scheduling the establishment of the spring MFLs commensurate with their potential threat from consumptive uses.

The District conducts external peer review with people that do not have contracts with the District. Three people are hired to review each MFL. One of the first peer reviewers suggested 15% as a threshold which represents significant harm. The District has used that since then. For example, a MFL may require retaining 85% of a habitat be it a given a salinity, or 85% of the numbers of fish in the estuary.

The District had 52 additional peer reviewers that looked at the MFL reports. All have said it was a judgment call, but it's reasonable. They understood there was no hard basis behind it, but it looks reasonable. There is no legislative definition of significant harm.

Getting an MFL does not make it any easier to get a water-use permit. University of Florida Law Department produced a white paper from some work that was done in north Florida and they say it does. However, every one of the criteria still has to be met.

The MFLs are based on the best information available. It may vary in type, scope, duration and may be less than optimally desired. There may be a need to establish, require or develop a methodology that previously did not exist and apply it for the first time. The District is always looking for some new metric that can be incorporated.

Myakkahatchee Creek's estuarine portion is about 2.4 miles, about half of it is still a natural shoreline. Right now the city of North Port withdrawals are about 3% of the average inflow. The Myakkahatchee is not on the priority list because it is not a high priority yet, when we consider the other systems still needing MFLs. There is a total of 76 already on the priority list through 2023. Public input is considered if someone one were to ask to have it placed on the priority list.

Warm Mineral Springs (WMS) is not state or federal conservation lands. There is no significant threat from withdrawals and it is not expected to become a potable water supply. No threat is envisioned to the discharge from WMS.

It is a statutory requirement that the District produce MFLs for all 1st magnitude springs, over 100 cfs and any 2nd magnitude spring on state or federal lands purchased for conservation purposes must also be done. 2nd magnitude springs have to be at least 10 cfs. For WMS the average of this period has been 9.2 cfs; therefore it fails to meet many of the criteria.

For more information on MFL reports, the current priority list and the peer review: **http://www.swfwmd.state.fl.us/projects/mfl/mfl_reports.php**

Becky asked if once an MFL is put into place is it ever revisited?
Mike answered yes. The statute at the state level requires that MFLs shall be reevaluated periodically (time not specified).

Bill noted that the Myakkahatchee is the largest tributary and represents the largest sub-basin in the watershed. He suggested that as the City of North Port grows it will require more water from the Myakkahatchee and asked would it be better to establish an MFL before this happens?

Mike responded in terms of the upstream freshwater MFL, he sees no significate threat to the watershed. By the time it gets down to the City of North Port that water has done its environmental duty on its way down. Unless the City takes out a huge amount, changes the velocity, the travel time, and everything else significantly; he does not see it having an effect.

Julliette noted that WMS has been the focus of her attention for the past three years. She is currently on a board that is taking legal action via the Clean Water Act. She stated that the District's criteria is flawed and that WMS is one of the most ecologically unique places on the planet. She expressed concern regarding the spring's health noting since being purchased by the City, the DEP and the county allowed an operator to pour an algaecide in the spring which was only approved for fresh water by the manufacturer. This killed an algae in the spring which was part of a significant sulfur-producing mechanism. Now there is hardly any sulfur, not many birds, and hardly any little fish. And, certainly no good kind of algae on the surface. This can affect tourism since people believe in the healing properties.

Jono noted the reduction of WMS cfs from 11 to 4. He asked what would be the cause.

Mike stated that both rainfall and groundwater withdrawals can affect the aquifer level. He explained how the District uses models to determine the impact from withdrawals.

There was further discussion of concerns for WMS from withdrawal and how reduction in flow would have negative impacts including to manatees and the local economy.

Becky added that what we really want to have happen is an investigation on why the flow in the WMS has decreased suggesting that the Council ask the District to conduct a study to identify the cause of the reduced discharge from the spring. She suggested not to tie it to an MFL study. Becky suggested the Council consider a Motion to that effect.

Mike noted he saw something on the internet of a cooperative funding project between Sarasota County and USGS to start measuring WMS. Apparently Sarasota County has begun something very similar to what is being suggested. Becky suggested this could be a report for the next meeting.

Jono stated we need to distinguish between studies that documents the change in the temperature, the change in the flow, the change in the mineral content from a separate study of where the water is coming from; noting we need both.

Claire Muirhead – SWFWMD Water Use Permitting.
What is a water-use permit (WUP)? It is a legal instrument that gives authority to an entity to withdraw water for use within district boundaries.

The District gets their permitting authority from Chapter 373 of the Florida Statutes. Underneath the Statutes they have their own District Rule which is known as 40D-2 and that helps them interpret the statute. The Applicant's Handbook which provides greater detail in regards to both the rule and the statute. The Applicant's Handbook is a great source for both reviewers, consultants, applicants, permittees and the general public. It goes into great detail of what is required in order to get a WUP and the criteria that has to be met.

The "Three-pronged Test" is used to determine whether someone meets all the criteria to get a WUP. There are three items within the test: 1) is the proposed use considered a reasonable beneficial use as defined in the statute? Basically, is it a reasonable use; is it something that does not waste water; is it beneficial to the public or to an individual within the state? 2) Will it interfere with a presently existing use of water? 3) Is it consistent with the public interest? For example, if there were an economic activity it would need to be considered a legitimate economic activity in order to fall within the public interest criteria.

Underneath the Three-pronged Test the Districts has WUP criteria that are laid out in the Rule. There are eleven or twelve listed in the Rule. The three main ones when considering applications are: 1) is the water actually needed for the use requested? Does the applicant have a demand? 2) Will it interfere with a presently existing use of water? 3) Is the water available without harming the water resources in the area?

The District considers water resources to be wetlands, springs, lakes, rivers, aquifer systems, etc. They have to address all lakes, rivers and wetlands in their district whether they have MFLs or not to make sure a requested use will not adversely impact any of the systems.

If the applicant meets all the general WUP criteria discussed above there are three other additional items to be addressed. One is MFL. For example if an applicant comes in for increased quantities for citrus. The district must look at all of the lakes in the area that have MFLs established and determine whether this new increased quantity will impact the MFL water body adversely.

The second is Water-use Caution Areas (WUCA)-specific areas in their District that have specific rules associated with them in regards to WUP. Within the Southern WUCA area is the most impacted area; it is very difficult to get Floridan Aquifer quantities in that

area. So in reviewing WUP applications they have to look at these specific rules in regards to the WUCAs as well as all the other general rules.

Three is a water reservation – a factor that is quite rare. There is only one water reservation in the District right now, the Morris Bridge Sink on the Hillsborough River.

Water-use Permitting Thresholds – When they receive an application first they decide does this applicant really need a WUP? Some items they look at is well diameter, quantity, withdrawal capacity, pipe size diameter on a surface water body.

Claire displayed a map of the District where WUCAs were indicated: Northern Tampa Bay WUCA in Pasco, Hillsborough and Pinellas County and the Southern WUCA. They actually have approximately 5,000 WUPs within the Southern WUCA. A good majority of them are actually small citrus farms located in Polk, Hardy and Desoto County. But there are a lot of large agricultural projects in the Myakka River/Myakka Watershed. The Southern WUCA (SWUCA) was declared by the Governing Board due to depressed groundwater levels resulting in saltwater intrusion, lowered lake levels and low flows in the Upper Peace River. There is a SWUCA Recovery Strategy in place the district is implementing right now.

Claire showed another map that showed all the WUPs in the Upper Myakka Watershed highlighting the types of special conditions common on these permits.

There are Water-use Special Conditions on some of the permits within the Myakka River area. These require water level monitoring, water quality monitoring in some cases. Trends are examined for water quality in wells and stream flows and tributaries to the river in some cases. Some stream flow conditions are associated with permits. What this does is help us document whether the farmer is capturing irrigation water or whether there is off-site runoff that shouldn't be happening. Stream-flow gauges may also be required here.

Also, many permits have tail-water recovery conditions. These are requirements for the agricultural community to put in storage ponds downstream of their irrigated acreage in order to recover groundwater that's running off the site due to irrigation. They recover it, either store it or recirculate it for irrigation.

Best management practices are also required. These include water table monitoring of wells, ditch block and culverts with flashboard risers. This helps to hold back the irrigation water that may be leaving the site. Farmers use these in canals and ditches, but they also use these to create these tail water recovery ponds at the bottom of their fields to help store as much water as possible.

Soil moisture monitoring device conditions are on some of the permits. This helps the farmer know where and when not to irrigate. Many permits have complaint investigation conditions. If the district gets a complaint from downstream property owner of a discharge the complaint investigation condition lays out what the farmer needs to do in

order to investigate the complaint and determine why the person is receiving discharge and come up with a mitigation strategy to resolve the complaint.

Another condition can be a decrease in application rate. There were quite a few permits in Flatford Swamp area, as well as elsewhere in the SWUCA, where the applicants have actually agreed to decrease their irrigation application rate. It means they are not using an irrigation application rate that is recommended by IFAS. They are using a lower application rate which helps decrease offsite runoff. Some of the farmers have been able to do that which is good.

Claire's phone number is 813-985-7481 Extension 6533. Her email address is Claire.muirhead@watermatters.org. The e-permitting link is http://www.swfwmd.state.fl.us/permits/ to look up water-use permits in the area.

Jono inquired how the District determines the cause of a decline using a hypothetical example with Morris Bridge Sink.

Claire responded that if it is new applicant requesting a consumptive use then the applicant would have to demonstrate that the withdrawal does not impact Morris Bridge Sink.

Jono asked what if the existing permitted users were causing the declining flow?

Claire replied that there is a whole section in Brooksville in the Water Resources Division who are the groundwater modeling experts, engineers and geologists. They work on more of the cumulative modeling and impacts of everyone who is pumping now including any MFL investigations or for determining whether a spring is being impacted.

Jono inquired if the District would have understood in advance that the excess water running off from agricultural operations was going to impact the trees in Flatford Swamp, would the District have been able to issue the WUPs that led to the die-off?

Claire answered that they were previously issued WUPs.

Jono replied understood but what if the permits had not been issued. There was a new request and the District had foresight that the request would change the hydroperiod and kill trees in Flatford Swamp. Would you have had to deny the permit request?

Claire responded that is hard to say because there are other factors besides just water-use permitting that affected Flatford Swamp like the land transition from its natural state to pasture changed the evapotranspiration.

Hugh asked, recognizing the problem we have at Flatford Swamp is the District looking at rewriting Chapter 40D-2 to address these issues? Because right now the way modelers look at potential water resource impacts is a reduction in volume, whether a drawdown from groundwater source or a pulling from surface water and then having impacts on an

MFL. But, when those adverse impacts to water resources is from offsite discharges there is an issue which WUP staff really does not consider in a lot of detail. Is the District looking at rewriting Chapter 40D-2 to address those? We just received a presentation that showed we still have a problem with a volume of water and the way the District is going to handle it is to potentially give it to Mosaic under a permit. But, ultimately the fix seems to be to rewrite 40D-2 such that permits in this specific area have different criteria that are reviewed and that require agricultural interest to use more efficient water management.

Claire responded that they are doing that now. The District does require farmers to look at the feasibility of using different irrigation practices, reducing their runoff. The District rules do not say eliminate all discharge, it says minimize discharge. Efforts continue with the FARMS program to cost-share with farmers to try to build more surface water storage so farmers can use that for irrigation as opposed to pumping groundwater and causing possibly more runoff.

The decision has been made throughout the District as a whole to solve the problem. It's going to be a more regional resource management strategy as opposed to just concentrating on the regulatory aspects. Obviously the regulatory aspects have helped to a certain extent and they do have people using better management practices, better irrigations systems, and more surface water storage. But there is still a problem. The District has decided to use a resource management approach.

Becky stated that long ago the District required tail-water recovery ponds but farmers responded they weren't able to use them. When SWUCA and Flatford came back the recovery ponds were put back in place. Now the farmers are saying there is an issue with the water quality in the stormwater ponds and with the new federal regulations coming down, they were concerned that there may be some sort of algae or microscopic organism. She stated that she is not seeing many recovery ponds being built and asked if Claire had heard anything from the "SWUCA Three" meetings that led her to believe that more tail-water recovery ponds will be feasible.

Claire responded she knew there were more FARMS projects proposed for that area. She has heard there has been some problem with filtration issues with algae. FARMS has paid for some projects to help filter out the algae so they can better use surface water. The District pushes it as much as they can but there the rule says if it's economically, technically or environmentally feasible. If a farmer has a particular crop they can't sell if surface water has been used the District then has to allow it (ground water use).

Becky noted that what she understood at the "SWUCA Three" presentation, as well as the SWFWMD Environmental Advisory Council meeting, that farmers are decreasing their irrigation but they are not decreasing quantities during bed prep.

Claire responded yes, it is mostly supplemental irrigation that is decreasing.

Becky added that she and many of her neighbors have had to replace their wells because the water levels have dropped below the ability of their wells to bring up water. She stated that as existing user, she has not been protected by the District's rules.

David Kramer – SWFWMD Environmental Resource Permitting and Floodplain Compensation.
Dave began noting as in the previous talks the permitting authority comes from the Statute, specifically their rules are outlined in Chapter 62.330 of the Florida Administrative Code. Their design standards can be found in their Applicants' Handbook 1 and 2.

What is an ERP? Environment Resource Permit is a construction permit. It basically gives authorization for construction of a surface water management system which can come in the form of a single-family residential subdivision, road widening project, commercial development, etc.

The conditions for issuance include a review process. The District's ERPs will authorize activities that are not harmful to the water resources and are consistent with public interest.

David discussed the issues that would pertain to floodplain encroachment and compensation noting that 100-year flood level determinations are required to be done by each applicant. Floodplain elevations are established using the most accurate information which can include – it doesn't have to be limited to the list seen on the overhead. It has actual measured data; water level data, stream flow data, hydrologic data, FEMA maps and other information.

The rules requires that no net encroachment into the floodplain up to that encompassed by the 100-year event which will adversely affect conveyance, storage, water quality or adjacent lands will be allowed.

His contact information: 813 985-7481 Ex. 2009. Dave.kramer@watermaters.org and the link to ERP permit information: http://www.swfwmd.state.fl.us/permits/

Jono gave a hypothetical scenario. There is a tropical depression, it's been raining for four days. All the stormwater ponds within the development are brimming. The river is coming up and coming out of its banks. The homes and the roadway constructed in this development are above the historic grade and they occupy volume. So as the river comes up the volume that was previously available for the "floodwater" to occupy is now occupied by house pads and homes.

It appears we were actually loosing storage in the floodplain. What the applicant told the Council was that everything they were doing was legal and permittable. Is it true that in this scenario the storage capacity for the flood waters in the basin have been reduced and is it also true it is permittable?

Dave believes the concept Jono described is in general disallowed. When floodwaters come up as a result of a riverine flooding - ideally they require or request that the builder (developer) would provide an equivalent volume. You're right when a stormwater pond is filled or the storage in a stormwater pond is occupied by actual rainfall runoff from the development itself, it does not provide any form of compensation for those big floodwaters coming.

For the Woods project they have not received a permit application. The District has issued a Formal Wetland Jurisdictional. It is not a construction permit; it establishes the wetlands. At this point they have not had preliminary discussions with them. When they do the District will be asking them to provide equivalent compensating storage for the floodwaters.

A general option would be to excavate the equivalent volume of soil on the property to compensate for the fill added during the development on the site.

Hugh stated that the engineer, Kimley-Horn, will not provide equivalent compensation, the cup-for-cup idea. They want to model so that their discharge peak is before the peak of the Myakka River so that it kind of disappears in the 100-year floodplain modeling. They're not providing compensation, they will just push all their water out sooner to maybe a lower floodplain stage such as the 25-year. It may see some stages higher on some adjacent properties but the volume will be gone for the 100-year.

David stated that in general this would not be allowable. The District would not allow a floodplain encroachment for all storm events up to and including the 100-year event. The ability to show that during the very large 100-year storm event will not create any increases in flood stage due to allowing all the flood waters from the stormwater ponds out, doesn't dismiss the requirement to show it for lesser storm events.

Hugh continued, currently the layout is pretty dense. This is the biggest issue many have. They're leaving only the wetlands with the standard 25-foot county buffer. Everything else is either going to be development, roadways, build pads and stormwater ponds which they will berm up to the 25-year volume to be able to meet the 25-year attenuation volume for the District. But in fact, keeping the property from seeing any water below the 25-year stage in the river and then addressing the 100-year floodplain by the modeling approach. This is what was relayed to the Council at that last meeting.

Mike Chouinard asked if having a stormwater retention next to wetlands drains the wetlands.

David responded that draining the wetlands would not be permitted. Proper design of the stormwater system to protect wetlands is a part of the review process.

Jono stated it seems like we are talking about two different types of flooding. One is rainfall flooding on the site and dealing with discharge or runoff from the site. The other is the flooding that results from the river leaving its banks. If I understand what David

said the strategy for dealing with the river stage coming up was to excavate and remove a volume of soil equivalent to how much they are building above grade.

It seems as though before the river does anything – and we know the lower section of the Myakka is slow to flood. It has to fill up Tatum Sawgrass and Myakka Lake and all the marshes. You know in advance it will flood. The capacity the developers created by excavating the soil has already been filled by rainfall falling on the site. There is no capacity existing by the time this slug of water comes down the Myakka River, leaves the banks and starts migrating towards the site. So, it is not clear how conceptually removing that – that was great for the onsite management from the direct rainfall falling on the site, but I can't see how it deals with the river flooding.

David responded there are two concepts at work. It does sound like the developers are trying to do a modeling approach. They are trying to use the timing of the river to their advantage. That basically means that on paper they're designing their stormwater ponds such that they account for that onsite flooding. So they take the storm (which is also required) - they take the water from the rainfall and slow that down so they don't release it at a higher rate to have local impacts or downstream impacts. But they also can show that during the 100-year peak stage of the river that by the time that gets to the site which could be days later. The stormwater on site has already discharged out of the stormwater ponds. They will try to use a modeling approach where they take the watershed study and they show that as the river comes up the stages on site have gone down or going down. On paper it can create the capacity.

David answered questions on the basis for the 100-year storm and what the term means noting it is a measure of rainfall depth that is associated with a 1% chance storm. The District is currently working on revising their rainfall maps. Discussion continued on this.

Marlene questioned why the developer would be allow to bring so much fill when in her neighbor this practice is strictly limited. She stated that while she believed the current plans may prevent flooding by rain water that the plans do not address the river flooding that will come.

Jono explained that we have not had time to work on the management plan. Maybe we can poll people and ask if they would be willing to come to a whole-day meeting where we would do the regular items in the morning, take a break for lunch and work through the management plan in the afternoon.

Becky suggested we put the management plan portion in the first half of the meeting when we would still have a quorum.

Future Agenda Items:

1. **Myakka Bridge design**
2. **North Port or USGS – on removal of Myakka gauges.**
3. **Blackburn Canal flow direction & contributing water sources.**

4. **Section Four of the Management Plan**

Next Meeting Date: Was not discussed.

There was no quorum so the meeting was simply dismissed.

The meeting ended at 12:51 p.m.