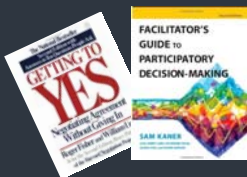


Reading Discussion

The class reading discussion was lead by Carolyn Cox. NRLI fellows broke up into groups of four to discuss the readings and generate an overall synopsis of the assigned book. Each group listed the benefits of the readings, how the readings could be applied to the listening exercise held earlier in the session, and how we ranked the readings in order of preference. There was a wide variety of opinions and benefits expressed from the fellows and not a general consensus of one favorite reading.



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A Springs Restoration Planning Process.

Welcome to Wakulla Springs



Shelly Swenson Wakulla County Interim Extension Director and Sherri Kraeft, Wakulla County 4-H Director and NRLI Class X Fellow welcome the NRLI group to Wakulla .

We started the second session in Crawfordville Florida at the Wildwood Inn and Resort. The agenda titled, “A Springs Restoration Planning Process” was a very interesting topic with many stakeholders with varying points of view. We donned our name tags and started the meeting with an excellent southern style lunch of fried chicken and mashed potatoes. After lunch, the tables were moved out of the way and chairs were put in place to form the familiar chair circle. During this process a notable

comment was made by Bruce Delaney. When asked by a student where the table needed to be moved, Bruce stated, “part of leadership is learning to wait and watch others, see what others are doing first, then act.”

Welcome and Introductions were provided by Shelly Swenson, Wakulla County Extension Director, Interim. Introductions were also made by past NRLI alumni members Sherri Kraeft (Wakulla native) and Kim Love. The sincere welcome was appreciated and there was definitely a sense of pride demonstrated by the Wakulla residents. Sherri offered tours of available real-estate to any potential buyers. The county is very dependent on Eco-tourism and good school districts. A review of the agenda was posted to the wall. The agenda included some excellent artwork by Candy!



“Creature from the Black Lagoon” participates in a 2009 “Save Our Springs” rally in Tallahassee. Wakulla Springs was the site of the classic 1954 monster movie. Photo by Bob Knight

Wakulla Springs

A Springs Restoration Plan Process



Bob Knight with Wetland Solutions speaks with the Fellows at the Wakulla Springs session.

At 3:00 pm we had an interesting lecture provided by Dr. Robert L. Knight who owns a consulting company, Wetland Solutions, Inc., and also serves as director of the Howard T. Odum Florida Springs Institute. Dr. Knight was also the coordinator for the Wakulla Springs Working Group from 2010 to 2011. He explained the hydrogeology of springs, the Floridan aquifer, and how Wakulla Springs has one of the largest limestone cave systems in the world.

Wakulla Springs is a 1st magnitude spring with greater than 1 billion gallons, YES BILLION, of flow per day. It is one of over nine-hundred springs in Florida. Many ecosystems rely on the springs, including aquatic vegetation, turtles, manatees, birds and humans. There are over 200,000 visitors each year to Wakulla Springs.

As with many springs across Florida, Dr. Knight explained that Nitrates (which are nutrients) levels are increasing and springs flows statewide are decreasing. Nitrates are also believed to contribute to eutrophic conditions promoting exotic and invasive plant growth including the proliferation of algal mats within Florida spring systems. These exotic plants can overtake natural vegetations and greatly reduce or in some cases eliminate native vegetation. He

cited an example where they treated the invasive plants and planted native vegetation only to later have them completely wiped out by hungry manatees.

There are many contributors to increased Nitrate levels at Wakulla Springs. They include spray fields, water treatment plants, storm-water runoff, and septic systems. Three goals to improve the water quality of Wakulla Springs include reducing nitrates, reducing dark water days and restoring spring ecology. Bob then went on to discuss his three year program that he was working with in conjunction with DEP. Unfortunately, funding for his and three other springs projects were eliminated during the 2011 legislative session.

Active Listening: a Core Skill

Bruce Delaney began the skills exercise called "Active Listening- a Core Skill". We partnered up with a classmate and practiced a five minute active listening exercise as we described an event that had challenged our beliefs, values, or rights. Lessons learned were that there are many things that can get in the way of listening. They included: self reflecting or projecting, thinking about other tasks, trying to remember questions you want to ask the talker. To be a better listener, you need to trust your brain. Trust that you will remember the content, don't try to memorize what they are saying or what questions you want to ask. You have **two** ears, **two** eyes, and **one** mouth, **respect the ratio** and you will be a better listener and leader. Don't try to finish the other person's thought patterns. By sincere listening you will enable the person communicating with you to relax and know that you are truly interested in what they have to say.

A larger scale exercise involved a scenario on the Caloosa-

hatchee Water Shed with four unique Stakeholders: Commercial Crabber, Local Politician, Activist, and Farmer. Four of the fellows read from a script

"We have two ears and one mouth so that we can listen twice as much as we speak." Epictetus

which encompassed each of the stakeholder's fears or anger over the issue. We listed out concerns for each stakeholder on sticky notes and placed them on the wall for the group to categorize and gain a better understanding of what each stakeholder said and why they felt the way they did about the issue. We also used a colored DOT ledger matrix that included placing DOTS of different perceptions, such as factual, hearsay, belief opinion, and fantasy to categorize what each of the different stakeholders said. This listening matrix provided good insight as to how others may perceive an issue. **Listening continued on page 4.**



STAKEHOLDER PANEL

The five member Panel team included:

Ron Piasecki from the Friends of the Wakulla

John Cox from Tallahassee Public Works Storm Water Treatment

Blas Gomez from Tallahassee Public Works Tallahassee Water Treatment

Kris Barrios from North Florida Water Management District

Rick Hicks Department of Environmental Protection

The unique panel discussed nitrate levels, causes, treatments, black water, plant growth, recreational use of the springs, septic tank development, lawsuits, and the future of the springs. The City of Tallahassee is in the process of spending a considerable amount of money to correct a spray-field concern, where only several years ago the City received accolades and awards for developing the spray-field to discharge the effluent. John asked the team to be patient, good things will happen, but it takes time. Kris encouraged the group to not drink where they poop.



The Wakulla Springshed Basin

Jim Stevenson met us for breakfast in the lobby of the hotel to begin our field trip. Jim retired from the Florida Department of Environmental Protection (FDEP) a few years ago. One of the many tasks he had with FDEP was to start a springs working group at Wakulla Springs and he served as coordinator for that group up until he retired. The fellows toured around in two vans to explore the Wakulla Springs Watershed. Jim had printed an excellent color map showing the extent of the watershed which includes approximately 1900 square miles, extending even up into Georgia. There are three zones in the water shed and they each have a different topography that significantly contributes to how rapidly water enters the aquifer. The northern section is known as the Ochlockonee Region. This region is considered a confined system with a dense clay topsoil that only provides one inch of rain recharge per year. Most of the rain water is discharged via surface water drainage to the Ochlockonee River and then out to the Bay, thus never making it to the main springs. A notable issue in the basin is the impact Georgia has on water removal from the aquifer for agricultural purposes.

The second region is known as the Lakes Region, located around Tallahassee. This region has clay soils but is like Swiss cheese and allows water to enter into the basin at a rate of eight inches of recharge. This area has two major influences on the Wakulla Spring that includes a dense city population in Tallahassee as well as a Water Treatment Plant that had a history of directly discharging into Munson Slough which meanders and finally goes underground at

Ames Sink, a swallet located about halfway between Tallahassee and Wakulla Springs. To the south of Tallahassee is the Cody Scarp Region, the largest geological feature present in Florida. The Cody Scarp is an ancient marine coast line carved in the state where the clay was mostly washed away. The porosity of this soil allows an eighteen inch recharge of rainfall. The contributing factors to increased levels of nitrates in the three regions of the Wakulla Springs Basin include storm water, waste water, solid waste, spray field, soil diversity and out of state agriculture practices.

The field trip started with a twenty-six mile drive north to examine the water shed and observe the environment and land use that is having a direct impact on the Wakulla Springs. During the drive we observed the state signs on the highway reminding drivers they are entering or crossing the conduits which are connected to Wakulla Springs.

We went to the Smith Sewage Plant that treats all sewage in Tallahassee. The city has spent hundreds of millions of dollars to redirect the effluent water flow from the surface discharge into Munson Slough to a spray field located east of town. The water that is dispersed in the spray field takes about forty-five days to travel thru the aquifer to the spring. We visited Lake Munson that had the distinct honor of being identified as one of the top ten dirtiest lakes in Florida. Catfish harvest on the lake is prohibited due to the water quality. We continued to follow Munson Slough south stopping at a retention pond that the city has spent over

Fieldtrip continued on page 4.)

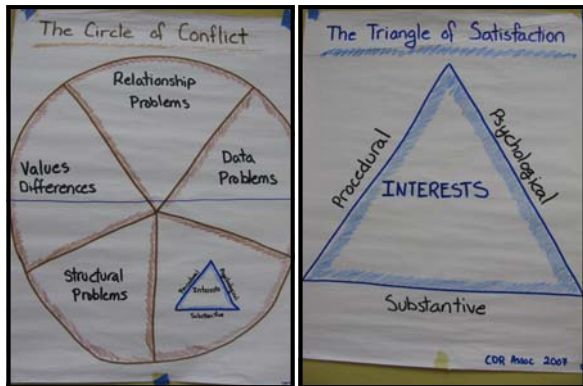




Above top; Munson Lake; Above: Emerald Springs

Fieldtrip (continued from page 3) 78 million dollars to create. There was visible trash in the water from a recent storm water event. We followed Munson Slough which discharges about 30% of Tallahassee’s storm water to Ames Sink. We then visited Cheryl Sink, a karst window that neither takes surface water flow nor does it discharge but instead is a peak directly into the aquifer. Emerald Springs was a good example of Best Management Practices (BMP) working with the land owner to isolate the spring from public access to reduce erosion and pollution. Additional stops included Indian Springs, Curtains Corner and we finally arrived at Wakulla Springs for lunch

It was duly noted that Wakulla Springs is not the beginning as referred to in some literature, but in fact, it is the end of a long journey by groundwater and the drinking water source for much of Florida. All land uses located within the basin impact the groundwater and subsequently the spring water in some way. Edward Ball owned the spring and in 1941 he acquired a permit to establish the springs as a Manatee Sanctuary enabling him to put a chain link fence across the river, prohibiting public access. On the day of our visit numerous school-age children were enjoying the beauty and coolness of the springs oblivious of any impact that they or any other land user within the basin may have on the natural resource.



Above top: L. The Circle of Conflict. R. The Triangle of Satisfaction.

Above: L. Positions vs. Interests. R. Jon Dain explains the concept of positions vs. interests

Listening. (Continued from page 2) At 4:45, Jon Dain taught the class some more fundamental skills on “The Circle of Conflict and the Triangle of Satisfaction”. These techniques helped the students understand people’s interests and beliefs. These are just the tip of the iceberg. There are many factors that contribute to these and it is important to recognize that. Understanding the triangle of Interest or Satisfaction is important. The triangle includes substantive, procedural and psychological concerns. The circle of conflict is bit more complicated and involves a circle with five slices and a lateral line cutting across the middle of it. The lower two pieces of the pie can be facilitated a little easier and they included the triangle of satisfaction and structure. The top three of the circle include Data, Relationships, and Values of stakeholders which can be a bit more challenging to work with. There can be some common ground to be found in Data and Values, but it is difficult to reach. It takes even longer to develop relationships where trust is achieved. We also reviewed the definition of a Stakeholder to include three major groups of people:

- People who have the Power to Affect
- People being Affected
- People with expertise or knowledge on the issue

Florida Land Use and Water Policy



Dr. Roy Carriker talks with the Fellows about the history of Florida Land Use Growth Management Plans

We were fortunate to have Roy Carriker, one of the founders of NRLI, teach us the history of land use and water policy for Florida. He covered the topic in six sections that included: History of Florida's Growth Management Plans, Overview of State and Regional Planning Law, Local Government Planning Law, Local Government plans (land development, regulations, and development orders), State Agency review of plans, and Regional Agencies that review plans. In the 1970 and 80's the federal government established many environmental laws based on national efforts. They also examined and measured the impact of unplanned rapid growth and development. We saw the creation of the five Water Management Districts and the Comprehensive Planning Act of 1972. In 1985 local government comprehensive plans were revised and the Department of Community Affairs (DCA) was created for state oversight and responsibility of regional and local planning processes. Other state agencies and the eleven regional councils were required to review and provide input on planning. In 2011 legislation made some big changes with the creation of the Department of Economic Opportunity (DEO). This absorbed the DCA and added the Division of Community Development within DEO and this will be the planning agency. Jon encouraged us to watch and wait to see what happens as this new legislation unfolds...



Not all is work...

A scenic boat ride was taken down the springs. Water clarity seemed good and abundant wildlife, birds, reptiles, and vegetation were observed. We travelled to the Palmer's home for a fantastic dinner. JoAnn and Woody Palmer had recruited Tim Williams of Mineral Springs Seafood to help serve up a host of appetizers including fried alligator tail, shrimp, oysters, homemade spice crackers, and fish dip. The hospitality was awesome and then we found out we were there for dinner too! The NRLI fellows toughed it out and made room for a wonderful dinner of smoked cobia, homemade coleslaw, and cheese grits. A great southern meal was enjoyed by all except Curt and Brad who couldn't get away from the oyster and shrimp appetizers!

Feedback and Debrief

Stakeholder Panel Feedback

Curt Williams provided feedback on the stakeholder panel. He tactfully had the students identify the positions of interest for each panel member from the day before. This helped to reinforce the importance of the assessment matrix and how fellows can utilize it to have more effective discussions.



Curt Williams leads the Stakeholder Feedback panel

Debrief

Lindsay Cross did an excellent job reviewing session two. This included references to shapes and colors that were used during the individual sessions to help the students remember all of the techniques, skills, and issues learned.



Lindsay Cross leads the Session Debrief

Session Feedback

The three person team included Chris Martinez, Citlalli Lopez and Kelly Keefe. They used masking tape to create a bull's-eye on the floor with concentric circles extending outward in the middle of the circle of chairs. Fellows were asked to step into the circle which represented their perception of each session and then a volunteer was asked to offer a specific comment. This unique strategy provided some great input that was tallied by Citlalli and Chris on flip charts to provide an overall score for the entire session.



Fellows participate in the Session Feedback .



This Month's Social Media Highlight

Florida Fish and Wildlife Commission

The FWC is currently using social media as another form of communication with the public and stakeholders. FWC's social media presence is managed by its Community Relations Office, which distributes its news releases and other media and promotional items. The various social media sites are essentially another aspect of FWC's education, outreach and public information efforts.

Social media is also used as a tool to promote involvement in outdoor activities, both by youth and adults. Information about the opportunities Florida has for hunting, fishing, bird watching, etc are frequent topics among the FWC's social media posts.

The FWC's Division of Law Enforcement also uses social media as a recruitment tool. Individuals often reference hearing about the agency via various social media platforms.

The agency as a whole has numerous key messages, and there are many from each specific division as well. Some key agency messages include promoting outdoor recreation in Florida, whether by boating, fishing, hunting, etc; encouraging people to be responsible stewards of Florida's natural resources by following rules and regulations; and informing the public about the FWC's role in managing fish and wildlife for the state. Each of the FWC's divisions also has many specific key messages they promote via social media. For example, boating safely, looking out for manatees, learning habits to avoid attracting bears, hunting ethically, properly releasing fish, etc.

The FWC uses timely, relevant events and occurrences to promote different messages via social media. For example, an announcement about a youth fishing clinic may present an opportunity to advocate proper fish handling and releasing techniques. Or, a video of a manatee rescue could allow the FWC to promote boating safely and following rules regarding manatee speed zones, or could even recruit candidates who are interested in protecting endangered species.

The target audiences vary across the different social media platforms.

Facebook – 25-44 males/females; looking to increase female and younger groups

Twitter – MyFWC: 25-44 males/females; looking to expand

Twitter – MyFWCLife: 18-34 females; people with younger children

YouTube – 45-54 males; looking to increase female and younger groups

FWC using several types of media depending upon the type of information that is to be broadcast.

Facebook: Posts are mostly business brief or informational style with a small amount of personality thrown in; trying to increase video and photo posts.

Twitter – MyFWC: Tweets consist of news and commission information, with very little outside influence.

Twitter – MyFWCLife: Tweets consist of lifestyle information containing subject matter that is relevant to the audience – things to do, places to go and a heavy conservation element; “water cooler chatter” consists of everything from weird news to events; it is positioned as direct customer service line into the FWC answering questions from “tweeps” (followers); utilizes outside sources for information and partners with other agencies, causes and “real people” throughout Florida with a “do good things” attitude.

YouTube: Video postings typically highlight an agency program or event; postings are relevant and mostly business brief or informational style with a small amount of personality thrown in.

Flickr: Used to share FWC photos of fish, wildlife or events.

Scribd: Used to share FWC documents.

Posts are made by FWC depending upon the media.

Facebook: 3-4 posts per day;

Twitter – MyFWC: 5-10 posts per day

Twitter – MyFWCLife: 5-10 posts per day;

YouTube: As videos become available; a few posts per month

Flickr: As photos become available; a few posts per month

Scribd: As documents are available; a few posts per month

Facebook posts are added periodically throughout the business day. Some divisions within the FWC have certain days where they post special weekly items, such as the Law Enforcement Case of the Week each Tuesday morning.

“Tweets” are posted via Twitter periodically throughout the business day.

YouTube videos, Flickr photos and Scribd documents are posted as needed/relevant.



NRLI Project Team

Jonathan Dain
Bruce Delaney
Marta Hartmann
Joy Hazell
Laila A. Racevskis

Report Contributors

Camille Soverel
Hugh Thomas

Report Layout

Candace Kaswinkel

Photos by:

Hugh Thomas
Candace Kaswinkel

NRLI Class XI Fellows

Holly Abeels
Carolyn Cox
Lindsay Cross
Gregg Eason
Edward Ellis
Brad Etheridge
Kelly Keefe
Citlalli Lopez Binnquist
Christopher Martinez
Shannon McGee
Patricia Negreros Castillo
Rebekah Raulerson
Thomas Ruppert
Camille Soverel
Hugh Thomas
Curt Williams

Mailing Address

P.O. Box 110240,
Gainesville, FL 32611-0240,
342-846-1511
<http://nrli.ifas.ufl.edu>

This report forms part of a series written by current NRLI Fellows. Reports represent and are a product of the experiential learning process that is a highlight of the NRLI program and have not been formally peer reviewed.

Social Media *continued from page 6.* The FWC measures general statistics for each social media site, such as how many users view the posts, how many new users join each week, and how many are interacting and commenting or posting other information on the sites. It would be worthwhile for the FWC to utilize surveys or to develop a mechanism for measuring actions or opinions of the public that are caused by the social media efforts.

Public records requests are often a challenge. Information that is posted via social media must be stored and archived like other agency materials. There are services that will periodically capture information that is currently posted on the various social media sites, and archive it.

The speed at which the social media community operates is often a challenge for government agencies, particularly science-based and law enforcement ones. Posts need to be quick to be interesting and valuable to followers, so information needs to be obtained quickly and the necessary approvals often need to be expedited. This can cause conflict at times.

The agency has been setting goals and focusing on social media. There seems to be a lag time on the number of users and responders and I hope we will see this increase to match our efforts. We do a lot of neat things and have an opportunity to show case them which will in turn bring more visibility to the agency

SCENES FROM WAKULLA

