



## Silver Springs: Aquifer withdrawal and springs health

### Director's Corner: Values and Natural Resources

Jonathan Dain

*NRLI seeks to impact decision making in Florida by creating a network of professionals prepared to effectively address natural resource issues through collaborative leadership and conflict management.*

What do you value, *really* value? Family? Faith? Environmental Stewardship? Fairness?

It is no secret that values and perceptions shape our approaches to, and opinions about, natural resource management. Should Florida allow bear hunting? Should the Sabal Trail natural gas pipeline be built? Should the Rodman Dam be removed? Should we spend money on beach renourishment?

As NRLI Fellows travel the state learning about important natural resources issues, they listen, observe, and discuss ideas with those they meet – and with each other. They see and hear things that raise eyebrows; they also encounter stories that inspire and offer hope. Both reactions are linked to deeply held values that shape individual beliefs about what is right or wrong or good or bad.

The aqua blue waters of Silver Springs have drawn people for decades. Now that these waters are threatened, differing opinions about the causes and solutions have led to accusations and contention.

In NRLI, we promote dialogue and negotiation as an effective strategy for addressing differences. If parties in a dispute consider *why* others want or don't want something, opportunities often arise to find common ground and/or make trade-offs. But how do we negotiate when *values* are at stake? For example, negotiations over how much water can be withdrawn from the Floridan aquifer involve issues such as timing and quantity, but, at the same time, values are entwined in the process. Decisions regarding "who gets how much" are shaped by beliefs related to fairness, cultural survival and economic well-being, and the importance of ecosystem health. Values can and do change, but they are not something we trust to the give and take of a negotiation. What can we do if the problem, at least in part, is about values? One option is to let our legal system make ultimate decisions about natural resource issues, as our laws are designed to represent the values of the people as a whole. However, legal decisions can take years and cost enormous amounts of money and are themselves susceptible to accusations of bias. The court system is a vital tool in managing disputes, but it is important to realize that it is not the only tool.

Negotiation expert Lawrence Susskind has spent his entire career studying conflict. There are no simple solutions, but he does offer the following suggestions for dealing with values conflicts (CBI, 2010).

1. **Consider interests and values separately.** First, analyze the situation and look for components of the dispute that *can* be negotiated; what pieces do we agree on that can be addressed? Once initial progress is made, it may be easier to discuss values.
2. **Engage in relationship-building dialogue.** Find ways to work on building relationships and trust. Even incremental increases in mutual respect can reduce anger and facilitate listening.
3. **Appeal to overarching values.** There are always things that we can all agree on. If we start with that which brings us together, it can be easier to discuss the things we disagree about. Ask any given group about values and common themes will emerge at some level.
4. **Confront value differences directly.** As noted, values are not set in stone, and we all grow and change. However, "educating" the other side rarely works better than attacks if it is not preceded by trust-building and some level of mutual respect. Even agreeing to disagree can allow for a return to focusing on interests.

So, who should get how much water in Marion County? In Silver Springs, we saw signs of what Susskind recommends as well as signs of deep distrust. The science is improving, so what might help to bridge differences in values?



Photos from the Session 3 field trip: a boat & tram tour of the Silver River.  
Photos by Jessica Ireland.

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# Session Overview

Class XV convened at the FWC Ocala Conservation Center on Thursday, October 8 for session 3. We visited Silver Springs to learn about and discuss aquifer withdrawal and impacts on springs health as well as hypotheses for the decline of the health of Silver Springs and possible solutions to mitigate impacts.

On Thursday, Dr. Matt Cohen, Associate Professor of Forest Water Resources & Hydrology in the School of Forest Resources and Conservation at the University of Florida, gave a guest presentation to our group titled “Algae, Springs, and the Scrutiny of Environmental Narratives.” Dr. Cohen began with a discussion of the allure of global narratives and the potential for confirmation bias, as well as the critical importance of the need for the scientific community to test narratives as hypotheses that are falsifiable. Dr. Cohen talked about eutrophication in Florida’s springs. Eutrophication is an excess of carbon fixation, where primary production is stimulated by the addition of a limiting factor, changing autotroph composition, dissolved oxygen dynamics, and water color, smell, and clarity. Algal growth in Florida springs has long been attributed to increased nitrate levels. Dr. Cohen’s research has been looking into evidence and alternative hypotheses for algal growth in springs. The initial conclusions from ongoing research conducted by Dr. Cohen and students and post-docs in his lab are that nutrients are uncorrelated with algal proliferation in Florida’s springs; nitrate regulation as a mitigation strategy should remain a priority but may not be sufficient. Research and management emphasis on other factors (other nutrients, recreation in springs, flow change, and biological change) are recommended.

A key component of NRLI is emphasis on the importance of learning about diverse perspectives, particularly among those involved in and affected by natural resource issues in the communities that we study. On Friday, Fellows spent much of the morning with stakeholders who joined us for a discussion of springs health. Stakeholders included:

- ◆ Thomas Hawkins, Executive Director, Florida Defenders of the Environment
- ◆ Del Bottcher, President, Soil and Water Engineering Technology, Inc.
- ◆ Casey Fitzgerald, Initiative Director, Springs Protection Initiative, St. Johns River Water Management District
- ◆ Darryl Muse, Utility Manager, City of Ocala Water Resources Department
- ◆ Peggy Goldberg, Guided Tours with Capt. Peggy



Class XV speaks with Silver Springs stakeholders. Photo by Jessica Ireland.

On Friday afternoon, the Silver River Museum hosted our group and provided us with a boat tour of the Silver River and a tram tour of contiguous uplands. Captain Connie Neumann operated the boat and Lisa Saupp, a hydrologist and volunteer for the museum, guided the boat tour of the Silver River, discussing with Fellows major impacts affecting the health of Silver Springs, and as a lifelong resident of Silver Springs, changes she has seen over time. Museum director Scott Mitchell guided the tram tour of the sandhill ecosystem bordering the Silver River and talked with Fellows about aquifer recharge.

Being at the FWC Youth Conservation Camp, Fellows and Project Team members enjoyed cooking meals together, including a cook out on Thursday evening and a low country boil on Friday evening. A group of NRLI alumni joined us for the low country boil, bonfire, and s’mores on Friday, and an enjoyable time was had by all.

For more detail on the session, please read the Fellows’ article (page 5) written by Class XV Fellows Marta Reczko and Brad Austin.



The Silver River. Photo by Jessica Ireland.



Fellows look into Silver Springs during the boat tour. Photo by Jessica Ireland.

# Curriculum Focus: Values, perceptions, and understanding conflict

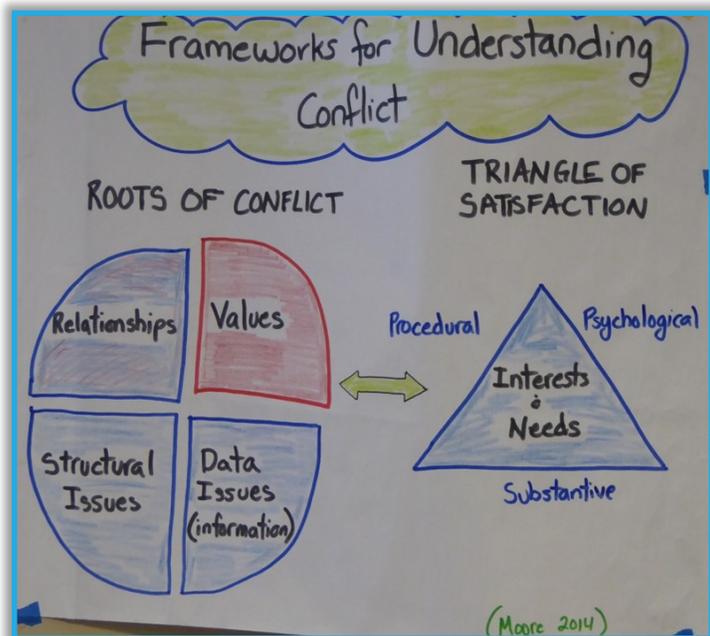
During session 3, Fellows participated in activities designed to accomplish the objectives of the session which were to:

1. Discuss the language of conflict and common approaches for addressing serious disputes.
2. Explore the implications of value systems, perceptions, and relationships on natural resource decision-making.
3. Practice framing for collaborative problem-solving.
4. Explore the issue: aquifer withdrawal and springs health; speak with Silver Springs stakeholders.

## **Circle of Conflict: Values and Relationships**

In Apalachicola, Fellows were introduced to the concept of conflict. During the Silver Springs session, Jessica Ireland and Jonathan Dain led Fellows in activities to apply conflict analysis and introduce the concept of the “Circle of Conflict,” specifically focusing on values differences and relationship problems.

Interests are “desires, concerns, or wishes that people in a dispute want to have addressed and satisfied.” In addition to competing interests, *relationships*, *structural issues*, *data/information* concerns, and clashing *values* can exacerbate or be the cause of conflict. These factors come together to form the “Circle of Conflict.” (CDR Associates, 2007; Moore, 2014). These factors can get in the way of uncovering parties’ interests and may need to be addressed before negotiation is possible. While structural problems and data/information disputes can often be dealt with collaboratively, frictions resulting from relationship problems and/or values differences may create a chasm between parties that is challenging to overcome.



The “Circle of Conflict” (CDR Associates, 2007; Moore, 2014).

Relationships strains can be caused by negative history, misperceptions, mistrust, and/or miscommunication. Values differences are rooted in beliefs about what is right/wrong or good/bad. Some values differences are obvious (e.g., cultural and religious beliefs) while others are more subtle (e.g., work to live vs. live to work) (CDR Associates, 2007).

Relationship problems can be addressed through efforts to build relationships, listening, and acknowledging (CDR Associates, 2007). Efforts to establish relationships and get to know one another on a personal level can help to mediate a conflict. Values differences are tricky—values are not negotiable and change through personal experience, not through persuasion or debate. There are opportunities to look for shared values, agreeing to disagree, and focusing on interests rather than values.

## **Values and Perceptions: Drama by the River**

Fellows experienced the degree to which values and perceptions impact conflict when they participated in an interactive group activity led by Joy Hazell and Bruce Delaney called “Drama by the River.” The activity began with a story of human drama and conflict involving five people. After the story was read and the stage for the drama set, Fellows ranked the characters on a scale of worst to best behavior, first individually and then in pairs. Next, Fellows divided into groups and attempted to come to consensus on a group ranking. Some groups succeeded in reaching consensus and others failed. In processing the experience, Fellows discussed their rankings, their opinions about the characters’ behaviors, and how they were or were not able to come to consensus as a group.

This activity highlighted the role that values play in decision making. We all have value systems—standards of rightness/goodness, practices, and patterns of thinking. As humans, we use our value systems to interpret our surroundings, develop positions, and make decisions. When lacking full information about a situation, we fill the vacuum with assumptions based on our values and experiences. Contentious issues can exacerbate differences in values and perceptions and make dialogue difficult.



Jon Dain introduces Fellows to the Circle of Conflict. Photo by Jessica Ireland.

## Curriculum Focus cont'd

### Framing & Re-framing

Another key concept covered during the Silver Springs session was issue framing. Issue framing is a way to create mental shortcuts to help us make sense of a complex world—“frames” tell us where to file the information in our brains. Framing can contribute to conflict because frames can be used to diminish others or their point of view; can be based on incomplete or selective knowledge or on stereotypes; can be accepted as truth; and can affect the choices one makes. Accordingly, framing is a powerful tool in natural resource disputes.

During this session, Fellows participated in a framing activity led by Paul Monaghan in which small groups developed a “frame” for a case study provided to them by the Project Team. The frames were then presented to the group with the goal of convincing the audience to agree with their perspective. After the activity, Fellows discussed ways in which issue framing can be used in conflict management including: recognizing that we all do it and that frames are a powerful technique; focusing on the interests behind the positions that appear in the frame; learning how to re-frame the issue to focus on the problem; and learning how to re-frame issues to highlight common ground. Questions to consider when reframing include: what is the problem; why is it important to you; why not try it another way; what if; what would you do if you were in my place; and why do you think that is fair? (Ury, 1993).



Fellows discuss options for reframing. Photos by Jessica Ireland.



Fellows present their group's “frame” during the framing activity. Photos by Jessica Ireland.

# Session 3 Fellows' Article

Marta Reczko & Brad Austin (Class XV Fellows)

Each month, we ask a pair of Fellows to reflect on the session in their own words. This article describes the key takeaways from the point of view of Fellows Marta Reczko and Brad Austin.

## How Florida springs health caused drama by Silver Springs

Last month, the NRLI Fellows faced another challenge and went camping at the FWC Ocala Conservation Center and Youth Camp in the Ocala National Forest. For some of us, the concept of camping was definitely outside of our comfort zone. The Fellows coped with the accommodations in the rustic cabins

with squeaking mattresses, sharing bathrooms among 10 others, preparing our own meals, and cleaning up. All of that was with the constant company of red ants, mosquitos, and other insects. However, armed with the mosquito repellent and Cortisone, we were ready for the Silver Springs, adventure. As soon the Fellows arrived, the beautiful view of Lake Eaton “re-framed” our skepticism into optimism.

Thursday afternoon, the “Drama by Silver Springs” began with the group starting the value- based exercise called “Drama by the River”. This exercise showed how our morals and values play a part in our decision-making processes. Fellows made decisions individually and then we broke into small groups to come to a consensus decision. The exercise showed us how gender, parenting, experiences, perceptions, and beliefs can alter our decision-making processes. This “Drama by the River” exercise showed us that sometimes we are willing to find a consensus just for sake of the agreement, and sometimes we simply “agree to disagree”.

At the end of first day, we heard a very professional presentation by Dr. Matt Cohen, an Associate Professor in the School of Forest Resources and Conservation at the University of Florida, about the health of Silver Springs. Dr. Cohen highlighted that it is not only water quality impacts causing the degradation of Silver Springs. Instead, there are a combination of factors, including aquifer withdrawals, overconsumption of groundwater, droughts, septic tank pollution, runoff from fertilizer use, climate change, recharge restoration, and human recreation that, taken together, are having a significant impact on the health of Silver Springs. This presentation stirred a great deal of thought and discussion amongst the group.

During the stakeholder panel, Fellows had the opportunity to learn more about causes and effects of deteriorating springs health. Fellows could see clearly the differences in interests and positions between local residents, “outsider” residents, the city utility agency, a state agency, and science. One of the things learned from the panel discussion was the actions already being taken by the stakeholders. The municipal water system is taking steps to increase the efficiencies of the treatment facilities. It is also assisting the public in both decreasing water usage and getting more homes on the municipal sewage system and off of septic tanks, the leading cause of nitrate contamination in the basin.

Later in the afternoon, Fellows went on a boat ride on the Silver River and visited the Silver River Museum and Environmental Education Center at Silver Springs State Park. This was definitely the highlight of the session. The boat tour guide, Lisa Saupp, was a hydrologist and also lifetime resident of Silver Springs. Lisa had the life experience of living within this ecosystem, and her interests and positions were definitely more personal than others. She represented scientific and traditional ecological knowledge about the area, and that knowledge is absolutely priceless and undefinable. The boat ride also provided the Fellows an opportunity to experience the beauty and grandeur of the Silver River. Fellows had the chance to see a wide array of waterfowl and wading birds, turtles, gators, and monkeys on the trip. Fellows thoroughly enjoyed Lisa’s very informative and entertaining tour through the beautiful waters of the Silver River. Fellows also took a tram tour of the sand hills surrounding the Silver Springs, learning about the recharge areas of the aquifer.

After the tour, Fellows returned to the FWC camp and had some down time to relax or canoe and kayak on the lake. A low country boil was prepared for a NRLI alumni gathering, and Fellows had a chance to meet and network with some of the previous graduates of the NRLI program. A great time was had by all from the excellent dinner to the campfire bonding and toasted marshmallows.

Looking back, the camping experience further bonded the fellows of Class XV. One takeaway from this session was the level of engagement of the stakeholders and the actions being taken to help improve the springs. However, a lack of leadership and coherency among the stakeholders could be hurting progress. The stakeholders all have the same goal, but they are too wrapped up in the conflict between each other to work together and acknowledge the work being done by each other to improve the springs.



Lisa Saupp guided the boat tour of the Silver River. Photo by Jessica Ireland.



Stakeholder panelists shared perspectives on the health and future of Silver Springs. Photo by Jessica Ireland.

## Angeline Scotten

Senior Wildlife Assistance Biologist, Florida Fish and Wildlife Conservation Commission



Angeline Scotten has been with the Florida Fish and Wildlife Conservation Commission (FWC) since 2012 as a wildlife biologist. She graduated from the University of Tennessee with her Bachelors of Science degree in wildlife & fisheries science (concentrating in wildlife management) and her minor in forestry. After spending several years doing field work in various states in the southeast, she settled back in Florida with her current position.

Before going to college, Angeline worked for the Busch Wildlife Sanctuary (BWS) in Jupiter. Initially

starting out as a volunteer, she was employed as a wildlife educator for several years. Her position allowed her to travel around the state with permanently injured wildlife with the goal of teaching people how to better conserve wildlife in the state. She regularly gave presentations with alligators, snakes, skunks, opossums, and various species of birds of prey. Her work with BWS encouraged her to seek a profession in the wildlife field, and she owes much of her dedication and drive to her time with BWS.

Angeline's current position with FWC works directly with the public on nuisance wildlife issues. She is constantly interacting with Florida's residents on a variety of conflict wildlife issues including (but not limited to) bats, coyotes, bears, sandhill cranes, bobcats, raptors, invasive species, and others. There is no 'typical day' working in the nuisance wildlife field as each day brings a different conflict to the table. She routinely is on the road giving presentations to residents on how to coexist with Florida's wildlife.

Away from the job, she enjoys spending time with friends and family, partaking in activities like fishing and hiking. Her faithful Australian Shepherd companion, Raine, is usually right by her side on all of her outdoor excursions.

## Greg Harden

Field Representative, District 3, Florida Farm Bureau Federation



Greg Harden serves as the Field Representative for Florida Farm Bureau Federation District 3, an area that encompasses the nine northeastern counties in the state.

Born and raised on a small family farm in southeast Columbia County, Greg graduated from Columbia High School and then went on to attend Lake City Community College. He was active in Future Farmers of America (FFA) throughout his high school years and continues to be involved in Columbia County FFA through the Alumni where he served as president for seven years.

## Jacqui Thurlow-Lippisch

Town Commissioner, Town of Sewall's Point



Although born at Travis Air Base, California, Jacqui considers herself a native of Stuart, Florida, having moved there at eight months old. Her father's family, originally from Syracuse, New York, has lived in Stuart since 1952. Her mother is a 5th generation Floridian from Gainesville. Jacqui is a Daughter of the American Revolution.

Jacqui is journalism and German graduate of the University of Florida, and an education master's graduate of the University of West Florida. She went on to teach English and German, and later, after

a serious accident of breaking her neck, started selling real estate. Later, she ran for public office having served on the Town of Sewall's Point Commission since 2008, and is former Mayor. During this time, she saw the opportunity to help showcase the work of a locally formed river group, the River Kidz, and this has been her passion ever since. She incorporates youth/river education into her political work for the St. Lucie River/Indian River Lagoon.

Jacqui is the treasurer/secretary of the Treasure Coast Regional Planning Council; has chaired the Florida League of Cities Environmental and Energy Committee; was chair and a six year member of the Treasure Coast Council of Local Governments; is an alternate for the Water Resources Advisory Commission for the South Florida Water Management District; and is a board member for Harbor Branch Oceanographic Institute Foundation in St Lucie County. She also serves as a board member (ex-officio) for the Rivers Coalition Defense Fund and is head administrator for her beloved River Kidz, now a division of the Rivers Coalition.

Jacqui's reach involves not only local but also state and federal government. In 2013, she served on Senator Joe Negron's panel for the Select Senate Hearing on the Indian River Lagoon and Lake Okeechobee. In 2014, she actively supported the elections of both Senator Joe Negron and Congressman Patrick Murphy who have both been strong supporters of the Indian River Lagoon issues. In 2015, she is part of the Florida League Cities Treasure Coast Advocacy team to influence and educate Tallahassee. Jacqui received the Everglades Coalition's 2015 "John V. Kabler Award" for "Grassroots Activism" working to organize and educate the public about Everglades restoration. Most recently, she has been recruited as a Fellow by the University of Florida/IFAS Natural Resources Leadership Institute Class XV. The institute focuses on teaching leaders how to facilitate collaborative decision making in difficult situations. Jacqui is running for Martin County Commissioner District 1, 2016.

Prior to joining Florida Farm Bureau in 2007, Harden served as a member of the U.S. Smokeless Tobacco Brands Sales and Marketing team as a territory manager. Greg and his wife Melissa have four grown children and five grandchildren. The couple enjoys spending time on their farm with family and friends, and also enjoy working with their team of draft mules.

# NRLI Alumni Spotlight

## Stacie Greco

Water Conservation Coordinator, Alachua County Environmental Protection Department  
NRLI Class XII



Stacie received a B.S. in the Environmental Sciences from Warren Wilson College in Asheville, NC prior to obtaining her M.S. in Environmental Engineering Sciences from the University of Florida. Stacie has been with the Alachua County Environmental Protection Department for over eleven years and is currently utilizing her NRLI skills as the County's Water Conservation Coordinator. When not discussing

water issues and solutions with stakeholders, Stacie spends her spare time exploring Florida's natural areas by kayak, foot, and bike.

## Allen Scheffer

Field Supervisor, Florida Farm Bureau Federation  
NRLI Class XIV



Allen Scheffer is the District Field Supervisor for Florida Farm Bureau. He supervises the field representatives in the Northern Region, including Districts I, II, III, and IV, as well as serves as the representative in his district which includes Bay, Calhoun, Escambia, Gulf, Holmes, Jackson, Okaloosa, Santa Rosa, Walton, and Washington counties.

With a background in sales and marketing, Allen is a lifelong resident of Jackson County. He received his AA from Chipola College and a bachelor's degree in marketing and business management from Troy University.

Allen is also owner/operator of Smiley B Farms LLC in Graceville where his wife Julie and son Jamison and he produce registered Angus and commercial cattle and perennial peanut hay and run a commercial apiary/honey bee operation.

## Looking Forward

### Class XV Sessions 4-8

Dates	Topic	Location
November 5-7, 2015	Wildland urban interface	Jacksonville
January 7-9, 2016	Sea level rise	Key Largo
February 4-6, 2016	Endangered species & recreation	Crystal River
March 10-12, 2016	Agriculture south of Lake Okeechobee	Clewiston
April 7-9, 2016	Graduation & practicum presentations	Gainesville

### Class XVI (2016-2017)

**We are currently accepting applications for NRLI Class XVI (2016-2017)! The application deadline is April 1, 2016. Class size is limited; applicants are strongly encouraged to apply as early as possible.**

For additional information, including a complete schedule and application instructions, please visit the Class XVI page on the NRLI website ([http://nrli.ifas.ufl.edu/NRLI\\_classXVI.shtml](http://nrli.ifas.ufl.edu/NRLI_classXVI.shtml))

or contact Jessica Ireland, NRLI Program Coordinator.

Phone: (352) 294-7643

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## Class XV Fellows

**Brad Austin**, Dairy Farmer/Co-Owner, Cindale Farms

**Angela Collins**, Florida Sea Grant Extension Agent, UF/IFAS Extension/Sea Grant Manatee County

**Samantha Danchuk**, Assistant Director, Broward County Environmental Planning and Community Resilience Division

**Lori Edwards**, Supervisor of Elections, Polk County

**Gretchen Ehlinger**, Senior Technical Manager/Senior Biologist, U.S. Army Corps of Engineers, Planning & Policy Division Jacksonville District

**Greg Harden**, Field Representative, Florida Farm Bureau Federation

**Andy Kohler**, Land Management Specialist, St. John's River Water Management District

**Shelby Krantz**, Coordinator, Southeast Climate Consortium, University of Florida

**Jody Lee**, Environmental Manager, Florida Department of Agriculture and Consumer Services, Office of Agricultural Water Policy

**Erin McDevitt**, South Region Marine Habitat Coordinator, Florida Fish and Wildlife Conservation Commission, Division of Habitat and Species Conservation

**Cheryl Millett**, Biologist, The Nature Conservancy

**Marta Reczko**, Water Resources Manager, Miccosukee Tribe of Indians of Florida

**Chad Rischar**, Senior Project Manager, St. John's River Water Management District

**Fred Rondeau**, FWC Captain, Florida Fish and Wildlife Conservation Commission Division of Law Enforcement

**Angeline Scotten**, Senior Wildlife Assistance Biologist, Florida Fish and Wildlife Conservation Commission, Division of Habitat and Species Conservation

**Jason Spinning**, Chief, Coastal Navigation Section, U.S. Army Corps of Engineers, Planning and Policy Division, Jacksonville District

**Jacqui Thurlow-Lippisch**, Town Commissioner, Town of Sewell's Point

**Nick Trippel**, Research Associate, Florida Fish and Wildlife Conservation Commission Fish and Wildlife Research Institute

**Ivan Vicente**, Visitor Services Specialist, U.S. Fish and Wildlife Service Crystal River National Wildlife Refuge Complex

**Tracy Wyman**, Landscape Architect, Independent

### NRLI Project Team

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*Collaborative solutions for natural resource challenges*