IRL COUNCIL
STEM ADVISORY COMMITTEE

Minutes from the meeting of

Tuesday, August 8, 2023

1:30 PM

Up the Creek Farms, 3590 Valkaria Road, Grant-Valkaria, FL 32950

Attendance: Aaron Adams, J. Cho, David Cox, Jeff Eble, Tiare Fridrich, Dennis Hanisak, Dan Macchiarella, Dale McGinnis, Rich Paperno, Melanie Parker, Mitch Roffer, Leesa Souto, Wendy Swindell, Chad Truxall, Linda Walters, Kelly Young

Guests: Paul Sacks, Emily Ralston, Ansly Tilley, Doug Scheidt, Christine Eastwick, Tom Price, Tessa Roberts, Lauren Kleiman, Hannah Herrero, Lauren Hall, Meagan Wettlaufer, Joshua Mills, Elizabeth Kelly, Melissa Meisenburg

1. **Call to Order and Pledge of Allegiance** (Dr. Chuck Jacoby, Chair)
   The meeting was called to order by Chuck Jacoby at 1:33 p.m., who led the Pledge of Allegiance.
2. **Introductions** (Dr. Chuck Jacoby, Chair)
   Chuck Jacoby led roundtable introductions, including new members and guests.
3. **Agenda Revisions** (Dr. Chuck Jacoby, Chair)
   No agenda revisions were brought forward.
4. **Minutes Approval** (Dr. Chuck Jacoby, Chair)
   Minutes of May 9, 2023.

   Requested Action: Approval of Minutes from the STEM meeting on May 9, 2023

   MOTION WAS MADE BY CHAD TRUXALL TO APPROVE THE MEETING MINUTES FROM MAY 9, 2023. MOTION WAS SECONDED BY LINDA WALTERS. MOTION PASSED UNAMOUSLY.
5. **Public Comment**
   None
6. **Water Quality Reports**
   a. Northern IRL (Dr. Chuck Jacoby, SJWMD)
      Dr. Chuck Jacoby reported that the data sondes reported little change in water depth. The salinity has remained in the seasonal typical range, Vero slightly higher due to proximity to inlets, and Mosquito Lagoon due to evaporation. June and July showed a dip in salinity at Vero from precipitation, which triggered a rise in tannins. Overall, lagoon water temperatures are high. Warmer water does not hold as much oxygen and stresses aquatic life. Some shallower areas have experienced fish kills due to low dissolved oxygen. Chlorophyll-a has been relatively low, isolated spikes have occurred, *Pyrodinium bahamense* and *Pseudo-nitschia* have been noted and moving south. Secchi depths reveal clear water; some areas are clear to the bottom. An area near Melbourne shows an increase in chlorophyll-a, which coincides with a shallow Secchi depth.

Mosquito Lagoon is showing up to 90% of seagrass coverage at the southern end, and the manatees have found it. The Northern Indian River Lagoon has patchy areas of seagrass coverage; moving south, less seagrass has been recorded. *Caulerpa* is dominant in Banana River Lagoon, Northern and North Central Indian River Lagoon. *Halophila decipiens* is present in low amounts in the South Central Indian River Lagoon.

Dr. Jacoby stated that seagrass is less affected by rising water temperatures, while increased turbidity can cause damage.

b. Southern IRL (Dr. Melanie Parker SFWMD)

Dr. Melanie Parker reported that the data provided covers the period up to July 30, 2024, and includes weekly averages from the week of July 24 - 30, 2023. Over the past few weeks, the main source of freshwater inflow into the St. Lucie Estuary has been the Tidal Basin, as Lake Okeechobee has not released any water since mid-April.

During the most recent 7-day period, salinity levels increased across all sites. At HR-1, salinities on the surface dipped into the lower stressful range but remained within the optimal range on the bottom. Meanwhile, the US-1 Bridge site maintained optimal levels on both the surface and bottom. At the A1A bridge site, salinities were within the optimal range on the surface and in the upper stressful range on the bottom.

Although salinities were trending upward at the US1 site, they decreased slightly towards the end of last week. While there was a drop in late June, the levels quickly recovered and have since remained within the optimal range since July. The recruitment rate for juvenile oyster (spat) increased in April, indicating that the spring oyster spawning season had begun. Rates have been low over the past few months, possibly due to rainfall events causing brief declines in salinity and/or washing the larvae out of the estuary. Recruitment is continuing through the summer months, and another peak is expected this fall.

Based on the seagrass monitoring results, there was an average of 5% percent cover during the wet season, but it went down to 2.5% during the dry season. This low percentage is probably due to low salinity, lack of light, and high wave energy bouncing off the seawalls that line the estuary. During the wet season, *Halophila johnsonii* was the dominant species, with *Halophila decipiens* also present. In contrast, *Halodule wrightii* was the only species present during the dry season.

7. Presentations

Impacts of Glyphosate on Seagrass Growth and Nutrient Cycling; Informing Aquaculture and Restoration Efforts to Improve Outcomes

Dr. Austin Fox of the Florida Institute of Technology presented findings on glyphosate's effects on seagrass in the lagoon, which were made possible by an IRL Council Small Grant. Seagrass samples were exposed to up to 1000 times higher levels of glyphosate than what is naturally found in the lagoon. The seagrass' mortality was more likely due to light limitation caused by an increase in algae. Glyphosate's contribution of nutrients through 18% phosphate content and vegetation breakdown. Results of the study indicate that mechanical harvesting may be a better option to reduce aquatic vegetation and nutrient levels in the water.

8. Old Business

None

9. New Business

a. FY2024 EPA BIL Workplan (Dan Kolodny)

Mr. Kolodny stated that the process to receive EPA funding work plans must be submitted. The Bipartisan Infrastructure Law (BIL) plan covers three projects and activities. The continuation of

the seagrass nurseries, the contract with Diversity of Thought and priority communities as outlined in the long-term equity plan.

Requested Action: Motion to recommend that the IRL Council Board of Directors approve the FY2024 EPA BIL Workplan and authorize staff to submit the plan to EPA.

MOTION WAS MADE BY MITCH ROFFER TO RECOMMEND THAT THE IRL COUNCIL BOARD OF DIRECTORS APPROVE THE FY 2024 EPA BIL WORKPLAN AND AUTHORIZE STAFF TO SUBMIT THE PLAN TO EPA. MOTION SECONDED BY LINDA WALTERS. MOTION PASSED UNAMOUSLY.

b. FY 2024 and FY 2025 Request for Proposals (RFPs) (Duane De Freese)

Dr. De Freese reviewed the timeline for releasing the RFPs. Staff made suggestions to change the criteria for Habitat Restoration, Community Based Habitat Restoration and Science and Innovation. Each suggestion was reviewed. Mr. Kolodny reviewed the scoring criteria, and one notable change was made: underserved or underrepresented to be changed to priority community. A separate motion was made for each category. Staff will incorporate the suggestions presented by committee members to the individual RFP.

Requested Action: Motion to recommend that the IRL Council Board of Directors authorize staff to develop and release the Water Quality RFP for the 2025 funding cycle, review and rank proposals and return to the Management Conference for funding approval.

MOTION WAS MADE BY LINDA WALTERS TO RECOMMEND THAT THE IRL COUNCIL BOARD OF DIRECTORS AUTHORIZE STAFF TO DEVELOP AND RELEASE THE WATER QUALITY RFP FOR THE 2025 FUNDING CYCLE, REVIEW AND RANK PROPOSALS AND RETURN TO THE MANAGEMENT CONFERENCE FOR FUNDING APPROVAL. MOTION SECONDED BY WENDY SWINDELL. MOTION PASSED UNAMOUSLY.

Requested Action: Motion to recommend that the IRL Council Board of Directors authorize staff to develop and release the Habitat Restoration RFP for the 2025 funding cycle, review and rank proposals and return to the Management Conference for funding approval.

MOTION WAS MADE BY LINDA WALTERS TO RECOMMEND THAT THE IRL COUNCIL BOARD OF DIRECTORS AUTHORIZE STAFF TO DEVELOP AND RELEASE THE HABITAT RESTORATION RFP FOR THE 2025 FUNDING CYCLE, REVIEW AND RANK PROPOSALS AND RETURN TO THE MANAGEMENT CONFERENCE FOR FUNDING APPROVAL. MOTION SECONDED BY AARON ADAMS. MOTION PASSED UNAMOUSLY.

Requested Action: Motion to recommend that the IRL Council Board of Directors authorize staff to develop and release the Community-Based Habitat Restoration RFP for the 2025 funding cycle, review and rank proposals and return to the Management Conference for funding approval.

MOTION WAS MADE BY LINDA WALTERS TO RECOMMEND THAT THE IRL COUNCIL BOARD OF DIRECTORS AUTHORIZE STAFF TO DEVELOP AND RELEASE THE COMMUNITY-BASED HABITAT RESTORATION RFP FOR THE 2025 FUNDING CYCLE, REVIEW AND RANK PROPOSALS AND RETURN TO THE MANAGEMENT CONFERENCE FOR FUNDING APPROVAL. MOTION SECONDED BY CHAD TRUXALL. MOTION PASSED UNAMOUSLY.

Requested Action: Motion to recommend that the IRL Council Board of Directors authorize staff to develop and release the Science and Innovation RFP for the 2025 funding cycle, review and rank proposals and return to the Management Conference for funding approval. A discussion among committee members took place on the topic of moving funds from Water Quality to Science and Innovation based on the hypothesis that better science will improve water quality. The suggested amount was $100,000.

MOTION WAS MADE BY AARON ADAMS TO RECOMMEND THAT THE IRL COUNCIL BOARD OF DIRECTORS AUTHORIZE STAFF TO DEVELOP AND RELEASE THE SCIENCE AND INNOVATION RFP FOR

THE 2025 FUNDING CYCLE, REVIEW AND RANK PROPOSALS AND RETURN TO THE MANAGEMENT CONFERENCE FOR FUNDING APPROVAL. MOTION SECONDED BY CHAD TRUXALL. MOTION PASSED UNAMOUSLY.

Requested Action: Motion to recommend that the IRL Council Board of Directors authorize staff to develop and release the Priority Communities RFP for the 2025 funding cycle, review and rank proposals and return to the Management Conference for funding approval.

MOTION WAS MADE BY WENDY SWINDELL TO RECOMMEND THAT THE IRL COUNCIL BOARD OF DIRECTORS AUTHORIZE STAFF TO DEVELOP AND RELEASE THE PRIORITY COMMUNITIES RFP FOR THE 2025 FUNDING CYCLE, REVIEW AND RANK PROPOSALS AND RETURN TO THE MANAGEMENT CONFERENCE FOR FUNDING APPROVAL. MOTION SECONDED BY LINDA WALTERS. MOTION PASSED UNAMOUSLY.

Requested Action: Motion to recommend that the IRL Council Board of Directors authorize staff to develop and release the Small Grants RFP for the 2025 funding cycle, review and rank proposals and return to the Management Conference for funding approval.

MOTION WAS MADE BY CHAD TRUXALL TO RECOMMEND THAT THE IRL COUNCIL BOARD OF DIRECTORS AUTHORIZE STAFF TO DEVELOP AND RELEASE THE SMALL GRANTS RFP FOR THE 2025 FUNDING CYCLE, REVIEW AND RANK PROPOSALS AND RETURN TO THE MANAGEMENT CONFERENCE FOR FUNDING APPROVAL. MOTION SECONDED BY KELLY YOUNG. MOTION PASSED UNAMOUSLY.

c. FY 2023 Final Budget Amendment (Dan Kolodny)

Mr. Kolodny reviewed the adjustments to the FY 2023 Final Budget Amendment. This included changes in funding sources for some projects and incorporating the audited fund balance in the budget. By reconciling this balance to prior FY projects in progress, total expenditures increased. A decrease in administrative costs was due to the single audit not occurring.

Requested Actions: Motion to recommend that the IRL Council Board of Directors approve the Amendment to the FY 2023 Final Budget by resolution 2023-04.

MOTION MADE BY MITCH ROFFER TO RECOMMEND THAT THE IRL COUNCIL BOARD OF DIRECTORS APPROVE THE AMENDMENT TO THE FY 2023 FINAL BUDGET BY RESOLUTION 2023-04. MOTION WAS SECONDED BY LINDA WALTERS. MOTION PASSED.

d. FY 2024 Final Budget Amendment (Dan Kolodny)

Mr. Kolodny reported FY 2024 Final Budget Amendment adjustments to include an increase of funding from EPA Section 320. Other changes included an increase in travel to the FY 2023 level and an increase in rents and leases to accommodate a potential new lease with the City of Sebastian.

Requested Action: Motion to recommend that the IRL Council Board of Directors approve the Amendment to the FY 2024 Final Budget by Resolution 2023-05.

MOTION WAS MADE BY LINDA WALTERS TO RECOMMEND THAT THE IRL COUNCIL BOARD OF DIRECTORS APPROVE THE AMENDMENT TO THE FY 2024 FINAL BUDGET BY RESOLUTION 2023-05. MOTION WAS SECONDED BY AARON ADAMS. MOTION PASSED.

e. Resolution in support of the South Florida Water Management District and the St. Johns River Water Management District proposing hydrologic reconnection of the Central and South Florida Flood Control Project. (Duane De Freese)

Dr. De Freese explained the opportunity that would join the two water districts and private property in a transformational project. 7,800 acres would hold water, and 120,000 ac-ft of water

would be diverted from the lagoon along with the corresponding nutrients. The St. John's River Water Management District and the South Florida Water Management District would have the ability to move water north and south as needed for customer use. The language in the resolution has been reviewed by both water management districts as well as the DEP. Currently, the water in the prescribed area flows into the lagoon and is lost from use.

Requested Action: Motion to recommend that the IRL Council Board of Directors approve a Resolution in support of the hydrologic reconnection of the Central and South Florida Flood Project.

MOTION WAS MADE BY LINDA WALTERS TO RECOMMEND THAT THE IRL COUNCIL BOARD OF DIRECTORS APPROVE A RESOLUTION IN SUPPORT OF THE HYDROLOGIC RECONNECTION OF THE CENTRAL AND SOUTH FLORIDA FLOOD PROJECT. MOTION WAS SECONDED BY MITCH ROFFLER. MOTION PASSED UNAMOUSLY.

10. IRLNEP Staff Reports

a. Communications Update (IRLNEP Team)

- Website, Information Technology, and Social Media (KJ Ayres-Guerra)
  Mrs. KJ Ayres-Guerra reviewed highlights from this quarter's activities. Reviving an Ecosystem: Creating Capacity for Seagrass Restoration appeared in ECO magazine. Attending the ESRI User Conference was informative, and the presentation was well received. Next up is the completion of the project storyline, database and dashboard.

  Mrs. Ayres-Guerra also presented the communications report on behalf of Ms. Kathy Hill. Social media numbers continue to rise. The viral video of the juvenile marsh rabbit has reached 6.5 million people. A billboard campaign for the new IRL license plate will start with three locations: Ormand Beach and Cocoa, both on US-1 and West Melbourne at I-95. The Community Engagement Coordinators continue to interact with local government and community meetings, attend events and fieldwork projects and engage the public in presentations.

- Northern IRL Community Engagement (Jessy Wayles)
  Ms. Jessy Wayles reported on developing partnerships within the region, as well as her representation at NERT/ECERT Steering Committee meetings. Presentation highlights included the Trailer Trash Podcast and a WFTV-9 appearance on the topic of horseshoe crab monitoring. Ms. Wayles continues to support ShORE (Sharing Our Research with Everyone), along with spending 15 days doing habitat fieldwork.

- Central IRL Community Engagement (Heather Stapleton)
  Ms. Heather Stapleton discussed various opportunities for community involvement, she attended 13 lagoon-centered events and had several speaking requests centered around Earth Day. She celebrated the actual day of Earth Day with the City of Sebastian at Riverview Park. Everyone enjoyed using and signing the "lagoon friendly selfie frames," a proven behavior change tool. She had 14 days of fieldwork with Brevard Zoo's Restore Our Shores and FOS' Seagrass Matting and Citizen Science Seagrass Network Monitoring.

- Southern IRL Community Engagement (Caleta Scott)
  Ms. Caleta Scott described the various engagement activities. One highlight was earning Florida Master Naturalist certification in Coastal Restoration, and another was becoming a Martin County Water Ambassador. Ms. Scott established sponsorships, participated in Earth Day Celebrations and spent 21 days doing habitat fieldwork.

b. IRL Project Update (Dan Kolodny)

Mr. Dan Kolodny reported 50 CCMP Projects/Activities in progress. Three Small Grant projects were completed. An overview of the following was provided: ORCA: One Health Fish Monitoring Citizen Science Project, Florida Institute of Technology: Impacts of glyphosate on seagrass growth and nutrient cycling; informing aquaculture and restoration efforts to improve outcomes and Marine Discovery Center: Virtual Reality – Oyster Reef Exploration.

c. Dr. Duane De Freese shared FY 2023 milestones. Standouts included 50 projects funded and administered, record expanding funding, expanded program capacity and completion of strategic planning. Various events, meetings, task force participation, and workshops were attended. Looking ahead to FY 2024, 17+ projects are currently funded and in contract development. The NOAA Habitat Restoration Grant proposal is being modified and will be resubmitted. The new IRL specialty license plate campaign is in progress. The One Lagoon Habitat Restoration workplan is to be completed. Two new atmospheric deposition stations are planned for construction. Community listening sessions, webinars, and priority community engagement plans are being finalized.

11. Final Comments (Committee, Staff, Public)

Chad Truxall congratulated the group on the work completed and the expansion of staff.
Duane De Freese encouraged everyone to submit grant proposals to the FDEP Water Quality Portal and announced that grant writing funds are still available to partners.
Erin Bergman announced the September 16, 2023, International Coastal Cleanup and asked for volunteers.

12. Next Meeting

Tuesday, November 14, 2023, at 1:30 p.m.
Up the Creek Farms, 3590 Valkaria Road, Grant-Valkaria, FL 32950

14. Adjourn

Chuck Jacoby adjourned the meeting at 4:39 p.m.

NOTE: If a person decides to appeal any decision made by the Board with respect to any matter considered at such meeting or hearing, he or she will need a record of the proceedings, and that, for such purpose, he or she may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based. Section 286.0105, Florida Statutes (2014).

Pursuant to the provisions of the Americans with Disabilities Act, any person requiring special accommodations to participate in this workshop/meeting is asked to advise the agency at least 48 hours before the workshop/meeting by contacting: Erin Bergman at (314) 347-5854. If you are hearing or speech impaired, please contact the agency using the Florida Relay Service at 1(800) 955-8771 (TDD) or 1(800) 955-8770 (Voice). For more information, you may contact: Erin Bergman, IRL Council, 1235 Main St, Sebastian, FL 32958, (314)347-5854, or by email at bergman@irlcouncil.org.