



INDIAN RIVER MOSQUITO CONTROL DISTRICT



ANNUAL REPORT

FY 2023-2024

www.irmosquito.com

Meet Our Board



Anna
Kirkland
CHAIR



Matt
Erpenbeck
VICE-CHAIR



Janice
Broda
SECRETARY
TREASURER

The Indian River Mosquito Control District is an independent special taxing district that was legislatively established in 1925 by an act of the Florida Legislature and provides mosquito control services in Indian River County. The District operates under Chapter 388, Florida Statutes and is recognized as a state-certified mosquito control program by the Florida Department of Agriculture and Consumer Services.

The District is governed by three elected officials elected, at large, in the general election by residents of the county and serve a four-year term. The Board sets policy, adopts legislation, provides financial control and analysis, which includes establishing a millage rate and adopting an annual budget for the District's expenditures and revenues. The Board appoints an administrator to conduct the day-to-day district business, prepare the budget, oversee department heads, and recommend policy to the Board.

Our Vision

Celebrating the Indian River Mosquito Control legacy and looking to the future, leading innovative science-based services, embracing our environment, and improving the quality of life for our community.



Our Mission

Proudly protecting our community through innovative science-based solutions, fiscal responsibility, enhancing customer service and community engagement, utilizing creative approaches to research and technology, while embracing environmental challenges.



A Message from the Executive Director

As I reflect on this past year, I am both proud and humbled by the strides we have made. Each accomplishment reflects our team's unwavering dedication to serving the needs of our community and protecting public health.

Over the past year, we have implemented plans and policies to secure the District's long-term stability and success, expanded inspection services to the inland portions of our district, and strengthened our connection to the community through outreach and education.

I am deeply passionate about this work and remain committed to doing the best for our staff and community. Whether maintaining impoundments, advancing mosquito management methods, or embracing the latest technology and science, our focus is always on achieving excellence for the benefit of our district.

Thank you for your continued trust and support. Together, we will build on these accomplishments and approach the future with confidence, determination, and a shared sense of purpose.

*Sincerely,
Sherry Burroughs
Executive Director*

OUR TEAM



Staff Pictured:

Tim Adams, Tyler Alfonso, Paul Baffino, Sherry Burroughs, Frank Cuccurese, Michael Hart, Todd Hingle, Shawna James, Peter Jiang, Morel Jules, Kevin Kinne, Kian Kinne, Kevin Kinney, Kyle Kosinski, Bruce Lewis, Robert Mallory, Melanie Pacot-Stansberry, C.L. Patton, Vivek Pokhrel, Cesar Ramos, Victor Recendez, Luina Ribera, Tamar Rivera, Josh Shytle, Kayla Sinclair, Chris Spencer, John Thomas, Faron Tyler, Heather Whitehead

Staff Not Pictured:

Abdullah Alomar, Johanna Avril, Brandon Chadwick, Chad Colvin, Layla Lockey, Daniel Long, Jim Mason, Sarah McInnis, Lisa Ridley, Jared Thornton, Charles Williams.

RETIREMENTS



Jim Mason
38 years of service

Jim Mason was titled as an Electronics Technician, but he was far more than just his title. Jim managed the District's IT program, as well as worked on the electrical aspects of the impoundment pumps. He was accomplished, innovative and devoted to keeping the District running and safe from cyber enemies..

Bob Mallory
17 years of service

"Captain Bob" served as a Marine Inspector, tirelessly working to control larval mosquitoes on the islands to prevent them from coming inland. He was a humble, hard worker who was very dedicated to his job and extremely knowledgeable about the lagoon ecosystem.



AWARDS & CERTIFICATIONS



**Lisa
Ridley**

**Certified
District
Administrative
Professional**



**Sherry
Burroughs**

**2024 FASD
Board
Member of
the Year**



**Kevin
Kinney**

**Certified
Information
System
Security
Professional**

YEARS OF SERVICE MILESTONES

Congratulations



Morel Jules

30 Years of Dedicated Service

Jules completed 30 years of dedicated service this year. He started his career in the shop and worked his way up to Larvicide Supervisor. He has a strong passion to “kill” mosquitoes and works diligently with his team to accomplish that goal.



Tim Adams

10 Years of Dedicated Service

Tim “Captain” Adams has served as Marine Inspector for 10 years. His commercial fishing background and extensive knowledge of the Indian River Lagoon has well suited him to his role in ensuring the island mosquito populations are inspected and treated as needed.



Daniel Long

10 Years of Dedicated Service

Daniel started his career with the District as a Coastal Larvicide Inspector and was promoted to Aerial Specialist in 2021. He is responsible for coordinating all of the aerial activities, including our contractor & the “yellow plane” as well as drone treatments in several areas.



Todd Hingle

5 Years of Dedicated Service

Todd began his career with the District as a Coastal Larvicide Inspector, was promoted to Larvicide Foreman and currently serves as the Supervisor of the newly created Inland Program. He and his staff are making great strides to improve the services we provide to our communities west of US 1.



ACCOMPLISHMENTS



Migrated to electronic time sheets



Upgraded our IT infrastructure and software, improving security, efficiency & effectiveness



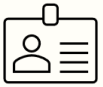
Implemented plan to expand integrated mosquito management services to western portions of the district



Developed a 5-year Capital Improvement Plan & established reserve policy.



Performed testing and evaluation of the products used for mosquito control to ensure effectiveness



Hired a Community Relations Specialist



Developed a community engagement program to educate the public about mosquito control



Expanded the mosquito fish program



Hired a biologist to work with impoundments and ecosystem management



Established contract for water quality monitoring of the impoundments



Collaborated with the Florida Medical Entomology Laboratory on research projects



Conducted scientific presentations at state, national & international conferences



Completed Vista Royale Impoundment dike improvements

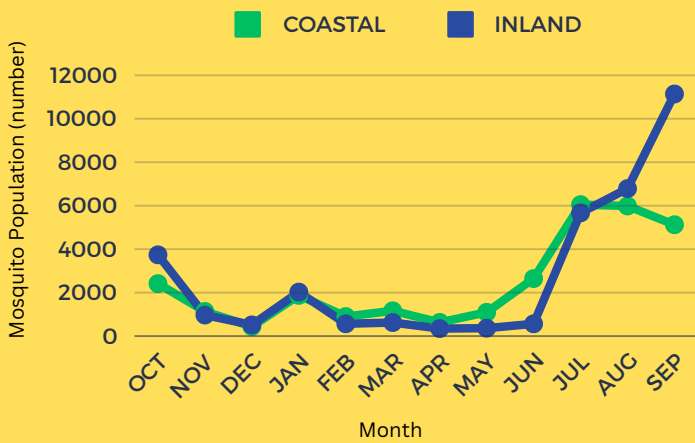
A YEAR IN REVIEW

The fiscal year began with high tides in October and November that were above the 5-year average, causing dramatic increases in immature larval populations of mosquitoes that required aerial larvicide applications. In February, another spike almost doubling the historic average caused a dramatic increase in larval mosquitoes, resulting in the treatment of 4,728 acres in comparison to the long-term average of 734 acres.

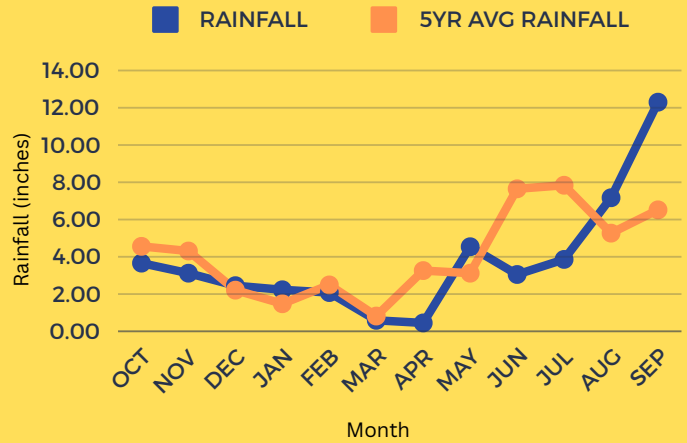
Although tides were high, rainfall amounts in October and November were below the historic average, as well as in April, June and July. Much the same as in 2022, the 12.3 inches of rainfall in September exceeded the historic monthly average by two-fold, starting off the next fiscal year with higher-than-average service requests as a result.

Adult mosquito populations were lower than prior year's levels, with the exception of January, August and September. Inland traps experienced spikes in October and September in adult populations consistent with increased rainfall.

The District observed an increase in arbovirus detection this fiscal year. Six sentinel chickens tested positive for West Nile virus and one for St. Louis encephalitis virus antibodies. While the number of travel related dengue cases in the state reached 738, between October 2023 and September 2024, there was only one confirmed travel related dengue case in Indian River County.



Average total rainfall per month



Average total mosquito population per month

Legislature Requires Strategic Goals, Objectives & Performance Measures for Special Districts

Last fiscal year (FY2022-2023), the legislature required performance reviews of mosquito control districts to be conducted by the Office of Program Policy Analysis and Governmental Accountability. The findings of the review indicated that the District delivers mosquito control services effectively and efficiently, demonstrates effective management of resources, and has created goals and objectives that are measurable. This fiscal year (2023-2024), the legislature required that all special districts have strategic goals and performance measures

in place and report the progress in accomplishing such in a published annual report. The annual progress report is required to be posted on the District website by December 1 each year. The District added performance measures to the existing strategic objectives already in place and updates the Board on our progress on a quarterly basis. This annual report includes those goals, objectives and performance measures for the FY2023-2024 fiscal year and a copy of this report will also be posted on our website.

FINANCIAL HIGHLIGHTS

The Indian River Mosquito Control District depends on property tax revenues to fund its operations. The District's objective is to be fiscally responsible in accordance with Generally Accepted Accounting Principles, Governmental Accounting, Auditing and Financial Reporting, as well as in compliance with state statutory reporting requirements. We remain fiscally conservative and utilize a transparent approach. Below is a breakdown of the principle expenditure items for FY2023-2024



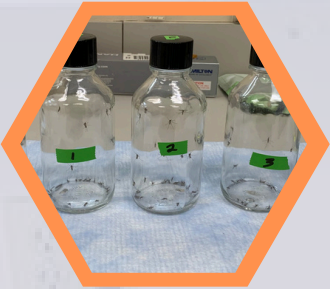
- Expenses decreased by approximately \$36,417 for chemical usage and \$43,515 for contracted aerial services as compared to the previous fiscal year.
- Property taxes increased by approximately \$529,110 due to higher property values.
- Established Reserve Policy and developed a five-year Capital Improvement Plan.

INFORMATION TECHNOLOGY

The District underwent a strategic modernization of our IT infrastructure and solutions in a effort to optimize efficiency, productivity, scalability and to better position ourselves for evolving technological needs. Several of our accomplishments are listed below.

- Upgraded network infrastructure including switches, wireless access points & firewall
- Established IT help desk system
- Virtualized internal server infrastructure
- Implemented centralized device management for workstations
- Created an IT asset management system
- Deployed Windows Active Directory and migrated to Office 365 for Government
- Implemented centralized backup solution with offsite cloud storage
- Migrated legacy phone system to voice-over Internet (VOIP)
- Provided video recordings of Board meetings on YouTube

SCIENCE & RESEARCH



In the last year, several research projects have been independently conducted at the District. Of most importance is the establishment of adulticide resistance testing on important *Aedes* and *Culex* vector species utilizing CDC bottle bioassays. This work involves testing the insecticides the District currently uses to evaluate the effectiveness of these products. The information from this research is vital in determining appropriate control measures to maintain vector species populations.

A significant study on understanding the distribution of important *Aedes* vectors was conducted in uninvestigated regions of the county. The project consisted of collecting adults with BG Sentinel traps and eggs with ovicups to determine areas with high amounts of *Aedes* vectors. Understanding the distribution of these vectors will aid in determining future trap locations for better monitoring.

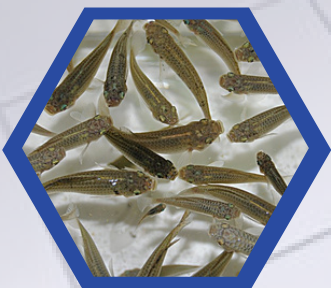


The Science Department is proud to announce the establishment of in-house arbovirus testing for West Nile Virus. This quick and efficient system provides fast positive results for virus detection in sentinel chicken blood collections for rapid control efforts to better protect our community. Samples will continue to be submitted to the State for comparative analysis and confirmatory results.

Collaborations with the Florida Medical Entomology Laboratory (FMEL) have flourished this year with numerous projects including developing a toxic sugar bait, understanding human and mosquito contact with a Bite Diary app, using cotton swabs to collect mosquito saliva for arbovirus detection, and testing modified traps for more effective population surveillance. Partnership with FMEL will continue into 2025 with further research on toxic sugar baits and larvicide resistance testing.



The Science Department is in the process of creating a mosquito fish (*Gambusia*) hatchery. *Gambusia*, are native, top water minnows that are commonly found in ponds, canals, and other small permanent water bodies. The minnows act as a biological control method, as they eat mosquito larvae and can be placed in cattle or horse troughs, swales and other small permanent water sources. The hatchery will provide a greater number of fish to be utilized by inspection staff as well as distributed to the public.





OUTREACH & EDUCATION

OCT

City of Sebastian's
Community Night Out

JAN

St. Helen's School visit

FEB

Family Fun Fest

MAR

Indian River Land
Trust's Field Day

APR

Home School Group's
Summer Program

MAY

Indian River County's
Disaster Expo

UP Resource Center's
Career Fair

City of Sebastian's
Earth Day Celebration

Pelican Island National
Wildlife Refuge's
Celebration

JUN

Summer Library Program

Lakewood Village's
Summer Program

IRMCD's Aerial Workshop

Imagine School's Summer
Program

JUL

Dodgertown's Back to
School

AUG

City of Sebastian's
Back to School

Indian River County
Health Fair

Indian River County's
Oyster Bar Marsh
Hike

STRATEGIC PLAN

The 5-Year Strategic Plan was adopted by the Board on February 14, 2023. It outlines the District's direction and vision for fiscal years 2023-2024 through 2028-2029. The plan assists the Board in establishing future policy and making financial decisions that are aligned with its mission, vision, and values and provides staff guidance in creating annual objectives and performance measures. During the annual budget development process, funding requests are aligned with the strategic plan to ensure sustainability and transparency.



In 2024, the Legislature modified the statute to require special districts to establish strategic goals, objectives and performance measures. It also required that the progress on completion of the performance measures be reported annually and posted on the District's website by December 1, 2025 and annually thereafter. The District's goals, objectives, as well as performance measures for the 2023-2024 fiscal year are provided within the next several pages.

STRATEGIC GOALS

Sustainable Funding Sources



Achieve sustainable funding sources with adequate reserves to address capital, operational, development, and environmental needs. Staff will annually develop a fiscally responsible and transparent budget for the taxpayers of Indian River County including capital improvement plans, reserve/fund balance policies based on exhibited operational needs of the District, while exploring alternative funding opportunities such as grants and cost/resource sharing

Outreach & Community Engagement



Develop outreach and community engagement programs designed to encourage and educate the public about IRMCD and its mission. For IRMCD to function effectively, it is vital to establish an ongoing and vibrant engagement and education program with the public.

Innovation & Scientific Techniques



Continue an effective mosquito control program using the best innovative and scientific techniques which include source reduction, biological control, surveillance, larval and adult control, and community outreach.

Safe & Ecologically Mindful BMPs



Ensure IRMCD is conducting safe and ecologically mindful best integrated pest management practices and techniques as an integral part of the safety and success of our community.

Professional Development



Invest in the professional development of employees through focused training programs that improve workplace safety and attract the best talent. Employees shall be educated and trained in current science-based solutions to foster innovation and utilization of technology.

Sound Science & Strong Partnerships



Embrace environmental challenges through the implementation of best management practices, using sound science, and developing strong partnerships in our programs, policies, and procedures.



GOAL 1 - SUSTAINABLE FUNDING SOURCES

MEASURING PERFORMANCE

Objective	Action	Date
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O1. Post draft & final budgets on website for public access each fiscal year.

Submittal of department budget items by April 30th	Completed	04/30/2024
Submit draft detailed work plan budget to Executive Director by May 30th	Completed	05/23/2024
Schedule individual meetings with Board members prior to July meeting	Completed	06/17/2024
Post draft budget on website by July 15th	Completed	07/11/2024
Post annual certified budget on website by September 30th	Completed	09/27/2024

O2. Develop & maintain a 5-year Capital Improvement Plan.

Request budget items from each department by October 1st	Completed	01/31/2024
Prepare CIP budget documents by January 30th	Completed	01/30/2024
Submit draft CIP budget to Executive Director for approval by March 1st	Completed	03/01/2024
Present CIP budget to the Board for adoption by April 30th	Completed	04/09/2024

O3. Implement a review process to identify grants and other alternative funding sources & present to Board for approval.

Research potential funding sources by December 30th	Completed	11/29/2023
Develop review process for grants and other funding sources by December 30th	Completed	11/29/2023
Present findings to Executive Director by December 30th	None Q1, 1 each in Q2, 3 & 4	12/30/2023
Present identified opportunities to the Board on a quarterly basis	ELC grant 3/5; Cybersecurity grant 5/29; Safety grant 7/3	07/11/2024



GOAL 2 - OUTREACH & COMMUNITY ENGAGEMENT

Objective	Action	Date
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O1. Schedule & coordinate three outreach events.

Create a list of potential stakeholders by December 30th	Completed	12/22/2023
Create a schedule of possible events by December 30th	Completed	11/30/2023
Participate in three outreach events by September 30th	Participated in 16 events	03/16/2024
Develop a strategy to incorporate in communication plan by September 30th	Completed	09/30/2024

O2. Public relations staff member will develop a communication plan that identifies engagement opportunities in the community & communication strategies.

Analyze organization resources & abilities by May 30th	Completed	04/30/2024
Develop communication plan goals & objectives by June 30th	Completed	05/23/2024
Identify target stakeholders by July 30th	Completed	06/17/2024
Choose delivery methods by August 30th	Completed	07/11/2024
Establish a timeline by September 30th	Completed	09/27/2024
Submit plan to Executive Director by October 30th	Due next fiscal year	In Progress
Submit to Board for approval by November 30th	Due next fiscal year	In Progress

O3. Perform quarterly outreach assessments of the effectiveness of event & report findings.

Conduct 6 outreach events	Conducted 18 events	03/16/2024
Provide 6 presentations to HOA/civic groups	Provided 8 presentations	03/16/2024
Attend 8 community engagement programs	Attended 16 programs	4/30/2024
Report assessment findings to the Board at the end of each quarter	Q1 new position; completed Q2, 3 & 4	09/30/2024



GOAL 3 - INNOVATION & SCIENTIFIC TECHNIQUES

MEASURING PERFORMANCE

Objective	Action	Date
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O1. Respond to customer service requests within two business days of receipt of request.

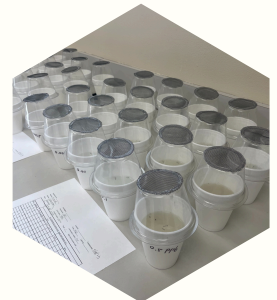
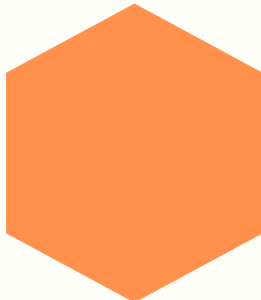
Track number of requests received monthly	Q1=207, Q2=56, Q3=97, Q4=278	09/30/2024
Percentage of requests responded to within two business days	Q1=94%, Q2=91%, Q3=74%, Q4=97%; needed to adjust tracking methodology within database	09/30/2024
Report results within Board Report at the end of each month	Reported number of service requests each month	09/10/2024

O2. Assess efficacy & effectiveness of treatments & report findings.

Monitor larval density pre & post aerial treatment; target 4 events	Completed Q1, 3 & 4, lack rainfall Q2	08/30/2024
Report results in Board Report at the end of each quarter	Reported findings each month as evaluations were completed	09/30/2024

O3. Conduct testing & evaluation of larvicide & adulticide products.

Test new larvicides purchased	2 products tested: Altosid P35 & Altosid Liquid Larvicide Q1 & 2, none in Q3 or 4	03/31/2024
Test 2 adulticides by lab bioassay	3 products tested: permethrin, deltamethrin & malathion	09/30/2024
Test 1 adulticide by field cage trial	ReMoa Tri & Fyfanon with St. Lucie County MCD	09/06/2024
Conduct 3 resistance tests of larvicides	6 tests on methoprene & spinosad	09/30/2024
Conduct 1 resistance test of adulticide	3 products tested: permethrin, deltamethrin & malathion	09/30/2024
Report results in Board Report at the end of each quarter	Reported results to Board as tests were completed	09/10/2024





GOAL 3 - INNOVATION & SCIENTIFIC TECHNIQUES

Objective

Action

Date

O4. Develop a plan to expand larvicide operations to western portion of the District through a phased approach.

Establish a committee to develop plan for expansion by December 30th	Completed	10/01/2023
Develop plan by April 30th	Completed	02/14/2024
Present plan to Executive Director for approval by May 30th	Completed	02/21/2024
Present plan to Board for approval by June 30th	Completed	03/12/2024



GOAL 4 - SAFE & ECOLOGICAL MINDED BMPS

O1. To maintain compliance & employee safety, review chemical labels & safety data sheets on monthly basis to ensure current & notify personnel of any changes.

Review labels & safety data sheets monthly	Completed	07/31/2024
Notify employees of any changes immediately	Completed	08/30/2024
Submit updates to the Director of Operations for current inventory	Completed	09/30/2024

O2. Conduct quarterly safety meetings to review proper chemical handling & storage practices, safe operation of equipment, & responses to accidents & incidents.

Hold quarterly safety committee meetings to discuss issues, concerns & training	11/06, 02/27, 06/28, 09/24	09/24/2024
Define training topics & speakers for meetings	11/06	11/30/2024
Provide quarterly safety training with full staff	12/06, 04/23, 06/26, 08/06	09/24/2024
Report number of incidents quarterly	Added metric end of Q2 Q3= 1, Q4= 1	09/24/2024
Report number of accidents quarterly	Added metric end of Q2 Q3= 0, Q4= 1	09/24/2024
Report findings to Executive Director at end of each quarter	Added metric end of Q2	09/24/2024

MEASURING PERFORMANCE



GOAL 4 - SAFE & ECOLOGICAL MINDED BMPS

MEASURING PERFORMANCE

Objective	Action	Date
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O3. All staff are required to be licensed as public applicator within the first six months of employment and maintained through continuing education units (CEUs) through education & training on an annual basis.

Review employee files to ensure licenses are valid semi-annually	Completed	03/05/2024
File & track employee CEUs within spreadsheet	Completed	03/05/2024
Provide report to Executive Director of each employee's CEU status semi-annually	Completed	08/23/2024

O4. Ensure staff conduct calibration of adulticide & larvicide ground application equipment to ensure compliance with label requirements.

Calibrate ULV trucks	Completed	06/07/2024
Calibrate backpack sprayers & ATV tank sprayers	Completed	07/24/2024
Calibrate hand held foggers	Completed	02/14/2024
Ensure calibration of aircraft by contractor	Completed	07/31/2024

O5. Report chemical usage to refuges as part of the Special Use Permits (SUPs) for Archie Carr & Pelican Island National Wildlife Refuges.

Compile data for larvicide usage for the calendar year	Completed	12/30/2023
Submit report to Refuge staff by December 30th	Completed	12/30/2023





GOAL 5 - PROFESSIONAL DEVELOPMENT

Objective	Action	Date
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O1. Completed in the previous fiscal year.

O2. HR to conduct quarterly market analysis of the compensation & position classifications to ensure market competitiveness.

Conduct compensation analysis quarterly	Changed to semi-annually	02/22/2024 08/23/2024
Report findings to the Executive Director	Completed	6/17/2024 08/23/2024

O3. Spill response team will attend annual training to maintain certification each fiscal year.

Spill team members to attend annual training	Completed	11/1/2023
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O4. District personnel continue involvement in professional associations, attend professional meetings & provide presentations at scientific meetings.

Track number of presentations	9 presentations provided	09/30/2024
Track number of staff involved in committees/boards	3 (1 FASD board member, & committee member; 1 FMCA board and 2 members of committees)	09/30/2024

O5. Supervisors will review & recommend training opportunities for staff's career development.

Review opportunities & subject budget request by April 30th	Completed	04/30/2024
HR review requests& submit for budget by April 30th	Completed	03/07/2024

O6. HR review positions & advise of eligible retirees & critical positions to be considered for succession planning.

Review positions to determine eligibility by April 30th	Completed	03/01/2024
Prepare suggestions for succession planning by end of year	Completed	08/23/2024
Submit recommendations for budget by April 30th	Completed	04/30/2024

GOAL 6 - SOUND SCIENCE & STRONG PARTNERSHIPS

MEASURING PERFORMANCE

Objective	Action	Completed
O1. Train & license Permanent Control Staff in invasive plant management techniques.		
Track number of licensed staff; target 2	Completed; 1- license renewal & 1 newly licensed	09/06/2024
Ensure training provided to Permanent Control staff (3)	Trained 1 employee; other 2 to be trained in October '24	09/30/2024
O2. Completed previous fiscal year.		
O3. Develop & implement a water quality monitoring plan.		
Assess data & consider plan for next fiscal year by April 30th	Plan completed 04/30, assessments monthly	08/19/2024
Develop monitoring plan by December 30th	Completed	09/01/2024
Evaluate in-house program by December 30th	Due next fiscal year; carried forward	In Progress
Submit budget request by April 30th	Completed	04/30/2024
O4. Establish a list of current & potential environmental/ecological partners in local, state and federal agencies to develop partnerships & working relationships.		
Research potential partnerships by October 1st	Completed	11/30/2023
Develop a list of potential partnerships by December 30	Completed	11/30/2023



PROUDLY SERVING OUR COMMUNITY



Looking Ahead

Strategic objectives for the year ahead...

- Research potential funding sources
- Develop a communication plan for community engagement
- Enhance communication with the public
- Continue to assess the efficacy and effectiveness of treatments
- Implement Phase 2 of the Western Expansion/Inland Program
- Implement new in-house arbovirus testing and analysis
- Continue to monitor water quality within the impoundments
- Develop partnerships on environmental projects
- Continue research collaborations with scientists at FMEL



CONTACT US



We are located at
5655 41st Street, Vero Beach, FL 32967
Our office hours are 7:00 a.m. to 3:30 p.m. Monday through Friday
Feel free to contact us!

