

STRATEGIC PLAN WORKSHOP

MARCH 26, 2019



2019 CALENDAR

January-2019						
SUN	MON	TUES	WED	THUR	FRI	SAT
		1	2	3	4	5
6	7	8	9	10	11	12
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February-2019						
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March-2019						
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31						

April-2019						
SUN	MON	TUES	WED	THUR	FRI	SAT
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May-2019						
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June-2019						
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30						

July-2019						
SUN	MON	TUES	WED	THUR	FRI	SAT
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August-2019						
SUN	MON	TUES	WED	THUR	FRI	SAT
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September-2019						
SUN	MON	TUES	WED	THUR	FRI	SAT
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29	30					

October-2019						
SUN	MON	TUES	WED	THUR	FRI	SAT
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November-2019						
SUN	MON	TUES	WED	THUR	FRI	SAT
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December-2019						
SUN	MON	TUES	WED	THUR	FRI	SAT
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22	23	24	25	26	27	28
29	30	31				

Holidays
 Meetings
 Conferences

Strategic Plan Workshop

Florida Keys Mosquito Control District
Marathon Office
503 107th Street
Marathon, FL 33050

March 26, 2019
1:00 pm (Immediately Follow)

- 1. Call to Order**

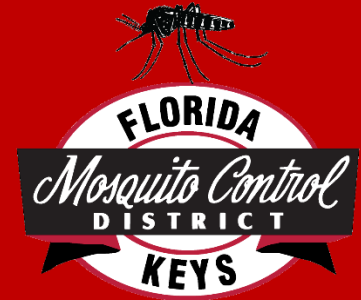
- 2. Roll Call**

- 3. Approval of Agenda**

- 4. Purpose of the Workshop:** Chairman Goodman announces the purpose of this workshop is to review the 3-year Strategic Plan.

- 5. Meeting Adjourned**

FY2018-FY2021



Strategic Plan



DISTRICT BOARD OF COMMISSIONERS

District 1: Jill Cranney-Gage, Board Member

District 2: Phil Goodman, Chairman

District 3: Brandon Pinder, Secretary-Treasurer

District 4: Stan Zuba, MD, Vice Chairman

District 5: Tom McDonald, Board Member

FLORIDA KEYS MOSQUITO CONTROL DISTRICT
FY2018-FY2021 STRATEGIC PLAN

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DEFINITIONS

Mission Statement: Identifies the organization's purpose and value to the community it serves. All activities within the District should be related to supporting the Mission Statement.

District Overview: Entails a review of the District's strengths, weaknesses, opportunities and threats/concerns which may affect the District's abilities to provide services and/or require changes or modifications to services.

Priority Areas: Identifies policies, practices or events that may impact the District's ability to provide services, or require modifications or changes to service delivery. These areas can play a key role in governance, management and operational planning and community outreach.

Strategy: Gives a specific direction to accomplish the Objective.

Objective: Identifies approaches or methods to address specific strategic issues. This may include short, long term, focused or broad-brushed approaches.

Goals: Specific actions, timeframes necessary for the completion of the goals. It is expected that periodic progress reports will be submitted by those responsible for the completing the goals.

MISSION STATEMENT

The District's Mission Statement was created at a District-wide event attended by District staff and community leaders, on March 12-13, 2012.

“To become more operationally efficient and environmentally sensitive while protecting the public from health threats and nuisance issues that could impact the local economy.”

DISTRICT OVERVIEW

The District’s strengths, weaknesses, potential opportunities or threats/concerns (SWOT) may affect the District’s abilities to provide services and/or require changes or modifications to services.

The following items could have an impact on the future success of the District:

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • Quality, experienced staff • Involved in mosquito control on State and national levels • New technology implementation for both ground and aerial control methods • Scientific staff for new product/material testing • Innovative ideas • Good customer response time • Science-based decision making • Transparent to the public • Good relationships with external partners (City, County, USFWS, FWCC, etc...) 	<ul style="list-style-type: none"> • Housing costs and lack of affordable housing units, particularly for entry-level positions • High cost of current domestic mosquito control methods • Limited physical space for growth • Difficulty in effective communication of complex subject matter to public • Aging vehicle and aircraft fleet
OPPORTUNITES	THREATS
<ul style="list-style-type: none"> • UAVs and emerging technologies • New mosquito control products • Mapping and database system availability • Collaboration with other districts and vendors • Sterile Insect Techniques for population suppression (<i>Wolbachia</i>, Genetic Modification, Irradiation) 	<ul style="list-style-type: none"> • Expanding areas of restricted adulticide use (State and Federal lands) • Endangered species listings • Invasive species, particularly <i>Aedes albopictus</i> and <i>Aedes aegypti</i> • Geography • Hurricanes • Increased resistance to adulticides throughout Florida • New tropical disease introductions • Sea level rise • Rising healthcare costs • Behavioral difficulties in control of domestic mosquitoes

PRIORITY AREAS

This section identifies policies, practices or events that may impact the District's ability to provide services, or require modifications or changes to service delivery. These areas can play a key role in governance, management and operational planning and community outreach.

1. Pesticide Resistance
2. Domestic Mosquito Control Practices
3. Reduce Carbon Footprint
4. Public Awareness of Mosquito Control Practices
5. Operational Safety Practices
6. Use of Technology to Maximize Resources
7. Employee Retention and Health Initiatives
8. Capital Projects (Vehicles/Aircraft)

COMPLETED PRIORITY AREAS (since Plan inception in FY2017)

- Lower Keys Operational Facility

1. PRIORITY AREA: Pesticide Resistance

- **GOAL 1.1:** Understand the potential and causes of pesticide resistant populations of mosquitoes in Monroe County.
 - **STRATEGY:** Support and participate in local, regional and state-wide efforts to detect and monitor pesticide resistant populations of mosquitoes.
 - **COMPLETED OBJECTIVES**
 - **OBJECTIVES:**
 - 1.1.1. By August 31, 2017, have a plan in place for testing mosquito populations (salt marsh and domestic) from each inhabited island. COMPLETED
 - 1.1.2. By September 30, 2018, have method of mapping all tested mosquito populations to maintain information of resistant populations. COMPLETED
 - 1.1.3. By October 1, 2018, have begun testing mosquito populations for resistance to currently used adulticides. UNDERWAY
 - 1.1.4. By October 1, 2019, have begun comparing apparently resistant mosquito populations to known susceptible and resistant strains. ONGOING
 - 1.1.5. By May 1, 2019, have a plan in place for testing mosquito populations for resistance to larvicides.
- **GOAL 1.2:** Continuation of testing of newly available products for alternative adulticides to be used in areas of resistant mosquito populations.

- **STRATEGY:** Attend state and national meetings as well as utilize current vendor contacts to find new adulticides and larvicide products for testing in Monroe County.

- **OBJECTIVES:**
 - 1.2.1. By October 1, 2018, have contacted vendors to inquire after new products. COMPLETED
 - 1.2.2. By March 1, 2019, have begun bottle bioassays with new products. UNDERWAY
 - 1.2.3. By June 1, 2019, have begun cage studies with new products.

2. PRIORITY AREA: Domestic Mosquito Control Practices for Invasive Mosquitoes

- **GOAL 2.1:** Determine utility of *Wolbachia*-infected mosquitoes for control of *Aedes aegypti* in Monroe County.
 - **STRATEGY:** Support and participate in local, regional and state-wide efforts to determine suitability of *Wolbachia* for *Aedes aegypti* control.
 - **OBJECTIVES:**
 - 2.1.1. By August 31, 2017, have completed testing *Wolbachia*-infected mosquitoes on Stock Island. COMPLETED
 - 2.1.2. By December 1, 2017, complete assessment of initial trial of *Wolbachia*-infected mosquitoes. COMPLETED
 - 2.1.3. By April 1, 2019, have plan for next step of trial if possible.
- **GOAL 2.2:** Determine utility of genetically modified mosquitoes for control of *Aedes aegypti* in Monroe County.
 - **STRATEGY:** Support and participate in local, regional and state-wide efforts to determine suitability of GM technology for *Aedes aegypti* control.
 - **OBJECTIVES:**
 - 2.2.1. By December 31, 2020, have begun initial testing of GM mosquitoes in Monroe County.
- **GOAL 2.3:** To obtain better control of disease vector mosquito populations
 - **STRATEGY:** Redraw Lower Keys areas for inspectors to be able to

achieve the Districts desired threshold for both salt marsh mosquitoes and domestic mosquitoes

○ **OBJECTIVES:**

- 2.3.1. By December 31, 2017, have a plan in place for smaller field areas or the potential of “domestic only” inspectors.
COMPLETED
- 2.3.2. By March 1, 2018, hire and train new staff in areas.
COMPLETED
- 2.3.3. Complete area-wide sweeps in the Lower Keys, Middle Keys and Upper Keys annually.

- **GOAL 2.4:** Determine the efficacy of barrier treatments applied around homes and businesses for control of *Aedes aegypti* and *Aedes albopictus*.

- **STRATEGY:** Complete step-by-step trials of multiple barrier treatment products to determine their effectiveness in the control of invasive domestic mosquitoes.

○ **OBJECTIVES:**

- 2.4.1. By December 31, 2019, perform bottle bioassays using bifenthrin, deltamethrin, and tau-fluvalinate in the treatment of *Aedes aegypti*.
- 2.4.2. By April 1, 2020, perform leaf tests using bifenthrin, deltamethrin, and tau-fluvalinate in the treatment of *Aedes aegypti*.
- 2.4.3. By July 1, 2020, make a decision on what product to use.

- **GOAL 2.5:** Determine the efficacy of ground Vectobac WDG treatments in neighborhoods in comparison to aerial applications.
 - **STRATEGY:** Perform ground applications of Vectobac WDG and do trap comparisons to perform a cost-benefit analysis comparing aerial and ground treatments.
 - **OBJECTIVES:**
 - 2.5.1. By August 31, 2017, procure all ground equipment necessary for Vectobac WDG treatments. COMPLETED
 - 2.5.2. By August 31, 2018, complete multiple applications by both ground and air of Vectobac WDG in response to rainfall and/or suspect cases as notified by the local Department of Health. COMPLETED
 - 2.5.3. By December 31, 2018, analyze trap and larval data from multiple treatments conducted for control efficacy. COMPLETED
 - 2.5.4. By April 2019, perform cost/benefit analysis on ground vs. air equipment in using Vectobac WDG.
 - 2.5.5. By May 1, 2019, set thresholds for use of ground vs. air equipment in treatments using Vectobac WDG.

3. **PRIORITY AREA:** Reduce Carbon Footprint

- **GOAL 3.1:** Transition to high efficiency vehicles that are more duty-specific.
 - **STRATEGY:** Replace current fleet with more fuel-efficient vehicles.
 - **OBJECTIVES:**
 - 3.1.1. By August 31, 2017, establish which vehicles are due for replacement. COMPLETED
 - 3.1.2. By September 30, 2017, research current market for viable replacements dependent upon vehicle purpose. COMPLETED
 - 3.1.3. By October 1, 2017, create a plan for each vehicle that is due for replacement. COMPLETED
 - 3.1.4. By December 31, 2019, determine if Enterprise Fleet Management System is cost-efficient and fits in with sustainability goals of the District.
- **GOAL 3.2:** Determine basic carbon footprint.
 - **STRATEGY:** Use multiple year's data for fuel and electricity use to determine FKMCD carbon footprint for each facility.
 - **OBJECTIVES:**
 - 3.2.1. By January 1, 2020, gather data for fleet fuel usage, as well as building electric use for FY 16-17 and FY17-18.
 - 3.2.2. By January 14, 2020, input data into carbon footprint calculator for baseline number.
- **GOAL 3.3:** Transition to electric ULV fog machines.

- **STRATEGY:** Replace current gas-operated truck-mounted ULV machines with battery operated electric ULV machines.
- **OBJECTIVES:**
 - 3.3.1. By November 1, 2017, establish a phase out timeline for current ground fogging equipment. COMPLETED
 - 3.3.2. By December 1, 2017, obtain quotes for new units. COMPLETED
 - 3.3.3. By September 30, 2019, compare results and public perception of new machines to determine replacement plan.
- **GOAL 3.4:** Move towards renewable energy at facilities.
 - **STRATEGY:** Determine and implement renewable energy sources at all FKMCD facilities to become more energy efficient.
 - **OBJECTIVES:**
 - 3.4.1. By October 1, 2021, research options for solar/wind power.
 - 3.4.2. By December 1, 2021, complete cost/benefit analysis on the financial feasibility of renewable energy sources.
 - 3.4.3. By February 1, 2022, present recommendations to the Board of Commissioners.
- **GOAL 3.5:** Go paperless throughout the District
 - **STRATEGY:** Only print up items that need signatures.
 - **OBJECTIVES:**

- 3.5.1. By May 31, 2019, complete network filing system re-vamp
- 3.5.2. By September 30, 2019, have a list formulated of documents that would require print versions. All other documents would be digital-only.
- 3.5.3. By December 31, 2019, District operating as a paperless organization.

4. **PRIORITY AREA:** Public Awareness of Mosquito Control Practices

- **GOAL 4.1:** Making members of the community a more active part of our mosquito control efforts
 - **STRATEGY:** Instituting new ways for community members to access mosquito control information and to report problem areas, as well as incentive-based community programs to encourage residential responsibility.
 - **OBJECTIVES:**
 - 4.1.1. By February 28, 2018, have a Beta version of a smart phone app developed. COMPLETED
 - 4.1.2. By March 30, 2018, have testing of Beta version of smart phone app completed. COMPLETED
 - 4.1.3. By April 15, 2019, have incentive-based program that will engage community members to take responsibility written out and designed.
 - 4.1.4. By July 15, 2018, have final version of smart phone app fully incorporated into FieldSeeker and Website. COMPLETED
 - 4.1.5. By May 15, 2019, have logo and collateral materials for the “Mosquito Ambassador” residential program created and printed. (\$3000)
 - 4.1.6. By June 1, 2019, have giveaway items for residential program collected and begin advertising program. (\$1000)
 - 4.1.7. By June 15, 201, begin residential incentive-based program.
- **GOAL 4.2:** Increasing community awareness of what makes up an effective mosquito control program.

- **STRATEGY:** Bring community awareness of what we do on a daily-basis to the forefront through the use of quarterly sweeps and a Mosquito Awareness/Open House day at our MAP facility.

- **OBJECTIVES:**
 - 4.2.1. By April 1, 2019, have a date selected for annual Mosquito Awareness Day/Open House at MAP office.
 - 4.2.2. By May 1, 2019, have agenda completed for Awareness Day/Open House (rest of objectives determined based on dates chosen).
 - 4.2.3. By September 15, 2017, have dates selected for quarterly sweeps which will include a public relations component. COMPLETED
 - 4.2.4. By September 30, 2017, have educational materials for sweeps designed and printed. COMPLETED
 - 4.2.5. By October 20, 2017, begin first quarterly sweep in Key West to coincide with Fantasy Fest activities. COMPLETED
 - 4.2.6. By April 1, 2018, rewrite/update script for new “Homeowner’s Guide” video. COMPLETED
 - 4.2.7. By June 30, 2018, shoot video for updated footage for guide video. COMPLETED
 - 4.2.8. By December 15, 2018, have video go through professional editing and production. COMPLETED
 - 4.2.9. By January 15, 2019, order custom branded USB drives with video already downloaded. COMPLETED

- **GOAL 4.3:** Increase mosquito knowledge and awareness among school-aged children and young adults through educational programs.

- **STRATEGY:** Creation of a more robust school and home-based education program for children and young adults.

- **OBJECTIVES:**
 - 4.3.1. By December 31, 2019, have created a new curriculum for kindergarten, 3rd, 5th, 7th and high-schoolers that focuses on mosquito-biology and disease prevention and is more interactive vs. lecture-based. FKMCD will have utilized the help of Monroe County teachers in creating this curriculum.
 - 4.3.2. By June 30, 2020, have designed and produced needed materials for new in-school educational programs.
 - 4.3.3. By March 31, 2021, have presented new curriculum to school board in an effort to make it a mandatory part of county-wide curriculum.
 - 4.3.4 By July 31, 2021, have developed an interactive educational section to the www.keysmosquito.org website that teaches mosquito biology and disease prevention via games and puzzles.

5. PRIORITY AREA: Operational Safety Practices

- **GOAL 5.1:** Reduce work related injuries through safety awareness.
 - **STRATEGY:** Create an increase in safety awareness throughout the district.
 - **OBJECTIVES:**
 - 5.1.1. By September 29, 2017, create safety focus groups specific to each location and operational group (ground/air).
COMPLETED
 - 5.1.2. By October 27, 2017, develop a monthly meeting schedule. COMPLETED
 - 5.1.3. By November 30, 2017 determine common accidents over the past 3 years. COMPLETED
 - 5.1.4. By February 28, 2018, develop a monthly safety message plan that is consistent throughout the district (the focus groups will promote this message throughout the month.)
COMPLETED
 - 5.1.5. By March 28, 2018, implement the monthly safety message program. COMPLETED
- **GOAL 5.2:** Reduce work related injuries by developing a proactive safety system.
 - **STRATEGY:** Develop a safety reporting and review protocol for near miss accidents.
 - **OBJECTIVES:**

- 5.2.1. By June 4, 2018, determine a method of reporting near miss incidents that is easy for employees to use and provides employees with confidentiality. COMPLETED
 - 5.2.2. By October 20, 2018, develop incident review procedures and a protocol for improvement implementation. COMPLETED
 - 5.2.3. By January 31, 2018, implement the Near Miss incident program. COMPLETED
- **GOAL 5.3:** Reduce work related injuries by further developing a safety inspection program.
 - **STRATEGY:** Enhance the current random vehicle and building inspection program to create consistency and include a standard reward program.
 - **OBJECTIVES:**
 - 5.3.1. By April 26, 2019, create an inspection schedule with the input of the focus groups.
 - 5.3.2. By August 8, 2019, create inspection forms based on specific departmental safety needs with the input of the focus groups.
 - 5.3.3. By November 14, 2019, develop a standard reward program for inspections.
 - 5.3.4. By January 31, 2020, implement the inspection program.
- **GOAL 5.4:** Determine the effectiveness of new implementations over the past 3 years.
 - **STRATEGY:** Implement review procedures to determine if new

programs have reduced injuries, increased awareness, and created effective reporting procedures.

○ **OBJECTIVES:**

- 5.4.1. By April 30, 2020, develop assessment tools.
- 5.4.2. By May 29, 2020, distribute assessment tools.
- 5.4.3. By September 30, 2020, collect and analyze assessment tool data.
- 5.4.4. By December 30, 2020, determine and implement improvements.

6. **PRIORITY AREA:** Use of Technology to Maximize Resources

- **GOAL 6.1:** Utilize available technology to identify remote indicator sites.
 - **STRATEGY:** Use of trial cameras in remote areas to identify when water table rises enough to produce mosquitoes giving inspectors up-to-date information on remote sites.
 - **OBJECTIVES:**
 - 6.1.1. By December 31, 2017, all areas identified and prioritized by inspectors' time level. COMPLETED
 - 6.1.2. By June 1, 2018, purchase and set priority cameras. COMPLETED
 - 6.1.3. November 1, 2018, determine if area coverage is accurate and if more are needed. COMPLETED
 - 6.1.4. By March 1, 2019, set up buying schedule in small increments to accommodate the entire keys. COMPLETED
 - 6.1.5. By May 1, 2019, deliver camera placement and usage protocol.
- **GOAL 6.2:** Become more precise when treating larvicide areas.
 - **STRATEGY:** Utilize Fieldseeker tools (red/blue dots) to better map breeding areas prior to aerial treatments; follow up with similar mapping directly following treatments.
 - **OBJECTIVES:**
 - 6.2.1. By February 28, 2018, train all inspectors on use of red/blue dot feature on Fieldseeker. COMPLETED

- 6.2.2 By June 2018, institute a red dot/blue dot policy to be completed prior to and following all aerial larvicide treatments, to better define polygons and missed areas. COMPLETED
 - 6.2.3. Follow-up meetings between Operations and Aerial department to follow all treatments beginning June 2018. COMPLETED
- **GOAL 6.3:** Expand the use of Remote Piloted Aircraft (RPA) throughout the District in surveillance and possible treatment.
 - **STRATEGY:** Remain up-to-date on RPA regulations and implement inspector training program.
 - **OBJECTIVES:**
 - 6.3.1. By November 2017, identify lead employee to participate in regulatory discussions on the State and Federal level. COMPLETED
 - 6.3.2. By May 2018, contact FAA to change our certificate of authorization to include new regulations. COMPLETED
 - 6.3.3. By December 2018, implement inspector training for all areas of the Keys. COMPLETED
 - 6.3.4. By April 2019, acquire FDACS Aerial Applicators License. COMPLETED
 - 6.3.4. By March 2019, completed larvicide swath tests for RPA applications. COMPLETED
 - 6.3.5. By December 31, 2019, complete cost-benefit analysis of RPA use vs. helicopter treatments.
 - 6.3.6. By March 31, 2020, complete plan for procurement of additional RPAs.

- **GOAL 6.4:** Determine utilization of the BG Auto Counter to replace landing rate counts conducted on a daily basis.
 - **STRATEGY:** Continue working with BioGents Corporation on the BG Auto Counter.
 - **OBJECTIVES:**
 - 6.4.1. By October 2018, determine overall effectiveness of final product. ONGOING
 - 6.4.2. By December 2019, compare landing rate counts with collections made by BG Auto Counter.
 - 6.4.3. By February 2020, determine if landing rate counts can be reduced with use of the BG Auto Counter.
 - 6.4.4. By April 2020, complete a cost-benefit analysis to determine the number of BG Auto Counter necessary to free up inspector time.
 - 6.4.5. Procure and implement BG Auto Counters based upon cost-benefit analysis findings by June 2020.

7. **PRIORITY AREA:** Employee Retention and Health Initiatives

- **GOAL 7.1:** Develop a compensation policy and strategies that reward employees for high-level performance that reach District goals.
 - **STRATEGY:** Annual evaluation of salary ranges and alignment of the ranges with the expectations established in the job description.
 - **OBJECTIVES:**
 - 7.1.1. By January 1, 2018, meet with department supervisors to review current job description and develop a plan to construct job descriptions based on competencies. COMPLETED
 - 7.1.2. By March 1, 2018, interview and engage employees to describe what they do. ONGOING
 - 7.1.3. By January 1, 2019, review information gathered from interviews / descriptions of what employees do with departmental supervisors.
 - 7.1.4. By July 1, 2019, meet with senior management about the future vision of the District and how each position will be utilized in the future.
 - 7.1.5. By December 1, 2019, draft copies of new competency base job descriptions for review by senior management and departmental supervisors.
 - 7.1.6. By April 1, 2020, final draft of Job Competencies and provided to each respective employee during evaluation process.
 - 7.1.7. By October 1, 2020, submit a Comprehensive Compensation Policy to the Board of Commissioners for approval.
- **GOAL 7.2:** Develop a sustainable benefits plan that allows the District to continue to provide industry leading benefits that provide and encourage District employees to participate in their wellbeing by January 2020.

- **STRATEGY:** Meet with external partners to examine current benefits and evaluate future benefits with current trends.

- **OBJECTIVES:**
 - 7.2.1. Meet with external partners and evaluate the District's whole benefit package and cost provided to employees of the District. July 2017.
COMPLETED
 - 7.2.2. Collect and evaluate employee utilization of benefits and assess the value of the benefits related to their cost. September 2017. COMPLETED
 - 7.2.3. Collect and evaluate market place and industry specific trends.
November 2017. COMPLETED
 - 7.2.4. Compile all collected data and information and present a comprehensive report of benefits and trends to Executive Director by June 2018. COMPLETED
 - 7.2.5. Meet with senior management to review comprehensive report and review and present recommendations of benefits. August 2018.
COMPLETED
 - 7.2.6. Present a Benefit policy to board of commissioners for approval.
November 2018. COMPLETED
 - 7.2.7. Begin selecting external partners to start developing benefits packages, plans and policies. December 2018. COMPLETED
 - 7.2.8. Establish monthly meetings with external partners to draft plans to present to Board of Commissioners early 2019.
 - 7.2.9. Work with senior management with budgeting and cost. March 2019.
 - 7.2.10. Present Board of Commissioners benefit plans. June 2019.
 - 7.2.11. Have approval and begin implementation of benefits. October 2019.
 - 7.2.12. Have all staff meetings explaining the benefit plan. November 2019.
 - 7.2.13. Have all benefits effective by January 2020.

8. PRIORITY AREA: Capital Projects

- **GOAL 8.1:** Maximize aerial fleet capacity and efficiency.
 - **STRATEGY:** Complete an extensive cost-benefit analysis in looking at aircraft use, treatment capacity and maintenance to determine future fleet needs.
 - **OBJECTIVES:**
 - 8.1.1. By November 2017, complete use-analysis of all aerial fleet including missions flown, multiple mission days and treatment capacity.
COMPLETED
 - 8.1.2. By December 2017, complete maintenance cost projection for each aircraft. COMPLETED
 - 8.1.3. By March 2018, complete cost-benefit analysis for aircraft fleet.
COMPLETED
 - 8.1.4. By June 2018, complete plan for future direction of aircraft fleet and add additional objectives for completion to the Strategic Plan.
COMPLETED
 - 8.1.5. By December 1, 2020, complete use-analysis of H-125 aircraft upon completion of one spray season.
 - 8.1.6. By June 1, 2020, implement full maintenance and flight operations tracking software.
 - 8.1.7. By October 1, 2019 complete re-write of Flight Operations Manual and Maintenance Procedures Manual.

APPENDIX A: GOALS AND OBJECTIVE TIMELINES

GOALS AND OBJECTIVES		PERSON RESPONSIBLE	PRODUCT	DEADLINE	STATUS
1. PRIORITY AREA: Pesticide Resistance					
GOAL 1.1	Understand the potential and causes of pesticide resistant populations of mosquitoes in Monroe County.				
1.1.1	Have a plan in place for testing mosquito populations (salt marsh and domestic) from each inhabited island.	Research Director	Project Proposal	8/31/2017	Completed.
1.1.2	Have method of mapping all tested mosquito populations to maintain information of resistant populations.	Research Director	Generation of Map and Proposal for Updates	9/30/2018	First set eof maps completed.
1.1.3	Have begun testing mosquito populations for resistance to currently used adulticides.	Research Director	Testing Results	10/1/2019	Underway
1.1.4	Have begun comparing apparently resistant mosquito populations to known susceptible and resistant strains.	Research Director	Adult Resistance Results	10/1/2019	Awaiting arrival of eggs from USDA (delayed by shutdown).
1.1.5	Have a plan in place for testing mosquito populations for resistance to larvicides.	Research Director	Project Proposal	5/1/2019	Reviewing
GOAL 1.2	Continuation of testing of newly available products for alternative adulticides to be used in areas of resistant mosquito populations.				
1.2.1	Contact vendors to inquire after new products.	Research Director	Vendor Supply List	10/1/2018	Completed
1.2.2	Begin Bottle Bioassays with new products.	Research Director	Testing New Products	3/1/2019	Underway
1.2.3	Cage studies with new products.	Research Director	Cage Studies	6/1/2019	Awaiting lab assays.
2. PRIORITY AREA: Domestic Mosquito Control Practices for Invasive Mosquitoes					
GOAL 2.1	Determine utility of <i>Wolbachia</i>-infected mosquitoes for control of <i>Aedes aegypti</i> in Monroe County.				
2.1.1	Complete initial testing of <i>Wolbachia</i> on Stock Island.	Research Director	Initial Trial Conclusion	8/31/2017	Completed
2.1.2	Complete assessment of initial trial.	Research Director	Assessment of Trial results	12/1/2017	Completed

2.1.3	Develop plan for continuation of future <i>Wolbachia</i> trials.	Research Director	2019 Project Plan	12/31/2018	Underway
GOAL 2.2	Determine utility of genetically modified mosquitoes for control of <i>Aedes aegypti</i> in Monroe County.				
2.2.1	Complete initial testing of GM mosquitoes.	Research Director	Initial Trial Conclusion	12/1/2020	Awaiting approval
GOAL 2.3	To obtain better control of disease vector mosquito populations.				
2.3.1	Have a plan in place for smaller field areas or the potential of “domestic only” inspectors.	Director of Operations	Plan Proposal	12/31/2017	complete
2.3.2	Hire and train new staff in areas.	Director of Operations	Staff on Board	3/1/2018	2/28/18-FULL STAFF BUT IN TRAINING, complete 5/18
GOAL 2.4	Determine the efficacy of barrier treatments applied around homes and businesses for control of <i>Aedes aegypti</i> and <i>Aedes albopictus</i>.				
2.4.1	Perform bottle bioassays using bifenthrin, deltamethrin, and tau-fluvalinate in the treatment of <i>Aedes aegypti</i> .	Director of Research	Bottle Bioassay Results	9/30/2018	Underway
2.4.2	Perform leaf tests using bifenthrin, deltamethrin, and tau-fluvalinate in the treatment of <i>Aedes aegypti</i> .	Director of Research	Leaf test results	9/30/2018	Underway
2.4.3	Make a decision on what product to use.	Director of Operations	Operational Decision	12/1/2018	at this pointFyfanon EW until results completed
GOAL 2.5	Determine the efficacy of ground Vectobac WDG treatments in neighborhoods in comparison to aerial applications.				
2.5.1	Procure all ground equipment necessary for WDG treatments.	Director of Operations	Equipment purchased.	8/31/2017	completed
2.5.2	Complete multiple applications by ground and air in response to rainfall and/or suspect case notifications.	Director of Operations/Research Director	Applications completed.	8/31/2018	First run complete 6/19/18. Second trial done 8/13/18.

2.5.3	Analyze trap and larval data from multiple treatments for efficacy.	Research Director	Comparative results.	4/30/2019	Underway.
2.5.4	Perform cost/benefit analysis on ground vs. aerial equipment for use of WDG.	Finance Director	Cost/benefit analysis	6/30/2019	
2.5.5	Set treatment thresholds for use of ground and aerial equipment in WDG use.	Director of Operations	Operational thresholds.	5/1/2019	complete
3. PRIORITY AREA: Reduce Carbon Footprint.					
GOAL 3.1	Transition to high efficiency vehicles that are more duty-specific.				
3.1.1	Establish which vehicles are due for replacement.	Mechanic Supervisor	Replacement list	8/31/2017	COMPLETE
3.1.2	Research current market for viable replacements dependent upon vehicle purpose.	Mechanic Supervisor	Cost of replacements completed.	9/30/2017	COMPLETE
3.1.3	Create a plan for each vehicle that is due for replacement.	Mechanic Supervisor	Plan proposal	10/31/2017	COMPLETE
GOAL 3.2	Determine basic carbon footprint.				
3.2.1	Gather data for fleet fuel usage and building electric.		Data gathered.	5/1/2018	6/1/18 delayed, fuel usage complete, electric needed.
3.2.2	Input data into carbon footprint calculator.		Carbon footprint established.	8/1/2018	
GOAL 3.3	Transition to electric ULV fog machines.				
3.3.1	Establish a phase-out timeline for current ground fogging equipment.	Mechanic Supervisor	Plan proposed.	11/1/2017	complete
3.3.2	Obtain quotes for new unites.	Mechanic Supervisor	Quotes obtained.	12/1/2017	complete
GOAL 3.4	Move towards renewable energy at facilities.				
3.4.1	Research options for solar/wind power.		Options compiled.	10/1/2018	

3.4.2	Complete cost/benefit analysis on the financial feasibility of renewable energy sources.		Cost/benefit analysis completed	12/1/2018	
3.4.3	Present recommendations to the Board of Commissioners.	Executive Director	Presentation to board during budget.	6/1/2019	
GOAL 3.5	Go paperless throughout the District.				
3.5.1	Complete network filing system re-vamp.	Executive Assistant	Filing system completed.	4/1/2019	Working on
3.5.2	Have a list formulated of documents that would require print versions. All other documents would be digital-only.	Executive Assistant	List completed.	3/31/2018	See attach comment
3.5.3	District operating as a paperless organization.			5/31/2018	Working on
4. PRIORITY AREA: Public Awareness of Mosquito Control Practices.					
GOAL 4.1	Making members of the community a more active part of our mosquito control efforts.				
4.1.1	Have a Beta version of a smart phone app developed.	PEIO	Beta Smart Phone App	2/28/2018	COMPLETE
4.1.2	Have testing of Beta version of smart phone app completed.	PEIO	Beta Smart Phone App	3/30/2018	COMPLETE
4.1.3	Have incentive-based program that will engage community members to take responsibility written out and designed.	PEIO	Document spelling out community program.	4/15/2019	
4.1.4	Have final version of smart phone app fully incorporated into FieldSeeker and Website.	PEIO	Final Smart Phone App	7/15/2018	COMPLETE
4.1.5	Have logo and collateral materials for the “Mosquito Ambassador” residential program created and printed. (\$3000)	PEIO	All collateral materials for community program.	5/15/2019	
4.1.6	Have giveaway items for residential program collected and begin advertising program. (Giveaways will be donations; Advertising: \$1000)	PEIO & Various staff members	Document listing all items to be given away.	6/1/2019	
4.1.7	Begin residential incentive-based program.	PEIO & Inspectors		6/15/2019	
GOAL 4.2	Increasing community awareness of what makes up an effective mosquito control program.				
4.2.1	Have a date selected for annual Mosquito Awareness Day/Open House at MAP office.	PEIO		4/1/2019	

4.2.2	Have agenda completed for Awareness Day/Open House (rest of objectives determined based on dates chosen).	PEIO	Document containing agenda for Open House	5/1/2019	
4.2.3	Have dates selected for quarterly sweeps which will include a public relations component.	PEIO & Operational Supervisors		2/7/2018	COMPLETE
4.2.4	Have educational materials for sweeps designed and printed.	PEIO	Collateral materials for distribution during sweeps.	2/28/2018	COMPLETE
4.2.5	Begin first quarterly sweep in Key West to coincide with Fantasy Fest activities.	Operational Supervisors, Inspectors & PEIO		TBD	COMPLETE
4.2.6	Rewrite/Update script for new "Homeowner's Guide" video	PEIO	Homeowner's Guide script	8/1/2018	COMPLETE
4.2.7	Shoot video for updated footage for guide video	PEIO	Harddrive with raw footage	6/30/2018	COMPLETE
4.2.8	Have video go through professional editing and production	PEIO	Final new guide video	12/15/2018	COMPLETE
4.2.9	Order custom branded usb drives with video already downloaded	PEIO	USB drives with video for distribution	1/15/2019	COMPLETE
GOAL 4.3	Increase mosquito knowledge and awareness among school-aged children & young adults through educational programs.				
4.3.1	Have created a new curriculum for kindergarten, 3rd, 5th, 7th and high-schoolers that focuses on mosquito-biology and disease prevention and is more interactive vs. lecture-based. FKMCD will have utilized the help of Monroe County teachers in creating this curriculum.	PEIO	Curriculum for grades written out.	12/31/2019	
4.3.2	Have designed and produced needed materials for new in-school educational programs. (Approx. \$5000 to provide educational materials for schools)	PEIO	Needed educational materials in either printed or digital format.	TBD	
4.3.3	Have presented new curriculum to school board in an effort to make it a mandatory part of county-wide curriculum.	PEIO		TBD	

4.3.4	Have developed an interactive educational section to the www.keysmosquito.org website that teaches mosquito biology and disease prevention via games and puzzles.	PEIO	Educational Section on District website.	7/31/2019	In Progress
5. PRIORITY AREA: Operational Safety Practices					
GOAL 5.1	Reduce work related injuries through safety awareness.				
5.1.1	Create safety focus groups specific to each location.	Safety Coordinator	Location Focus Groups	11/29/2017	COMPLETE
5.1.2	Develop a monthly meeting schedule.	Safety Coordinator	Generation of Meeting Schedule	12/27/2017	COMPLETE
5.1.3	Determine common accidents over the past 3 years.	Human Resources	Generation of 3 Year Accident Report	1/30/2017	COMPLETE
5.1.4	Develop a monthly safety message plan that is consistent throughout the district (the focus groups will promote this message throughout the month.)	Safety Coordinator	Generation of Monthly Message Plan	4/28/2018	COMPLETE
5.1.5	Implement the monthly safety message program.	Safety Coordinator	Program posters, incentives, talks	5/28/2018	COMPLETE
GOAL 5.2	Reduce work related injuries by developing a proactive safety system.				
5.2.1	Determine a method of reporting near miss incidents that is easy for employees to use and provides employees with confidentiality.	Safety Coordinator	Generation of reporting system	8/4/2018	COMPLETE
5.2.2	Develop incident review procedures and a protocol for improvement implementation.	Safety Coordinator	Generation of review procedures and improvement protocol	11/20/2018	COMPLETE
5.2.3	Implement the Near Miss incident program.	Safety Coordinator	Staff notification of program and procedures	1/31/2019	COMPLETE
GOAL 5.3	Reduce work related injuries by developing a consistent safety inspection program.				
5.3.1	Create an inspection schedule with the input of the focus groups	Safety Coordinator	Generation of inspection schedule	4/26/2019	IN PROGRESS
5.3.2	Create inspection forms based on specific departmental safety needs with the input of the focus groups.	Safety Coordinator	Generation of inspection forms	8/8/2019	
5.3.3	Develop a standard reward program for inspections.	Safety Coordinator	Generation of reward list.	11/14/2019	
5.3.4	Implement inspection program	Safety Coordinator	Inspection documentation	1/31/2020	
GOAL 5.4	Determine the effectiveness of new implementations over the past 3 years.				

5.4.1	Develop assessment tools	Safety Coordinator	Assessment Tool	4/30/2020	
5.4.2	Distribute assessment tools	Safety Coordinator	Distribution	5/29/2020	
5.4.3	Collect and analyze assessment tool data	Safety Coordinator	Generation of compiled data	9/30/2020	
5.4.4	Determine and implement improvements	Safety Coordinator	Generation of program improvements	12/30/2020	
6. PRIORITY AREA: Use of Technology to Maximize Resources					
GOAL 6.1	Utilize available technology to identify remote indicator sites.				
6.1.1	Identify and prioritize all larval production sites by inspectors' time level.	Director of Operations	List of all sites by priority	12/31/2017	11/20/17 complete
6.1.2	Purchase and set cameras in priority areas.	Director of Operations	Cameras placed.	6/1/2018	7/18 complete
6.1.3	Determine if area coverage is accurate and if more cameras are necessary.	Director of Operations	Plan reviewed	11/1/2018	10/1/18 complete
6.1.4	Set up a buying/replacement schedule for all cameras at field sites.	Director of Operations	Schedule completed.	3/1/2019	complete
6.1.5	Deliver Camera placement and usage protocol	Director of Operations		5/1/2019	
GOAL 6.2	Become more precise when treating larvicide areas.				
6.2.1	Train all inspectors on use of red/blue dot feature on Fieldseeker.	Director of Operations/IT	Training completed.	2/28/2018	scheduled for 2/20-2/22/18 complete
6.2.2	Institute a red dot/blue dot policy to be completed prior to and following all aerial larvicide treatments, to better define polygons and missed areas.	Director of Operations	Policy in place	4/31/2018	3/15/18 complete
6.2.3	Follow up meetings with Operations and Aerial departments after all larvicide treatments.	Director of Operations/Director of Aerial Operations	Meetings begin. Moved the date out, FS having issues on recording.	10/1/2018	08/31/18 complete
GOAL 6.3	Expand the use of Remote Piloted Aircraft (RPA) throughout the District in surveillance and possible treatments.				

6.3.1	Identify lead employee to participate in regulatory discussions on the State and Federal level.	Bruce Stevens	Point person identified.	11/1/2017	completed
6.3.2	Contact FAA to change our certificate of authorization to include new regulations.	Bruce Stevens	FAA contacted.	5/1/2018	completed
6.3.3	Implement inspector training for all areas of the Keys	Bruce Stevens	staff demonstrations	12/1/2018	completed
6.3.3.1	Aquire Aerial Applicators Licenses	Bruce Stevens		3/15/2019	completed
6.3.4	Create Cost Benefit Analysis and determine future of the program	Director of Operations, Finance Director		11/1/2019	
6.3.5	Procure additional drones for surveillance work.	TBD	RPA purchased.	3/1/2019	
GOAL 6.4	Determine utilization of the BG Auto Counter to replace landing rate counts conducted on a daily basis.				
6.4.1	Determine overall effectiveness of final product.	Research Director	Final report.	10/1/2018	Underway.
6.4.2	Compare landing rate counts with collections made by BG Auto Counter.	Research Director	Comparison completed.	12/1/2019	Awaiting modification of counter by vendor.
6.4.3	Determine if landing rate counts can be reduced with use of the BG Auto Counter.	Research Director	Decision on efficacy.	2/1/2020	Awaiting modification of counter by vendor.
6.4.4	Complete a cost-benefit analysis to determine the number of BG Auto Counter necessary to free up inspector time.	Finance Director	Cost/benefit analysis completed.	4/1/2019	
6.4.5	Procure and implement BG Auto Counters based upon cost-benefit analysis findings.	Director of Operations	Traps budgeted.	10/1/2019	
7. PRIORITY AREA: Employee Retention and Health Initiatives					
GOAL 7.1	Develop a compensation policy and strategies that reward employees for high-level performance that reach District goals.				

7.1.1	Meet with department supervisors to review current job description and develop a plan to construct job descriptions based on competencies.	HR/Insurance Coordinator	Meeting completed.	1/1/2018	completed
7.1.2	Interview and engage employees to describe what they do.	HR/Insurance Coordinator	Interviews completed.	3/1/2018	in progress
7.1.3	Review information gathered from interviews / descriptions of what employees do with departmental supervisors.	HR/Insurance Coordinator	Information gathered.	4/1/2018	
7.1.4	Meet with senior management about the future vision of the District and how each position will be utilized in the future.	HR/Insurance Coordinator	Meeting completed.	5/1/2018	
7.1.5	Draft copies of new competency base job descriptions for review by senior management and departmental supervisors.	HR/Insurance Coordinator	Draft completed.	7/15/2018	
7.1.6	Final draft of Job Competencies and provided to each respective employee during evaluation process.	HR/Insurance Coordinator	Final draft.	10/1/2018	
7.1.7	Submit a Comprehensive Compensation Policy to the Board of Commissioners for approval.	HR/Insurance Coordinator	Policy submitted for approval.	7/1/2018	
GOAL 7.2	Develop a sustainable benefits plan that allows the District to continue to provide industry leading benefits that provide and encourage District employees to participate in their wellbeing.				
7.2.1	Meet with external partners and evaluate the District's whole benefit package and cost provided to employees of the District.	HR/Insurance Coordinator	Meeting completed.	7/1/2017	completed
7.2.2	Collect and evaluate employee utilization of benefits and assess the value of the benefits related to their cost.	HR/Insurance Coordinator	Evaluation completed.	9/1/2017	
7.2.3	Collect and evaluate market place and industry specific trends.	HR/Insurance Coordinator	Evaluation completed.	11/1/2017	
7.2.4	Compile all collected data and information and present a comprehensive report of benefits and trends to Executive Director.	HR/Insurance Coordinator	Data compiled and presented.	6/1/2018	
7.2.5	Meet with senior management to review comprehensive report and review and present recommendations of benefits.	HR/Insurance Coordinator	Meeting completed.	8/1/2018	

7.2.6	Present a Benefit policy to board of commissioners for approval.	HR/Insurance Coordinator	Presentation completed	11/1/2018	
7.2.7	Begin selecting external partners to start developing benefits packages, plans and policies.	HR/Insurance Coordinator	Selection completed.	12/1/2018	
7.2.8	Establish monthly meetings with external partners to draft plans to present to Board of Commissioners.	HR/Insurance Coordinator	Meetings established.	2/1/2019	
7.2.9	Work with senior management with budgeting and cost.	HR/Insurance Coordinator	Budgeting/costs compiled.	3/1/2019	
7.2.10	Present Board of Commissioners benefit plans.	HR/Insurance Coordinator	Presentation completed.	6/1/2019	
7.2.11	Have approval and begin implementation of benefits.	HR/Insurance Coordinator	Approval.	10/1/2019	
7.2.12	Have all staff meetings explaining the benefit plan.	HR/Insurance Coordinator	Meetings completed.	11/1/2019	
7.2.13	Have all benefits effective.	HR/Insurance Coordinator		1/1/2020	
8. PRIORITY AREA: Capital Projects					
GOAL 8.1	Maximize aerial fleet capacity and efficiency.				
8.1.1	Complete use-analysis of all aerial fleet including missions flown, multiple mission days, treatment capacity, etc...	Director of Aerial Operations	Use analysis complete.	5/1/2018	complete
8.1.2	Complete maintenance cost projection for each aircraft.	Director of Maintenance	Maintenance cost projection complete.	12/1/2017	complete
8.1.3	Complete cost/benefit analysis for aircraft fleet.	Director of Aerial Operations	Cost/benefit analysis completed by Director of Aerial Operations	3/1/2018	complete

8.1.4	Complete plan for future direction of aircraft fleet and present to Executive Director.	Director of Aerial Operations	Completed by Director of Aerial Operations and presented Board Members during aircraft purchase request meeting.	6/1/2018	complete
8.1.5	Complete Use Analysis of H-125 Aircraft upon completion of 1 spray season	Director of Aerial Operations/Chief Pilot		12/1/2020	
8.1.6	Implement full Maintenance and Flight Operations Tracking Software	Director of Aerial Operations/Director of MX/Chief Pilot		6/1/2020	
8.1.7	Complete Re-write of Flight Operations Manual and Maintenance Procedures Manual	Director of Aerial Operations/Director of MX/Chief Pilot		10/1/2019	