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Utilizing Cooperative Invasive Species Management Areas (CISMAs) to Effectively Reduce Re-infestation of Invaders on six (6) Military Bases and Adjacent Lands in Florida

FINAL REPORT

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The Nature Conservancy Florida Chapter
July 2011

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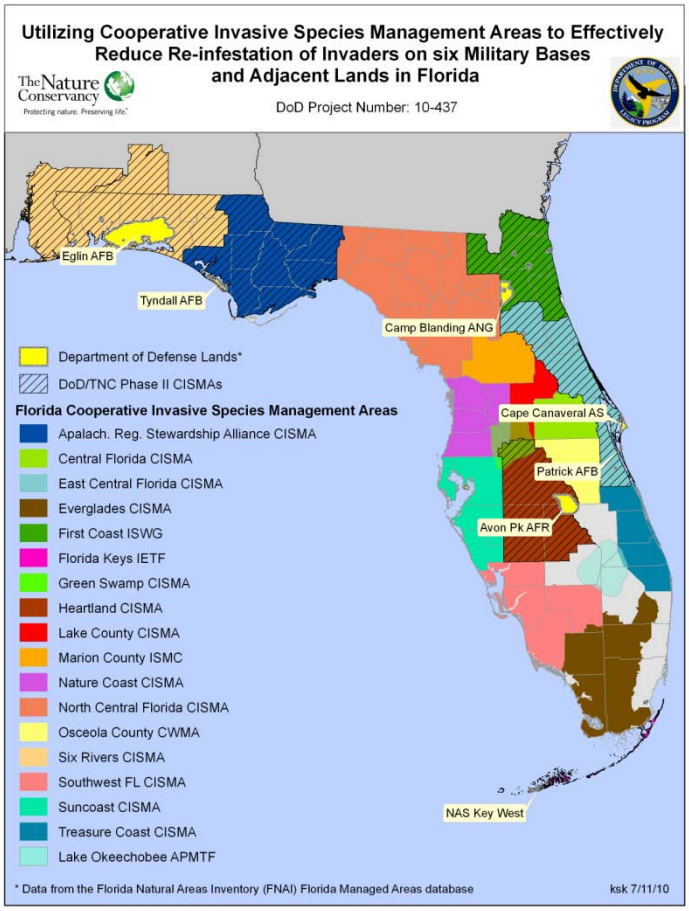

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Abstract

Since 2009 The Nature Conservancy (TNC), with the continued support of Eglin Air Force Base (AFB) and through generous funding provided by the Department of Defense (DoD) Legacy Resource Management Program, has worked with military bases in Florida to establish and/or strengthen six Cooperative Invasive Species Management Areas (CISMAs). These CISMAs help to reduce reinfestation from invasive species on six DoD bases and three service branches including: Eglin AFB, Tyndall AFB, Camp Blanding ANG, Cape Canaveral AFS/Patrick AFB Avon Park AFR and NAS Key West. Each of the CISMAs has worked to solidify their structure and collectively agree on future steps; the idea being that all of these CISMAs need to be strong enough to withstand inevitable change. In addition, each of the CISMAs completed on-the-ground control projects on lands adjacent to or buffering military bases. These types of partnerships support range sustainment, mission flexibility, and imperiled species protection for DoD in one of the fastest growing regions in the United States. This project also leveraged statewide support for CISMAs through the Florida Invasive Species Partnership (FISP).

Background

Invasive non-native species have been identified by all of the DoD installations as both ecological and economic threats to the natural communities and native species that they manage. To address this threat, TNC proposed to work with DoD installations to create strong CISMAs that would serve to buffer DoD and other conservation lands, as well as include these CISMAs under the statewide umbrella of the Florida Invasive Species Partnership (FISP) in order to tie them into a network of CISMAs and provide additional resources and continuity in approach.

CISMAs encourage development of local partnerships among federal, state, and local governmental agencies, tribes, individuals, and other interested groups to manage invasive species in a defined geographic area addressing both public and private lands. The CISMA process results in efforts that work across boundaries, pools limited resources and similar priorities, and creates a unity of voice that will propel the issue of invasive species to the forefront of the public's sight as well as improve efficiency and effectiveness in managing invasive species.

With Eglin AFB as the lead installation, Phase I of this project was proposed in order to expand on the successful partnership between Eglin AFB and TNC in the Gulf Coast, as well as three other strong TNC partnerships with DoD bases in Florida including Camp Blanding Army National Guard (ANG), Avon Park Air Force Range (AFR) and Naval Air Station (NAS) Key West. Overall the Phase I of this project was a huge success. Two new CISMAs were created and these CISMAs plus two existing CISMAs were strengthened through statewide collaboration and networking. All four CISMAs completed five-year strategic plans, utilizing a strategic plan template that was developed for this project. Two on-the ground control projects were completed, benefitting both Eglin AFB and NAS Key West. The profile of this project was increased regionally and nationally through presentations at the Florida Exotic Pest Plant Council Symposium (FLEPPC), Strategic Management of Invasive Species in the Southeastern United States Workshop and the DoD Sustaining Military Readiness conference.

Phase II of this effort, again with Eglin AFB as the lead installation, expanded the project to include Tyndall AFB, Cape Canaveral AFS and Patrick AFB. Work continued with the original four bases. Phase II of this project, funded for July 2010 through June 2011, proposed to:

- Create one new CISMAs supporting Cape Canaveral AFS and Patrick AFB;

- Continue to strengthen 5 existing CISMAs supporting Eglin AFB, Tyndall AFB, Camp Blanding ANG, Avon Park AFR and NAS Key West;
- Work collaboratively with DoD and other regional partners to create a five-year Strategic Plan detailing invasive species management priorities for the new CISMA supporting Cape Canaveral AFS/Patrick AFB; to update the 2007 Apalachicola Invasive Non-Native Species Management Plan for the CISMA supporting Tyndall AFB; and, to create Annual Work Plans identifying cooperative projects and actions for the other four existing CISMAs; and
- Complete on-the-ground invasive species control projects prioritized by and buffering Eglin AFB, Tyndall AFB, Camp Blanding ANG, Avon AFR and NAS Key West.

Project Summary and Results

Phase II of the project during FY10 was again extremely successful. All proposed outcomes were met and exceeded and the following expected products were completed:

- One new CISMA, the East Central Florida CISMA, was created, supporting Cape Canaveral AFS/Patrick AFB. This CISMA completed a five-year strategic plan, expedited by their connections with the other CISMAs and the previous work in Phase I.
- The four original CISMAs from Phase I were strengthened, supporting Eglin AFB, Camp Blanding ANG, Avon Park AFR and NAS Key West. The Six Rivers CISMA, First Coast Invasive Working Group, Heartland CISMA and Keys Invasive Exotic Task Force, all completed annual work plans to help guide the partnership efforts during 2011.
- The Apalachicola Regional Stewardship Alliance (ARSA) CISMA, previously existing but new to this project, was strengthened and updated its Invasive Species Management Plan for the region, incorporating strategic plan elements that were created during Phase I of this project. The ARSA CISMA supports Tyndall AFB.
- All six CISMAs participated in the statewide CISMA network facilitated by FISP and presented at the annual Florida Exotic Pest Plant Council (FLEPPC) CISMA session as well as collectively presented during the poster session.
- Multiple On-the-ground control projects were completed supporting and buffering Eglin AFB, Tyndall AFB, Camp Blanding ANG, Avon Park AFR and NAS Key West.

In addition to the expected products, the following was also completed:

- Two workdays with partners from the East Central Florida CISMA on the AF/DoD Readiness and Environmental Protection Initiative (REPI) funded conservation easement portion of the Coastal Jewel sanctuary. This property buffers Cape Canaveral AFS and Patrick AFB and was prioritized because of its value to imperiled species, specifically the Florida scrub jay.
- Customized “weed decks” for invasive plant identification for the four original CISMAs from Phase I. Each CISMA developed a list of priority invasive plants to be included in their deck.

Benefits to DoD from involvement in the Legacy projects for all of the CISMAs include: developing and strengthening CISMAs in each region; the ability to assess problems on a landscape scale; allow for treatment across property boundaries; cooperating in invasive species treatments; cooperating in leveraging funding; assisting private landowners in removing invasive species; reducing the high maintenance cost caused by invasive species re-infestations; identifying research ideas and leverage research funding; expanding public awareness of invasive species; providing agency invasive species points of contacts; and providing knowledge of what agencies are doing to manage invasive species.

Project Specific Sections

Separate sections are included below for each of the six CISMAs included in this project as well as how these efforts were combined into the statewide network. The strength of these six CISMAs exhibits great confidence for the future. All CISMAs have put a structure in place, including chairs, steering committees and subcommittees, to withstand change over time.

Statewide Coordination

As with Phase I, coordination of the six CISMAs was an integral part of this Project. Through the facilitation of TNC statewide staff, the six CISMAs involved in this project worked together, through routine conference calls and webinars, to integrate projects despite geographic distance. In addition, the CISMAs benefitted from the larger statewide network provided by the Florida Invasive Species Partnership (FISP), which TNC co-chairs. One of the major goals of FISP is to provide resources to CISMAs and to reduce ineffectiveness. This goal is accomplished by hosting monthly conference calls/online meetings for all CISMAs to participate and by posting documents, links and other resources on the FISP websites. Rather than each CISMA having to "re-invent the wheel," the endeavor is to provide resources that can be easily adapted to each CISMA's needs as well as facilitate networking and communication between CISMAs to gain from each other's successes and challenges.

During Phase II of this project, TNC hosted nine monthly CISMA calls/online meetings for attendance by all CISMAs and FISP members. These calls serve three purposes: 1) for CISMA leads to provided updates on their efforts and seek advice from peers, 2) for people interested in forming new CISMAs to listen in and gather resources, and 3) to get experts to present on invasive species topics. The last purpose, expert presentation, is of great value because it can bring these topics to CISMAs via the webinar service without anyone incurring travel expenses. Expert presentation topics ranged from overviews of the National Park Service Florida and Caribbean Exotic Plant Management Team to an introduction to Illinois's Rivers to Rivers Cooperative Weed Management Area. To see the archive of these presentations, go to http://www.floridainvasives.org/cismacalls.html.

In September 2010, TNC staff leads for this project met in-person to review the past year's activities, give presentations on plans for their CISMAs, to work together to further refine the strategic plan, and to create a new template for developing a CISMA annual work plan for use by all. On the first day of this two day meeting, a joint discussion of TNC and DoD installation staff was held. Representatives from three DoD installations were present: Lt. Colonel Buck MacLaughlin and Clarence Morgan (Avon Park AFR), Paul Catlett (Camp Blanding ANG), and Don George (Cape Canaveral/Patrick AFB). The purpose of this meeting was to discuss DoD's primary mission and how it relates CISMAs and conservation. Other topics discussed were how the CISMAs are assisting the bases meet their missions and how the bases can additionally contribute to the success of the CISMA. This was a very successful conversation, with all learning much more about each other's missions. The minutes for this meeting, with details of the DoD mission discussion, are attached to this report in Appendix A.

During the last week of February/first week of March 2011, five of the six CISMAs held cooperative workdays/efforts during National Invasive Species Awareness Week (NISAW). In addition, TNC staff represented the Florida Invasive Species Partnership and Florida CISMAs in Washington, D.C. by presenting on the Strengthening Grassroots Partnerships panel at the NISAW State and Regional Invasive Species Workshop. During this presentation, DoD support of Florida CISMAs was highlighted (see Appendix B for the CISMA table of events and D.C. NISAW Workshop Agenda and relevant PowerPoint).

In May 2011, the CISMA leads met in-person for a second time to participate in the annual workshop facilitated by FISP and held at the Florida Exotic Pest Plant Council Symposium. The purpose of this workshop is to convene CISMA leads and members from all over the state and to discuss successes, challenges and new ideas. In all, twelve CISMAs participated. The leads for the twelve CISMAs shared ideas on the ideal structure for a CISMA, transferring responsibilities, engaging extension personnel and how to collectively bring in grant funds for workdays and other CISMA efforts. In addition, TNC presented a poster, (included in Appendix C), at FLEPPC collectively highlighting the successes of the six CISMAs and the collaboration with DoD installations in Florida.

Collectively, the CISMA leads and the TNC statewide coordinator worked together to create a revised template for the CISMA Strategic Plan. This revision was built off of the draft created during Phase I. This version has been simplified is available both as a Word document and an Excel spreadsheet (both versions included in Appendix D). The Excel version allows for a CISMA to sort their strategies easily by year, taxa or goal. It is easy to then copy all strategies for one year, paste them into a new worksheet and create an annual work plan. The Excel version has four worksheets: 1) Introduction; 2) Guidance; 3) Sortable Strategic Plan and 4) Work Plan template. Using this template, the original four CISMAs from Phase I, all created 2011 work plans. The ARSA CISMA inserted components of this Strategic Plan template into their updated management plan and the East Central Florida CISMA was able to complete their CISMA strategic plan and draft a 2011 work plan. This was all thanks to our efforts from Phase I and II on a strategic plan template and building a community of CISMAs to assist and learn from each other.

Lastly, four customized weed decks were created and copies printed for each of the Phase I CISMAs: Six Rivers CISMA, Heartland CISMA, First Coast IWG and Keys IETF. This was an additional product with this award. Each of the four CISMA leads worked with their CISMA members to identify the top ten control or early detection/rapid response invasive plants for their landscape, which is a strategy called for in each of their strategic plans. TNC then worked with the University of Florida Center for Aquatic and Invasive Plants (UF-CAIP) to customize their invasive plant deck to be specific to each of the four CISMAs. Staff from UF-CAIP donated their time and paid for the graphics in order to create these decks. As a result, 125 customized decks were printed for each of the four CISMAs.

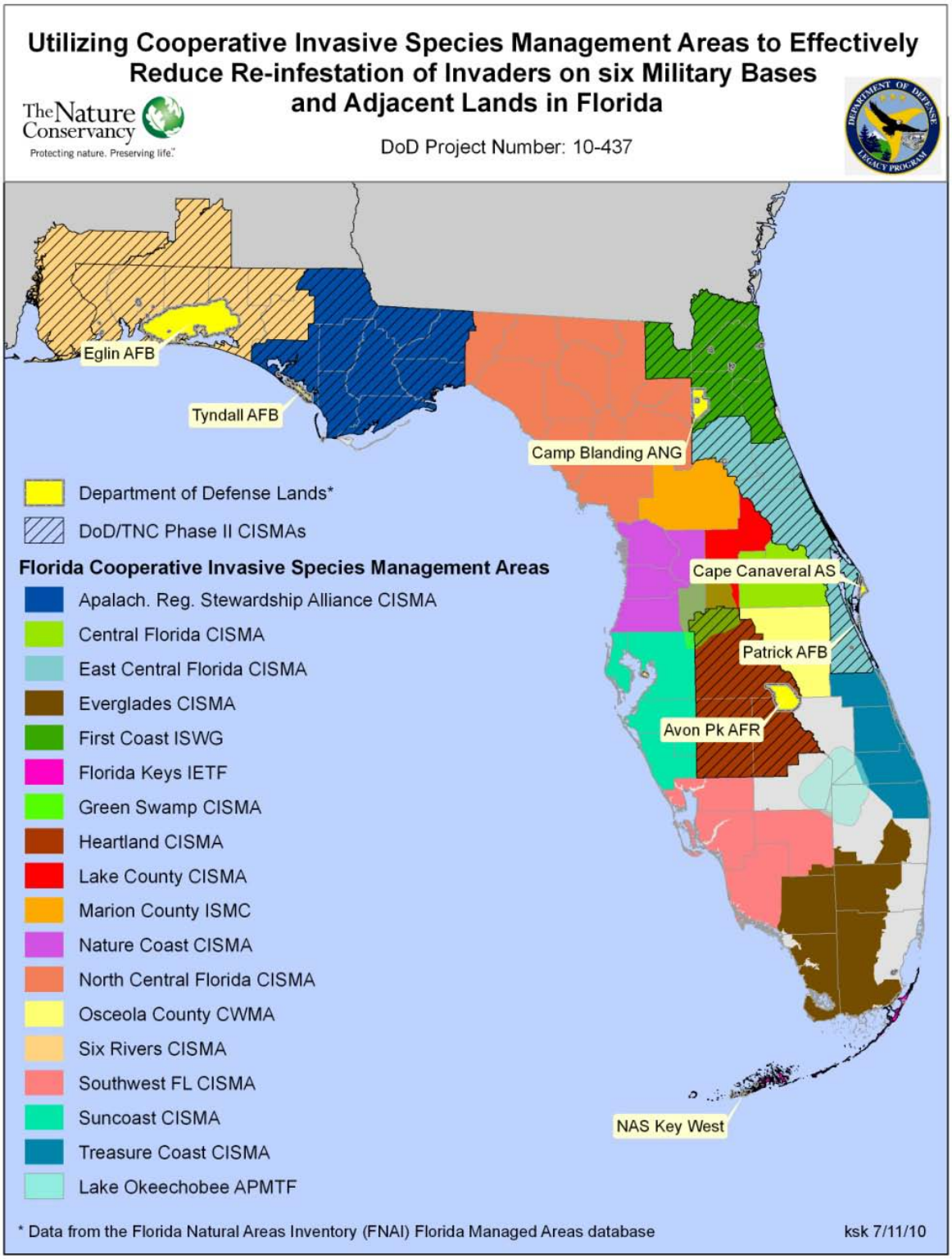

Figure 1 - DoD Legacy Program Project Areas

Figure 2 - Florida Exotic Pest Plant Council Symposium - CISMA Workshop

Florida Invasive Species Partnership Website Address: http://www.floridainvasives.org/

Included in Appendices:

- Appendix A: Minutes from September 2010 TNC/DoD meeting
- Appendix B: National Invasive Species Awareness Week attachments
- Appendix C: Poster presented at Florida Exotic Pest Plant Council Symposium
- Appendix D: Strategic Plan Template (Word and Excel Versions)

Six Rivers CISMA/Eglin Air Force Base

Dennis Teague, Eglin Air Force Base, "The formation and development of the Six Rivers CISMA has been instrumental in bringing together partners who have compatible goals to prevent the introduction and spread of invasive non-native species (INS). This group is working to increase public awareness concerning INS across the Western Florida Panhandle. Eglin's lengthy southern boundary along the urban interface is where many INS challenges exist. A line has been drawn in the sand along the urban interface to combat and prevent the influx of INS from private and public properties and protect the rare and sensitive species and habitats that exist there. The ability for TNC and Six Rivers Staff to develop working relationships to control exotics on properties adjacent to Eglin has increased public awareness and the effectiveness of the long term management of INS on Eglin property. CISMA staff has also been extremely beneficial in conducting control operations in sensitive natural areas where great care must be taken to avoid resource damage. "

Strengthening the CISMA

Summary

The Six Rivers CISMA (formerly Northwest Florida CISMA) was established in October 2009 and supports efforts on and adjacent to Eglin Air Force Base, Naval Air Station (NAS) Pensacola, and NAS Whiting Field in Northwest Florida, as well as numerous Outlying Fields. The Ecosystem Support Team (EST), based out of Milton, Florida, is part of the Gulf Coastal Plain Ecosystem Partnership (GCPEP), a ten-member public-private partnership. The EST is also an active member of the Six Rivers CISMA. Eglin AFB has strongly served as the Lead Base on the DoD Legacy Resource Management Program projects since 1996, providing endless support for the CISMAs, GCPEP, and the EST.

During FY09 in Phase I of the CISMA project, a steering committee and subcommittees were designated, and a five-year strategic plan was put in place. The Six Rivers CISMA originally encompassed six Florida counties, but quickly expanded to nine counties by including three in Alabama. In Phase II, Six Rivers CISMA now includes the Florida counties of Escambia, Holmes, Okaloosa, Santa Rosa, Walton, and Washington and the three Alabama counties of Escambia, Covington, and Baldwin.

Six Rivers CISMA partners include:

- Federal: Eglin Air Force Base, Hurlburt Field (Air Force), NAS Pensacola and Whiting Field, National Park Service, United States Forest Service and USDA-NRCS Crestview
- State: Florida Department of Environmental Protection, Florida Division of Transportation, Florida Fish and Wildlife Conservation Commission, Florida Division of Forestry
- Regional/Local: Escambia County, Okaloosa County, Walton County, North West Florida Water Management District, and 3-Rivers RC&D
- Other (Universities, NGOs and for-profits): Bay Area Resource Council, Blackwater River Foundation, Chelco, Inc., Choctawhatchee Basin Alliance, Progressive Solutions, LLC, The Longleaf Alliance, The Nature Conservancy, University of Florida, University of West Florida, and Florida Natural Areas Inventory

Results

During FY10 in Phase II many advances were made to strengthen the CISMA and provide additional assistance to DoD and partners including:

CISMA Workdays and Volunteer Events

The EST facilitated five volunteer and/or training days within the panhandle, with participation from Eglin AFB, TNC, Americorps, Okaloosa County Institute of Food and Agricultural Science (IFAS) Extension, City of Pensacola, City of Niceville, the Choctawhatchee Basin Alliance, The Florida Native Plant Society, and other partners. These workdays focused on training personnel to identify and record invasive species as well as 'hands-on' treatment and removal. The EST provided tools, GPS's, Personal Protective Equipment, and personnel including licensed herbicide applicators for these events.

The above workdays included one 'partner-only' day at Eglin AFB held in May 2011. This CISMA workday focused on identifying and documenting re-sprouts of Chinese tallow from Phase I treatments in the area of the East Bay flatwoods, north of Florosa, Florida. Representatives from Eglin AFB, the Choctawhatchee Basin Alliance, and the EST participated. Strategies for managing cross-border infestations from buffer lands as well as effective treatment methods were discussed.

Figure 3- Six Rivers CISMA Project Workdays

CISMA Meetings and Trainings

TNC facilitated two Six Rivers CISMA meetings (October 2010 and March 2011) with attendance of at least twenty representatives from a variety of partners at each meeting. The October 2010 meeting in Pensacola, Florida included training on how to document new invasive infestations using EDDMapS led by the University of Georgia. The 2011 Six Rivers work plan was formally ratified at the March 2011 meeting. A July 2011 meeting is being scheduled at Bear Lake, Santa Rosa County, Florida. A complete summation of Six Rivers CISMA activities can be found on the Six Rivers website at: http://www.floridainvasives.org/sixrivers/index.html.

Additional Accomplishments
A map was prepared and provided to the Eglin AFB Natural Resources Visitor's Center in May 2011. Additionally, *Weed Alert: Cogongrass* (500 copies) were placed in the visitor's center. This two-sided color brochure was obtained free of charge from the Florida Fish and Wildlife Commission.

Six Rivers CISMA Work Plan
A priority for Six Rivers CISMA has been to develop an annual work plan for the 2011 calendar year. Prior to our October 21st meeting, each subcommittee was asked to discuss what activities from their respective goals would be appropriate for the 2011 work plan. The subcommittees then shared suggestions for what to include in the work plan during the meeting, providing the foundation for developing the work plan.

The Six Rivers CISMA 2011 Work Plan was submitted to DoD Legacy Program in March 2011.

Six Rivers CISMA Website Address: http://www.floridainvasives.org/SixRivers/

Six Rivers CISMA Control Project Summary and Monitoring Results

The EST monitored and re-treated priority invasive species occurrences on high-quality natural areas on Eglin AFB. These areas had been previously managed but were re-infested, primarily from invasive species populations on private property adjacent to the project areas.

Phase I Post-treatment Monitoring
Phase I post-treatment monitoring concluded in October of 2010 and a final report was delivered to the Legacy Resource Management Program in January 2011.

Phase II Control Project
The EST spent fifteen workdays treating Eglin AFB and adjacent buffer lands for cogongrass, mimosa, and Chinese tallow. The majority of treatments occurred at the Northwest Florida State College, Fort Walton Beach campus, on an 80-acre tract adjoining the south boundary of Eglin reservation. Other treatments included efforts on Santa Rosa Island (Eglin AFB restricted area) and in the East Bay flatwoods region of Eglin reservation. Some of these areas were identified in spring of 2010, but were unable to be treated then due to the presence of high water. Spring of 2011 saw significantly lower water tables. EST members also collected spatial data on all infestations including untreated infestations of Japanese climbing fern. This data was formatted into ArcGIS shapefiles with infestation size, stem density, etc. and given to the Eglin AFB Jackson Guard Natural Resources department. These treatments did not include CISMA workdays, volunteer days or Phase I and Phase II monitoring.

Phase II Photo Monitoring
Phase II post-treatment monitoring was completed in May at selected sites on the campus of Northwest Florida State College, Fort Walton Beach.

Included in Appendix E:

- Six Rivers Phase II post-treatment monitoring report

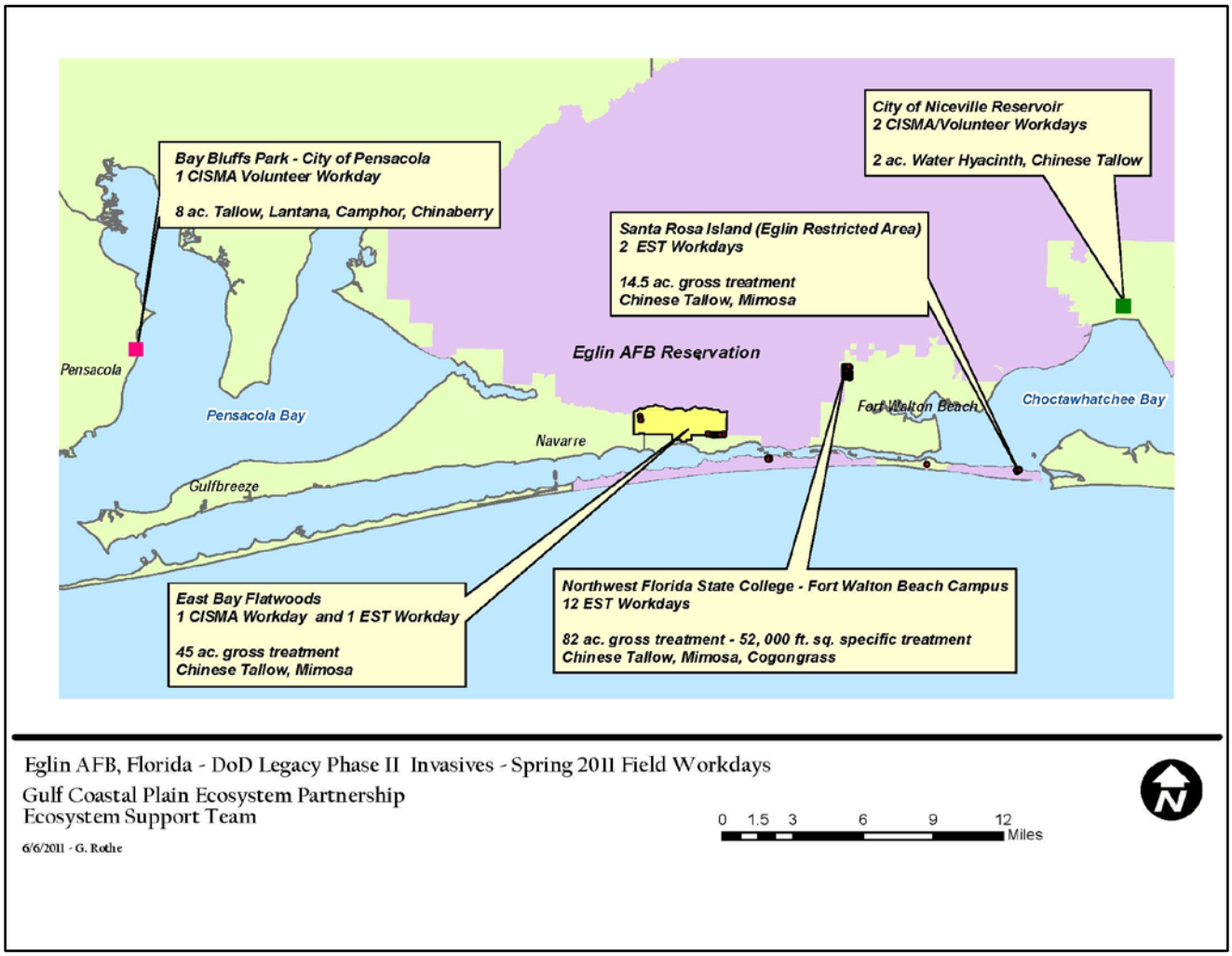

Figure 4 - Six Rivers CISMA/Eglin AFB Project Areas

Heartland CISMA/Avon Park AFR

Paul Ebersbach/Clarence Morgan, Avon Park AFR, "Being part of the Heartland CISMA enables us to start pushing invasives back because we now able to "work" across the fencelines to reduce the reinfestation rate. Also people are much more willing to allow a nongovernment organization on their land."

Strengthening the CISMA

Summary

The Heartland CISMA was established in May 2009 and supports efforts on and adjacent to Avon Park Air Force Reserve in Central Florida. The Florida counties in the Heartland CISMA include Polk, Highlands, Hardee, and Desoto.

During FY09 in Phase I of the CISMA project a five-year strategic plan was put in place. During Phase II in FY10 a steering committee was designated and subcommittees (strategic plan, prevention, EDRR/control, aerial survey, website, and outreach) were formed. The 5-year strategic plan was used to develop an annual work plan and priority species lists were adopted to guide future work. An identification and treatment guide to the top-ranked EDRR (early detection, rapid response) species was developed and disseminated.

Heartland CISMA Partners include:

- Federal: Avon Park Air Force Range (AFR), United States Department of Agriculture Animal and Plant Health Inspection Service- Plant Protection and Quarantine (APHIS- PPQ), Natural Resources Conservation Service (NRCS), United States Fish and Wildlife Service (USFWS)
- State: Florida Department of Environmental Protection: Div of Recreation and Parks, Bureau of Mine Reclamation (BMR), Florida Fish and Wildlife Conservation Commission (FWC), Florida Division of Forestry
- Regional/Local: South Florida Water Management District (SFWMD), Southwest Florida Water Management District (SWFWMD), Highlands County Parks and Recreation (Highlands P&R), Soil and Water Conservation District (Highlands SWCD), Polk County Environmental Lands Program (Polk ELP), DeSoto County Extension Service, Hardee County Extension Service, Polk County Extension Service, Highlands County Extension Service
- Other (Universities, NGOs and for-profits): Archbold Biological Station (ABS), Bok Tower Gardens (BTG), Florida Exotic Pest Plant Council (FLEPPC), Florida Natural Areas Inventory (FNAI), University of Florida, Institute for Food and Agricultural Services (UF/IFAS), University of Georgia Center for Invasive Species Ecosystem Health, The Nature Conservancy (TNC)

Results

During FY10 in Phase II many advances were made to strengthen the CISMA and provide additional assistance to DoD and partners including:

CISMA Workdays and Volunteer Events

During National Invasive Species Awareness Week (NISAW), the Heartland CISMA went above and beyond! This was a collective effort by the entire membership to raise awareness of the membership and the general public by coordinating a workshop, workdays and various trainings. Specifically, activities that occurred during this week include:

- Central Florida Invasive Species Workshop with approximately 50 attendees

- Ridge Rangers workdays focused on invasive treatment and mapping throughout the CISMA
- Early Detection Scavenger Hunt, with media coverage in Ledger and Bay News 9 TV, Polk bureau
- Purple swamphen check of Avon Park AFR/Arbuckle marsh and lake edge by entrance kiosk
- Beginner Invasive ID workshop with approximately 15 attendees
- Intermediate/Advanced Invasive ID & treatment workshop with 28 attendees
- Presentation about CISMA to Lake Wales Ridge Ecosystem Working Group

CISMA Meetings and Trainings

Several general membership meetings were held this year. In November 2010, TNC coordinated a Heartland CISMA meeting and a steering committee and subcommittees were formed. In addition, an identification guide to the top-ranked EDRR (early detection, rapid response) species was developed and disseminated. A subcommittee met in December to plan events to be included as part of Polk County Environmental Lands Program's "invasives"-themed month in February.

During the April meeting, members focused on outreach and education in order to sign up volunteers for subcommittees, share information, and disseminate new USFS guides to identification and management of invasive species in southern forests. Additional meetings provided the CISMA members with specific EDDMapS training in order to show members how to set up alerts to get early notification of invasive reports in the CISMA as well as alerted members about a new invasive species, *Phyllanthus fluitans,* identified south of the CISMA on the Peace River.

Lastly, after Laurel wilt disease, an invasive pest/pathogen complex that attached trees in the Laurel family, was detected in Highlands and Polk counties, TNC's CISMA lead provided specific outreach to the CISMA including information regarding the types of trees that could be affected, what to look for, who to tell, prevention, and how to get the word out.

Additional Accomplishments

TNC, on behalf of the Heartland CISMA, contributed a talk at the Florida Exotic Pest Plant Council Symposium entitled, "Aerial surveys of invasives on the Lake Wales Ridge: Limitations, lessons learned, and lots of value."

Aerial surveys of invasive plants were conducted during Phase I using direct flight assistance from Avon Park AFR. The CISMA membership is working on conducting these surveys again during Phase III. During Phase II, TNC worked with staff at Avon Park AFR to submit a proposal to Patrick Air Force Base to request assistance in conducting aerial surveys of invasive plants, primarily Old World climbing fern. In addition to this request, TNC investigated using the non-profit company, LightHawk, to assist with these same types of aerial surveys.

Heartland CISMA Work Plan

The 2011 work plan (based on the 5-year strategic plan developed in 2010) was developed by an ad hoc committee and adopted by the entire CISMA in April 2011.

The Heartland CISMA 2011 Work Plan was submitted to DoD Legacy Program in March 2011

Heartland CISMA Website Address: http://www.floridainvasives.org/Heartland/

Heartland CISMA Control Project Summary and Monitoring Results

Following discussions with staff at Avon Park AFR, TNC and the Heartland CISMA helped to protect high-quality natural areas on the base from invasive plant infestation with two different control projects.

Phase II Control Projects

The Lake Wales Ridge Ecosystems Services Team worked five days to treat invasive cogongrass, which is on the Heartland CISMA's priority list for control species and was identified at Avon Park AFR as a priority on this base. A total of 820 acres of Avon Park AFR lands were surveyed and the crew treated approximately 19 acres of cogongrass.

Avon Park AFR also identified a private property that buffers the range that they suspected was reinfesting the range with Old World climbing fern across the fence-line. TNC previously worked with the landowner to treat Old World climbing fern on this property in 2006. Old World climbing fern is also on the Heartland CISMA's priority list for control species. The landowner was contacted and found re-growth on an initial survey in December 2010. In April 2011, TNC contractors treated a total of 6 acres of Old World climbing fern. Of note, the funds used to treat this property were not through this DoD Legacy award, but rather through a private lands program managed through TNC's Central Florida Lygodium Strategy conducted treatment of two infestations in April 2011.

Phase II Photo Monitoring

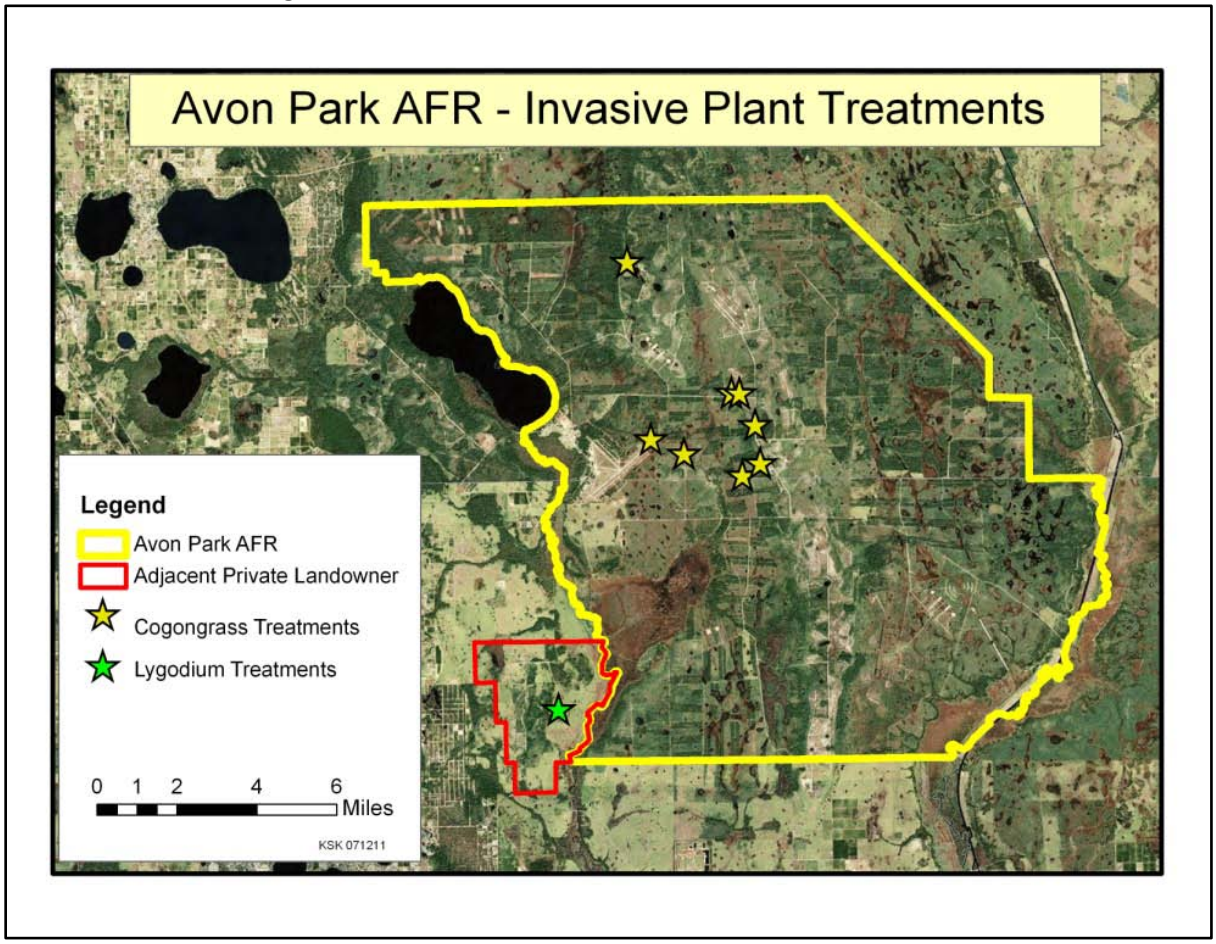

Figure 5 - Heartland CISMA/Avon Park AFR Project Areas

Figure 6 - Heartland CISMA Project - Before Cogongrass treatment

Figure 7 - Heartland CISMA - Before Cogongrass treatment

Figure 8 - Heartland CISMA - After Cogongrass treatment

Figure 9 - Heartland CISMA - After Old World climbing fern treatment

Keys Invasive Exotics Task Force/NAS Key West

Edward Barham, NAS Key West, "Naval Air Station Key West fully supports our partnership with the Nature Conservancy in the Cooperative Invasive Species Management Areas working group. NAS Key West has benefited from the expertise the CISMA provides through effective treatment and removal of invasive exotic vegetation found on and adjacent to Navy property. NAS Key West looks forward to continuing to work with TNC cooperatively on the control and removal of invasive exotic vegetation at NAS Key West."

Strengthening the CISMA

Summary

The Florida Keys Invasive Exotic Task Force was established in early 1996 and supports efforts on and adjacent to NAS Key West in the Florida Keys. The Florida counties involved in the CISMA include Miami-Dade Keys and Monroe County, Florida. During Phase I of the CISMA project, a steering committee and subcommittees were designated, and a five-year strategic plan and 2010 work plan was put in place. During FY10 in Phase II, the CISMA created its 2011 annual work plan and met bimonthly, implementing many of its stated work plan activities.

The Florida Keys Invasive Exotics Task Force (FKIETF) is composed of biologists, planners and natural resource managers from local, state and federal agencies, non-profits and public utilities, as well as concerned citizens. The goals of the Task Force include documentation of existing populations, prioritization and control of infestations, public education, tracking of relevant legislation and promotion of interagency cooperation. Members meet bimonthly to quarterly to plan and update one another on current exotics control projects, education and outreach efforts, and early detection/rapid response strategies.

Results

During FY10 in Phase II many advances were made to strengthen the CISMA and provide additional assistance to DoD and partners including:

<u>CISMA Workdays and Volunteer Events</u>

The Task force held three Early Detection/Rapid Response work days during this year. The purpose of these types of work days is twofold: 1) treat an early invader before it becomes established and widespread in the CISMA and 2) train CISMA membership on how to identify and treat these plants. The focus of the work days this past year has been to revisit and treat all known sites of Guinea grass, air potato and Burma reed.

<u>CISMA Meetings and Trainings</u>

The Keys IETF held 5 membership meetings this year. During the August meeting the group worked on finalizing the point system and wording for both of our store-based prevention efforts: GreenThumb Nurseries and One Animal Family. The October meeting laid the base work for creating an annual plan, and set dates for our November trainings. In November the task force held 2 trainings, an herbicide course and an exotics ID course.

The task force finalized and adopted its 2011 work plan during the first meeting of 2011 as well as created an Animal Issues Co-Team and naming a Secretary. In April, the group focused on the annual Fish and Wildlife Commission Invasive Plant Management ranking and worked to self-score and rank 8

projects for funding through this program. In June, the task force created a co-chair position in order to share the duties of running the Task Force.

Additional Accomplishments

The task force put out s press release for NISAW detailing the upcoming Pet Amnesty Day. The Task Force then assisted Fish and Wildlife Commission during the 4th Pet Amnesty Day in Miami on March 12th by staffing drop off areas in 4 regions of the keys and driving the animals up to the Miami Metrozoo. The group received one white dove and 4 wild boar piglets.

TNC, on behalf of the Florida Keys IETF, contributed a talk at the Florida Exotic Pest Plant Council Symposium entitled, "Early Detection/Rapid Response Best Management Practices."

Keys IETF CISMA Work Plan

The 2011 Annual work plan was completed and approved during the February task force meeting.
The Florida Keys IETF 2011 Work Plan was submitted to the DoD Legacy Program in March 2011
Keys IETF Website Address: http://www.floridainvasives.org/Keys/

Keys IETF Control Project Summary and Monitoring Results

TNC staff monitored and coordinated a partner work day to treat priority invasive species occurrences public and private lands adjacent to NAS Key West.

Phase I Post-treatment Monitoring

Phase I post-treatment monitoring concluded in December 2010 and a final report was delivered to the Legacy Resource Management Program in January 2011.

Phase II Control Project

A CISMA workday was held on June 2nd, involving 3 Task Force partners and 6 volunteers. Over 4 yards of night blooming cereus, an invasive cactus, was taken off of the private properties that abut the NAS-Key West lands along Boca Chica beach. Staff also revisited the past Phase I site, which is doing very well.

Phase II Photo Monitoring

Figure 10 - Boca Chica Beach Project Area (on private lands north of Phase I Treatment area)

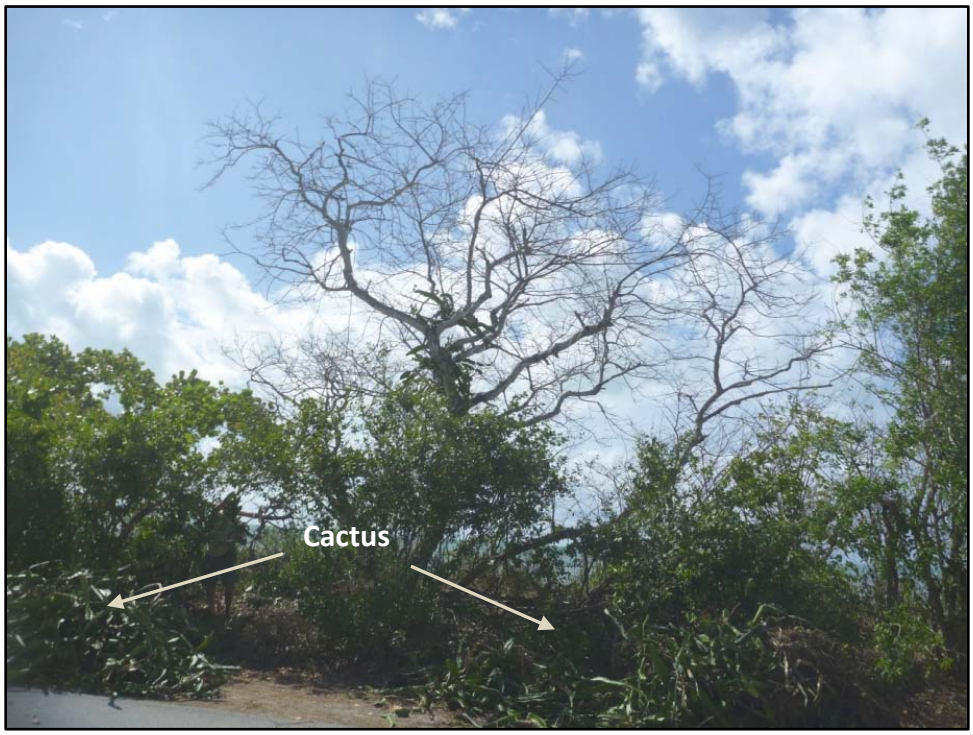

Figure 11 - Keys CISMA - After Cactus treatment

Figure 12 - Keys CISMA - After Cactus treatment removal

Figure 13 - Keys CISMA - Post-treatment native plantings

First Coast Invasive Working Group/Camp Blanding ANG

Strengthening the CISMA

Summary

The First Coast Invasive Working Group (FCIWG) was established in 2006 and supports efforts on and adjacent to Camp Blanding Army National Guard in Northeast Florida. The Florida counties involved in the CISMA include Baker, Clay, Duval, Nassau, and St. Johns counties.

During FY09 in Phase I of the CISMA project, a steering committee and subcommittees were designated, and a five-year strategic plan was put in place. The First Coast IWG chair position was transferred to two partners during Phase II. The First Coast IWG is now co-chaired by the National Park Service and UF Sea Grant. The TNC CISMA lead was an active participant helping get their work plan completed and also helped with developing a prioritized plant list, but the group was solid without TNC in the lead.

First Coast IWG partners include:

- Federal: Army Corps of Engineers, Camp Blanding Wildlife Management Area (DoD), Guana Tolomato Matanzas Estuarine National Research Reserve, National Park Service, Timucuan Ecological & Historic Preserve and Ft. Caroline, Natural Resource Conservation Service, Baldwin Service Center, United States Fish and Wildlife Service, United States Forest Service, Osceola National Forest
- State: Florida Fish & Wildlife Conservation Commission, Florida Department of Transportation, District 2, Florida Division of Forestry, Jacksonville and Bunnell Districts, Florida Division of Plant Industry, Cooperative Agricultural Pest Survey Program, Florida Department of Environmental Protection: Division of Recreation and Parks such as Ft. Clinch, Talbot, Pumpkin Hill, Ft. Mose, and Guana State Parks, Office of Coastal and Aquatic Managed Areas
- Regional/Local: St. Johns River Water Management District, County governments of Baker, Clay, Duval, Nassau and St. Johns County and the municipalities of Atlantic Beach and Fernandina Beach, Soil & Water Conservation District, Clay and Duval
- Other (Universities, NGOs and for-profits): Audubon Crosby Sanctuary, Florida Native Plant Society, Ixia and Sea Oats Chapters, Florida Natural Areas Inventory, Florida Sea Grant, Jacksonville Zoo & Botanical Garden, The Nature Conservancy, University of Florida Institute of Food & Agriculture Science and the Extension offices of Baker, Clay, Duval, Nassau and St. Johns, University of North Florida, White Oak Plantation

Results

During FY10 in Phase II many advances were made to strengthen the CISMA and provide additional assistance to DoD and partners including:

CISMA Workdays and Volunteer Events

The FCIWG held one work day during this period at Camp Chowenwa, a Clay County Parks property. This property is approximately 20 miles from Camp Blanding ANG lands. The group targeted bamboo, air potato, *Crotalaria spectabilis*, Japanese honeysuckle, Japanese climbing fern, wild taro, and a few others. This day was considered a smashing success! Coral Ardisia was dealt a staggering blow between manual pulling and herbicide treatments. CISMA members and park staff felt confident that the staff would be able to keep these plants in maintenance condition, if not entirely eradicate it in the future. The work day was also used as an opportunity to teach identification and control methods for the plant, as well as meet and assist partners in the FCIWG.

CISMA Meetings and Trainings

There were three CISMA membership meetings held during this time. Staff from the National Park Service and Florida Sea Grant was named the new co-chairs for this CISMA in summer 2010. During the fall meeting, the "Weed List" was reviewed and it was decided that a small group would attend a follow up meeting to further refine the list. Also at the fall meeting, EDDMapS verifiers were requested for each of the 5 counties in the FCIWG, one per county, for help in maintaining quality control in the database. The January meeting focused on developing a 2011 work plan. The final meeting during this Phase focused on outreach to private landowners about priority invasive plants and to the general public about the CISMA and the overall threat of invasive species.

Additional Accomplishments

The FCIWG held a special meeting held to develop priority early detection/rapid response (EDRR) and control plant species list. As a starting point, the group used the invasive plant manual (aka weed list) created by a TNC intern based on the results of a survey that FCIWG land managers filled out in 2008. The manual contains descriptions of 30 plants and the group was able to refine the list to 12 EDRR plants for the 5-county region and 10 control plants that they want to control the spread/abundance within the FCIWG boundaries.

First Coast IWG Work Plan

TNC staff worked with the FCIWG co-chairs to draft a 2011 work plan based on the strategies outlined in the CISMA's Strategic Plan (created during Phase I). TNC presented this draft at the January 2011 CISMA meeting. Each item in the annual work plan was addressed by the group at large to determine leads and due dates for the various tasks. The work plan was updated after the meeting to reflect the changes and was later approved via email by the FCIWG.

The First Coast IWG 2011 Work Plan was submitted to the DoD Legacy Program in March 2011.

First Coast IWG Website Address: http://www.floridainvasives.org/FirstCoast/

First Coast IWG Control Project Summary and Monitoring Results

During the spring of 2011, TNC's Northeast Florida Resource Management Support Team (RMST) partnered with Camp Blanding Joint Training Center to help treat invasive exotic plant populations on the installation. An initial strategy meeting set priority for two species to be targeted for removal in two project locations: Wild Taro, a Florida Exotic Pest Plant Council category 1 species occurring in the North Fork Black Creek, and Chinaberry tree, a FLEPPC category 2 species located in a disturbed upland site.

Phase II Control Project

The North Fork Black Creek is a designated Florida Department of Environmental Protection Outstanding Florida Water. The creek is host to the endemic Black Creek crayfish, a listed State Species of Special Concern (FWC 2011). Wild Taro has invaded the creek system and was found in variable concentrations from the headwaters at Lake Kinsley through most of the planned treatment area. RMST crew members removed plants by hand taking special care to fully extract the underground reproductive tubers. A combined total of 19 42-gallon garbage bags were collected and removed from approximately one mile of the creek over a three day period.

RMST's second project site was located across a one-acre disturbed upland area containing Chinaberry trees ranging 5m-12m tall. Project goals for the site included treating live stems to prevent further encroachment into adjacent intact habitats. An estimated 80 stems received cut-stump treatments

utilizing chainsaws and a 2% glyphosate solution. All cut material was tractor piled in a centralized location for future burning.

Phase II Photo Monitoring

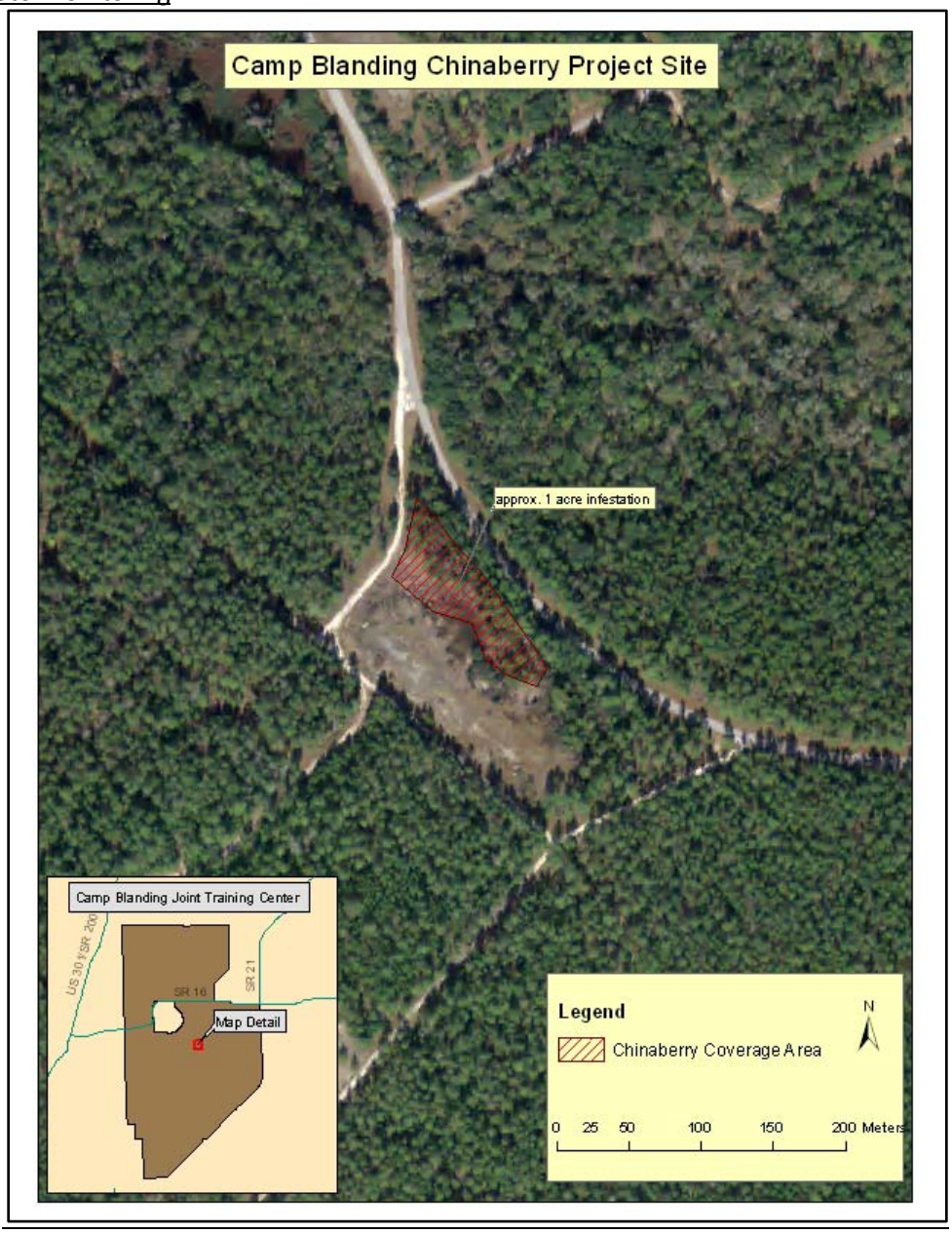

Figure 14 - First Coast Invasive Working Group/Camp Blanding ANG Chinaberry Project Areas

Figure 15 - FCIWG CISMA - Before Chinaberry treatment

Figure 16 - FCIWG CISMA - During Chinaberry treatment

Figure 17 - FCIWG CISMA - After Chinaberry treatment

Figure 18 - FCIWG CISMA - After Chinaberry treatment

Figure 19 - First Coast/Camp Blanding ANG Taro Project Areas

Figure 20 - FCIWG CISMA - Before Taro treatment

Figure 21 - FCIWG CISMA - During Taro treatment

Figure 22 - FCIWG CISMA - After Taro treatment

Figure 23 - FCIWG CISMA - After treatment Taro removal

Apalachicola Regional Stewardship Alliance CISMA

Strengthening the CISMA

Summary

The Apalachicola Regional Stewardship Alliance (ARSA) CISMA was originally established in 2003 as the Apalachicola Invasive Working Group. In 2010, the group was renamed in order to affiliate directly with the larger ARSA. In addition, as a result of Phase II of this DoD Legacy project, the boundaries of the CISMA were expanded from the original scope of the Apalachicola River watershed to nine-counties: Bay, Calhoun, Franklin, Gadsden, Gulf, Jackson, Leon, Liberty, and Wakulla. This expansion allowed the CISMA to support efforts on and adjacent to Tyndall AFB on the Central Gulf Coast of Florida. During Phase II in FY10 a steering committee was designated and the Invasive Management Plan was updated.

ARSA CISMA partners include:

- Federal: USDA Agricultural Research Service, Animal and Plant Health Inspection Service, Forest Service, and Natural Resources Conservation Service; Tyndall Air Force Base, US Bureau of Land Management, US Fish and Wildlife Service, Army Corps of Engineers, National Interagency Prescribed Fire Training Center
- State: Florida Division of Forestry, Florida Department of Environmental Protection, Florida Department of Transportation, Florida Fish and Wildlife Conservation Commission
- Regional/Local: City of Chattahoochee Franklin County Recreation and Parks, Leon County Growth and Environmental Management, Liberty County Road and Bridge, Northwest Florida Water Management District
- Other (Universities, NGOs and for-profits): Florida Natural Areas Inventory, BASF Corporation, Florida State University- Florida Resources Environmental Analysis Center, St. Joe Timberland Company of Delaware, LLC, The Nature Conservancy, University of Florida, IFAS Extension

Results

During FY10 in Phase II many advances were made to strengthen the CISMA and provide additional assistance to DoD and partners including:

CISMA Workdays and Volunteer Events

In September 2010, the ARSA CISMA coordinated a workshop entitled “Invasive Exotic Plants and Their Control.” University of Florida staff presented information on Herbicide Safety, Application Techniques, How Herbicides Work, and Local Plant Info. TNC staff then led a field demonstration applying herbicides to invasive exotic plants. Additional information and pictures can be found at http://www.floridainvasives.org/Apalachicola/Projects.html.

CISMA Meetings and Trainings

Two meetings were held for this CISMA in the past year. During the October 2010 meeting, there were several technical presentation offered to the membership including 2 University of Florida staff presenting information from their most recent research projects concerning *Lygodium japonicum* control. Florida Fish and Wildlife Conservation Commission (FWC) also presented to the group with an update from their funding program. The Nature Conservancy presented to the group about private lands control efforts, new funding opportunities, and public outreach efforts. ARSA CISMA also appointed a new steering committee consisting of representatives from The Nature Conservancy, US Forest Service, University of Florida, FWC, Florida Natural Areas Inventory, DoD, and Natural Resource Conservation Service (NRCS).

During the April ARSA meeting, membership primarily focused on providing recommendations for the 2011 Update to their Invasive Species Management Plan. Based on this meeting the steering committee decided on the following: 1) The updated plan will be called the ARSA CISMA Plan, 2) The invasive plant distribution maps will be expanded from the watershed to our new 9 county CISMA boundary, 3) The plan text and list of CISMA cooperators will be updated to include Tyndall AFB and other recent cooperators, 4) The Management Approach section of the plan will be expanded to include a Strategic Plan Template, 5) CISMA cooperators will utilize this Strategic Plan Template to create Annual Action Plans which will guide future CISMA actions, 6) Individual plant species rankings will be removed from the ARSA CISMA Plan and will be addressed on a more frequent basis through the Annual Action Plans.

ARSA CISMA Management Plan

The update of this plan was a huge effort. The entire membership provided guidance and recommendations and TNC staff completed the final product. One useful feature of this plan is CISMA distribution maps for priority invasive plants. These maps were updated for this plan revision through donation of time by the Florida Natural Areas Inventory. The ARSA CISMA Plan update has been completed and is now viewable from the CISMA website: http://www.floridainvasives.org/Apalachicola/.

Included under separate cover:

- Apalachicola Regional Invasive Species Management Plan, June 2011 Update

ARSA CISMA Website Address: http://www.floridainvasives.org/Apalachicola/

ARSA CISMA Control Project Summary and Monitoring Results

Phase II Control Project

The ARSA CISMA has been implementing invasive plant control projects on private lands in close proximity to publicly managed conservation lands since 2004. These control projects are coordinated by TNC and are usually implemented by contractors, but sometimes are completed by TNC staff or other CISMA cooperators. During this past year, ARSA implemented 6 invasive exotic plant control projects on private lands, three of which were funded by the DoD Legacy project.

The funding provided by DoD Legacy has allowed the ARSA CISMA to expand private lands control efforts from the original scope of the Apalachicola River watershed to the new nine-county CISMA boundary. This means that additional public lands such as Tyndall AFB are now eligible to be protected through these control efforts. TNC also coordinated several invasive plant workshops throughout the region to promote these new control programs, including directly contacting landowners in Bay County near Tyndall AFB. DoD Legacy funding allowed for the implementation of three invasive plant control projects on private lands near public conservation lands. TNC coordinated treatment for all three sites that were treated in September/October of 2010. The acreage figures listed below are estimated "infested acres" of each species.

The first control project was implemented in Liberty County on Apalachicola Bluffs and Ravines Preserve adjacent to Torreya State Park. The primary target species for this project was approximately two acres of Japanese stiltgrass located at the bottom of a steephead ravine. The ravine system on this Preserve contains a variety of Federal and State threatened and endangered species. A secondary target species for this project was cogongrass. These infestations were diminished from previous treatments totaling less than one acre. Treatment was implemented utilizing TNC staff with assistance from Florida Division

of Forestry staff. Monitoring was completed approximately 30 days post-treatment. The project achieved 100% kill on visible foliage.

The second control project was implemented in Leon County on private lands near state lands around Lake Talquin and adjacent to Apalachicola National Forest. Treatment occurred on three separate parcels in this vicinity. The primary target species for this project was cogongrass. The cogongrass infestations were several spots totaling approximately seven acres. A secondary target species for this project was mimosa. All three parcels were treated with the same contractor. Monitoring was completed approximately 30 days post-treatment. The project achieved 99% kill on visible foliage. Excellent levels of control were achieved on all project sites. However, due to the nature of these infestations re-treatment will likely be required on these sites to achieve the desired level of control.

Phase II Photo Monitoring

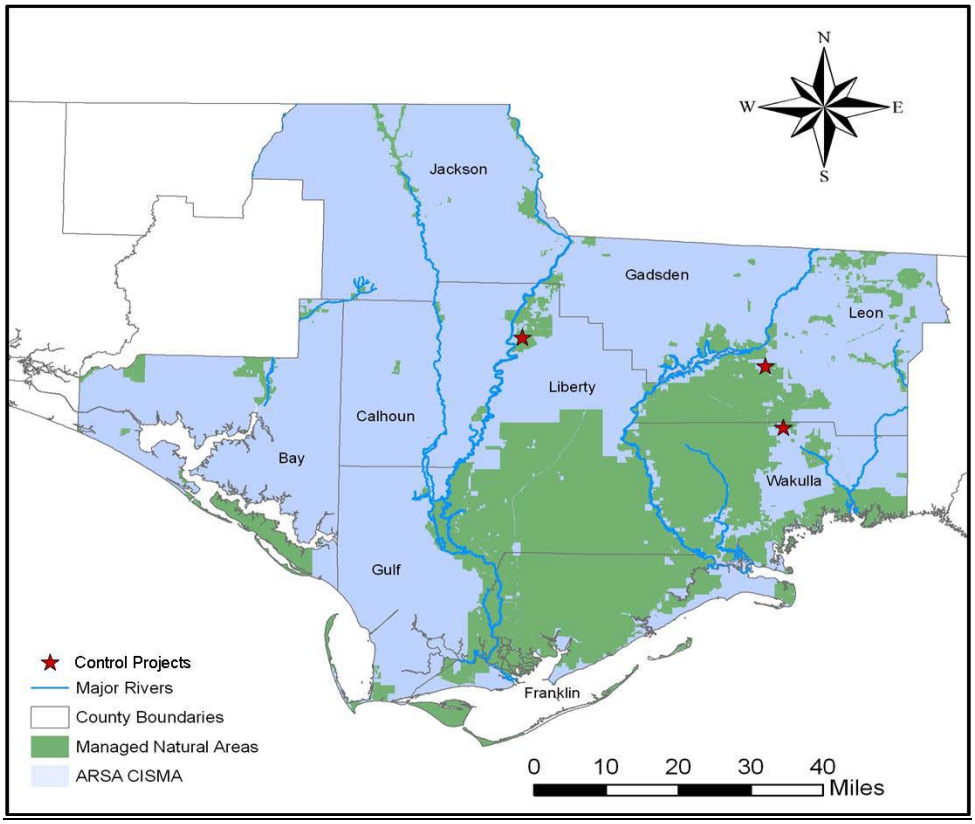

Figure 24 - Apalachicola Regional Stewardship Alliance CISMA /Tyndall AFB Project Areas

Figure 25 - ARSA CISMA - Before Cogongrass treatment

Figure 26 - ARSA CISMA - Before Cogongrass treatment

Figure 27 - ARSA CISMA - After Cogongrass treatment

Figure 28 - ARSA CISMA - After Cogongrass treatment

East Central Florida CISMA/Cape Canaveral AFS and Patrick AFB

Don George, Cape Canaveral AFS/Patrick AFB, "The 45th Space Wing (45SW) of the U. S. Air Force is pleased to have been involved in the creation and development/establishment of the East Central Florida (ECF) Cooperative Invasive Species Management Area (CISMA). The 45SW has been engaged in the daunting task of battling a number of invasive plant species as part of our on-going natural resources management program at all four of our central Florida installations. Invasive plants on Cape Canaveral Air Force Station degrades the quality of habitat for a number of state and federally listed threatened and endangered species, such as the Florida Scrub-jay.

Participation in the ECF CISMA has helped 45SW natural resource managers become more effective at invasive species control on our installations through the shared knowledge, experiences, methodologies and notifications that have been made available through this unique partnership with other environmental professionals, agencies and organizations, such as The Nature Conservancy. In addition, the 45SW has directly benefited from two ECF CISMA workdays, where representatives of numerous partner organizations helped treat/eradicate/remove invasive plants from an off-site conservation easement property recently acquired with funding from the Department of Defense Readiness and Environmental Protection Initiative (REPI) program. This was of significant benefit to the 45SW and our conservation partner, the Brevard County Environmentally Endangered Lands program. The 45SW looks forward to continued participation in the ECF CISMA and enjoying the benefits provided through this excellent networking opportunity."

Creating the CISMA

Summary

The East Central Florida CISMA was officially established in June 2010 and support efforts on and adjacent to Cape Canaveral AFS and Patrick AFB on the Central Atlantic Coast of Florida. The Florida counties involved in the ECF CISMA include: Brevard, Flagler, Putnam, and Volusia.

The idea of creating the East Central Florida CISMA was explored with a large gathering of 58 stakeholders in April 2010 at the Florida Vegetation Management Association's annual meeting in Daytona Beach. The meeting was organized and sponsored by the Volusia Soil and Water Conservation District, with TNC and Cape Canaveral AFS/Patrick AFB and others strongly supporting these efforts. The steering committee was selected at this meeting. In Phase II, the CISMA was created, a steering committee and subcommittees were formed and a five year strategic plan was completed. In addition to these expected products, TNC coordinated a CISMA work day on a REPI (Readiness and Environmental Protection Initiative) property.

Results

<u>CISMA Workdays and Volunteer Events</u>

The follow projects were not part of the original proposal but were as a result of the CISMA project, therefore are included here as an example of the far reaching affects of the Legacy project efforts. To help celebrate National Invasive Species Awareness Week, the ECF CISMA held a partner workday in March 2011 on a site suggested by Cape Canaveral AFS/Patrick AFB. This Coastal Jewel/REPI (Readiness and Environmental Protection Initiative) land conservation site was an excellent partner workday choice because it was currently unclear which agency, DoD or Brevard County, was going to manage invasive plants. More specifically, success for Cape Canaveral AFS/Patrick AFB with moving forward with future

REPI projects depends on the ability to demonstrate to the Brevard County Commissioners that management costs will not be solely the responsibility of the county. Cape Canaveral AFS/Patrick AFB thinks a cooperative effort with the CISMA would go a long way in convincing the county commissioners. Brevard County owns the 184 acre Coastal Jewel site with the USAF through REPI having a 101 acre conservation easement. A cooperative CISMA workday approach brings partners together to demonstrate commitment to land management, provides staff an outlet to discuss technical details, and aids in developing professional relationships across agencies.

Twelve partners from DoD, US Fish and Wildlife Service(USFWS), TNC, Student Conservation Association (SCA), Fish and Wildlife Commission, Brevard County, and a private contractor worked on the site. Removal included 250 saplings and small trees, and a 30 ft tall tree in seed, of the invasive Chinese tallow, and 50 Brazilian pepper saplings, from under the power lines. Four acres in total were walked along the power lines, with ¼ acre of actual plants removed.

A second workday on this Coastal Jewel/REPI land occurred to finish the work started on the earlier workday and continue removing Chinese tallow from the site. Nine participants from DoD, TNC, USFWS, SCA, Brevard County, and a private contractor were involved. Approximately 300 Chinese tallow saplings and small trees, 12 Brazilian peppers, and 300 sq ft of cogongrass were treated. The group discussed having partner workdays quarterly, and beginning again in the early fall. A Brevard County partner and Cape Canaveral AFS/Patrick AFB suggested another county site because getting work completed there has been difficult, and the cooperative workday would again help with gaining support from the county commissioners with expanding the REPI land purchasing efforts.

Figure 29 - ECF CISMA - Partner workday Tallow treatment

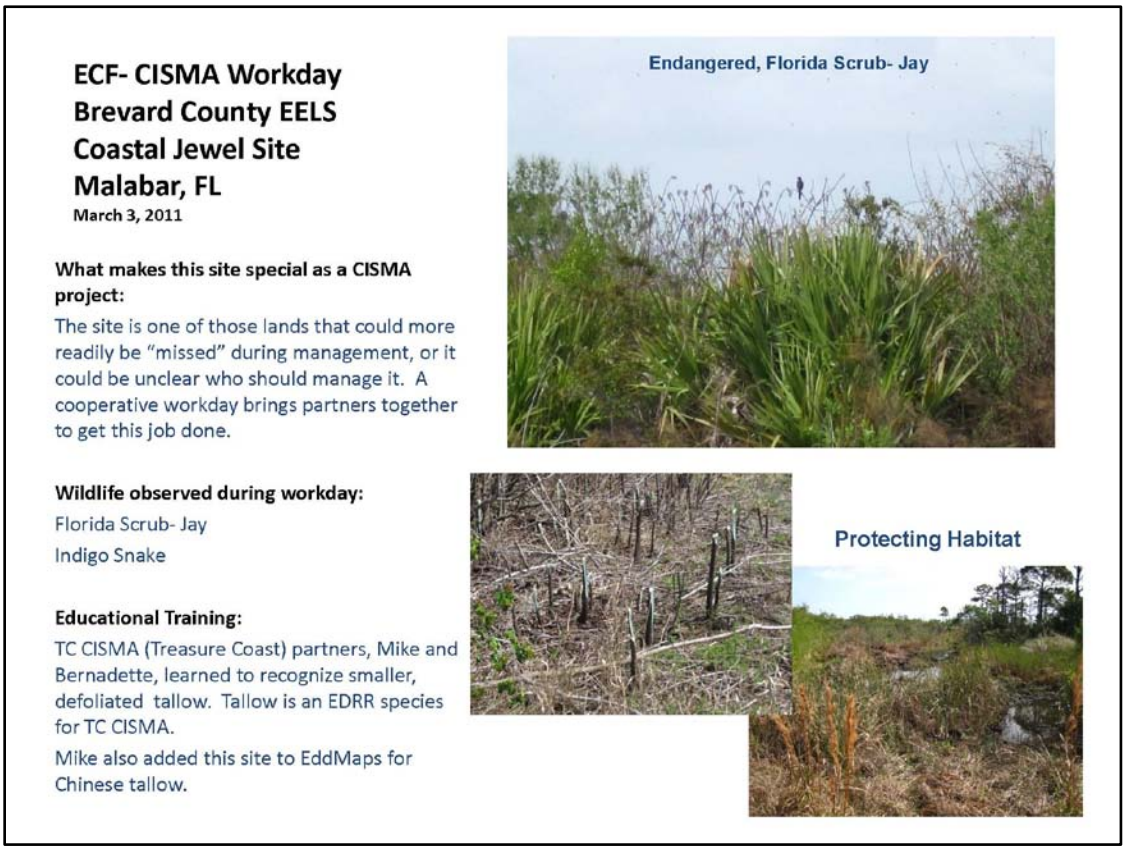

Figure 30 - ECF CISMA - Partner workday Tallow treatment

CISMA Meetings and Trainings

The first official meeting of this CISMA was held in June 2010. TNC and DoD staff was present at this meeting and had served as both lead on developing their strategic plan and as overall advisors to this CISMA. The TNC staff member who is participating in the East Central Florida CISMA also co-chairs the Treasure Coast CISMA, which is directly adjacent to the south of this new CISMA. Because of this connection and the synergy creating by initially tying this CISMA to the other CISMAs from Phase I and throughout the state, the East Central Florida CISMA was able to accomplish a lot in their first meeting:

- Determined boundaries: Putnam, Flagler, Volusia and Brevard.
- Voted on a Chair person(s): Edward Northey (Volusia County Mosquito Control) and Kelli Gladding (Fish and Wildlife Commission Invasive Plant Management Section) are now the Co-Chair persons.
- CISMA name: A few names were suggested but it was decided to keep it simple for now with East Central Florida CISMA.
- Meeting dates: It was agreed that during this beginning process, trying to have a meeting every 2 months would help keep moving things forward versus a quarterly meeting.
- Other decisions:
  - The CISMA will address all invasive species, both fauna and flora.
  - The CISMA co-chairs will interact with FISP- Florida Invasive Species Partnerships- Acts as the umbrella which CISMAs operate under: http://www.floridainvasives.org/
  - The CISMA will begin work on their 5 year management plan and set goals.

The East Central Florida CISMA held three more meetings during this period. The two fall meetings in 2010 were organizational, and formed the Strategic Plan committee. Agency updates were given during

the second fall and spring meetings and work days were planned. Additional discussion have centered on creating a top ten priority invasive plant list.

Additional Accomplishments

In addition to the Strategic plan, the East Central Florida CISMA members launched directly into drafting an annual work plan for 2011. The CISMA also established a website subcommittee to begin posting documents, logos and procedures for the use of the CISMA website. The East Central Florida CISMA members have drafted a priority early detection rapid response species list and a survey has been sent out to CISMA participants for their selections.

East Central Florida Strategic Plan

The third East Central Florida CISMA meeting was in August 2010, and is where the strategic plan template, created during Phase I of this project, was presented. A strategic plan subcommittee was formed with six members, including Don George from Cape Canaveral AFS/Patrick AFB. This committee communicated several times and began a draft East Central Florida CISMA plan based upon the template.

During the November 2010 ECF CISMA meeting, the CISMA strategic plan draft was presented to all participants to get feedback and suggestions. Suggestions were incorporated and the East Central Florida CISMA 5-Year Strategic Plan was completed in April 2011 (in Appendix F).

Included in Appendix F:

- East Central Florida CISMA Five Year Strategic Plan

ECF CISMA Website Address: http://www.floridainvasives.org/EastCentral/

Appendix A - Minutes from September 2010 TNC/DoD meeting

DoD Phase II – Meeting Notes
September 29-30, 2010

Wednesday, September 29 (10am – 5pm)

In Attendance: TNC: Justin Jones (Six Rivers), Mike Renda (East Central Florida), Cheryl Millet (Heartland), Josh Spies (Apalachicola), Alison Higgins (Keys), Aaron, Levine (First Coast), Rosalind Rowe (Heartland/East Central Florida), Kristina Serbesoff-King (Statewide)
DoD: Paul Catlett (Camp Blanding), Don George (Cape Canaveral/Patrick), Lt. Colonel Buck MacLaughlin and Clarence Morgan (Avon Park)

UPDATES FROM TNC LEADS – Each TNC lead for the 6 CISMAs and the statewide lead involved in the DoD Legacy project gave a recap of Phase I/last year activities as well as some cool new efforts occurring. Only some of the highlights are recorded here.

Keys – Have developed early detection/rapid response (EDRR) list for plants and animals. September 2010 launched an "Early Detection Scavenger Hunt" encouraging locating and reporting of high priority invasive species. Also, extending the Green Thumb certified nursery idea (nurseries committing to not selling invasive plants. Go to http://www.keysgreenthumb.net/) to pet stores. Will be developing codes of conduct for pet stores and working with them to voluntarily decrease sale of invasive non-native animals.

Heartland – Reviewed flights that helped located infestations of old world climbing fern during Phase I. Already working on how to conduct flights again in 2012. Ridge Rangers, a volunteer group, has just started mapping invasives in the Lake Wales Ridge area of the Heartland CISMA. Idea – based on their experience developing a priority EDRR list and a priority control list, they suggest updating these lists every 2 years rather than annually as suggested in the strategic plan.

East Central Florida – This is a very new CISMA with lots of energy. Group was formed in April 2010. A great tool/idea that has been used in this group is the use of the UF-IFAS Extension Polycom system for running meetings. Many of the county extension offices have Polycom system that allows people in multiple locations to conduct a meeting using video, voice and internet interaction.

First Coast – The group lost its chair this summer. Was able to re-group and now has co-chairs. This change was a test of how the sustainability of the CISMA. They are now moving forward with creating an annual workplan based on the strategic plan that was created last year. Earlier this year, an intern created an Invasive Plan Manual that has ID and control info for their priority species. This will be reviewed, completed and on website soon.

Apalachicola – Have been holding series of Plant ID and Control workshops. In September, they held an ID/control workshop in conjunction with the Forest Stewardship program. This workshop was well attended and all felt like it was a highly successful outreach effort. Still working to figure out who in their landscape could help verify new occurrence records that are submitted to EDDMapS.

Eglin – The next control project associated with DoD legacy funds may happen on the land immediately adjacent to Eglin AFB that is owned by the state college. This CISMA decided to create subcommittees based on each goal in the strategic plan as well as to add a funding subcommittee. The idea is that the chair of each subcommittee will also serve on the full steering committee.

Statewide – Final report was completed and submitted to DoD. The final version of the strategic plan template will be posted on FISP website. Overall, it was a great year for CISMAs and collaborate

and communication between the CISMAs across the state. This was achieved through monthly CISMA WebExs and through the statewide CISMA panel discussion held during the Florida Exotic Pest Plant Council – 12 CISMAs were represented at the meeting!

DoD PANEL DISCUSSION – TNC staff engaged with staff from 3 different DoD installations to discuss DoD's primary mission and how it relates conservation. Some highlights are captured below under each of the topics we discussed. This was a great conversation! We all walked away knowing more about each other's missions.

Where is the overlap between DoD mission and conservation?

- Primary mission is supporting the military. DoD installations have large acreage properties. These properties, like all other federal properties, are subject to Section 7 of the Endangered Species Act. The conservation overlap is that the installations must protect and manage for threatened and endangered species on their lands. In addition, pursuant to the Sikes Act, DoD installations are required to develop installation natural resource management plans (INRMP).
- Management of T & E Species as well as staying in compliance with the INRMP is necessary in order for the military to conduct mission training on the installation.
- Conservation lands adjacent to installations are also important because they serve to buffer the base and reduce rooftops adjacent to the base. "Trees don't complain about noise" – this is the idea behind the REPI program.
- Invasive species are a threat to natural resource management on military installations. Much of their management is tied to removing/controlling invasive plants in areas where they are protecting T&E species or areas that are prioritized under their INRMP.

What do our DoD partners need from a CISMA? What are some efforts they would like to see that would help them with their conservation objectives and their mission?

- Outreach – making sure that the surrounding community knows that DoD installation is part of the invasive species partnership.
- Work days – these serve to remove invasives and help buffer the base. However, they also serve to train DoD staff on plant ID and control and they raise awareness of invasive species in the community. Equally important, workdays build camaraderie between partners. Can also tie workdays to REPI properties – further helps buffer base and help with their primary mission.
- Education – raising awareness about invasives in the community. Educate base population and commanders about priority invasive species. Avenues for outreach to the bases include Civil Engineering/Facility Engineering and public affairs. IDEA – training DoD staff on decontamination standards for invasive plants.
- Early alerts – being tied into the partnership helps DoD natural resource staff get advanced warning of invasive species that are moving towards their installation – allows for advanced planning and rapid response.

How can we use DoD strengths to help move forward CISMA issues (e.g. Cape Canaveral has leverage with FPL. Avon Park helping with flights)?

- Aerial surveys – there is a possibility of using base resources – helicopters, planes – to assist with aerial mapping of invasive plants. There are some constraints – e.g. taking 1 year of upfront planning to get a helicopter from Patrick.

- Boots on the Ground – getting DoD staff to assist with workdays.
- Outreach – base public affairs office can help with outreach to the community and within the base population.
- Advocacy - DoD has a strong voice in the state through the Florida Base Commanders Conference and the Florida Defense Alliance. Bringing this concept to the Base Commanders Conference could result in getting a unified DoD voice in Florida to encourage the Governor to increase authorization, recognition and, in the future, funding to Florida CISMAs.

Thursday, September 30 (8:30am – 2 pm)

In Attendance: TNC: Justin Jones (Six Rivers), Mike Renda (East Central Florida), Cheryl Millet (Heartland), Josh Spies (Apalachicola), Alison Higgins (Keys), Rosalind Rowe (Heartland/East Central Florida), Kristina Serbesoff-King (Statewide)
DoD: Clarence Morgan (Avon Park)

REVIEW OF PHASE 2 – deliverables, deadlines, budget. Kris Serbesoff-King sent revised documents to TNC staff based on discussion during this meeting. Main discussion was timelines of getting project done and new ideas for outreach efforts/projects associated with this project. Idea generated was to work with CISMAs and DoD to create top 10 priority plant list – including both early detection species and high priority species and then purchase customized decks for use in plant ID and control training from UF Center for Aquatic and Invasive Plants.

DISCUSSION TOPIC – The group had a good conversation on what it means to prioritize species for early detection or control. It was helpful to focus on what prioritization would mean within the context of a CISMA.
"Prioritizing seems to go against the grain of our common land management strategy. Commonly, we tend to focus on widely distributed control species that are impacting valuable habitat, but that we won't be able to get under maintenance control (i.e. level of infestation that is having low to no impact on valued species/habitats) for a long time. In terms of a CISMA, we need to focus on high priority control species that we could get under maintenance control easier when we work together collectively (e.g. prioritize on our own properties, prioritize for CISMA work days, get private lands to prioritize for treatment)."

Examples of high priority control species efforts:

- Apalachicola – Cogon grass. This species will never be eradicated from the AIWG area, but with coordinated control and focus on private lands, it can be kept at a low level of infestation.
- Treasure Coast – Tallow tree. This is more of an early detection species for this CISMA. However, since it is abundant in areas outside of the CISMA boundaries, it will continually come in. By prioritizing this species now and getting CISMA workdays on both public and private lands, they are keeping the infestation low and they are educating landowners and land managers on what the tree looks like, how to kill it, and to kill it as soon as they see it.
- Keys – Air potato. Same story as tallow in Treasure Coast. It will keep coming into Keys boundaries, but with coordinated control, it should never become a huge problem.

PRODUCT TO BE CREATED - Revise Phase Strategic plan template based on experience of Phase I. The group decided that it the plan was good in its current form, but that some additional text needs to be added at the beginning that would guide the user through steps of using the template –

basically, create a cookbook version. The steps would recommend that the strategic plan be initially drafted by goal (per the template), but that once that draft is finalized, reformat the plan by timeline (year). An example of this is the Heartland CISMA strategic plan – it is laid out by year and annotates each strategy by the associated goal. This allowed them to see what they were committing to each year as well as combine strategies from different goals that were scheduled to be completed in the same year.

PRODUCT TO BE CREATED - Create template for an annual work plan. Justin came up with a great idea of using an Excel spreadsheet to create the work plan template. Kris Serbesoff-King will create the first draft of this spreadsheet in early October 2010. A first page would be provided to give steps to guide through using the work plan.

- Work plan should be taken from the strategic plan. This will make a CISMA revisit their strategic plan annually and will reinforce membership buy-in of the plan.
- Every year when drafting the work plan, the CISMA should ask itself "what is feasible" given who is participating and what resources/funding is available.
- Work plan should cover recurring activities. For example, the CISMA meetings should be in the work plan, ideally the exact date and location, but at minimum the month/quarter the meeting will be held and general location.
- Work plan should take the broad goal/strategy that is noted for the year in the strategic plan and make it specific – e.g. Assign to committee, outline steps to accomplish/get action done, give it a date/timeline/deadline.
    - Example – Goal 4 Control, Plants, Manage priority control plants. Strategy reads: Starting in 2011, coordinate a cooperative workday focusing on priority control species.
    - In the annual work plan – the strategy above becomes specific. The group will pick a date for a workday, they will pick a location, assign a lead, identify the focus species or multiple focus species and they will identify outreach needed.
        - March 5, 2011. Hold a CISMA cooperative workday on Brevard county property XX (adjacent to Patrick AFB) to control Brazilian pepper. Lead – Volunteer workday subcommittee Chair.
        - September 13, 2011. Hold a CISMA cooperative workday on Arbuckle State Forest property to re-treat tropical soda apple infestation (previously treated during 2010 workday). Lead – Clarence Morgan.
        - First quarter (January thru March, 2011). Hold a CISMA workday in Walton County to survey, identify and treat infestation of all FLEPPC category 1 species on private land or non-conservation public land adjacent to Eglin AFB. Lead – Justin Jones.
- The last action of the year on every work plan should be to create the next year's work plan. This may involve moving forward activities that did not get done during the previous year.

PRODUCT TO BE CREATED – Create template for annual report. Consider this as outreach to upper management. Should be short and highlight successes. Alternative idea would be to create an executive summary of the longer annual report. The full report could be available on the CISMA website, while the executive summary should be sent directly to upper management of all agencies/organization that have members participating in the CISMA. It will encourage them to continue supporting staff engagement in CISMA activities.

Appendix B – National Invasive Species Awareness Week attachments

DoD Legacy CISMAs

Florida CISMA events during National Invasive Species Awareness Week (NISAW)

NISAW runs from February 28-March 4, 2011

(note for Florida CISMAs, we added the weekend before and after for scheduling events)

CISMA – Cooperative Invasive Species Management Area ISWG – Invasive Species Working Group IETF – Invasive Exotic Task Force

CISMA NAME	SATURDAY/SUNDAY FEB. 26/27	MONDAY FEB. 28	TUESDAY MARCH 1	THURSDAY MARCH 3	SATURDAY/SUNDAY MARCH 5/6
First Coast ISWG	**Invasive-Wise Community Workshop** S. Ponte Vedra and Vilano North Shores Community Center			**FCIWG Volunteer Restoration Day** Camp Chowenwaw Coral Ardisia Removal Green Cove Springs	**5th annual First Coast Air Potato Round-up** Volunteers are needed. Sites throughout NE FL.
Heartland CISMA	**ED (Early Detection) Scavenger Hunt.** This is a contest to get reports into EDDMapS, the online invasive reporting site, for some of the newest "big bad" invasives.	**ED (Early Detection) Scavenger Hunt** last day!			
Keys IETF	**Press Release** on Priority EDRR species.		**Press Release** on REDDy Training	**Press Release** on One Animal Family and upcoming Pet Amnesty Days at Miami Metrozoo.	
East Central Florida CISMA			**Invasive Plant Workday Volusia County** at Smyrna Dunes Park and Lighthouse Point Park.	**Invasive Plant Workday Brevard County** on REPI lands with DoD and Brevard County	
Six Rivers CISMA Jjones@tnc.org				**CISMA workday:** City of Niceville invasives species work day	
Florida Invasive Species Partnership			**NISAW State and Regional Day – Washington, D.C.** – FISP will be represented on panel discussion, "Session #4 Strengthening Grassroots Partnerships CISMA/PRISM/CWMA"		

Agenda and Panel 4 Program from NISAW State Regional Invasive Species Workshop

National Invasive Species Awareness Week

State and Regional Invasive Species Workshop

Tuesday, March 1, 2011[1]

Agenda

GOALS AND OBJECTIVES

- Provide opportunity for state and federal officials, industry, NGOs and academics to discuss how to overcome barriers to cooperation in preventing and controlling invasive species.
- Explore ways to enhance state and regional coordination through communication, partnerships, sharing expertise and resources and setting state and regional priorities.
- Share success stories and best practices about invasive species projects and programs so that those models can be replicated across broader areas.

7:30-8:00	Registration
PLENARY	8:00 am – 12:00 pm
8:00-9:00	Introductions and Overview of State Activities
9:00-10:30	**Federal Update on Aquatic Invasive Species Issues** - Margaret M. (Peg) Brady (NOAA): Moderator - Cdr. Gary Croot (US Coast Guard): Ballast Water - Robin Danesi (EPA): Vessel General Permit - Susan Mangin (Fish and Wildlife Service): Aquatic Nuisance Species Task Force - James Morris (NOAA): Lionfish
10:30-10:45	BREAK
11:00-12:00	**Federal Update on Terrestrial Invasive Species Issues** - Bryan Arroyo, Assistant Director for Fisheries and Habitat Conservation (USFWS) - David Kaplan, Assistant Deputy Administrator for Plant Protection and Quarantine, Emergency and Domestic Programs (USDA)
12:00 – 1:00 pm	**LUNCH** ***Keynote Speaker*** John Goss, Asian Carp Director, Council on Environmental Quality

[1] * A working lunch buffet and one coffee break will be provided for registered participants.
For more information contact, Stas Burgiel, National Invasive Species Council (stas_burgiel@ios.doi.gov)

SESSION I
1:15 – 2:45 pm

Panel #1:	Elements of Effective State and Regional Coordination
Panel #2:	Regional and State Early Detection Networks
Panel #3:	Aquatic Nuisance Species: Federal and State Roles, Responsibilities and Gaps

BREAK 2:45 – 3:00 pm

SESSION II
3:00 – 4:30 pm

Panel #4:	Strengthening Grassroots Partnerships - CISMA/PRISM/CWMA - What are our next steps?
Panel #5:	Federal Invasive Species Grant Program and Partnership Forecasts for State and Regional Invasive Species Projects
Panel #6:	Hazard Analysis and Critical Control Point (HACCP) Planning: Invasive Species Applications
Panel #7:	Intergovernmental Strategy for Controlling Asian Carp

PLENARY
4:30 – 5:30 pm

4:30 – 5:00:	Reports on Panel Discussions
5:00 – 5:30:	Discussion Topic: Would a Communications Network among State Councils and Other Coordinating Bodies Be Useful?

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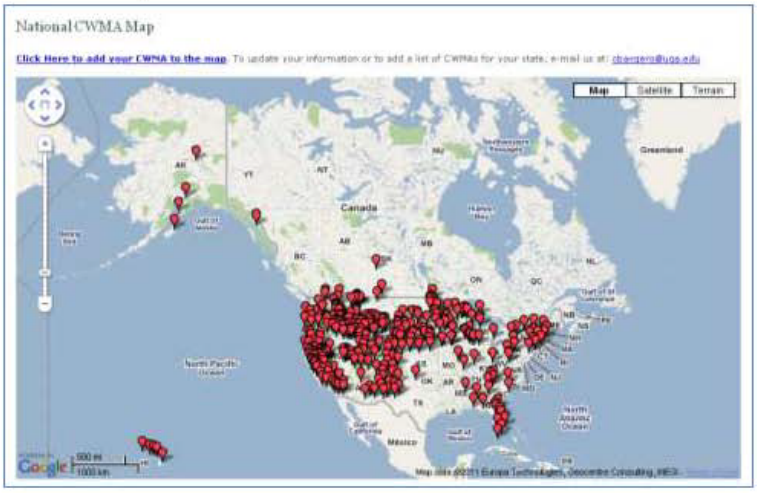
Panel Session Descriptions

Panel #4: Strengthening Grassroots Partnerships - CISMA/PRISM/CWMA - What are our next steps?



Currently, there are 323 "Cooperative Weed Management Areas (CWMAs)" in the United States (http://www.invasiveplantcenters.org/cwmamap.cfm). CWMAs may have different names in different parts of the country - for example, Partnerships for Regional Invasive Species Management (PRISMs) in New York or Cooperative Invasive Species Management Areas (CISMAs) in Florida; however they all serve the same purpose: to bring together an alliance of stakeholders, private and public, to address invasive species management in geographic regions. By partnering, these organizations are able to

expand efforts across the landscape, rather than stopping at political or property boundaries, to address prevention, education/awareness, early detection and rapid response, monitoring and control of invasive non-native species.

During this session, representatives from CWMAs from Florida, New York, Nevada and the Midwest will come together to discuss some of the successes and challenges they are facing in their regions. This session will be opened via the Webinar to leaders of CWMAs throughout the United States. Our intent is to enhance the network and capabilities of these grassroots partnership efforts by discussing our successes and challenges. Our goals during this session are:

(1) Identify strengths and weaknesses of each organizational model, from the ground up (i.e. from the organization of the CWMA itself, up to statewide or regional efforts to tie the CWMAs together)
(2) Identify ideas and actions to retool current efforts to be more effective
(3) Link and support each other's efforts, across the Nation

Organizers: Kathy O'Reilly-Doyle (US Fish and Wildlife Service); Kris Serbesoff-King (The Nature Conservancy)

PowerPoint Slide presented during NISAW State Regional Invasive Species Workshop

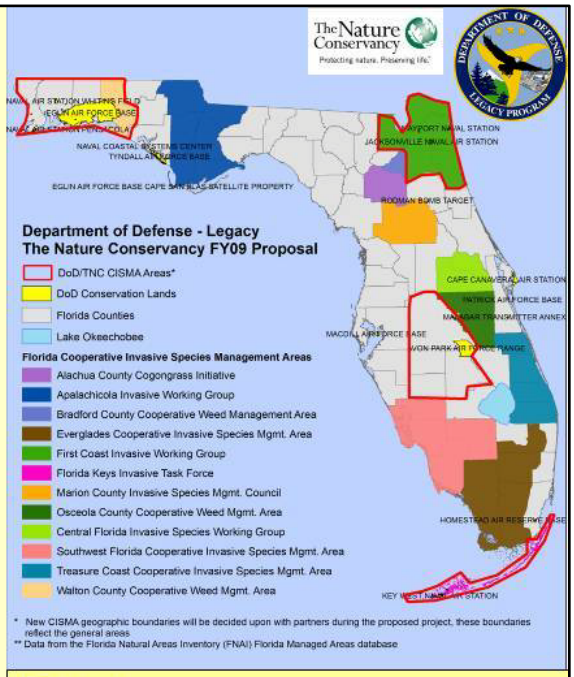
Using CISMAs to Effectively Reduce Re-infestation on Military Bases & Surrounding Lands in Florida

This project is expanding on successful partnerships between The Nature Conservancy and the Department of Defense Bases in Florida:

- Northwest Florida-Eglin Air Force Base
- Northeast Florida-Camp Blanding Joint Training Center, Army National Guard
- Central Florida-Avon Park Air Force Range
- South Florida-Key West Naval Air Station

Through these relationships we:

1)Created two new CISMAs;
2)strengthened two existing CISMAs;
3)worked collaboratively with DoD and other regional partners to create five year comprehensive plans; and
4)completed 2 invasive species control projects



Phase I:
2 New CISMAs supporting Eglin & Avon Park
Comprehensive plan template developed and distributed to CISMAs
Control project buffering Eglin
Phase II Legacy awarded

Appendix C – Poster presented at Florida Exotic Pest Plant Council Symposium

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Manageme

Kristina
Millett,

PARTNERING WITH FLORIDA MILITARY

Since 2009, The Nature Conservancy (TNC), through funding provided by the Department of Defense (DoD) Legacy Resource Management Program, has worked with military bases in Florida to establish and/or strengthen Cooperative Invasive Species Management Areas (CISMAs).

The threat of invasives has been identified on all Florida DoD bases as both ecological and economic threats to habitats and native species. This project addressed the threats on the bases and adjacent public and private lands by working with the CISMAS to implement strategic plans and conduct invasives plant control projects on and adjacent to military lands. Well-established and newly created partnerships were used for successful, far reaching projects to give unified messages, work across boundaries, and pool limited resources. These types of partnerships will assure range sustainment and mission flexibility for DoD in one of the fastest growing regions in the United States. This project also leveraged statewide support for CISMAs through the **Florida**

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Appendix D – Strategic Plan Template (Word and Excel Versions)

Cooperative Invasive Species Management Area
Five Year Strategic Plan Template*
(Year 1 through Year 5)

Revised 2-10-2011

How this template plan was created:

The goal of this project was to create a Strategic Plan template for use by Cooperative Invasive Species Management Areas (CISMA) in Florida. It should be considered a starting point and should be revised by each CISMA to reflect local area priorities, landowners and membership capacity. It should also be noted that this plan has a strong emphasis on terrestrial invasive plants. However, actions were defined that address animals and pest/pathogens as well as aquatic resources.

The following working groups wrote strategic plans that were used to develop this template: Keys Invasive Species Working Group, Gulf Coast Plain Ecosystem Partnership, Treasure Coast CISMA, Apalachicola Invasive Species Working Group, and North Carolina Sandhills Weed Management Area.

How to use your CISMA plan:

Your plan should be considered a working document and should be reviewed and, if necessary, revised annually. Every year create a short document that includes what you accomplished, what you did not accomplish, what should be carried forward, what should be added, what should be dropped, and why.

There are two versions of this template, one in Word the other in Excel. In the Excel version, there is a Guidance Worksheet and a Worksheet titled, "Strategic Plan – Sortable." The Goals and associated strategies and actions have been put into a spreadsheet format to allow for easier sorting. In this format, you can sort by Goal, Year and/or taxa. Please read through the Guidance Worksheet of the Excel version for instructions on how to use the Excel version to complement your strategic planning activities.

It is also highly recommended that CISMAs utilize steering committees, standing sub-committees and ad hoc sub-committees. Steering committees should represent the partners in the CISMA. Standing sub-committees are formed to address a specific issue and usually continue as long as needed (for example - animal EDRR subcommittee, mapping/monitoring subcommittee, other). Ad hoc sub-committees are a great tool to get a defined project completed in a defined time. For example, organize an ad hoc sub-committee to rank plants for prioritized control efforts. This group would complete the project, report back to the steering committee, and then disband. This is an efficient and productive technique to divide up the tasks and get engagement from partners that may not have time for a steering or standing sub-committee. It also provides documents and products to all partners with ownership to CISMA.

How to read and use this document:

1. Tasks written in *italics* are the suggested minimum for CISMAs. Tasks not in italics are provided for you to incorporate into your CISMA's plan if there is the capacity in your membership. They may also give you ideas for other tasks that could be added to your CISMA plan that are not included here.
2. Years and numbers are a suggestion of timelines and frequency for the tasks and should be modified by each CISMA.
3. Please provide feedback on the utility of this document. Also, please post completed CISMA strategic plans on your CISMA's website or at the Florida Invasive Species Partnership website (see contact info below).

*This document was created by staff with The Nature Conservancy, Florida Chapter. This was made possible through funding provided by the Department of Defense Legacy Resource Management Program. For information, contact Kristina Serbesoff-King, kserbesoffking@tnc.org.

Cooperative Invasive Species Management Area

Five Year Strategic Plan
(Year 1 through Year 5)

MISSION STATEMENT
Implement a comprehensive, cooperative approach across boundaries to address the threats of invasive species to the lands and waters within the boundaries of the CISMA.

Approach: The most cost-effective way to address invasive species is to prevent them from reaching the CISMA in the first place. If, despite prevention efforts, invasive species reach the CISMA, early detection programs can help locate and eradicate those invasive species before they become widely established. If invasive species elude early detection and establish and spread in the CISMA or are part of a previous invasion, control and management programs to monitor and minimize their negative impacts to the economy and environment will be necessary, but these efforts can be very costly. The sooner we act the more effective and less costly our efforts will be (adapted from the Indiana Invasive Species Task Force 2008).

Acronyms

ASLA = American Society of Landscape Architects
BMP = best management practices
CISMA = cooperative invasive species management area
CWMA = cooperative weed management area
FDACS = Florida Department of Agricultural and Consumer Services
FDOT = Florida Department of Transportation
EDDMapS = Early Detection and Distribution Mapping System (http://www.eddmaps.org/)
EDRR = early detection and rapid response
FISP = Florida Invasive Species Partnership (http://www.floridainvasives.org/)
FDOF = Florida Department of Forestry
FFWCC = Florida Fish and Wildlife Conservation Commission
FFWCC IPMS = Florida Fish and Wildlife Conservation Commission Invasive Plant Management Section
FLEPPC = Florida Exotic Pest Plant Council
FNAI = Florida Natural Areas Inventory
FNGLA = Florida Nursery, Growers & Landscape Associations (http://www.fngla.org/)
FNPS = Florida Native Plant Society (http://www.fnps.org/)
IFAS = Institute of Food and Agricultural Sciences
MOU = memorandum of understanding
NIWAW = National Invasive Weeds Awareness Week
ROW = right of way
SOP = standard operating procedures
USDA ARS = United States Department of Agriculture, Agricultural Research Service
USGS NAS = United States Geological Services Non-indigenous aquatic species (http://nas.er.usgs.gov/)
VCC = voluntary code of conduct (http://www.centerforplantconservation.org/invasives/codesN.html)
WEEDDAR = Weed Data and Reporting (database program)
WIMS = Weed Information Management System

WRA = weed risk assessment (that is - the predictive tool) (http://plants.ifas.ufl.edu/assessment/)

Goal 1: Create, strengthen and sustain a Cooperative Invasive Species Management Area (CISMA). Form and sustain a strong partnership through CISMA.

1.1. Develop basic organizational structure for CISMA.

1.1.1. In Year 1 use CWMA cookbooks and current CISMA examples to help form and sustain CISMA.

1.1.2. In Year 1 coordinate a meeting with enthusiastic regional partners to form a new CISMA.

1.1.3. In Year 1 establish geographic boundaries, a steering committee and a chair.

1.1.4. In Year 2 and as needed, create standing subcommittees and ad hoc committees to assist with project specific CISMA efforts.

1.2. Sustain and strengthen CISMA

1.2.1. Starting in Year 1, schedule CISMA meetings at least twice per year.

1.2.2. Starting in Year 1, annually recruit new, and maintain current membership in the CISMA.

1.2.3. Starting in Year 2, and every 2 years (or as needed) review steering committee and subcommittees and revise as appropriate.

1.2.4. Starting in Year 2, annually develop workplan with CISMA partners.

1.2.5. Starting in Year 2, create short annual report.

1.2.6. During Year 5 update strategic plan.

1.2.7. By Year 3 seek liaison to CISMA from private industries.

1.2.8. By Year 5 hire a part time staff person to coordinate CISMA activities.

1.3. Submit cooperative funding proposals.

1.3.1. Starting in Year 2, annually encourage public land conservation managers to submit FFWCC IPMS cost reimbursement program applications.

1.3.2. In Year 2 identify lead partner or organization to serve as the recipient and administrator for grants.

1.3.3. Starting in Year 3, annually submit CISMA grants; consider utilizing less common approaches like landowner incentive programs, staff time as in-kind matches, and shared field staff.

1.3.4. By Year 3 develop a list of funding programs with due dates for control, EDRR, education and other projects.

1.4. Generate legal documents to strengthen CISMA.

1.4.1. In Year 2 sign a MOU or other document allowing public agency staff to work on other agency/NGO/private lands (if required to allow agencies to work on partner lands).

1.4.2. In Year 2 create or use existing liability releases (for example - TNC or DOF) for partners to work on private lands.

1.4.3. By Year 5 write or find and modify an existing CISMA partner MOU, or other document, or use future FISP CISMA MOU, to facilitate partner agency participation and support of CISMA goals and objectives.

Goal 2: Prevention - Develop and/or implement techniques and practices to prevent establishment and spread of new invasions near the CISMA boundaries.

Plants

2.1. Develop and/or find and use an existing alert system to identify new terrestrial and aquatic non-native plant invasions near, or at the boundaries of, CISMA lands and waters.

2.1.1. Starting in Year 1, quarterly review EDDMapS database and/or other alert system databases for new terrestrial invasive plants adjacent to CISMA. If new plant species is found, include in EDRR prioritization.

2.1.2. Starting in Year 1, quarterly review EDDMapS and/or USGS NAS for new aquatic invasive plants adjacent to CISMA waters. If new plant species is found adjacent to CISMA, include in EDRR prioritization.

2.2. Reduce potential pathways of introduction for terrestrial and aquatic (marine and freshwater), invasive non-native plant species into the CISMA.

2.2.1. In Year 2 Develop and/or find and use existing guidelines for vehicle, boats, equipment, personal protective equipment and personnel disinfection program/protocol(s) to address the unintentional movement of terrestrial and aquatic invasive plants. Consider using FFWCC IPMS or other decontamination standards.

2.2.2. In Year 2 implement vehicle, boat, equipment and personnel disinfection program/protocol(s) for use by CISMA partners (researchers, fire crews, public works, FDOT, FDOF, and others).

2.2.3. In Year 3 encourage use of decontamination guidelines by all contractors (for example - invasive plant management contractors, wildlife services contractors, etc…).

2.2.4. In Year 4 encourage use of decontamination guidelines by landscapers, lawn companies and other outdoor service contractors.

2.2.5. In Year 3 all CISMA partners will actively push for purchase of only weed-free mulch, pine-straw, hay, sod, etc...(that is - create the demand)

2.2.6. In Year 4 CISMA partners will develop and/or use existing preventative guidelines for conducting ground disturbing activities (for example - timber harvest/transport, prescribed fire, fire suppression, off-road vehicle use, or contracted activities on partner lands).

2.3. Incorporate IFAS WRA into CISMA invasive plant ranking and planning process.

2.3.1. Starting in Year 1, annually review results of WRA for plant species to be watched. If new plant species is listed as invasive, include in EDRR prioritization.

2.3.2. Starting in Year 3, if a new non-native plant is found in the CISMA or surrounding geography, request IFAS run this incipient species through the WRA.

2.3.3. In Year 4 engage local botanical gardens or similar to use the WRA or other predictive tool to assess the invasive threat of new and existing garden collection plants. If new/existing garden collection plant is listed as invasive, stop planting and remove from botanical garden and include in EDRR prioritization (if it has escaped).

2.3.4. By Year 5 explore the feasibility of restricting the highest threat new invasive plant species through state and local ordinances. (Note – as of March 2002, per FDACS CHAPTER 581 (4), local ordinances cannot prohibit plants that are not already listed by FDACS as a noxious weed or invasive plant).

Animals

2.4. Develop and/or find and use existing alert type system to identify new animal invasions near, or at the boundaries of, CISMA lands.

2.4.1. Starting in Year 1, quarterly review EDDMapS database and other sources of new species alerts (for example - USGS NAS database, shell collecting groups, bird boards, etc…) for new invasive animals adjacent to CISMA. If new animal species is found adjacent to CISMA, include in EDRR prioritization.

2.5. Reduce potential pathways of introduction for invasive animal species into the CISMA.

2.5.1. In Year 2 assist and participate in FFWCC or other Pet Amnesty Days.

2.5.2. In Year 4 work with partners to identify pathways and modes of transport for invasive animals to move into the CISMA.

2.5.3. In Year 4 develop and/or find and use decontamination guidelines to restrict movement of invasive animals.

2.5.4. By Year 5 explore avenues of reducing pathways for potentially new highest threat invasive animal species through state/local ordinances (for example - ownership restrictions, caging requirements, gender restrictions, etc…).

Pest and Pathogens

2.6. Reduce potential pathways of introduction for invasive pest/pathogens species into the CISMA.

*2.6.1. In Year 4 implement a vehicle, equipment and personnel disinfection program/protocol to address the unintentional movement of invasive pest/pathogens for use by CISMA partners (researchers, fire crews, public works, FDOT, FDOF, and others). (**Note: This will likely already be addressed in plant objective above**)*

2.6.2. In Year 4 encourage use of decontamination guidelines by all contractors (for example - invasive plant management contractors, wildlife services contractors, etc…).

2.6.3. In Year 5 encourage use of decontamination guidelines by landscapers, lawn companies and other outdoor service contractors.

2.6.4. In Year 3 all CISMA will actively push for purchase of only pest/pathogen-free mulch, pine-straw, hay, sod, firewood, etc…

2.7. Develop or find and use an existing alert type system to identify new invasive pest/pathogen invasions near CISMA lands and waters.

2.7.1. Starting in Year 1, quarterly review EDDMapS database for new invasives adjacent to CISMA. If new pest or pathogen is found adjacent to CISMA, include in EDRR prioritization.

Goal 3: Early Detection and Rapid Response (EDRR) - Develop and implement techniques and practices to promote early detection and rapid response of newly established invasive species within the CISMA boundaries.

Plants

3.1. Use existing alert type systems and partner communications to identify new plant invasions within CISMA lands and waters.

3.1.1. Starting in Year 1, annually have CISMA partners discuss new plant species that they have observed during the regularly scheduled meeting.

3.1.2. Starting in Year 1, quarterly review EDDMapS database and/or other alert system databases for new terrestrial invasive plants within CISMA. If new plant species is found in CISMA, include in EDRR prioritization.

3.1.3. Starting in Year 1, quarterly review EDDMapS and/or USGS NAS for new aquatic invasive plants within CISMA waters. If new plant species is found in CISMA, include in EDRR prioritization.

3.1.4. By Year 4 develop early detection guidelines for partners to insert in contract language for contractors and researchers requiring them to alert land managers when they observe unknown or EDRR plant species.

3.2. Prioritize EDRR plant species on CISMA lands and/or waters.

3.2.1. In Year 2 create a list of possible EDRR terrestrial and/or aquatic plant species from best available information from CISMA partners, adjacent CISMAs, CISMA prevention alert system, FLEPPC, FISP, FNAI, IFAS and EDDMapS.

3.2.2. In Year 2 use a ranking system (USGS, others) to prioritize top [insert #] EDRR plant species.

3.2.3. Starting in Year 3, annually or as needed, reassess EDRR plant list.

3.3. Eradicate high ranking EDRR plant species on CISMA lands and/or waters.

3.3.1. Starting in Year 4, annually conduct cooperative workdays to eradicate high priority EDRR and prevention plant species (newly in or adjacent to CISMA).

3.3.2. In Year 5 hire contractors to eradicate high priority EDRR plant species.

3.3.3. In Year 5 create a Rapid Response Team(s) and if necessary, response protocol, to eradicate high priority EDRR plant species.

Animals

3.4. Use existing alert type systems and partner communications to identify new animal invasions within CISMA lands and waters.

3.4.1. Starting in Year 2, annually have CISMA partners discuss new animal species that they have observed during the regularly scheduled meeting.

3.4.2. Starting in Year 2, quarterly review EDDMapS database and/or other alert system databases for new terrestrial invasive animals within CISMA. If new species is found in CISMA, include in EDRR prioritization.

3.4.3. Starting in Year 2, quarterly review EDDMapS and/or databases for new aquatic invasive animals within CISMA waters. If new species is found in CISMA, include in EDRR prioritization.

3.4.4. By Year 4 develop early detection guidelines for partners to insert in contract language for contractors and researchers requiring them to alert land managers when they observe unknown or EDRR species.

3.5. Prioritize EDRR animal species on CISMA lands and/or waters.

3.5.1. In Year 4 create a list of possible EDRR species from best available information from CISMA partners, , wildlife hospitals, adjacent CISMAs, CISMA prevention alert system, FISP, FNAI, IFAS and EDDMapS.

3.5.2. In Year 5 using a ranking system to prioritize top [insert #] EDRR animal species.

3.5.3. Starting in Year 5, annually or as needed, reassess EDRR animal list.

3.6. Eradicate highest ranking EDRR animal species on CISMA lands and/or waters.

3.6.1. In Year 5 create a Rapid Response Team(s) and if necessary, response protocol, to eradicate high priority EDRR animal species.

Pest/pathogens - See Goal 4: Control; Pest/pathogens

Goal 4: Control (Prioritized Management) - Develop and implement techniques and practices to control known infestations of priority invasive non-native species and maintain them at the lowest feasible level in the CISMA boundaries.

Plants

4.1. Prioritize known CISMA invasive non-native plants (that is - plants that have spread beyond ability to eradicate) using a ranking system that considers the impact of imperiled species and/or habitats and if necessary, other criteria.

4.1.1. In Year 1 develop a list of known invasive plants within CISMA boundaries.

4.1.2. In Year 2 prioritize invasive plant control species using a ranking system (USGS, local expert opinion, other) and best available information from CISMA partners, FLEPPC, FISP, FNAI, IFAS and EDDMapS.

4.1.3. Starting in Year 3, annually assess and update prioritized list of invasive plant control species.

4.2. Implement coordinated CISMA management of the top 2 priority invasive plant control species to reduce infestations to maintenance level.

4.2.1. Starting in Year 3, emphasize top 2 priority invasive plant control species by focusing CISMA partner efforts.

4.2.2. Starting in Year 2, annually increase acres of priority invasive plant control species being treated and acres under maintenance level control on public conservation lands (for example - using FFWCC IPMS and other funds).

4.2.3. Starting in Year 3, annually increase acres of priority invasive plant control species being treated and acres under maintenance level control on private conservation lands (for example - non-profit conservation lands, conservation easement lands, etc.).

4.2.4. Starting in Year 2, biannually coordinate a cooperative workday focusing on priority invasive plant control species.

4.2.5. Starting in Year 4, determine invasive plant free buffer areas within CISMA boundaries and annually increase the size of invasive plant free buffer areas around conservation lands.

4.2.6. Starting in Year 4, annually increase treatment of prioritized, invasive plants on public non-conservation lands (for example - ROWs, spoil mounds, recreational parks).

4.2.7. Starting in Year 5, annually increase net acreage of invasive plant control species treated on prioritized private lands.

4.3. Cease sale, planting or other modes of spread of invasive plant species we are controlling.

4.3.1. By Year 3 submit petitions to FDACS to request listing of high priority EDRR and control invasive plants as noxious weeds.

4.3.2. By Year 4 identify and engage sellers to voluntarily stop selling known invasive plants.

4.3.3. By Year 5 identify and engage appropriate local regulatory and enforcement agencies for local ordinances, comprehensive plans, landscape rules that limit the planting and encourage control of known invasive plants.

Animals

4.4. Prioritize known CISMA invasive animals (that is - animals that have spread beyond ability to eradicate) using a ranking system that considers the impact of imperiled species and/or habitats and if necessary, other criteria.

4.4.1. In Year 3 develop a list of known invasive animals on CISMA lands (for example - feral hogs).

4.4.2. In Year 4 prioritize invasive animal control species using a ranking system and best available information from CISMA partners, FFWCC, FNAI, EDDMapS and others.

4.4.3. Starting in Year 5, annually assess and update prioritized list of invasive animal control species.

4.5. Manage the high priority invasive animal control species in order to reduce damage and/or population size.

4.5.1. Starting in Year 4, emphasize the top 2 priority invasive animal control species by focusing CISMA partner efforts on these at all opportunities.

4.5.2. Starting in Year 4, annually increase the level of effort and number of public conservation lands that are treating and maintaining low densities of priority invasive animal control species.

4.5.3. Starting in Year 4, annually increase the level of effort and number of private conservation lands that are treating and maintaining low densities of priority invasive animal control species.

4.5.4. Starting in Year 5, annually increase treatment of priority invasive animal control species on public non-conservation lands (for example - ROWs, spoil mounds, recreational parks).

4.5.5. Starting in Year 5, annually increase the size of priority invasive animal-free buffer areas around conservation lands, including private lands.

4.6. Cease the sale, importation or other modes of spread of invasive animal species that we are controlling.

4.6.1. Starting in Year 5, annually submit requests to FFWCC to include priority invasive animal control species to restrictive lists (for example - Reptiles of Concern, conditional species, prohibitive species, etc…).

Pest/Pathogens

4.7. Prioritize, communicate and coordinate management activities designed to protect native species (plants and animals) and/or economically important species that are impacted by invasive pest/pathogens.

4.7.1. In Year 5, research and prioritize known and potential invasive pest /pathogen species.

4.7.2. In Year 5, investigate tested and potential control methods for invasive pests and pathogens (for example - biological, chemical and mechanical) and determine if identified control methods are critical and effective actions for land managers to utilize.

4.7.3. In Year 5, research and apply methods other than invasive pest/pathogen control to protect native species (for example - collect seeds).

Goal 5: Monitoring, Mapping and Applied Research - Promote locating and documenting occurrences, and supporting applied research, prevention, EDRR and control to inform CISMA decisions.

5.1. Coordinate monitoring and mapping of invasive plants, animals, pests/pathogens (terrestrial, freshwater and marine.)

5.1.1. Beginning in Year 1, quarterly record invasive species from field observations and mapping projects into CISMA EDDMapS and/or FNAI's invasive databases. Encourage use of EDDMapS for EDRR species and single occurrence entry and FNAI for large census/polygon data.

5.1.2. In Year 1, recruit and assign plant verifier(s) to oversee CISMA plant record entries into EDDMapS.

5.1.3. In Year 3, recruit and assign animal verifiers to oversee CISMA animal record entries into EDDMapS.

5.1.4. *By Year 4 use EDDMapS database, FNAI's invasive maps, and information from land managers and private landowners to create CISMA prioritized invasive management maps of top ranked EDRR and control species.*

5.1.5. Starting in Year 4, annually conduct partner workdays to survey targeted locations for new invasions focusing on high priority EDRR and prevention species (newly in or adjacent to CISMA).Use monitoring results to inform management decisions and updates of priority lists as necessary.

5.1.6. Beginning in Year 4, annually coordinate an update meeting to produce a standardized report of CISMA-coordinated invasive species treatments.

5.1.7. By Year 5 assist partners to complete transition to all digital reporting of invasive species treatment efforts for updates and/or standardized reporting (for example - WEEDDAR, WIMS, etc).

5.1.8. By Year 5 assist in information gathering to document the impact of high priority control species (this helps with prioritizing control, listing on regulated lists (state/local), getting assessments completed by IFAS).

5.2. Encourage research on invasive plants, animals, pests/pathogens (terrestrial, freshwater and marine).

5.2.1. By Year 3 submit a list of questions to research institutions that would be useful to your CISMA on invasive species biology, impacts, and/or management (e.g university and college biology departments, FLEPPC, FISP, chemical company representatives, or other research entities).

5.2.2. In Year 2 inform USDA ARS, IFAS/University of Florida, and/or others of CISMA members that are willing to participate in biological control trials (in other words, allow biological control trials to be conducted on lands that they manage).

Goal 6: Outreach, Training and Strategic Collaboration- Implement outreach and training to support invasive species prevention, EDRR and control efforts in the CISMA boundaries.

6.1. *Implement invasive species outreach, training and strategic collaboration efforts with CISMA partners to increase CISMA community knowledge as well as statewide profile.*

6.1.1. In Year 1 work with FISP to develop CISMA website.

6.1.2. Starting in Year 1, quarterly, or as needed, maintain and improve CISMA website.

6.1.3. Starting in Year 1, participate in statewide CISMA monthly calls and FLEPPC annual CISMA meeting (both coordinated by FISP).

6.1.4. Starting in Year 1, annually contact the media through press/photo releases and radio to highlight CISMA efforts on invasive species. Consider doing this during National Invasive Species Awareness Week (held annually in spring).

6.1.5. By Year 1 hold annual trainings for CISMA partners and targeted audiences on how to use the EDDMapS online database to report occurrences of invasive species (with priority placed on reporting EDRR and prevention species).

6.1.6. Starting in Year 2, maintain and improve CISMA knowledge by communicating with experts (for example - invite experts to present information at CISMA meetings).

6.1.7. Starting in Year 2, annually conduct at least one invasive terrestrial plant identification and treatment training focusing on priority prevention, EDRR and control species (if possible, coordinate with IFAS Extension Agent).

6.1.8. By Year 2 compile a communication network contact list in order to establish alert system for partners both within and adjacent to CISMA boundary (for example - adjacent CISMAs). Assign a CISMA member to send emails to this network when new threat/emerging issue is identified. Also, encourage CISMA members to sign up for EDDMapS alerts (on EDDMapS website).

6.1.9. Starting in Year 2, annually conduct at least one invasive aquatic plant identification and treatment training focusing on priority prevention, EDRR and control species (if possible, coordinate with Florida Sea Grant).

6.1.10. By Year 4 create or find existing materials to distribute to CISMA partners to increase knowledge of current invasive species laws and distribute to CISMA partners (for example - FFWCC fact sheet on Reptiles of Concern rules, FDACS poster on rule restricting the movement of unprocessed wood).

6.1.11. In Year 5, develop and pilot a workshop focused on identification and treatment of invasive animals (terrestrial, aquatic and/or marine).

6.2. Implement invasive species outreach and training efforts with academic/education infrastructure.

6.2.1. In Year 2 develop a list of extension offices and environmental education centers within CISMA boundaries and provide them with materials about invasive species prevention and control (for example - put together packet of information on CISMA, CISMA priorities and relevant fact sheets/educational information and assign members to distribute this information to offices/centers).

6.2.2. In Year 2 work with Cooperative Extension Master Gardener Program and local garden clubs to include programming that promotes the removal of invasive plants and encourages the use of non-invasive plants.

6.2.3. Starting in Year 3, work with Florida Sea Grant and other coastal partners to implement a "Stop Aquatic Hitchhikers" program and distribute outreach materials to large local marinas and at large fishing tournaments (http://www.protectyourwaters.net/).

6.2.4. By Year 4 develop list of schools, scout groups, community festivals, environmental festivals and others who could help with education about invasive species prevention, EDRR and control. Annually, conduct at least one group presentation and have at least one event display/booth.

6.2.5. By Year 5 develop and implement at least one priority education volunteer program for CISMA that simultaneously builds up volunteer programs and raises invasive species awareness (for example -, student work days, invasive survey recruitment/training programs, Pepper Busters creation, etc.)

6.3. Increase invasive species outreach efforts to private industries and organizations, utilities and rights-of-way agencies.

6.3.1. In Year 2 work with retailers to reduce the sale and release of invasive animals. Encourage retailers to display and distribute the "Don't Release Unwanted Pets" poster and cards (statewide effort organized through UF-IFAS and Seagrant, find at http://stjohns.ifas.ufl.edu/sea/DontRelease.html).

6.3.2. By Year 4 create a communication network contact list for private industries and organizations, utilities and rights-of-way agencies (for example - railroads, utilities, ranges, nurseries, botanical gardens, pet stores, animal rehabilitation centers, landscapers, architects, foresters, county animal control, FDOT, and other ROW agencies).

6.3.3. By Year 4 ask private companies and organizations, utilities and rights-of-way agencies to help raise awareness about invasive species best management practices and alternatives to widely used invasive species through their internal communications (for example - FL ASLA and FNGLA Chapter electronic updates, large growers' publications, agency newsletters)

6.3.4. By Year 5 work with retailers to reduce the sale of invasive plants (for example - GreenThumb Program http://www.keysgreenthumb.net/).

6.3.5. By Year 5 encourage at least one relevant industry, organization or agency to endorse and sign the voluntary code of conduct pledge committing to curb the use and distribution of invasive plant species (find codes at http://www.centerforplantconservation.org/invasives/codesN.html). Publicize signees of voluntary code of conducts lists (for example - post on website, news articles).

6.3.6. By Year 5 ask your local prominent botanical garden or ASLA Chapter to take a lead role in educating the public and the nursery industry about preventing the introduction and spread of invasive species.

6.3.7. By Year 5 encourage interpretive signage at botanical gardens explaining threat of invasives and alternatives to their use in the landscape (could include demonstration garden).

6.3.8. By Year 5 develop or find existing landscape architect certification course that promotes CISMA invasive species priorities.

6.4. Implement outreach and training efforts to private landowners and landowner associations.

6.4.1. *In Year 2 encourage all CISMA partners to place "Do Not Move Firewood" poster at all public conservation lands, public and private campgrounds and other high-use recreational areas.*

6.4.2. By Year 4 develop landowner 'outreach' packets to send priority landowners (include CISMA information, priority invasives species information, training courses, etc…).

6.4.3. By Year 4 implement at least one training effort to specific private landowners and landowner associations focused on high priority prevention, EDRR and control invasive species. Include instruction on use the EDDMapS online database to report occurrences of invasive species.

6.4.4. By Year 4 develop, or acquire existing materials about native or non-invasive plants that can be used as alternatives to invasives for erosion control, wildlife forage, landscaping, etc. Include this information in private landowner packets and trainings.

6.4.5. By Year 4 Use/adapt existing materials (fact sheets /posters) to increase knowledge of funding opportunities and current laws and distribute to individuals with goal of enrolling private landowners in funding programs that assist with invasive species control (FISP website). Include this in private landowner packets and trainings.

6.4.6. By Year 5 begin annual conservation champion award to private landowner.

6.5. Increase outreach and awareness efforts to policy makers.

6.5.1. Starting in Year 2, share CISMA Annual Reports with elected officials during National Invasive Species Awareness Week (held annually in spring).

6.5.2. Starting in Year 2, annually get county(s) proclamations supporting CISMA goals and invasive species control. Coordinate press releases upon/after signing. Consider doing this during National Invasive Species Awareness Week (held annually in spring).

6.5.3. Starting in Year 4, annually visit with newly elected local government officials to support invasive species funding, EDRR, prevention and other CISMA goals.

2011 Excel Version

Cooperative Invasive Species Management Area
Five Year Strategic Plan Template*
(Year 1 through Year 5)

Revised 2-10-2011

How this template plan was created:

The goal of this project was to create a Strategic Plan template for use by Cooperative Invasive Species Management Areas (CISMA) in Florida. It should be considered a starting point and should be revised by each CISMA to reflect local area priorities, landowners and membership capacity. It should also be noted that this plan has a strong emphasis on terrestrial invasive plants. However, actions were defined that address animals and pest/pathogens as well as aquatic resources.

The following working groups wrote strategic plans that were used to develop this template: Keys Invasive Species Working Group, Gulf Coast Plain Ecosystem Partnership, Treasure Coast CISMA, Apalachicola Invasive Species Working Group, and North Carolina Sandhills Weed Management Area.

How to use your CISMA plan:

Your plan should be considered a working document and should be reviewed and, if necessary, revised annually. Every year create a short document that includes what you accomplished, what you did not accomplish, what should be carried forward, what should be added, what should be dropped, and why.

There are two versions of this template, one in Word the other in Excel. In the Excel version, there is a Guidance Worksheet and a Worksheet titled, "Strategic Plan – Sortable." The Goals and associated strategies and actions have been put into a spreadsheet format to allow for easier sorting. In this format, you can sort by Goal, Year and/or taxa. Please read through the Guidance Worksheet of the Excel version for instructions on how to use the Excel version to complement your strategic planning activities.

It is also highly recommended that CISMAs utilize steering committees, standing sub-committees and ad hoc sub-committees. Steering committees should represent the partners in the CISMA. Standing sub-committees are formed to address a specific issue and usually continue as long as needed (for example - animal EDRR subcommittee, mapping/monitoring subcommittee, other). Ad hoc sub-committees are a great tool to get a defined project completed in a defined time. For example, organize an ad hoc sub-committee to rank plants for prioritized control efforts. This group would complete the project, report back to the steering committee, and then disband. This is an efficient and productive technique to divide up the tasks and get engagement from partners that may not have time for a steering or standing sub-committee. It also provides documents and products to all partners with ownership to CISMA.

How to read and use this document:

1. Tasks written in *italics* are the suggested minimum for CISMAs. Tasks not in italics are provided for you to incorporate into your CISMA's plan if there is the capacity in your membership. They may also give you ideas for other tasks that could be added to your CISMA plan that are not included here.

2. Years and numbers are a suggestion of timelines and frequency for the tasks and should be modified by each CISMA.

3. Please provide feedback on the utility of this document. Also, please post completed CISMA strategic plans on your CISMA's website or at the Florida Invasive Species Partnership website (use contact info below for assistance).

*This document was created by staff with The Nature Conservancy, Florida Chapter. This was made possible through funding provided by the Department of Defense Legacy Resource Management Program. For more information, please contact Kristina Serbesoff-King

2011 Excel Version

Cooperative Invasive Species Management Area
Five Year Strategic Plan Template

Revised 2-10-2011

Using the Cooperative Invasive Species Management Area Five Year Strategic Plan Template

There are two versions of this template, one in Word the other in Excel. The text in the next tab, "Strategic Plan - Sortable," is taken from the Word version of the CISMA strategic plan template. The Goals and associated strategies and actions have been put into a spreadsheet format to allow for easier sorting. In this format, you can sort by Goal, Year and/or taxa.

Suggested Steps for Developing a CISMA strategic plan and annual workplan using this template:	
Step 1	Using the Word version, have your CISMA (or assigned committee) work through the strategies and actions of each goal of the strategic plan - decide what stays in and what year it should be started.
Step 2	In both the Word and Excel versions, for the strategies/actions you have decided to keep for your CISMA, replace the generic "Year 1," "Year 2," etc., with relevant years. For example, if you start your plan in 2012, all strategies that you decide to do for "Year 1" should be changed to 2012. You now have your Strategic Plan!
Step 3	To develop your Annual Workplan, in the Excel version, sort the actions of your Strategic Plan by year. This is also a great way to look at the entire document and get an idea of commitments by year. Consider creating a Timeline version of your strategic plan (see Heartland CISMA example tab included in this spreadsheet).
Step 4	For all actions that are identified for your first year or are labled "annually" or "quarterly," cut and paste those rows into a new tab named "[Year 1] Work plan"
Step 5	Look at strategies for year of interest and add details, who in your CISMA will lead that effort and a timeline for when it will be done. You now have your Annual Workplan!
Step 6	Every year for the next 4 years, review your accomplishments from your Annual Workplan. Repeat steps 3-5 above, moving forward actions that did not get done the previous year if you decide they are still soemthing yoru CISMA wants to accomplish.
Step 7	Use the notes from your Annual Workplan to develop an Annual Report. Celbrate your accomplishments!
Step 8	At the end of 5 years, review your entire strategic plan and accomplishments and develop a new plan for the next 5 years.

Template created date: February 10, 2011

2011 Excel Version

Cooperative Invasive Species Management Area
Five Year Strategic Plan Template

Revised 2-10-2-11

How to read and use this document:

1. Tasks written in italics are the suggested minimum for CISMAs. Tasks not in italics are provided for you to incorporate into your CISMA's plan if there is the capacity in your membership. They may also give you ideas for other tasks that could be added to your CISMA plan that are not included in this document.

2. Years and numbers are a suggestion of timelines and frequency for the tasks and should be modified by each CISMA.

Goal Number	Goal Category	Description and Strategies
1	CISMA	Create, strengthen and sustain CISMA. Form and sustain a strong partnership through CISMA.
		1.1. Develop basic organizational structure for CISMA.
		1.2. Sustain and strengthen CISMA
		1.3. Submit cooperative funding proposals.
		1.4. Generate legal documents to strengthen CISMA.
2	Prevent	Prevention. Develop and/or implement techniques and practices to prevent establishment and spread of new invasions near the CISMA boundaries.
		2.1. Develop and/or find and use an existing alert system to identify new terrestrial and aquatic non-native plant invasions near, or at the boundaries of, CISMA lands and waters.
		2.2. Reduce potential pathways of introduction for terrestrial and aquatic (marine and freshwater), invasive non-native plant species into the CISMA.
		2.3. Incorporate IFAS WRA into CISMA invasive plant ranking and planning process.
		2.4. Develop and/or find and use existing alert system to identify new non-native animal invasions near, or at the boundaries of, CISMA lands.
		CISMA.
		2.6. Reduce potential pathways of introduction for invasive pest/pathogens species into the CISMA.
		2.7. Develop and/or find and use an existing alert system to identify new non-native pest/pathogen invasions near CISMA lands and waters.
3	ED/RR	Early Detection and Rapid Response. Develop and implement techniques and practices to promote early detection and rapid response of newly established invasive species within the CISMA boundaries.
		3.1. Use existing alert type systems and partner communications to identify new plant invasions within CISMA lands and waters.
		3.2. Prioritize EDRR plant species on CISMA lands and/or waters.
		3.3. Eradicate high ranking EDRR plant species on CISMA lands and/or waters.
		3.4. Use existing alert type systems and partner communications to identify new animal invasions within CISMA lands and waters.
		3.5. Prioritize EDRR animal species on CISMA lands and/or waters.

2011 Excel Version

Cooperative Invasive Species Management Area
Five Year Strategic Plan Template

Revised 2-10-2-11

4	Control	Control (Prioritized Management). Develop and implement techniques and practices to control known infestations of priority invasive species and maintain them at the lowest feasible level in the CISMA boundaries.
		4.1. Prioritize known CISMA invasive non-native plants (that is - plants that have spread beyond ability to eradicate) using a ranking system that considers the impact of imperiled species and/or habitats and if necessary, other criteria.
		4.2. Implement coordinated CISMA management of the top 2 priority invasive plant control species to reduce infestations to maintenance level.
		4.3. Cease sale, planting or other modes of spread of invasive plant species we are controlling.
		4.4. Prioritize known CISMA invasive animals (that is - animals that have spread beyond ability to eradicate) using a ranking system that considers the impact of imperiled species and/or habitats and if necessary, other criteria.
		4.5. Manage the high priority invasive animal control species in order to reduce damage and/or population size.
		4.6. Cease the sale, importation or other modes of spread of invasive animal species that we are controlling.
		4.7. Prioritize, communicate and coordinate management activities designed to protect native species (plants and animals) and/or economically important species that are impacted by invasive pest/pathogens.
5	Data	Monitoring, Mapping and Applied Research. Promote locating and documenting occurrences, and supporting applied research, of prevention, EDRR and control species to inform CISMA decisions.
		5.1. Coordinate monitoring and mapping of invasive plants, animals, pests/pathogens (terrestrial, freshwater and marine.)
		5.2. Encourage research on invasive plants, animals, pests/pathogens (terrestrial, freshwater and marine).
6	Outreach	Outreach, Training and Strategic Collaboration. Support outreach and training to support prevention, EDRR and control efforts in the CISMA boundaries.
		6.1. Implement invasive species outreach, training and strategic collaboration efforts with CISMA partners to increase CISMA community knowledge as well as statewide profile.
		infrastructure.
		6.3. Increase invasive species outreach efforts to private industries and organizations, utilities and rights-of-way agencies.
		6.4. Implement outreach and training efforts to private landowners and landowner associations.
		6.5. Increase outreach and awareness efforts to policy makers.

2011 Excel Version

Cooperative Invasive Species Management Area
Five Year Strategic Plan Template

Revised 2-10-2-11

Number	Goal	Taxa	Year	Action
1.1.1	CISMA	all	Year 1	*Use CWMA cookbooks and current CISMA examples to help form and sustain CISMA.*
1.1.2	CISMA	all	Year 1	*C oordinate a meeting with enthusiastic regional partners to form a new CISMA.*
1.1.3	CISMA	all	Year 1	*Establish geographic boundaries, a steering committee and a chair.*
1.1.4	CISMA	all	Year 1	*Initally and as needed, create standing subcommittees and ad hoc committees to assist with project specific CISMA efforts.*
1.2.1	CISMA	all	Year 1	*Schedule CISMA meetings at least twice per year.*
1.2.2	CISMA	all	Annually	*Annually* recruit new, and maintain current membership in the CISMA.
1.2.3	CISMA	all	Year 2	*Initially* and every 2 years (or as needed) review steering committee and subcommittees and revise as appropriate.
1.2.4	CISMA	all	Annually	Annually develop workplan with CISMA partners.
1.2.5	CISMA	all	Annually	*Create short annual report.*
1.2.6	CISMA	all	Year 5	*Update strategic plan.*
1.2.7	CISMA	all	Year 3	Seek liaison to CISMA from two private industries.
1.2.8	CISMA	all	Year 5	Hire a part time staff person to coordinate CISMA activities.
1.3.1	CISMA	all	Annually	Annually encourage public land conservation managers to submit FFWCC IPMS cost reimbursement program applications.
1.3.2	CISMA	all	Year 2	*Identify lead partner or organization to serve as the recipient and administrator for grants.*
1.3.3	CISMA	all	Year 3	Annually submit CISMA grants; consider utilizing less common approaches like landowner incentive programs, staff time as in-kind matches, and shared field staff.
1.3.4	CISMA	all	Year 3	Develop a list of funding programs with due dates for control, EDRR, education and other projects.
1.4.1	CISMA	all	Year 2	Sign a MOU or other document allowing public agency staff to work on other agency/NGO/private lands (if required to allow agencies to work on partner lands).
1.4.2	CISMA	all	Year 2	Create or use existing liability releases (e.g. TNC or DOF) for partners to work on private lands.
1.4.3	CISMA	all	Year 5	Write or find and modify and existing CISMA partner MOU, or other document, or use future FISP CISMA MOU, to facilitate partner agency participation and support of CISMA goals and objectives.
2.1.1	Prevent	all	Quarterly	*Quarterly review EDDMapS database and/or other alert system databases for new terrestrial invasive plants adjacent to CISMA. If new plant species is found, include in EDRR prioritization.*
2.1.2	Prevent	all	Quarterly	*Quarterly review EDDMapS and/or USGS NAS for new aquatic invasive plants adjacent to CISMA waters. If new plant species is found adjacent to CISMA, include in EDRR prioritization.*

2011 Excel Version

Cooperative Invasive Species Management Area
Five Year Strategic Plan Template

Revised 2-10-2-11

Number	Goal	Taxa	Year	Action
2.2.1	Prevent	all	Year 2	*Develop and/or find and use existing guidelines for vehicle, boats, equipment, personal protective equipment and personnel disinfection program/protocol(s) to address the unintentional movement of terrestrial and aquatic invasive plants. Consider using FFWCC IPMS or other decontamination standards.*
2.2.2	Prevent	all	Year 2	*Implement vehicle, boat, equipment and personnel disinfection program/protocol(s) for use by CISMA partners (researchers, fire crews, public works, FDOT, FDOF, and others).*
2.2.3	Prevent	all	Year 3	*Encourage use of decontamination guidelines by all contractors (for example - invasive plant management contractors, wildlife services contractors, etc…).*
2.2.4	Prevent	all	Year 4	Encourage use of decontamination guidelines by landscapers, lawn companies and other outdoor service contractors.
2.2.5	Prevent	all	Year 3	*All CISMA partners will actively push for purchase of only weed-free mulch, pine-straw, hay, sod, etc...(that is - create the demand).*
2.2.6	Prevent	all	Year 4	*CISMA partners will develop and/or use existing preventative guidelines for conducting ground disturbing activities (for example - timber harvest/transport, prescribed fire, fire suppression, off-road vehicle use, or contracted activities on partner lands).*
2.3.1	Prevent	all	Annually	*Annually review results of WRA for plant species to be watched. If new plant species is listed as invasive, include in EDRR prioritization.*
2.3.2	Prevent	all	Year 3	If a new non-native plant is found in the CISMA or surrounding geography, request IFAS run this incipient species through the WRA.
2.3.3	Prevent	all	Year 4	Engage local botanical gardens or similar to use the WRA or other predictive tool to assess the invasive threat of new and existing garden collection plants. If new/existing garden collection plant is listed as invasive, stop planting and remove from botanical garden and include in EDRR prioritization (if it has escaped).
2.3.4	Prevent	all	Year 5	Explore the feasibility of restricting the highest threat new invasive plant species through state and local ordinances. (Note – as of March 2002, per FDACS CHAPTER 581 (4), local ordinances cannot prohibit plants that are not already listed by FDACS as a noxious weed or invasive plant).
2.4.1	Prevent	all	Quarterly	*Quarterly review EDDMapS database and other sources of new species alerts (for example - USGS NAS database, shell collecting groups, bird boards, etc…) for new invasive animals adjacent to CISMA. If new animal species is found adjacent to CISMA, include in EDRR prioritization.*
2.5.1	Prevent	all	Year 2	*Assist and participate in FFWCC or other Pet Amnesty Days.*
2.5.2	Prevent	all	Year 4	Work with partners to identify pathways and modes of transport for invasive animals to move into the CISMA.
2.5.3	Prevent	all	Year 4	Develop and/or find and use decontamination guidelines to restrict movement of invasive animals.
2.5.4	Prevent	all	Year 5	Explore avenues of reducing pathways for potentially new highest threat invasive animal species through state/local ordinances (for example - ownership restrictions, caging requirements, gender restrictions, etc…).

2011 Excel Version

Cooperative Invasive Species Management Area
Five Year Strategic Plan Template

Revised 2-10-2-11

Number	Goal	Taxa	Year	Action
2.6.1	Prevent	all	Year 4	*Implement a vehicle, equipment and personnel disinfection program/protocol to address the unintentional movement of invasive pest/pathogens for use by CISMA partners (researchers, fire crews, public works, FDOT, FDOF, and others). (Note: This will likely already be addressed in plant objective above).*
2.6.2	Prevent	all	Year 4	Encourage use of decontamination guidelines by all contractors (for example - invasive plant management contractors, wildlife services contractors, etc...).
2.6.3	Prevent	all	Year 5	Encourage use of decontamination guidelines by landscapers, lawn companies and other outdoor service contractors.
2.6.4	Prevent	all	Year 3	All CISMA will actively push for purchase of only pest/pathogen-free mulch, pine-straw, hay, sod, firewood, etc...
2.7.1	Prevent	all	Quarterly	*Quarterly review EDDMapS database for new invasives adjacent to CISMA. If new pest or pathogen is found adjacent to CISMA, include in EDRR prioritization*
3.1.1	ED/RR	all	Annually	*Annually have CISMA partners discuss new plant species that they have observed during the regularly scheduled meeting.*
3.1.2	ED/RR	all	Quarterly	*Quarterly review EDDMapS database and/or other alert system databases for new terrestrial invasive plants within CISMA. If new plant species is found in CISMA, include in EDRR prioritization.*
3.1.3	ED/RR	all	Quarterly	*Quarterly review EDDMapS and/or USGS NAS for new aquatic invasive plants within CISMA waters. If new plant species is found in CISMA, include in EDRR prioritization.*
3.1.4	ED/RR	all	Year 4	Develop early detection guidelines for partners to insert in contract language for contractors and researchers requiring them to alert land managers when they observe unknown or EDRR plant species.
3.2.1	ED/RR	all	Year 2	*Create a list of possible EDRR terrestrial and/or aquatic plant species from best available information from CISMA partners, adjacent CISMAs, CISMA prevention alert system, FLEPPC, FISP, FNAI, IFAS and EDDMapS.*
3.2.2	ED/RR	all	Year 2	*Use a ranking system (USGS, others) to prioritize top [insert #] EDRR plant species.*
3.2.3	ED/RR	all	Year 3	*Annually or as needed, reassess EDRR plant list.*
3.3.1	ED/RR	all	Year 4	*Annually conduct cooperative workdays to eradicate high priority EDRR and prevention plant species (newly in or adjacent to CISMA).*
3.3.2	ED/RR	all	Year 5	Hire contractors to eradicate high priority EDRR plant species.
3.3.3	ED/RR	all	Year 5	Create a Rapid Response Team(s) and if necessary, response protocol, to eradicate high priority EDRR plant species.
3.4.1	ED/RR	all	Annually	*Annually have CISMA partners discuss new animal species that they have observed during the regularly scheduled meeting.*
3.4.2	ED/RR	all	Quarterly	*Quarterly review EDDMapS database and/or other alert system databases for new terrestrial invasive animals within CISMA. If new species is found in CISMA, include in EDRR prioritization.*
3.4.3	ED/RR	all	Quarterly	*Quarterly review EDDMapS and/or databases for new aquatic invasive animals within CISMA waters. If new species is found in CISMA, include in EDRR prioritization.*

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Cooperative Invasive Species Management Area
Five Year Strategic Plan Template

Revised 2-10-2-11

Number	Goal	Taxa	Year	Action
3.4.4	ED/RR	all	Year 4	Develop early detection guidelines for partners to insert in contract language for contractors and researchers requiring them to alert land managers when they observe unknown or EDRR species.
3.5.1	ED/RR	all	Year 4	Create a list of possible EDRR species from best available information from CISMA partners, , wildlife hospitals, adjacent CISMAs, CISMA prevention alert system, FISP, FNAI, IFAS and EDDMapS.
3.5.2	ED/RR	all	Year 5	Using a ranking system to prioritize top [insert #] EDRR animal species.
3.5.3	ED/RR	all	Year 5	Annually or as needed, reassess EDRR animal list.
3.6.1	ED/RR	all	Year 5	Create a Rapid Response Team(s) and if necessary, response protocol, to eradicate high priority EDRR animal species.
4.1.1	Control	all	Year 1	*Develop a list of known invasive plants within CISMA boundaries.*
4.1.2	Control	all	Year 2	*Prioritize invasive plant control species using a ranking system (USGS, local expert opinion, other) and best available information from CISMA partners, FLEPPC, FISP, FNAI, IFAS and EDDMapS.*
4.1.3	Control	all	Year 3	*Annually assess and update prioritized list of invasive plant control species.*
4.2.1	Control	all	Year 3	*Emphasize top 2 priority invasive plant control species by focusing CISMA partner efforts.*
4.2.2	Control	all	Annually	*Annually increase acres of priority invasive plant control species being treated and acres under maintenance level control on public conservation lands (for example - using FFWCC IPMS and other funds).*
4.2.3	Control	all	Year 3	*Annually increase acres of priority invasive plant control species being treated and acres under maintenance level control on private conservation lands (for example - non-profit conservation lands, conservation easement lands, etc.).*
4.2.4	Control	all	Bi-annually	*Biannually coordinate a cooperative workday focusing on priority invasive plant control species.*
4.2.5	Control	all	Year 4	Determine invasive plant free buffer areas within CISMA boundaries and annually increase the size of invasive plant free buffer areas around conservation lands.
4.2.6	Control	all	Year 4	Annually increase treatment of prioritized, invasive plants on public non-conservation lands (for example - ROWs, spoil mounds, recreational parks).
4.2.7	Control	all	Year 5	Annually increase net acreage of invasive plant control species treated on prioritized private lands.
4.3.1	Control	all	Year 3	Submit petitions to FDACS to request listing of high priority EDRR and control invasive plants as noxious weeds.
4.3.2	Control	all	Year 4	Identify and engage sellers to voluntarily stop selling known invasive plants.
4.3.3	Control	all	Year 5	Identify and engage appropriate local regulatory and enforcement agencies for local ordinances, comprehensive plans, landscape rules that limit the planting and encourage control of known invasive plants.
4.4.1	Control	all	Year 3	*Develop a list of known invasive animals on CISMA lands (for example - feral hogs).*

2011 Excel Version

Cooperative Invasive Species Management Area
Five Year Strategic Plan Template

Revised 2-10-2-11

Number	Goal	Taxa	Year	Action
4.4.2	Control	all	Year 4	*Prioritize invasive animal control species using a ranking system and best available information from CISMA partners, FFWCC, FNAI, EDDMapS and others.*
4.4.3	Control	all	Year 5	Annually assess and update prioritized list of invasive animal control species.
4.5.1	Control	all	Year 4	*Emphasize the top 2 priority invasive animal control species by focusing CISMA partner efforts on these at all opportunities.*
4.5.2	Control	all	Year 4	Annually increase the level of effort and number of public conservation lands that are treating and maintaining low densities of priority invasive animal control species.
4.5.3	Control	all	Year 4	Annually increase the level of effort and number of private conservation lands that are treating and maintaining low densities of priority invasive animal control species.
4.5.4	Control	all	Year 5	Annually increase treatment of priority invasive animal control species on public non-conservation lands (for example - ROWs, spoil mounds, recreational parks).
4.5.5	Control	all	Year 5	Annually increase the size of priority invasive animal-free buffer areas around conservation lands, including private lands.
4.6.1	Control	all	Year 5	Annually submit requests to FFWCC to include priority invasive animal control species to restrictive lists (for example - Reptiles of Concern, conditional species, prohibitive species, etc...).
4.7.1	Control	all	Year 5	Research and prioritize known and potential invasive pest /pathogen species.
4.7.2	Control	all	Year 5	Investigate tested and potential control methods for invasive pests and pathogens (for example - biological, chemical and mechanical) and determine if identified control methods are critical and effective actions for land managers to utilize.
4.7.3	Control	all	Year 5	Research and apply methods other than invasive pest/pathogen control to protect native species (for example - collect seeds).
5.1.1	Data	all	Quarterly	*Quarterly record invasive species from field observations and mapping projects into CISMA EDDMapS and/or FNAI's invasive databases. Encourage use of EDDMapS for EDRR species and single occurrence entry and FNAI for large census/polygon data.*
5.1.2	Data	all	Year 1	*Recruit and assign plant verifier(s) to oversee CISMA plant record entries into EDDMapS.*
5.1.3	Data	all	Year 3	Recruit and assign animal verifiers to oversee CISMA animal record entries into EDDMapS.
5.1.4	Data	all	Year 4	*Use EDDMapS database, FNAI's invasive maps, and information from land managers and private landowners to create CISMA prioritized invasive management maps of top ranked EDRR and control species.*
5.1.5	Data	all	Year 4	Annually conduct partner workdays to survey targeted locations for new invasions focusing on high priority EDRR and prevention species (newly in or adjacent to CISMA).Use monitoring results to inform management decisions and updates of priority lists as necessary.

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Cooperative Invasive Species Management Area
Five Year Strategic Plan Template

Revised 2-10-2-11

Number	Goal	Taxa	Year	Action
5.1.6	Data	all	Year 4	Annually coordinate an update meeting to produce a standardized report of CISMA-coordinated invasive species treatments.
5.1.7	Data	all	Year 5	Assist partners to complete transition to all digital reporting of invasive species treatment efforts for updates and/or standardized reporting (for example - WEEDDAR, WIMS, etc).
5.1.8	Data	all	Year 5	Assist in information gathering to document the impact of high priority control species (this helps with prioritizing control, listing on regulated lists (state/local), getting assessments completed by IFAS).
5.2.1	Data	all	Year 3	*Submit a list of questions to research institutions that would be useful to your CISMA on invasive species biology, impacts, and/or management (e.g university and college biology departments, FLEPPC, FISP, chemical company representatives, or other research entities).*
5.2.2	Data	all	Year 2	Inform USDA ARS, IFAS/University of Florida, and/or others of CISMA members that are willing to participate in biological control trials (in other words, allow biological control trials to be conducted on lands that they manage).
6.1.1	Outreach	all	Year 1	*Work with FISP to develop CISMA website.*
6.1.10	Outreach	all	Year 4	Create or find existing materials to distribute to CISMA partners to increase knowledge of current invasive species laws and distribute to CISMA partners (for example - FFWCC fact sheet on Reptiles of Concern rules, FDACS poster on rule restricting the movement of unprocessed wood).
6.1.11	Outreach	all	Year 5	Develop and pilot a workshop focused on identification and treatment of invasive animals (terrestrial, aquatic and/or marine).
6.1.2	Outreach	all	Quarterly	*Quarterly or as needed , maintain and improve CISMA website.*
6.1.3	Outreach	all	Annually	*Participate in statewide CISMA monthly calls and FLEPPC annual CISMA meeting (both coordinated by FISP).*
6.1.4	Outreach	all	Annually	*Annually contact the media through press/photo releases and radio to highlight CISMA efforts on invasive species. Consider doing this during National Invasive Species Awareness Week (held annually in spring).*
6.1.5	Outreach	all	Annually	*Hold annual trainings for CISMA partners and targeted audiences on how to use the EDDMapS online database to report occurrences of invasive species (with priority placed on reporting EDRR and prevention species).*
6.1.6	Outreach	all	Year 2	*Maintain and improve CISMA knowledge by communicating with experts (for example - invite experts to present information at CISMA meetings).*
6.1.7	Outreach	all	Year 2	*Annually conduct at least one invasive terrestrial plant identification and treatment training focusing on priority prevention, EDRR and control species (if possible, coordinate with IFAS Extension Agent).*
6.1.8	Outreach	all	Year 2	*Compile a communication network contact list in order to establish alert system for partners both within and adjacent to CISMA boundary (for example - adjacent CISMAs). Assign a CISMA member to send emails to this network when new threat/emerging issue is identified. Also, encourage CISMA members to sign up for EDDMapS alerts (on EDDMapS website).*

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Cooperative Invasive Species Management Area
Five Year Strategic Plan Template

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Number	Goal	Taxa	Year	Action
6.1.9	Outreach	all	Year 2	Annually conduct at least one invasive aquatic plant identification and treatment training focusing on priority prevention, EDRR and control species (if possible, coordinate with Florida Sea Grant).
6.2.1	Outreach	all	Year 2	*Develop a list of extension offices and environmental education centers within CISMA boundaries and provide them with materials about invasive species prevention and control (for example - put together packet of information on CISMA, CISMA priorities and relevant fact sheets/educational information and assign members to distribute this information to offices/centers).*
6.2.2	Outreach	all	Year 2	*Work with Cooperative Extension Master Gardener Program and local garden clubs to include programming that promotes the removal of invasive plants and encourages the use of non-invasive plants.*
6.2.3	Outreach	all	Year 3	Work with Florida Sea Grant and other coastal partners to implement a "Stop Aquatic Hitchhikers" program and distribute outreach materials to large local marinas and at large fishing tournaments (http://www.protectyourwaters.net/).
6.2.4	Outreach	all	Year 4	Develop list of schools, scout groups, community festivals, environmental festivals and others who could help with education about invasive species prevention, EDRR and control. Annually, conduct at least one group presentation and have at least one event display/booth.
6.2.5	Outreach	all	Year 5	Develop and implement at least one priority education volunteer program for CISMA that simultaneously builds up volunteer programs and raises invasive species awareness (for example -, student work days, invasive survey recruitment/training programs, Pepper Busters creation, etc.)
6.3.1	Outreach	all	Year 2	*Work with retailers to reduce the sale and release of invasive animals. Encourage retailers to display and distribute the "Don't Release Unwanted Pets" poster and cards (statewide effort organized through UF-IFAS and Seagrant, find at http://stjohns.ifas.ufl.edu/sea/DontRelease.html).*
6.3.2	Outreach	all	Year 4	*Create a communication network contact list for private industries and organizations, utilities and rights-of-way agencies (for example - railroads, utilities, ranges, nurseries, botanical gardens, pet stores, animal rehabilitation centers, landscapers, architects, foresters, county animal control, FDOT, and other ROW agencies).*
6.3.3	Outreach	all	Year 4	Ask private companies and organizations, utilities and rights-of-way agencies to help raise awareness about invasive species best management practices and alternatives to widely used invasive species through their internal communications (for example - FL ASLA and FNGLA Chapter electronic updates, large growers' publications, agency newsletters).
6.3.4	Outreach	all	Year 5	Work with retailers to reduce the sale of invasive plants (for example - GreenThumb Program http://www.keysgreenthumb.net/).

2011 Excel Version

Cooperative Invasive Species Management Area
Five Year Strategic Plan Template

Revised 2-10-2-11

Number	Goal	Taxa	Year	Action
6.3.5	Outreach	all	Year 5	Encourage at least one relevant industry, organization or agency to endorse and sign the voluntary code of conduct pledge committing to curb the use and distribution of invasive plant species (find codes at http://www.centerforplantconservation.org/invasives/codesN.html). Publicize signees of voluntary code of conducts lists (for example - post on website, news articles).
6.3.6	Outreach	all	Year 5	Ask your local prominent botanical garden or ASLA Chapter to take a lead role in educating the public and the nursery industry about preventing the introduction and spread of invasive species.
6.3.7	Outreach	all	Year 5	Encourage interpretive signage at botanical gardens explaining threat of invasives and alternatives to their use in the landscape (could include demonstration garden).
6.3.8	Outreach	all	Year 5	Develop or find existing landscape architect certification course that promotes CISMA invasive species priorities.
6.4.1	Outreach	all	Year 2	*Encourage all CISMA partners to place "Do Not Move Firewood" poster at all public conservation lands, public and private campgrounds and other high-use recreational areas.*
6.4.2	Outreach	all	Year 4	Develop landowner 'outreach' packets to send priority landowners (include CISMA information, priority invasives species information, training courses, etc...).
6.4.3	Outreach	all	Year 4	Implement at least one training effort to specific private landowners and landowner associations focused on high priority prevention, EDRR and control invasive species. Include instruction on use the EDDMapS online database to report occurrences of invasive species.
6.4.4	Outreach	all	Year 4	Develop, or acquire existing materials about native or non-invasive plants that can be used as alternatives to invasives for erosion control, wildlife forage, landscaping, etc. Include this information in private landowner packets and trainings.
6.4.5	Outreach	all	Year 4	Use/adapt existing materials (fact sheets /posters) to increase knowledge of funding opportunities and current laws and distribute to individuals with goal of enrolling private landowners in funding programs that assist with invasive species control (FISP website). Include this in private landowner packets and trainings.
6.4.6	Outreach	all	Year 5	Begin annual conservation champion award to private landowner.
6.5.1	Outreach	all	Year 2	*Share CISMA Annual Reports with elected officials during National Invasive Species Awareness Week (held annually in spring).*
6.5.2	Outreach	all	Year 2	*Annually get county(s) proclamations supporting CISMA goals and invasive species control. Coordinate press releases upon/after signing. Consider doing this during National Invasive Species Awareness Week (held annually in spring).*
6.5.3	Outreach	all	Year 4	Annually visit with newly elected local government officials to support invasive species funding, EDRR, prevention and other CISMA goals.

2011 Excel Version

CISMA [Year 1] Workplan

After sorting Strategic Plan by year, copy actions for Year 1 (or relevent year) into this tab. Create new tabs for each year's work plan.

Number	Goal	Taxa	Year	Action	Due Date	Lead	Completed	Notes

Appendix E – Six Rivers Phase II post-treatment monitoring report

Eglin AFB Invasive Species Treatment - Phase II Post-treatment Monitoring Report - June 14, 2011

I. Overview:
From March 2011 until late May 2011 EST members treated Eglin AFB reservation buffer lands using mechanical and chemical methods. Targeted species included Chinese Tallow (*Triadica sebiferum*), Mimosa (*Albizia julibrissin*), Cogongrass (*Imperata cylindrica*). Seven monitoring points were established prior to treatment in two specific tracts which received the majority of 2011 treatments:
Six Rivers Phase II post-treatment monitoring report

(Site # 3 - Large DBH *T. sebiferum* pre-treatment)

(Site # 3 - Four weeks post-treatment)

(Site # 4 - *A. julibrissin* pre-treatment)

(Site # 4 - *A. julibrissin* post-treatment after Garlon 4 application)

(Site # 6 - *I. cylindrica* pre-treatment along Okaloosa County storm water easement.

(Site # 6 - *I. cylindrica* post-treatment. Area to the right was excluded due to minimize overspray into flowing storm water ditch.)

Northwest Florida State College - Fort Walton Beach Campus - (80 acre parcel centered on N 30.453814 deg W 86.653469 deg, located adjoining Eglin AFB at the northwest corner of Fort Walton Beach, FL). Okaloosa County Storm Water Easement - Fort Walton Beach (approx. 2 acre parcel adjoining the north end of the above campus, with a western terminus at Eglin AFB reservation property line).

Both parcels are heavily degraded mesic flatwoods with little evidence of previous invasives control with the exception of landscaped areas around campus buildings. The stormwater ditch adjoining the parcel to the north is a 30 to 40-foot wide partially-mowed strip running east-west with a 7' deep ditch along its north side, adjoining a residential subdivision to the north. Both parcels have infestations of Chinese Tallow, Mimosa, Japanese Climbing Fern *(L. japonicum*), Cogongrass (I. cylindrica), and Chinese Privet *(L. sinense)*. Chinese Privet and Japanese Climbing Fern were excluded from initial treatments, due to the size and density of the infestation, as treatments could possible denude large swaths of non-target species. Alternate strategies (e.g. containment at right-of-ways or large clearings) may have to be considered to effectively target these species.

II. Methodology:
Each site was evaluated for treatment effectiveness on existing stems and the presence of untreated stems, compared against information collected during initial treatment: Location, # of stems, height, infestation size. (e.g. 4 Chinese Tallow, Height range 3' to 10', 150 sq. ft. patch or 'cluster'). Re-emergence of new stems was not evaluated due to the short time interval between treatment and monitoring. If possible, these sites should be re-evaluated in the Spring of 2012. (Note: Monitoring Point # 05 was excluded from this report due to a lack of good photographic quality)

Success was one-hundred percent on *T. sebiferum* and *A. julibrissin* sites, however *I. cylindrica* treatments were less effective (< 50 - 70 % stem kill) possibly due to the short interval between treatment and monitoring (< 21 days). Imazapyr is highly soil-active and drought-like conditions at the time of treatment may have slowed soil transport. These sites should be revisited during CISMA Phase III monitoring to determine long-term effectiveness.

Re-emergence of treated stems: Stems were examined for post-treatment growth. Possible failures due to: inadequate treatment techniques (e.g. hack and squirt not completely encircling cambium), weather, etc. *Presence of untreated mature:* Mature stems probably present during initial treatment bearing no *stems within target cluster:* evidence of treatment. Possibly missed/not treated due to heavy foliage, standing water precluded treatment, etc.

III. Results:
1: **Species**: *Triadica sebiferum* 4 stems 10-16' height
Location: Okaloosa storm water ditch easement
GPS Coordinate: N 30.45706792° W 086.65538619°
Re-emergence: None
Untreated mature: None
New stems: None
Comments: Cut-stump and hack-squirt application with 22% Garlon 4

2: **Species**: *Albizia julibrissin* 8 stems 4-12' height
Location: NW Florida State College - Fort Walton Beach Campus
GPS Coordinate: N 30.45588221° W 086.65165306°'
Re-emergence: None
Untreated mature: None
New stems: None
Comments: Cut-stump and hack-squirt application with 22% Garlon 4

#3: **Species**: *Triadica sebiferum* 1 stem 20' height
Location: NW Florida State College - Fort Walton Beach Campus
GPS Coordinate: N 30.45488854° W 86.65174979°
Re-emergence: None
Untreated mature: None
New stems: None
Comments: Hack-squirt application with 22% Garlon 4

4: **Species**: *Albizia julibrissin* 1 stem 20' height
Location: NW Florida State College - Fort Walton Beach Campus
GPS Coordinate: N 30.45117318° W 86.65165407°
Re-emergence: None
Untreated mature: None
New stems: None
Comments: Basal bark and hack-squirt application with 22% Garlon 4

#5: There is no site 5, this was a numbering error, but maintained for consistency with photos.

6 **Species**: *Imperata cylindrica* (6,000 ft. sq. flowering)
Location: Okaloosa storm water ditch easement
GPS Coordinate: N 30.45700690° W 086.65169748'
Re-emergence: None
Untreated mature: 40 - 50 %
New stems: None
Comments: Foilar and soil application of Imazapyr at 2.5% w/ surfactant 4

7 **Species**: *Imperata cylindrica* (4,000 ft. sq. flowering)
Location: Okaloosa storm water ditch easement
GPS Coordinate: N 30.45699810° W 86.65169748°
Re-emergence: None
Untreated mature: 30 %
New stems: None
Comments: Foilar and soil application of Imazapyr at 2.5% w/ surfactant .

Appendix F – Strategic Plan for Canaveral and Patrick Air Force Bases

Table of Contents

Creating the East Central Florida CISMA – Summary

Invasive non-native species have been identified by all of the DoD installations as both ecological and economic threats to the natural communities and native species that they manage including by Cape Canaveral AFS and Patrick AFB.

The idea of creating the East Central Florida Cooperative Invasive Species Management Area (CISMA) was explored with a large gathering of 58 stakeholders in April 2010 at the Florida Vegetation Management Association's annual meeting in Daytona Beach. The East Central Florida CISMA was officially established in June 2010 and support efforts on and adjacent to Cape Canaveral AFS and Patrick AFB on the Central Atlantic Coast of Florida. The Florida counties involved in the ECF CISMA include: Brevard, Flagler, Putnam, and Volusia.

The third East Central Florida CISMA meeting was in August 2010, and is where the strategic plan template, created during Phase I of this project, was presented. A strategic plan subcommittee was formed with six members, including Don George from Cape Canaveral AFS/Patrick AFB. This committee communicated several times and began a draft East Central Florida CISMA plan based upon the template. During the November 2010 ECF CISMA meeting, the CISMA strategic plan draft was presented to all participants to get feedback and suggestions. Suggestions were incorporated and the East Central Florida CISMA 5-Year Strategic Plan was completed in April 2011

Introduction to the East Central Florida CISMA Strategic Plan

This Strategic Plan, which is a deliverable of Phase II of this DoD Legacy Resource Management Program project, along with its goals and objectives was designed to guide the interactions of all agencies and landowners within the CISMA boundaries. None of the strategies included are specific to any one agency or particular piece of property. Specific actions involving specific properties or agencies/organizations will appear in the details of the annual workplan.

Phase III of this project, which has been awarded, is designed to keep the process moving forward and continue building the structure of the CISMA. During this phase, the CISMA will create an annual report (year 2011) in order to document accomplishments and discuss efforts. The CISMA will also create an annual workplan for the next calendar year (year 2012) based on the strategic plan. The annual workplan will be more detailed about specific actions to be accomplished, specifying locations and partners as well as a timeline for completion.

East Central Florida Cooperative Invasive Species Management Area 5 Year Strategic Plan (January 1, 2011 through December 30, 2015)

MISSION STATEMENT

Implement a comprehensive, cooperative approach across boundaries to address the threats of invasive species to the lands and waters within the boundaries of the East Central Florida CISMA (ECF CISMA).

Approach: The most cost-effective way to address invasive species is to prevent them from reaching the ECF CISMA in the first place. If, despite prevention efforts, invasive species reach the ECF CISMA, early detection programs can help locate and eradicate those invasive species before they become widely established. If invasive species elude early detection and establish and spread in the CISMA or are part of a previous invasion, control and management programs to monitor and minimize their negative impacts to the economy and environment will be necessary, but these efforts can be very costly. The sooner we act the more effective and less costly our efforts will be (adapted from the Indiana Invasive Species Task Force 2008).

How to use the ECF CISMA plan:
This plan should be considered a working document and should be reviewed and, if necessary, revised annually. Every year we can create a short annual accomplishment document which includes what we did, what we did not do, what should be carried forward, what we should add, what we should drop and why. ECF CISMA should utilize steering committees, standing sub-committees and ad hoc sub-committees. Steering committees should well represent the partners in the CISMA. Standing sub-committees form to address a specific issue and usually continue as long as needed (e.g. animal EDRR subcommittee, mapping/monitoring subcommittee, other). Ad hoc sub-committees are a great tool to get a defined project completed in a defined time. For example, organize an ad hoc sub-committee to rank plants for prioritized control efforts. This group would complete the project, report back to the steering committee, and then disband. This is an efficient and productive technique to divide up the tasks and get engagement from partners that may not have time for a steering or standing sub-committee. It also provides all partners with ownership to CISMA documents and products.

Acronyms

ASLA = American Society of Landscape Architects BMP = best management practices CISMA = cooperative invasive species management area CWMA = cooperative weed management area FDACS = Florida Department of Agricultural and Consumer Services FDOT = Florida Department of Transportation EDDMapS = Early Detection and Distribution Mapping System (http://www.eddmaps.org/) EDRR = early detection and rapid response FISP = Florida Invasive Species Partnership (http://www.floridainvasives.org/) FDOF = Florida Department of Forestry FFWCC IPMS = Florida Fish and Wildlife Conservation Commission Invasive Plant Management Section FLEPPC = Florida Exotic Pest Plant Council FNAI = Florida Natural Areas Inventory FNGLA = Florida Nursery, Growers & Landscape Associations (http://www.fngla.org/) FNPS = Florida Native Plant Society (http://www.fnps.org/) IFAS = Institute of Food and Agricultural Sciences MOU = memorandum of understanding NIWAW = National Invasive Weeds Awareness Week ROW = right of way SOP = standard operating procedures USDA ARS = United States Department of Agriculture, Agricultural Research Service USGS NAS = United States Geological Services Non-indigenous aquatic species (http://nas.er.usgs.gov/) VCC = voluntary code of conduct (http://www.centerforplantconservation.org/invasives/codesN.html) WEEDDAR = Weed Data and Reporting (database program) WIMS = Weed Information Management System WRA = weed risk assessment (i.e. the predictive tool) (http://plants.ifas.ufl.edu/assessment/)

GOAL 1

Create, strengthen and sustain the East Central Florida Cooperative Invasive Species Management Area (ECF CISMA). Form and sustain a strong partnership through ECF CISMA.

1.1. Develop basic organizational structure for ECF CISMA.
- 1.1.1. In 2010 use CWMA cookbooks and current CISMA examples to help form and sustain ECF CISMA.
- 1.1.2. In 2010 coordinate a meeting with enthusiastic regional partners to form a new ECF CISMA.
- 1.1.3. In 2010 establish geographic boundaries, a steering committee and a chair.
- 1.1.4. In 2011 and as needed, create standing subcommittees and ad hoc committees to assist with project specific ECF CISMA efforts.

1.2. Sustain and strengthen ECF CISMA
- 1.2.1. Starting in 2010, schedule CISMA meetings at least twice per year.
- 1.2.2. Starting in 2010, annually recruit new, and maintain current membership in the ECF CISMA.
- 1.2.3. Starting in 2011, and every 2 years (or as needed) review steering committee and subcommittees and revise as appropriate.
- 1.2.4. Starting in 2011, annually develop workplan with CISMA partners.
- 1.2.5. Starting in 2011, create short annual report.
- 1.2.6. During 2014 update strategic plan.

1.3. Submit cooperative funding proposals.

- Emphasis on regional grant applications for target species
- Trust for receiving charitable contributions to leverage public grant applications or maybe a license plate

- 1.3.1. Starting in 2011, annually encourage public land conservation managers to submit FFWCC IPMS cost reimbursement program applications.
- 1.3.2. In 2011 identify lead partner or organization to serve as the recipient and administrator for grants.
- 1.3.3. Starting in 2012, annually submit ECF CISMA grants; consider utilizing less common approaches like landowner incentive programs, staff time as in-kind matches, and shared field staff.

1.4. Generate legal documents to strengthen ECF CISMA.
- 1.4.1. In 2011 sign a MOU or other document allowing public agency staff to work on other agency/NGO/private lands (if required to allow agencies to work on partner lands).
- 1.4.2. In 2011 create or use existing liability releases (for example - TNC or DOF) for partners to work on private lands.
- 1.4.3. By 2014 write or find and modify an existing CISMA partner MOU, or other document, or use future FISP CISMA MOU, to facilitate partner agency participation and support of CISMA goals and objectives.

GOAL 2

Prevention -Develop and/or implement techniques and practices to prevent establishment and spread of new invasions near the ECF CISMA boundaries.

Plants

2.1. Develop and/or find and use an existing alert system to identify new terrestrial and aquatic non-native plant invasions near, or at the boundaries of, ECF CISMA lands and waters.

2.1.1. Starting in 2010, quarterly review EDDMapS database and/or other alert system databases for new terrestrial invasive plants adjacent to ECF CISMA. If new plant species is found, include in EDRR prioritization.

2.1.2. Starting in 2010, quarterly review EDDMapS and/or USGS NAS for new aquatic invasive plants adjacent to ECF CISMA waters. If new plant species is found adjacent to CISMA, include in EDRR prioritization.

2.2. Reduce potential pathways of introduction for terrestrial and aquatic (marine and freshwater), invasive non-native plant species into the ECF CISMA.

2.2.1. In 2011 Develop and/or find and use existing guidelines for vehicle, boats, equipment, personal protective equipment and personnel disinfection program/protocol(s) to address the unintentional movement of terrestrial and aquatic invasive plants. Consider using FFWCC IPMS or other decontamination standards.

2.2.2. In 2011 implement vehicle, boat, equipment and personnel disinfection program/protocol(s) for use by CISMA partners (researchers, fire crews, public works, FDOT, FDOF, and others).

2.2.3. In 2012 encourage use of decontamination guidelines by all contractors (for example - invasive plant management contractors, wildlife service's contractors, etc…).

2.2.4. In 2012 all ECF CISMA partners will actively push for purchase of only weed-free mulch, pine-straw, hay, sod, etc...(that is - create the demand)

2.2.5. In 2013 ECF CISMA partners will develop and/or use existing preventative guidelines for conducting ground disturbing activities (for example - timber harvest/transport, prescribed fire, fire suppression, off-road vehicle use, or contracted activities on partner lands).

2.3. Incorporate IFAS WRA into ECF CISMA invasive plant ranking and planning process.

2.3.1. Starting in 2010, annually review results of WRA for plant species to be watched. If new plant species is listed as invasive, include in EDRR prioritization.

Animals

2.4. Develop and/or find and use existing alert type system to identify new animal invasions near, or at the boundaries of, ECF CISMA lands.

2.4.1. Starting in 2010, quarterly review EDDMapS database and other sources of new species alerts (for example - USGS NAS database, shell collecting groups, bird boards, etc…) for new invasive animals adjacent to CISMA. If new animal species is found adjacent to CISMA, include in EDRR prioritization.

2.5. Reduce potential pathways of introduction for invasive animal species into the ECF CISMA.

2.5.1. In 2011 assist and participate in FFWCC or other Pet Amnesty Days.

Pest and Pathogens

2.6. Reduce potential pathways of introduction for invasive pest/pathogens species into the CISMA.

2.6.1. In 2013 implement a vehicle, equipment and personnel disinfection program/protocol to address the unintentional movement of invasive pest/pathogens for use by ECF CISMA partners (researchers, fire crews, public works, FDOT,

FDOF, and others). (**Note: This will likely already be addressed in plant objective above**).

2.7. Develop or find and use an existing alert type system to identify new invasive pest/pathogen invasions near CISMA lands and waters.

2.7.1. Starting in 2010, quarterly review EDDMapS database for new invasives adjacent to ECF CISMA. If new pest or pathogen is found adjacent to CISMA, include in EDRR prioritization.

GOAL 3

Early Detection and Rapid Response (EDRR) -Develop and implement techniques and practices to promote early detection and rapid response of newly established invasive species within the ECF CISMA boundaries.

- Buffer zone protocols for public properties
- Generally accepted treatment protocols or best management practices addressing each target species
- Species verification protocol and authority

Plants

3.1. Use existing alert type systems and partner communications to identify new plant invasions within ECF CISMA lands and waters.

3.1.1. Starting in 2010, annually have ECF CISMA partners discuss new plant species that they have observed during the regularly scheduled meeting.

3.1.2. Starting in 2010, quarterly review EDDMapS database and/or other alert system databases for new terrestrial invasive plants within ECF CISMA. If new plant species is found in CISMA, include in EDRR prioritization.

3.1.3. Starting in 2010, quarterly review EDDMapS and/or USGS NAS for new aquatic invasive plants within ECF CISMA waters. If new plant species is found in CISMA, include in EDRR prioritization.

3.2. Prioritize EDRR plant species on ECF CISMA lands and/or waters.

- Ranked plant lists by geographical area or county with EDD map corollaries

3.2.1. In 2011 create a list of possible EDRR terrestrial and/or aquatic plant species from best available information from ECF CISMA partners, adjacent CISMAs, CISMA prevention alert system, FLEPPC, FISP, FNAI, IFAS and EDDMapS.

3.2.2. In 2011 use a ranking system (USGS, others) to prioritize top [insert #] EDRR plant species.

3.2.3. Starting in 2012, annually or as needed, reassess EDRR plant list.

3.3. Eradicate high ranking EDRR plant species on ECF CISMA lands and/or waters.

3.3.1. Starting in 2013, annually conduct cooperative workdays to eradicate high priority EDRR and prevention plant species (newly in or adjacent to CISMA).

- Procedure for ECF CISMA coordinated work days

Animals

3.4. Use existing alert type systems and partner communications to identify new animal invasions within ECF CISMA lands and waters.

3.4.1. Starting in 2011, annually have ECF CISMA partners discuss new animal species that they have observed during the regularly scheduled meeting.

3.4.2. Starting in 2011, quarterly review EDDMapS database and/or other alert system databases for new terrestrial invasive animals within ECF CISMA. If new species is

found in CISMA, include in EDRR prioritization.

3.4.3. Starting in 2011, quarterly review EDDMapS and/or databases for new aquatic invasive animals within CISMA waters. If new species is found in CISMA, include in EDRR prioritization.

Pest/pathogens -See Goal 4: Control; Pest/pathogens

GOAL 4

Control (Prioritized Management) - Develop and implement techniques and practices to control known infestations of priority invasive non-native species and maintain them at the lowest feasible level in the ECF CISMA boundaries.

- Buffer zone protocols for public properties
- Generally accepted treatment protocols or best management practices addressing each target species

Plants

4.1. Prioritize known ECF CISMA invasive non-native plants (that is - plants that have spread beyond ability to eradicate) using a ranking system that considers the impact of imperiled species and/or habitats and if necessary, other criteria.

4.1.1. In 2010 develop a list of known invasive plants within ECF CISMA boundaries.

4.1.2. In 2011 prioritize invasive plant control species using a ranking system (USGS, local expert opinion, other) and best available information from ECF CISMA partners, FLEPPC, FISP, FNAI, IFAS and EDDMapS.

4.1.3. Starting in 2012, annually assess and update prioritized list of invasive plant control species.

4.2. Implement coordinated ECF CISMA management of the top 2 priority invasive plant control species to reduce infestations to maintenance level.

4.2.1. Starting in 2012, emphasize top 2 priority invasive plant control species by focusing ECF CISMA partner efforts.

4.2.2. Starting in 2011, annually increase acres of priority invasive plant control species being treated and acres under maintenance level control on public conservation lands (for example - using FFWCC IPMS and other funds).

4.2.3. Starting in 2012, annually increase acres of priority invasive plant control species being treated and acres under maintenance level control on private conservation lands (for example - nonprofit conservation lands, conservation easement lands, etc.).

4.2.4. Starting in 2011, biannually coordinate a cooperative workday focusing on priority invasive plant control species.

Animals

4.3. Prioritize known ECF CISMA invasive animals (that is - animals that have spread beyond ability to eradicate) using a ranking system that considers the impact of imperiled species and/or habitats and if necessary, other criteria.

4.3.1. In 2012 develop a list of known invasive animals on ECF CISMA lands (for example - feral hogs).

4.3.2. In 2013 prioritize invasive animal control species using a ranking system and best available information from CISMA partners, FFWCC, FNAI, EDDMapS and others.

4.4. Manage the high priority invasive animal control species in order to reduce damage and/or

population size.

4.4.1. Starting in 2013, emphasize the top 2 priority invasive animal control species by focusing ECF CISMA partner efforts on these at all opportunities.

GOAL 5

Monitoring, Mapping and Applied Research -Promote locating and documenting occurrences, and supporting applied research, prevention, EDRR and control to inform ECF CISMA decisions.

5.1. Coordinate monitoring and mapping of invasive plants, animals, pests/pathogens (terrestrial, freshwater and marine.)

5.1.1. Beginning in 2010, quarterly record invasive species from field observations and mapping projects into ECF CISMA EDDMapS and/or FNAI's invasive databases. Encourage use of EDDMapS for EDRR species and single occurrence entry and FNAI for large census/polygon data.

5.1.2. In 2010, recruit and assign plant verifier(s) to oversee ECF CISMA plant record entries into EDDMapS.

5.1.3. In 2012, recruit and assign animal verifiers to oversee ECF CISMA animal record entries into EDDMapS.

5.1.4. By 2013 use EDDMapS database, FNAI's invasive maps, and information from land managers and private landowners to create CISMA prioritized invasive management maps of top ranked EDRR and control species.

5.2. Encourage research on invasive plants, animals, pests/pathogens (terrestrial, freshwater and marine).

5.2.1. By 2012 submit a list of questions to research institutions that would be useful to your ECF CISMA on invasive species biology, impacts, and/or management (e.g university and college biology departments, FLEPPC, FISP, chemical company representatives, or other research entities).

GOAL 6

Outreach, Training and Strategic Collaboration- Implement outreach and training to support invasive species prevention, EDRR and control efforts in the ECF CISMA boundaries.

- Forum for sharing technical information and phased accomplishments at regular intervals
- Certification program to legitimize practitioners

6.1. Implement invasive species outreach, training and strategic collaboration efforts with ECF CISMA partners to increase CISMA community knowledge as well as statewide profile.

- Outreach days for recruiting private property participation

6.1.1. In 2010 work with FISP to develop ECF CISMA website.

6.1.2. Starting in 2010, quarterly, or as needed, maintain and improve ECF CISMA website.

6.1.3. Starting in 2010, participate in statewide CISMA monthly calls and FLEPPC annual CISMA meeting (both coordinated by FISP).

6.1.4. Starting in 2010, annually contact the media through press/photo releases and radio to highlight CISMA efforts on invasive species. Consider doing this during National Invasive Species Awareness Week (held annually in spring).

6.1.5. By 2010 hold annual trainings for ECF CISMA partners and targeted audiences on how to use the EDDMapS online database to report occurrences of invasive species (with priority placed on reporting EDRR and prevention species).

6.1.6. Starting in 2011, maintain and improve ECF CISMA knowledge by communicating with experts (for example - invite experts to present information at CISMA meetings).

6.1.7. Starting in 2011, annually conduct at least one invasive terrestrial plant identification and treatment training focusing on priority prevention, EDRR and control species (if possible, coordinate with IFAS Extension Agent).

6.1.8. By 2011 compile a communication network contact list in order to establish alert system for partners both within and adjacent to CISMA boundary (for example - adjacent CISMAs). Assign a CISMA member to send emails to this network when new threat/emerging issue is identified. Also, encourage CISMA members to sign up for EDDMapS alerts (on EDDMapS website).

6.2. Implement invasive species outreach and training efforts with academic/education infrastructure.

6.2.1. In 2011 develop a list of extension offices and environmental education centers within ECF CISMA boundaries and provide them with materials about invasive species prevention and control (for example - put together packet of information on CISMA, CISMA priorities and relevant fact sheets/educational information and assign members to distribute this information to offices/centers).

6.2.2. In 2011 work with Cooperative Extension Master Gardener Program and local garden clubs to include programming that promotes the removal of invasive plants and encourages the use of non-invasive plants.

6.3. Increase invasive species outreach efforts to private industries and organizations, utilities and rights-ofway agencies.

6.3.1. In 2011 work with retailers to reduce the sale and release of invasive animals. Encourage retailers to display and distribute the “Don’t Release Unwanted Pets” poster and cards (statewide effort organized through UF-IFAS and Sea Grant, find at http://stjohns.ifas.ufl.edu/sea/DontRelease.html).

6.3.2. By 2013 create a communication network contact list for private industries and organizations, utilities and rights-of-way agencies (for example - railroads, utilities, ranges, nurseries, botanical gardens, pet stores, animal rehabilitation centers, landscapers, architects, foresters, county animal control, FDOT, and other ROW agencies).

6.4. Implement outreach and training efforts to private landowners and landowner associations.

6.4.1. In 2011 encourage all ECF CISMA partners to place “Do Not Move Firewood” poster at all public conservation lands, public and private campgrounds and other high-use recreational areas.

6.5. Increase outreach and awareness efforts to policy makers.

6.5.1. Starting in 2011, share ECF CISMA Annual Reports with elected officials during National Invasive Species Awareness Week (held annually in spring).

6.5.2. Starting in 2011, annually get county(s) proclamations supporting ECF CISMA goals and invasive species control. Coordinate press releases upon/after signing. Consider doing this during National Invasive Species Awareness Week (held annually in spring).