

Cooperative Invasive Species Management Area Of Lake County Five Year Strategic Plan (January 1, 2010 through December 30, 2014)

MISSION STATEMENT

Implement a cooperative framework for agencies, private landowners and other land managers to work across boundaries to address the threats of invasive species to the lands and waters in Lake County.

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 = “ “ “ “ “ “ “ “ 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 CISMA of Lake County

Objective: Form and sustain a strong partnership through CISMA.

1. Develop basic organizational structure for CISMA.
 - a) In 2009, use CWMA cookbooks and current CISMA examples to help form and sustain CISMA.
 - b) In 2009, coordinate a meeting with enthusiastic regional partners to form a new CISMA.
 - c) In 2009, establish geographic boundaries, a steering committee and a chair.
 - d) In 2010 and as needed, create standing subcommittees and ad hoc committees to assist with project specific CISMA efforts.

2. Sustain and strengthen CISMA
 - a) Starting in 2009, schedule CISMA steering committee meetings at least quarterly.
 - b) Starting in 2010, schedule at least one general membership meeting or workshop per year.
 - c) Starting in 2010, annually recruit new, and maintain current membership in the CISMA, including at least 2 from private industry in general membership (e.g. CSX, Florida Rock Industries, Sequel).
 - d) Starting in 2010, and then every 2 years (or as needed) review steering committee and subcommittees and revise as appropriate.
 - e) Starting in 2010, annually develop work plan (“action item list”) with CISMA partners during first quarterly meeting.
 - f) Starting in 2009, create short annual report.
 - g) During 2014 update strategic plan.
 - h) By 2014 hire a part time staff person to coordinate CISMA activities.

3. Submit cooperative funding proposals.
 - a) Starting in 2011, annually encourage public land conservation managers to submit FFWCC IPMS cost reimbursement program applications and participate in local working group ranking system development.
 - b) In 2010 identify lead partner or organization to serve as the recipient and administrator for grants.
 - c) Starting in 2011, annually submit CISMA grants; consider utilizing less common approaches like landowner incentive programs, staff time as in-kind matches, and shared field staff.
 - d) By 2011 develop a list of funding programs with due dates for control, EDRR, education and other projects.

4. Generate legal documents to strengthen CISMA.
 - a) In 2010 develop and provide an MOU or liability waiver or other document allowing public agency staff to work on other agency/NGO/private lands and to allow agencies to work on partner lands.
 - b) In 2010 create or use existing liability releases (e.g. TNC or DOF) for partners to work on private lands.
 - c) In 2011 begin drafting a CISMA partner MOU, or other document, or use future FISP CISMA MOU, to facilitate partner agency participation and support of CISMA goals and objectives.
 - d) By 2012, have a signed MOU.

Goal 2: Prevention

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

1. Plants (and Pest and Pathogens)
 - a) Participate in an alert system to identify new terrestrial and aquatic non-native plant invasions near, or at the boundaries of, CISMA lands and waters. (Most steps in section a) apply directly to Goal 3:EDRR,

and are repeated there, but since they also set the stage for an overall movement toward prevention, so are included here.)

- i. Starting in 2010, quarterly review EDDMapS database and/or other alert system databases for new terrestrial invasive plants adjacent to CISMA. If new plant species is found adjacent to CISMA, include in EDRR prioritization.
 - ii. Starting in 2010, 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.
- b) Reduce potential pathways of introduction for terrestrial and aquatic (marine and freshwater), invasive non-native plant species into the CISMA.
- i. Educate employees: assist partner agencies with developing, or finding and using existing, guidelines for vehicle, boats, equipment, personal protective equipment and personnel disinfection programs and protocols to address the unintentional movement of terrestrial and aquatic invasive plants.
 1. In 2010 use FFWCC IPMS or other decontamination standards.
 2. In 2010 implement vehicle, boat, equipment and personnel disinfection program/protocol(s) for use by CISMA partners (researchers, fire crews, public works, FDOT, FDOF, and others).
 3. In 2011 require use of decontamination guidelines by all contractors (e.g. invasive plant management contractors, wildlife services contractors, mowers, etc...).
 - ii. In 2011 all CISMA partners will seek to reward vendors of only weed-free mulch, pine-straw, hay, sod, etc...(i.e. create the demand), and actively push for enforcement of existing codes or ordinances where vendors are not selling such.
 - iii. In 2012 encourage use of decontamination guidelines by private landscapers, lawn companies and other outdoor service contractors.
 - iv. In 2012 CISMA partners will develop and/or use existing preventative guidelines for conducting ground disturbing activities and other vector/source activities (e.g. timber harvest/transport, prescribed fire, fire suppression, off-road vehicle use, or contracted activities on partner lands). [CISMA would also like to provide info on invasives as related to fire management.]
- c) Incorporate IFAS Weed Risk Assessment into CISMA invasive plant ranking and planning process.
- i. 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.
 - ii. Starting in 2011, if a new non-native plant is found in the CISMA or surrounding geography, request IFAS run this incipient species through the WRA.
 - iii. In 2011, engage local demonstration gardens, garden clubs or societies, or similar, to use the FLEPPC list, and beyond that, the WRA or other predictive tool to assess the invasive threat of new and existing accession plants, and engage them to resolve that if a new or existing plant they are selling, trading or promoting is listed as invasive, stop planting and remove from sales and share why. Also, include in EDRR prioritization if it has escaped.
 - iv. By 2012 explore the feasibility of rewarding developers or others, including buyers, for acknowledging WRA listed species, and not inserting new or FLEPPC list species; and also of banning 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. Animals

- a) Develop and/or find and use existing alert type system to identify new animal invasions near, or at the boundaries of, CISMA lands. Starting in 2010, quarterly review EDDMapS database and other sources of new species alerts (e.g. 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.

- b) Reduce potential pathways of introduction for new invasive animal species into the CISMA.
 - i) In 2011 assist and participate in FFWCC Pet Amnesty Days.
 - ii) In 2013 work with partners to identify pathways and modes of transport for invasive animals to move into the CISMA.

Goal 3: Early Detection and Rapid Response (EDRR)

Objective: Develop and implement techniques and practices to promote early detection and rapid response of newly established invasive species within the CISMA boundaries.

1. Plants and Animals

- a) Use existing alert type systems and partner communications to identify new plant and animal invasions within CISMA lands and waters.
 - i. Starting in 2010, quarterly have CISMA partners discuss new species that they have observed.
 - ii. Starting in 2010, quarterly review EDDMapS database and/or other alert system databases for new terrestrial invasive plants and animals within CISMA. If new species is found in CISMA, include in EDRR prioritization.
 - iii. Starting in 2010, quarterly review EDDMapS and/or USGS NAS for new aquatic invasive plants and animals within CISMA waters. If new species is found in CISMA, include in EDRR prioritization.
 - iv. By 2012 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.

- b) Prioritize EDRR plant species on CISMA lands and/or waters.
 - i. In 2010 create a list of possible EDRR species from best available information from CISMA partners, adjacent CISMAs, CISMA prevention alert system, FLEPPC, FISP, FNAI, IFAS and EDDMapS.
 - ii. In 2010 reduce list to top 20 EDRR plant species and top 2 EDRR animal species.
 - iii. By 2011 use a ranking system (USGS, others) to prioritize top 20 EDRR species and top 2 EDRR animal species.
 - iv. Starting in 2011, annually or as needed, reassess EDRR list.

- c) Eradicate highest ranking EDRR plant and animal species on CISMA lands and/or waters.
 - i. Starting in 2011, annually conduct cooperative workdays to eradicate high priority EDRR and prevention species (newly in or adjacent to CISMA).
 - ii. In 2011 create a Rapid Response Team and if necessary, response protocol, to eradicate high priority EDRR species.
 - iii. In 2012 hire contractors to eradicate high EDRR species, if needed.

- d. By 2012 submit petitions to FDACS for listing of high priority EDRR and control invasive plants as noxious weeds.

2. Pest/pathogens: Same as Goal 4: Control; 3. Pest/pathogens

Goal 4: Control (Prioritized Management)

Objective: 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.

1. Plants

- a) Prioritize known CISMA invasive plants using a ranking system that considers the impact of imperiled conservation targets and if necessary, other criteria like economics.
 - i. In 2010 develop a list of known invasive plants within CISMA boundaries.
 - ii. In 2010 prioritize species on list using a ranking system (USGS, other) and best available information from CISMA partners, FLEPPC, FISP, FNAI, IFAS and EDDMapS.
 - iii. Starting in 2011, annually assess and update prioritized list of invasive plants and control techniques.
- b) Emphasize top 5 priority control species by focusing CISMA partner efforts on these at all opportunities.
 - i. Starting in 2010, biannually coordinate a cooperative workday focusing on priority control species. (Also look into establishing a “weed warriors’ group.)
 - ii. Starting in 2010, annually increase treatment of prioritized, invasive plants on public non-conservation lands (e.g. ROWs, spoil mounds, recreational parks).
 - iii. Starting in 2011, annually increase public conservation lands treated and maintained with FFWCC IPMS and other funds.
 - iv. Starting in 2014, determine invasive free buffer areas within CISMA boundaries and annually increase the size of invasive free buffer areas around conservation lands.
 - v. Starting in 2014, annually increase net acreage treated on prioritized private lands.
- b) Reduce sale, planting or other modes of spread of species we are controlling (illegal and legal).
 - i. Starting in 2010 identify and engage sellers to voluntarily stop selling known invaders.
 - ii. Starting in 2010 identify and engage appropriate local regulatory and enforcement agencies for local ordinances, comprehensive plans, landscape rules.

2. Animals

- a) In 2010 develop a list of known invasive animals on CISMA lands (e.g. feral hogs, iguanas, Cuban tree frogs).
- b) In 2010 prioritize species on list using a ranking system and best available information from CISMA partners, FFWCC, FNAI, EDDMapS and others.
- c) Starting in 2011, investigate ways to assist in animal control plans for public and private lands. Some methods that will be used include:
 - i. Pet Amnesty Days
 - ii. Education campaign to reduce/cease sale or other modes of spread.
 - iii. Offer workshop on permitting requirements for non-native pet trade.
- d) Starting in 2011, annually assess and update prioritized list of invasive animals and control techniques.
- e) Starting in 2012, annually submit requests to FFWCC to include updated prioritized control species to restrictive lists (i.e. Reptiles of Concern List, conditional species, prohibitive species, etc...).

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

- a) Research and prioritize known and potential invasive pest /pathogen species.

- b) Investigate tested and potential control methods and apply as feasible and reasonable.
 - i. Biological
 - ii. Chemical
 - iii. Mechanical
 - iv. Determine if this is a critical and effective action for land managers and not a waste of time and resources.
- c) Research and apply methods other than invasive control to protect native populations (e.g. Collect seeds, treat with chemicals).

Goal 5: Monitoring, Mapping and Applied Research

Objective: Promote locating and documenting occurrences, and supporting applied research, of prevention, EDRR and control species to inform CISMA decisions.

1. Coordinate monitoring and mapping of invasive plants, animals, pests/pathogens (terrestrial, freshwater and marine.)
 - a) Beginning in 2010, quarterly record invasive species from field observations and mapping projects into CISMA EDDMapS and/or FNAI's invasive databases.
 - i. Encourage CISMA partners to use EDDMapS for EDRR species and single occurrence entry.
 - ii. Encourage CISMA partners to use FNAI for large census/polygon and distribution data.
 - b) Create a verification standing committee to oversee CISMA record entries into EDDMapS.
 - i. In 2010, annually recruit and assign plant verifiers.
 - ii. In 2012, annually recruit and assign animal verifiers.
 - c) Starting 2010 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.
 - d) Starting in 2011, 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).
 - e) Starting in 2010, annually use monitoring results to inform management and to assist in prioritization of targeted lands and waters.
 - f) Beginning in 2012, annually coordinate an update meeting or produce a standardized report of CISMA invasive treatments.
 - g) By 2014 assist partners to complete transition to all digital reporting of treatment efforts for updates or standardized report (e.g. WEEDDAR, WIMS, etc).
 - h) By 2014 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).
2. Encourage research on invasive plants, animals, pests/pathogens (terrestrial, freshwater and marine).
 1. In 2011 inform USDA ARS, IFAS/University of Florida, and/or others of CISMA lands and managers that are willing to participate in bio-control trials.
 2. In 2012 submit a list of questions about invasive species biology, impacts, and/or management to university and college biology departments, FLEPPC, FISP, chemical company representatives, or other research entities.

Goal 6: Outreach, Training and Strategic Collaboration

Objective: Support outreach and training to support prevention, EDRR and control efforts in the CISMA boundaries.

1. Implement outreach, training and strategic collaboration efforts within CISMA partners and membership to increase CISMA community knowledge as well as statewide profile.
 - a) Implement outreach and training efforts to CISMA partners and land managers
 - i. Starting in 2010, quarterly, or as needed, maintain and improve CISMA website (hosted by FISP).
 - ii. Starting in 2009, representative members participate in monthly statewide CISMA calls and annual FLEPPC CISMA meeting (coordinated by FISP).
 - iii. Starting in 2010, establish, maintain and improve CISMA knowledge by communicating with experts, and keeping a communication link.
 - iv. Develop a CISMA invasive species reference that includes CISMA priority species (all taxa) and BMPs.
 - v. Plants: Starting in 2010, conduct identification and treatment trainings with IFAS Extension Agent or other appropriate professionals.
 - vi. Aquatic plants and animals: Starting in 2011, [coordinate with Florida Sea Grant] for one regional invasive identification and BMPs workshop.
 - vii. Animals: Starting in 2012, develop a control training workshop.
 - viii. By 2012 create or find existing materials for a fact sheet / poster to increase knowledge of current laws and distribute to CISMA partners.
 - ix. In 2011 encourage all CISMA partners to place “Do Not Move Firewood” poster at all public conservation lands and high-use recreational areas.
 - b) Implement outreach, training and strategic collaboration efforts to support the CISMA’s prevention and EDRR efforts.
 - i) By 2010 hold annual trainings to use EDDMapS database for CISMA partners and targeted audiences.[As part of General Membership meeting/workshop]
 - ii) By 2011 create a communication network contact list to establish alert system for surrounding areas outside CISMA boundary.
 - iii) By 2011 hold annual trainings for EDRR.
 - iv) By 2013 develop stronger working and communication relationship with surrounding areas and surrounding CISMAs; share EDDMapS training and encourage tracking.
 - c) Starting in 2009, annually publicize and get proclamations regarding mapping reports or other projects, and otherwise coordinate press releases or public awareness activities.
2. Implement outreach and training efforts with academic/education infrastructure in CISMA communities. In 2010, establish a subcommittee for outreach that would “specialize” in this audience. A work plan for this subcommittee might include any of these items:
 - a) Develop a list of environmental education centers and distribute educational materials about prevention and control.
 - b) Plant: In 2010 work with Cooperative Extension Master Gardener Program and local garden clubs to promote the removal of invasive plants and use of native plants.
 - c) Aquatics: Starting in 2011, work with Florida Sea Grant and other coastal partners to implement Hitchhiker Program in CISMA and distribute outreach materials to local marinas and at fishing tournaments.

- d) In 2010 develop list of schools, scout groups, community festivals, environmental festivals and others who could help with education about prevention, EDRR and control, and develop strategic relationships with key environmental orgs to further push.
 - e) In 2010 choose short list of priority education volunteer programs for CISMA to implement that simultaneously build up invasive volunteer programs and raise awareness (e.g., student work days, invasive survey recruitment and training programs, Pepper Busters creation, etc.).
3. Increase outreach efforts to private industries and atypical public agencies (railroads, utilities, ranges, nurseries, botanical gardens, pet stores, animal rehabilitation centers, landscapers, architects, foresters, county animal control, FDOT, and other ROW agencies).
 In 2010, establish a subcommittee for outreach that would “specialize” in this audience. A work plan for this subcommittee might include any of these items:
- a) By 2012 create a communication network contact list for private industries.
 - b) By 2012 create a communication network contact list for atypical public agencies.
 - c) Animals: By 2011 work with retailers to reduce the sale of invasive animals; support and implement the “Don’t Release Unwanted Pets” poster and card statewide efforts.
 - d) Develop or find existing landscape architect certification course that promotes CISMA goals.
 - e) Create a voluntary code of conduct pledge that will be endorsed and signed by one relevant industry or agency to curb the use and distribution of invasive plant species.
 - f) Work with retailers to reduce the sale of invasive plants (e.g. GreenThumb Program).
 - g) Encourage interpretive signage at visible botanical gardens explaining threat of invasives and alternatives to their use in the landscape (could include demonstration garden)
 - h) Utilize strategic communication vehicles for BMPs and AlterNatives messages such as Extension Service newsletter, FL ASLA and FNGLA Chapter electronic updates, large growers’ newsletters, local environmental groups’ newsletters, etc...
 - i) Publicize signees of voluntary code of conducts lists (e.g. post on website, news articles).
4. Implement outreach and training efforts to private landowners and landowner associations. By 2012, identify a CISMA lead or subcommittee to develop working relationships with landowners or associations. A work plan for this subcommittee might include any of these items:
- a) Identify specific private landowners for education.
 - b) Develop landowner ‘outreach’ packets to send priority landowners (include species information, training courses, etc...).
 - c) Implement a training effort about the top 5 high priority EDRR and control species to these specific private landowners and landowner associations.
 - d) Develop, or acquire existing materials, about native, or non-invasive plants, as an alternative to invasives for erosion control, wildlife forage, landscaping, etc.
 - e) Begin annual conservation champion award to landowner.
 - f) Annually contact the media through press/photo releases and radio to highlight private lands initiative and available resources.
 - g) Create or use existing materials for a fact sheet / poster to increase knowledge of funding opportunities, current laws and distribute to individuals with goal of enrolling landowners in funding programs (this is on FISP website).
 - h) Develop voluntary agreement for landowners that support CISMA EDRR, control and prevention efforts (for plants this is on VCC).
5. Increase outreach and awareness efforts to policy makers.
- a) Starting in 2010, share Annual Weed/Animal Reports with elected officials during NISAW/NIWAW (annually in January/February).
 - c) By 2010, begin working with county Planning & Zoning Departments to encourage environmentally friendly landscape ordinances.

- c) Starting in 2013, annually visit with newly elected local government officials to support funding, EDRR, prevention and other CISMA goals.