

Addressing the Everglades Invasive Species Crisis



old World climbing fern
Lygodium microphyllum
Photo by Jeff Hutchinson
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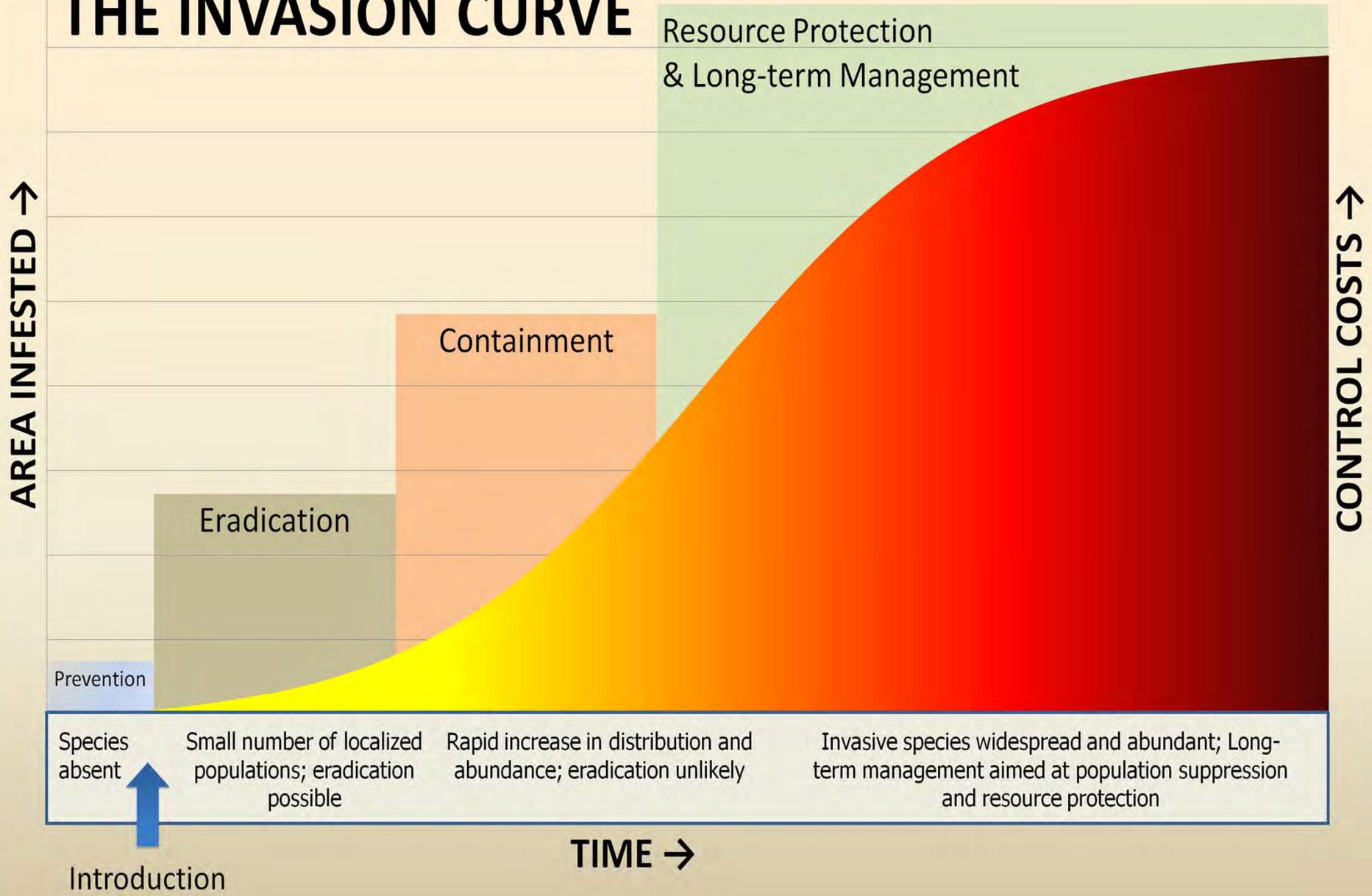
The Issue

- Effective invasive species management requires an integrated approach with sustained resources and involves:
 - long-term suppression of established species
 - containment of established but localized populations
 - detection and possible eradication of newly established species
 - prevention of new introductions of un-established species
 - cross-jurisdictional coordination
- However,
 - Coordination and implementation is often ad hoc and reactive without well defined strategies;
 - Existing programs have had success and some areas could be as successful with additional resources.

Task Force Direction to WG/SCG

- Conduct a comprehensive review of current efforts to combat invasive exotics and present updated recommendations for how to improve our efforts and boost our effectiveness.

THE INVASION CURVE



Prevention

Eradication

Containment

Resource Protection
& Long-term Management

Species
absent

Small number of localized
populations; eradication
possible

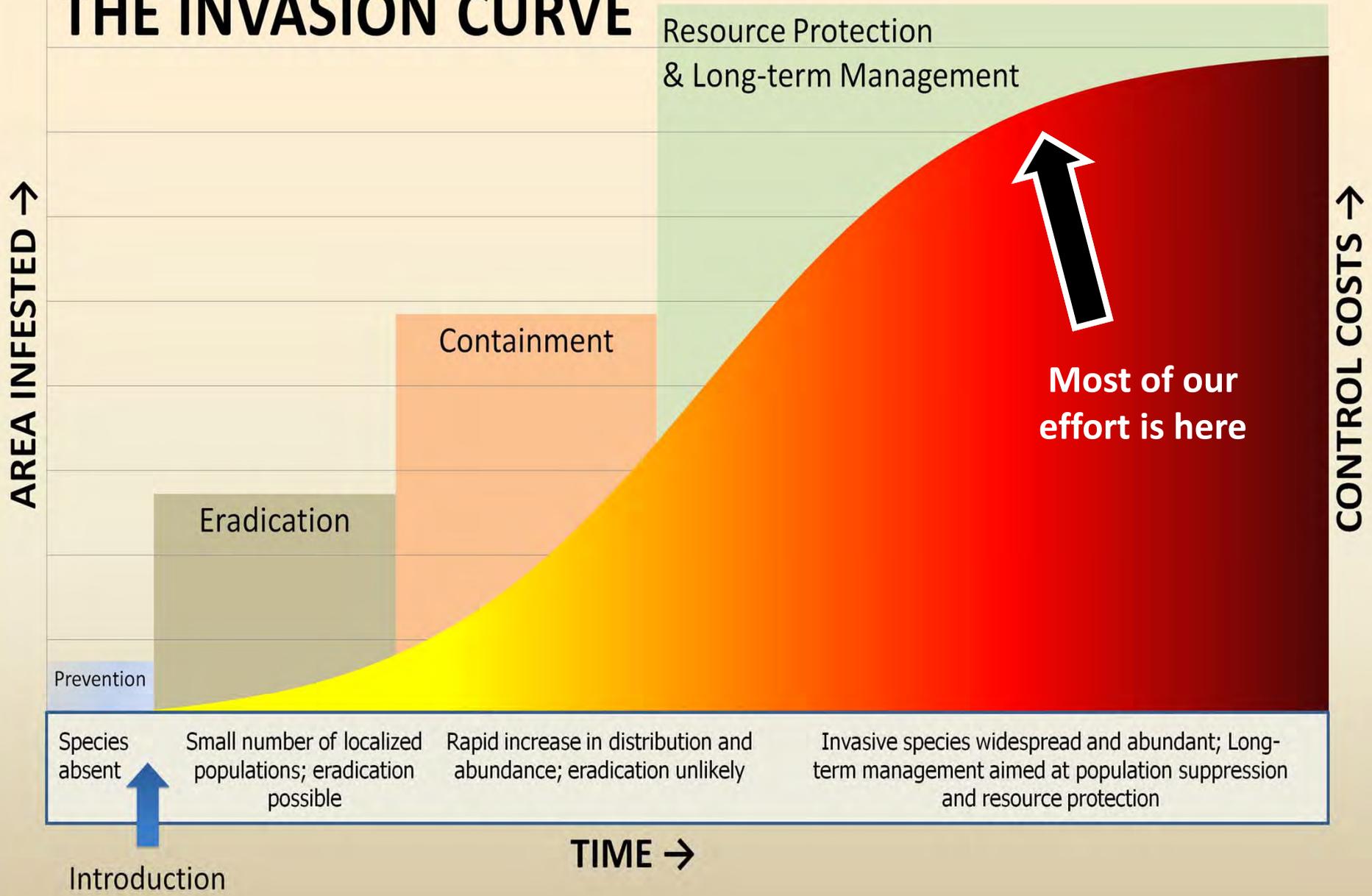
Rapid increase in distribution and
abundance; eradication unlikely

Invasive species widespread and abundant; Long-
term management aimed at population suppression
and resource protection

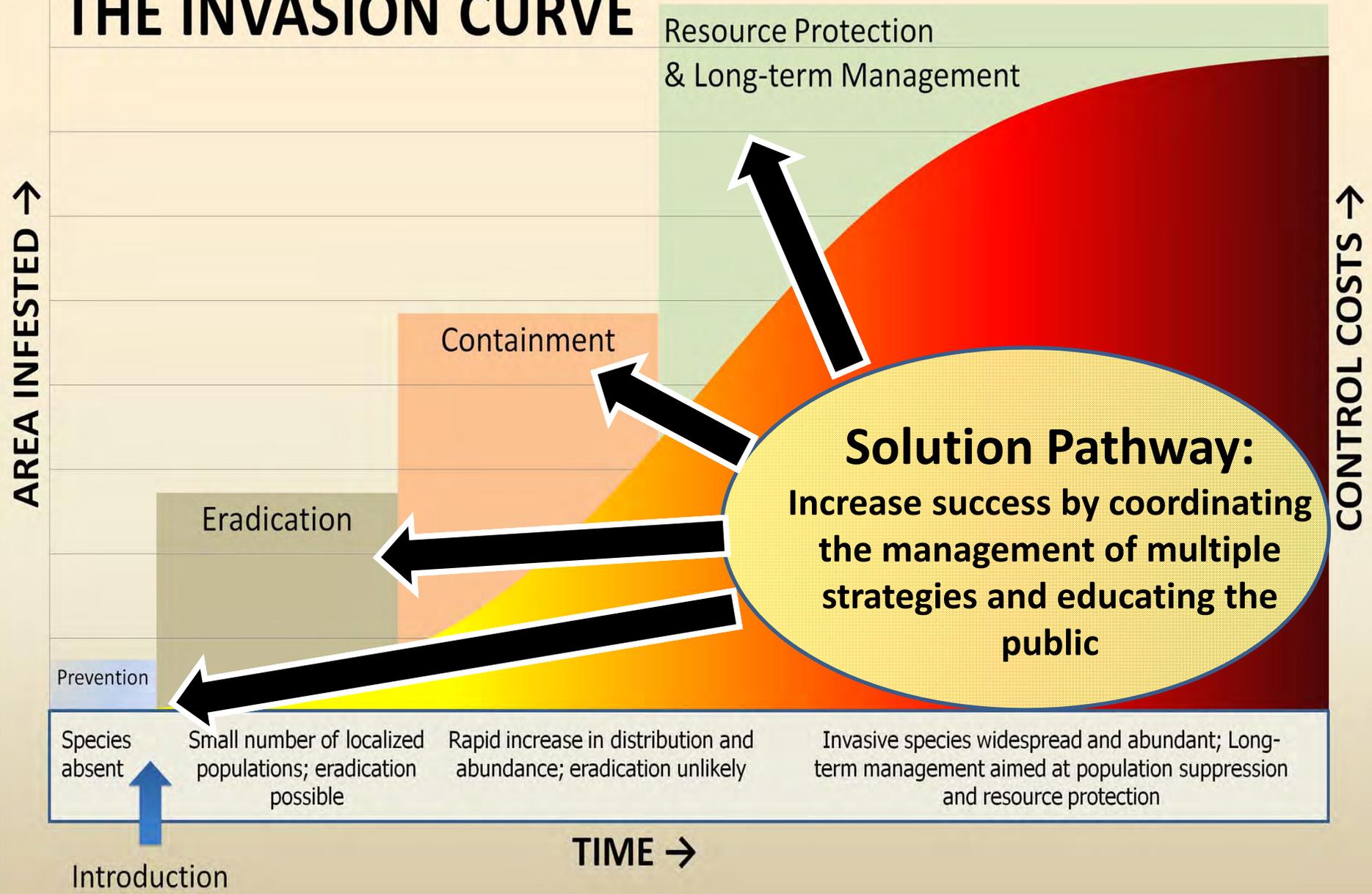
Introduction

TIME →

THE INVASION CURVE



THE INVASION CURVE



THE INVASION CURVE

Resource Protection & Long-term Management

Containment

Eradication

Prevention

Solution Pathway:
Increase success by coordinating the management of multiple strategies and educating the public

Species absent

Small number of localized populations; eradication possible

Rapid increase in distribution and abundance; eradication unlikely

Invasive species widespread and abundant; Long-term management aimed at population suppression and resource protection

Introduction

TIME →

Much has been done...

- Melaleuca Management Plan
 - Interagency, region-wide management
- FLEPPC
 - invasive plant list & management plans
- IFAS Weed Assessment – Predictive Tool
- SFERTF's NEWTT: Weeds Wont Wait
 - strategic plan for exotic plants
- SFERTF's FIATT
 - Priority Invasive Animal List & strategy document
- ECISMA
 - Interagency coordination on rapid response, outreach, etc
- Everglades Invasive Reptile and Amphibian Monitoring Program-EIRAMP

Much more to do...

- Some existing management programs (for established species) are not adequately funded for success in comparison to other programs that showed success.
- We lack a formal, region-wide rapid response mechanism to nimbly react to new invasions;
- Evaluate opportunities to improve legislative, regulatory and policy prevention strategies.

Elements of Solution Pathway for the Restoration Footprint

Long-term management

- Ensure adequate resources for existing management programs
- Invest in R&D for invasive species management tools

Containment

- Ensure adequate resources for existing control programs
- Invest in R&D for invasive species control tools

Coordination & Education

Eradication

- Develop and invest in an effective rapid detection, rapid assessment, and rapid response mechanism for all potentially invasive taxa

Prevention

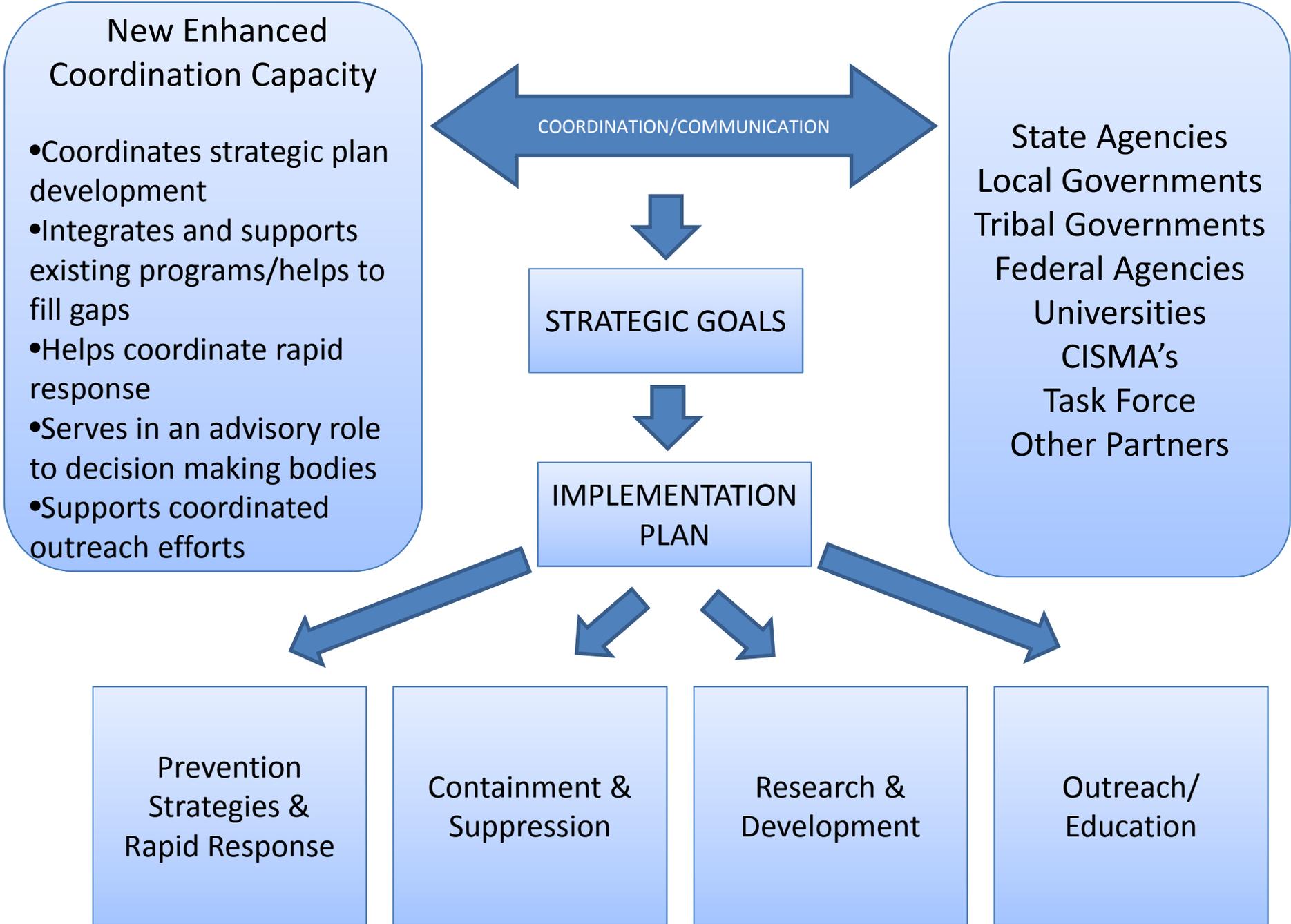
- Develop risk assessment tools
- Evaluate the efficacy of existing screening & prevention regulations/legislation/policies

Containment and Long-term Management

Elements	ECISMA Estimated Resource Requirements	Who Provides Resources	Time Frame	Outcome
<p>Increase level of funding for existing effective management programs for established species</p> <p>Examples of some areas that have been assessed and could show improvements:</p> <ul style="list-style-type: none"> •ENP Exotic Plant Mgmt •Lox NWR Exotic Plant Mgmt •Biological Control Development •FWC Animals •FWC Plants in WCA 2&3 and Holey land/Rotenberger 	<p>\$850k/yr</p> <p>\$1.5M/yr</p> <p>\$1M/yr</p> <p>\$500k/y</p> <p>4.76M</p>	<p>USNPS</p> <p>USFWS</p> <p>USDA</p> <p>FWC</p>	<p>Immediate</p>	<p>Improved restoration outcomes; improved habitat quality and ecosystem function</p>

Broad Level Coordination

Potential Approaches	ECISMA Estimated Resource Requirements	Who Provides Resources	Time Frame	Outcome
Enhanced Coordinating Structure	TBD	TBD	TBD	Fills gaps in resources and coordination at leadership levels
Dedicated Professional Staff		TBD	Immediate	Development and implementation of cross jurisdictional strategy (in close coordination with state, local, and tribal partners)
Establish dedicated operating budget to meet periodic gaps and needs	TBD		Immediate	Implementation of Prevention, Rapid Response, long-term management, and outreach tasks



Eradication

Potential Approaches	ECISMA Estimated Resource Requirements	Who Provides Resources	Time Frame	Outcome
<p>Expand rapid-detection, rapid-assessment, and rapid-response system (EIRAMP) concept</p> <p>Includes development of rapid response strategy document, funding for research, monitoring, control, and assessment.</p>	Need a stable fund based upon implementation needs	TBD	Ongoing	<p>Minimize future impacts to natural resources by minimizing the number of established invasive species.</p> <p>Long-term cost savings for public agencies.</p>
Establish Dedicated Rapid Response Funding	TBD	TBD	Immediate	Capacity to mobilize resources quickly and efficiently in response to newly detected species.

Prevention

Potential Approaches	ECISMA Estimated Resource Requirements	Who Provides Resources	Time Frame	Outcome
Evaluate regulation and legislation prevention initiatives	In-Kind staff support	TBD	Immediate	Enhanced protection of indigenous plants and wildlife by minimizing prevention of future invaders. Long-term cost savings to governmental and tribal agencies.
Develop and implement prevention screening tool for exotic animals		TBD	3-5 years	More informed and science-based screening protocols.

Outreach/Education

Potential Approaches	ECISMA Estimated Resource Requirements	Who Provides Resources	Time Frame	Outcome
Develop and administer outreach program/strategy	~250,000	Task Force Member Agencies	Immediate and ongoing	Enhanced ability to communicate invasive species issues
Design and develop outreach materials		Task Force Member Agencies	Ongoing	Timely production of multimedia educational products for targeted audiences
Conduct public and social media communication and education programs		Task Force Member Agencies/ NGO's and other?	Ongoing	More informed public and decision-makers on the value of enhanced invasive species management in the Everglades restoration footprint

Discussion

A close-up photograph of a tree branch with dark, cracked bark. Several small, white, fuzzy growths are visible on the bark, which are likely ambrosia beetle galleries. The background is dark and out of focus.

- Laura Wilt carried by the Ambrosia Beetle