

Coastal Zone Management Reauthorization

The Perspective of Small Businesses



Seagrass Recovery



About Seagrass Recovery

- Seagrass Recovery has over 12 years of success with seagrass mitigation, restoration and research projects in throughout the world
- Seagrass Recovery is fully focused on seagrass – *our core business*
- Proven Peer Reviewed Scientific Literature reviewed by NOAA, FWC and scientific community seagrass experts
- Our success has been published in FKNMS PEIS, Florida Sportsman and the Journal of Restoration Ecology
- Past projects have received various Environmental Awards, most notably the US Coast Guard Station at Lassing Park
- We utilize multiple proprietary technologies and traditional methods to increase overall viability of the project
- Over 150 successful seagrass projects
- Headquartered in the Tampa Bay Area, Florida



For more information, please visit www.SeagrassRecovery.com

Global Importance of Seagrass

According to the United Nations Press Release:

UNDERWATER LIFE SUPPORT SYSTEM DYING THROUGH IGNORANCE

First 'World Atlas of Seagrasses' reveals vital role of marine meadows

LONDON/NAIROBI, 14 October 2003 – Manatees, dugongs and green sea turtles are just some of the growing list of already threatened species at risk from the destruction of ocean seagrass a new report has revealed. The first-ever global survey of the underwater meadows of seagrass that skirt the world's coasts reveals that 15 per cent of this unique marine ecosystem has been lost in the last 10 years. The findings give new urgency to protect and conserve these important habitats, which are threatened by runoff of nutrients and sediments from human activities on land, boating, land reclamation and other construction in the coastal zone, dredge-and-fill activities and destructive fisheries practices.





Global Importance of Seagrass

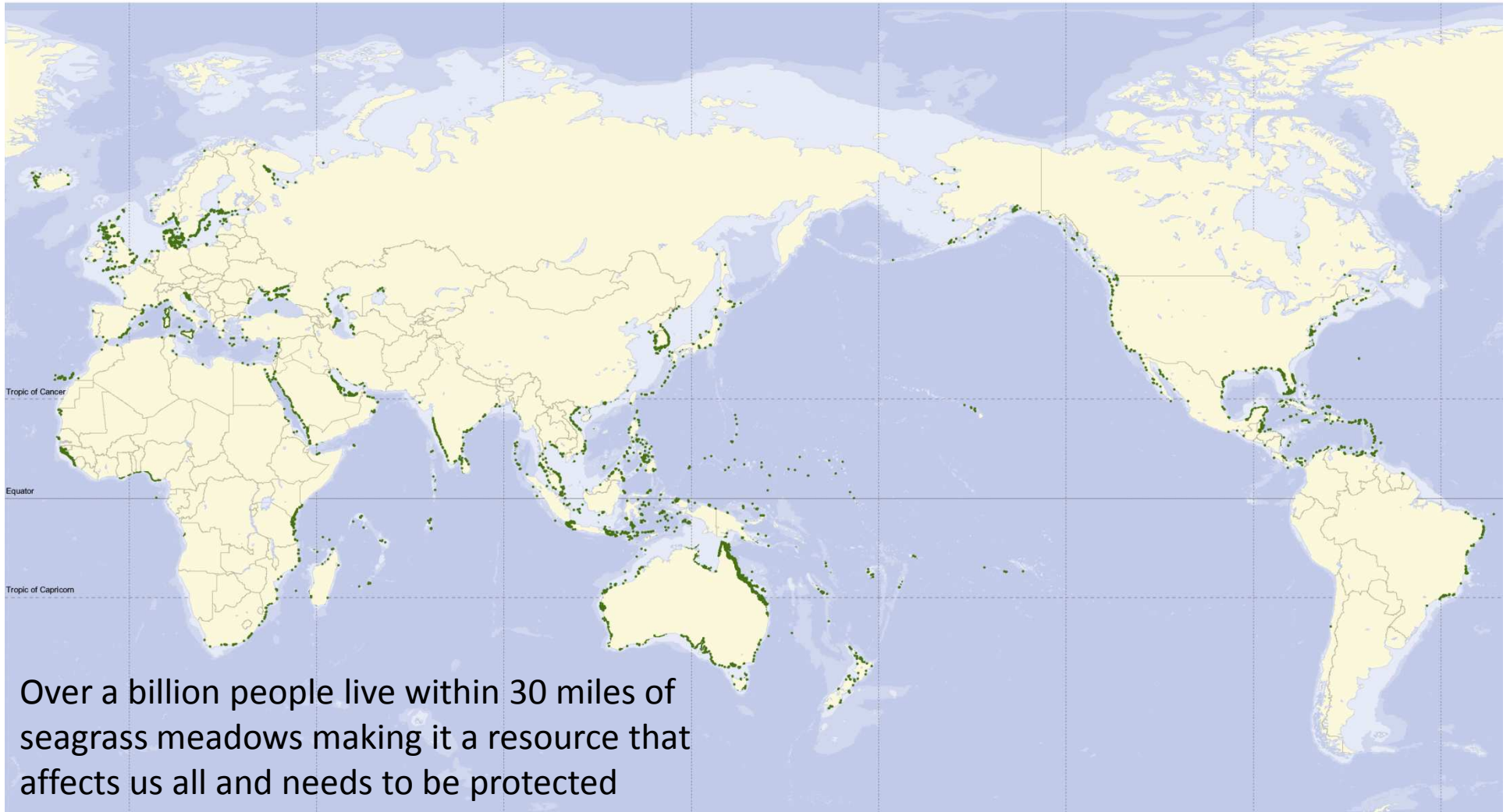
According to the United Nations Press Release:

They are a functional group of about 60 species of underwater marine flowering plants. Thousands more associated marine plant and animal species utilize seagrass habitat. They range from the strap-like blades of eelgrass in the Sea of Japan, at more than 4 meters long, to the tiny, 2-3 cm, rounded leaves of sea vine in the deep tropical waters of Brazil.

“Seagrasses are quite possibly the most widespread shallow marine ecosystems in the world. ” Yet,” says Ed Green, one of the co-editors of the Atlas, “there are few places where seagrass meadows are protected.

“The importance of seagrass has not previously been recognized,” he said. “By pulling together the work of researchers worldwide we now know that vast numbers of fish use seagrass for a short but critical part of their lifecycle. We are also becoming aware of the role that seagrass plays in the climatic and oceanic carbon cycles and in coastal protection. The true economic value is difficult to measure but this work suggests it is immense.”

Global Distribution of Seagrass



Coastal Zone – Importance of Seagrass

- In the United States, seagrasses (SAVs) are found in virtually every Coastal Zone state
- The world's largest continuous seagrass meadow is found in the Coastal Zone of Florida
- In the Florida Keys – a federally managed water body – the seafloor is 95% seagrass while only 5% corals / other
- Seagrass plays a vital role in the resilience of the Coastal Zone and the battle against Sea-Level Rise and Climate Change





Importance of the Coastal Zone Management Act for Small Businesses

Critical components that are integral for small business and the CZMA

- **Job Creation** - Restoration projects in the Coastal Zone creates private sector green jobs
- **Research Opportunities** - Interdependencies across ecosystem components must be clearly understood – which requires research and cooperation between Researchers, Resource Managers, NGOs and the Private Sector
- **Regional Partnerships** - Programs that have been created under the CZMA clearly outline where these interdependencies are managed – such as the National Estuarine Research Reserves (NERR)
- Supports the mission of the President's **Interagency Ocean Policy Task Force**
- **Economic Development and Preservation** of existing industries in your Districts through **Ecologically Significant Restoration Projects**

One (1) large restoration project related to recovery of coastal habitats may;

- Create 109 jobs
 - 50 will be long term positions for disabled veterans and adults with disabilities
 - 48 jobs will be created for unskilled laborers and marine science personnel
 - 11 positions would be created or maintained in administrative roles
- Targeted Site selections can be in areas that have been hit by the highest unemployment increases in the Nation
- At a minimum, preserve 250 acres of seagrass
- Project length – 1 full calendar year (252 working days)





NERR - Research Opportunities

Environmental restoration techniques must be scientifically validated

- New technologies must be tested and validated prior to acceptance by the regulatory agencies
- NERRs create a perfect canvas for research activities
 - New technology testing
 - Application of existing technologies in other regions
- The CZMA will continue the existence of NERRs, continuing the private – public partnerships that enable continued technology development and testing
- For example, Programmatic Environmental Impact Statements (PEIS) for recommended restoration techniques



Regional Partnerships

Regional Management initiatives in the CZMA will lead to;

- Enhanced understanding and applicability of proven restoration methodologies
- Knowledge sharing of successful endeavors in other areas of the country
- Increased access to regional research scientists, also an integral part of the CZMA
- Greater focus on actual restoration through application of what has been developed in other regions where applicability can rapidly be assessed in the NERRs by researchers that are intimately aware of the challenges in their region with regards to resources



Texas



Big Bend (FL)



Florida Keys



Interagency Ocean Task Force

The nation's coastal and ocean priorities are being brought into focus by the President's Interagency Ocean Policy Task Force

The Reserve System's (NERR) priorities align directly with the nation's priorities

- Protecting and restoring our estuarine resources
- Conducting applied and basic research and long-term ecological monitoring
- Understanding the impacts of climate change on sea and lake levels
- Educating the next generation of coastal and ocean scientists, educators, and policy makers
- Building business by fostering innovative technology development



NERR Researchers
in the field
(*Guana Tolomoto
Matanzas Reserve*)



NERR Researchers
in the field
(*North Inlet Coastal
Training Program*)



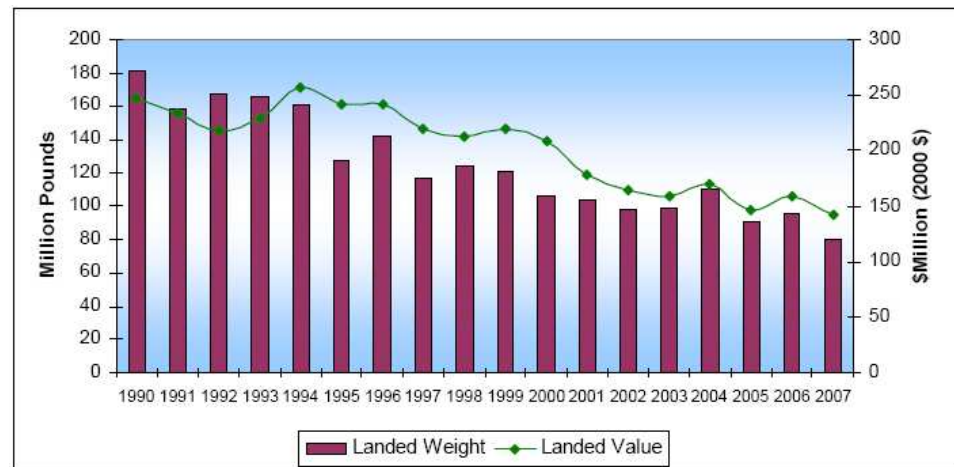
Economic Development and Preservation

Environmental Restoration projects and CZMA initiatives lead to Economic Development and Preservation

- Creation of Green Collar Jobs
- Restoration of the key drivers of local economies such as fisheries (*one of the largest GDP contributors of the Coastal Zone*)
- For example, out of work commercial fisherman will be restoring the habitats that their livelihoods are based upon. Once the restoration has turned the fisheries around, this graph will be reversed.

In Florida alone, Commercial saltwater landings generated \$143M in inflation-adjusted dockside sales in 2007, compared to \$247.5M in 1990 – a 56% reduction

Source: National Ocean Economics Program



Commercial Seafood Landings and Values, 1990-2007

Economic Development and Preservation

Other Economic Impacts of Coastal Restoration Projects

- Unemployment rates in the marine industries can be reduced through coastal zone initiatives
- In many cases, ecologically significant restoration projects in the coastal zone require vast amounts of materials and service providers – many sourced in the private sector and small businesses
- As evidenced in the recent American Recovery and Reinvestment Act of 2009, over \$3 Billion in applications were received in response to the NOAA Habitat Restoration FFO, of which only \$167 Million were funded – projects were focused on habitat restoration and job creation.



Potential Carbon Sequestration Benefits

Potential for Carbon Sinks along the coast

- Preliminary research indicates that these areas are more effective than terrestrial / upland areas
 - Seagrasses
 - Salt Marsh Areas
 - Mangrove forests
- The Reserves (NERR) Efforts to study climate change and its affect on our coastal areas
- Restoration projects focused on returning key carbon sink areas along the coastlines to their original healthy state





Suggested items for CZMA

A responsible and successful CZMA Bill will include:

- Funding for Large Scale Ecologically Significant Projects in the Coastal Zone
 - Regional Collaboration between the Coastal States with orchestrated support for Coastal Zone initiatives such as:
 - Climate Change Adaptation and Sea Level Rise Mitigation
 - Ecologically significant restoration projects
 - Knowledge sharing vehicles
 - Continued existence of the NERRs
 - Recognition of the importance of the coastal habitats and their role in healthy coastal zones thus creating the need for restoration and creation opportunities
 - An additional title in CZMA legislation that is dedicated to this potential
 - CZMA must include language that encourages the development of new technologies for coastal restoration
 - Reporting on the progress of any projects (transparency is key)
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In Summary

- Congress must reauthorize the Coastal Zone Management Act
- CZMA leads to many benefits for the Nation;
 - Job Creation
 - Research Opportunities
 - Regional Partnerships
 - Supports the President’s Ocean Policy Task Force
 - Economic Development and Preservation
 - Enhanced understanding of the coastal issues facing the Coastal Zone
- Continues vital programs such as National Estuarine Research Reserves (NERR) and the State Coastal Management Programs
- Enables small businesses to provide meaningful restoration opportunities for your districts, thus creating jobs, preserving the natural treasures of our Nation and combating emerging issues such as climate change and sea-level rise



Thank you

For more information about Seagrass Recovery and the services we provide, please visit:



Innovative solutions for saving our oceans, estuaries and shorelines

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