

## Protecting Precious Ecosystems for this Generation and the Next

A Call to Action by John Hoffman

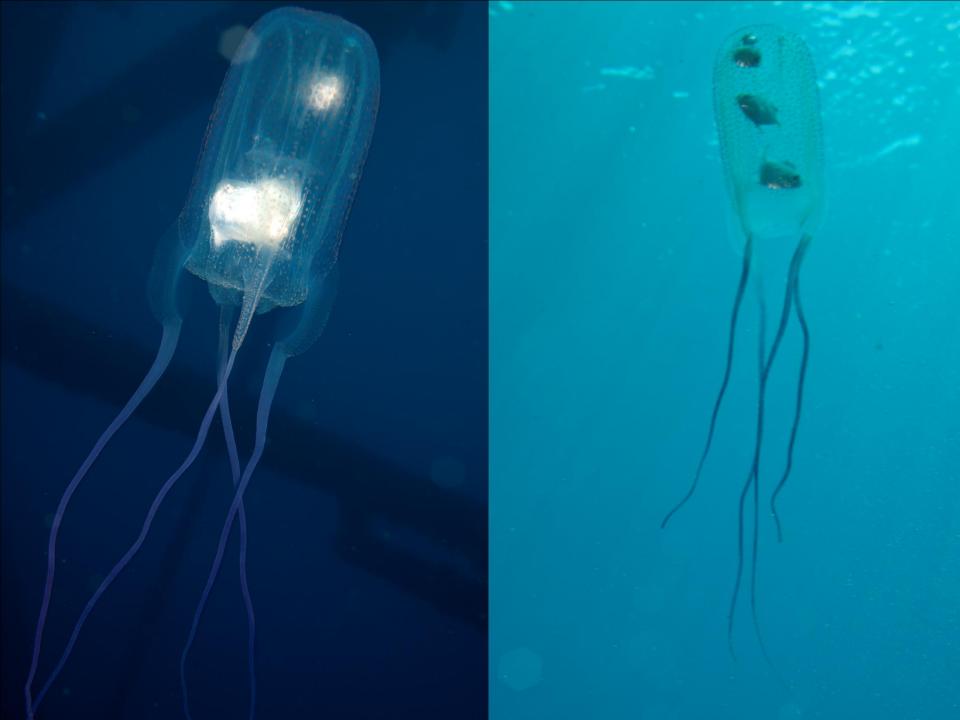
President and CEO, Black Elk Energy Presented by Clint Moore, President, DiamondStar E&P LLC Flower Garden Banks National Marine Sanctuary Advisory Council Members State of the Gulf of Mexico Summit 2011 December 8<sup>th</sup>, 2011 Houston, Texas





























#### Once you see the beauty, how can you not care?



As a diver, fisherman and energy executive, I maintain a unique perspective of many facets of our Gulf of Mexico. After witnessing the ecosystem first hand, as captured in photos like these, I knew I had to make a change.





#### Over 1,000+ valuable ecosystems are at risk unless we take the time to find a solution

#### 3,600 platforms as of 2011

- \* 85% in less than 60m water depth
- \* 2200 are major structures

Research suggests about 50% of the platforms have vibrant ecosystems

Removals are averaging 150-200 structures per year

No consideration is presently given to the ecological impact of removals



## Importance of Awareness

- 1. Invisible thriving ecosystems  $\rightarrow$  even to many who work in the Gulf
- Large gap in awareness regarding ecosystems on oil & gas structures (people don't know what is going on under the platforms)
- 3. The Fish Biomass at the Offshore Platforms is as much as 10x Greater Than Protected Coral Reefs or other artificial reefs
- 4. Offshore platforms are more productive than natural reefs because in total, they occupy the entire water column.
- 5. Rigs-to-reefs, while a step in the right direction still causes massive destruction when moved are toppled over.
- 6. Endangered and protected species are destroyed when structures are removed . How does this make any sense?
- 7. It's "Home" to marine life, providing shelter, food, and spawning area
- 8. Human indifference is the greatest threat to their preservation
- 9. Current removal pace will eliminate most "Islands of Life" in 20 years
- 10. Social and economic impacts will likely be dramatic

# Indifference is the greatest threat to our wonderful Gulf

Continued indifference to structure removal and associated destruction of ecosystems will damage the vibrant Gulf waters, destroy millions of marine life individuals, and negatively impact the lives of many thousands of people along the gulf coast



Our Gulf of Mexico platform structures are more highly concentrated ecosystems than natural reef systems found around the world



- The Fish Biomass at Offshore Platforms is up to **10x** Greater Than Protected Coral Reefs And Artificial Reefs
- 10,000-30,000 adult fish/reside around a platform
- **80 managed species** live on or forage around platforms
- Platforms harbor ~25 spp. of obligate, demersal ornamental, reef-associated fish (resident; will not move).
- Collective volume of platforms in the northern Gulf is 127,712,369 m<sup>3</sup> of habitat for Caribbean species.
- 700 platforms have been operating for ~40 yrs or more and have abundant ecosystems
- The Gulf of Mexico is home to **24 endangered and** threatened species and critical habitats (GoMF)

The introduction of structures to the offshore environment created a very unique ecosystem situation that is benefiting society

Offshore platforms are more productive than natural reefs because they occupy the entire water column.

Coral, sponges, endangered species, and protected fish and invertebrates colonize the platform's submerged structure.

Platform Jackets create reef habitat that would otherwise not exist on the soft bottom of the Gulf of Mexico.



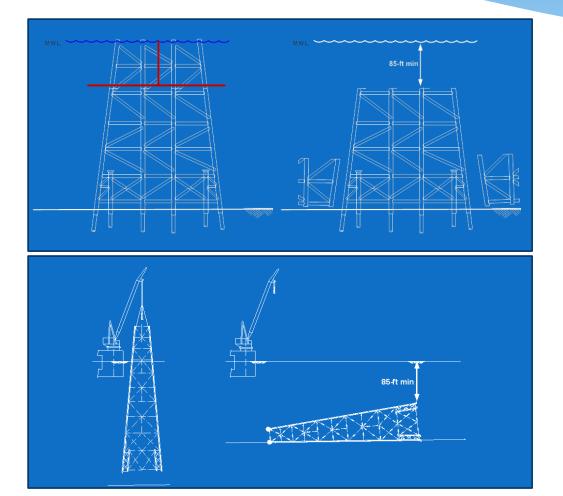
# It's Home Protection, Reproduction, Food

\* "A home, a place to grow". Up until a few decades ago, many of these creatures would drift amongst the currents, because the central Gulf had few places that extend up from the muddy depths to the sunlit surface waters. However, our Nation's offshore oil and gas platforms now provide such a home in the form of hardened steel substrate for a myriad of sea creatures, establishing these

#### "Islands of Life"

In the Gulf of Mexico, our offshore oil and gas platforms function as entirely new places to live, niches, for countless marine life. In addition to harboring numerous species of juvenile fish and adult life stages, these structures serve as hunting grounds for swift, open ocean pelagic fishes, such as mackerel, tuna, and jacks. These species use these steel reefs as places to forage, but also for shelter in an otherwise featureless environment, as areas to rest where the massive structure weakens or deflects currents, and as places to hide from species that may prey on them.

Artificial Reefing is a step in the right direction, but the practice of structure removal 85 ft below sealevel is still highly destructive



Current practice of "rigs to reef" still creates harm as the vast majority of the ecosystems are above the practice of 85 feet below sea level. This practice was put in place to protect supertankers (max draft).

Maintaining an ecosystem profile through the wave zone ensures:

- 1. Ecosystems are not destroyed below the wave zone (to 85 ft)
- 2. Minimal navigational risk (structures in place today with Nav-Aids)
- 3. Minimal commercial fishing risk (no submerged obstacles)
- 4. Minimal recreational fishing risk (ability to moor to structure)

Considerable monetary investment is deployed each year to construct artificial reefs systems

- In Florida citizens are willing to spend \$25+M/yr to install and preserve artificial reefs
- Majority of Gulf platforms Will Be Removed By 2020
- Average Cost to Create Artificial Reef \$140/M<sup>3</sup>
- Total Volume of Existing Jacket Is 127,712,369 M<sup>2</sup>
- Today's Cost to Replace Equivalent Number of Artificial Reefs is nearly \$20 **Billion**.

Ecorig December 2008 Report – www.ecorigs.org



Possible impact in 20+ years ... consider this future?

- \* Gulf of Mexico Shelf platforms essentially all gone
- \* Major lost opportunity for research, sensing, & other uses
- \* Significantly reduced fish populations
- \* Commercial / Recreational fishing catastrophically impacted
- \* Sport Diving significantly damaged
- \* Livelihoods impacted lower wages & unemployment
- \* Seafood prices increase more coming from outside the U.S.
- \* \$20 billion+ worth of "Fisheries Essential Habitat" destroyed

#### Save the Blue Plan In Action

At the conclusion of oil & gas production; Conduct an underwater scientific evaluation. Should little ecosystem be found, then decommission the structure and plug all wells, as before. If an ecosystem, habitat, endangered corals or endangered marine life be found, then:

- Plug all wells and decommission all pipelines to mitigate future pollution possibility.
- Remove top decks to mitigate hurricane risk.
- Replace navigation aids on leg tops at sufficient height to ensure mariners continue to be protected.



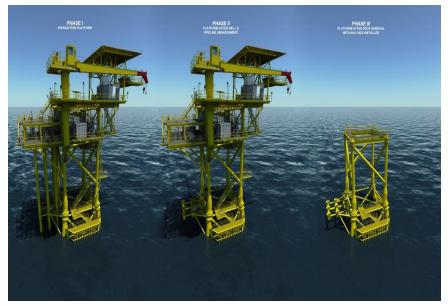


Three Phases of Save the Blue® Decommissioning

### Save the Blue Plan In Action

#### A trust fund would be established:

- Structural removal liability would move from the operating company to the trust along with removal liability funds
- Insurance would be maintained in the event of a catastrophic incident
- Interest/dividends on funds would pay upkeep.
- The Trust Board would be comprised of representative stakeholders, including the company donating the structure
- The Trust Board would oversee the ongoing operation and maintenance of the structures participating in the trust.





# Collaborative Stakeholders are the Founding Save-the-Blue members

#### Research

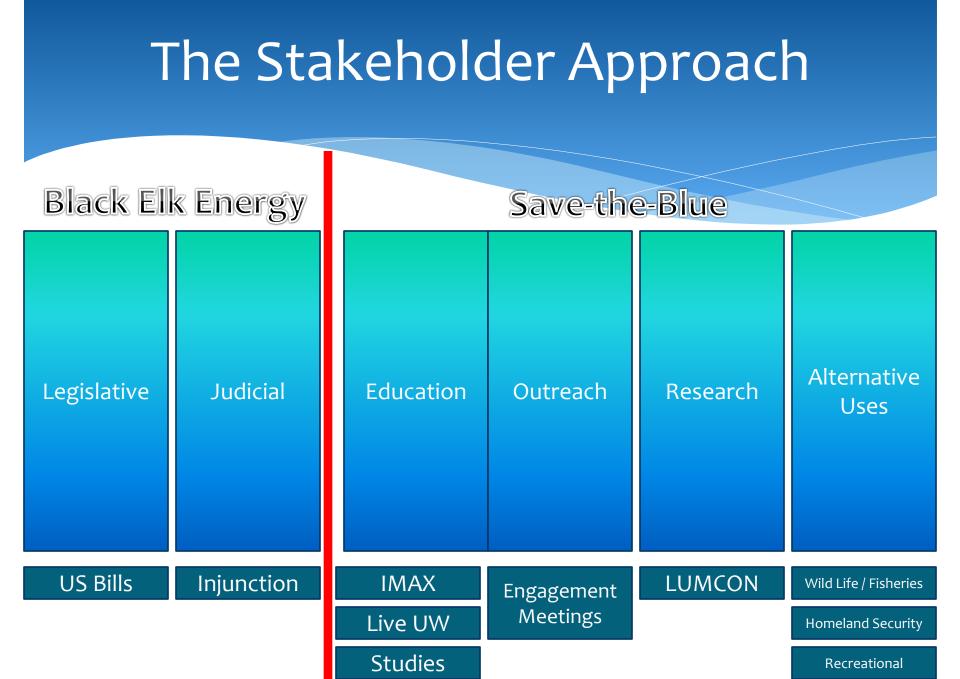
Commercial Fishing

Recreation Fishing

#### Sport Diving

Oil & Gas Operators

#### Education



## IDEAL SCIENTIFIC SENSOR & RESEARCH STATIONS

## PLEASE CARE TO SAVE MARINE HABITAT



## Protecting Precious Ecosystems for this Generation and the Next

Please support us at www.Save-The-Blue.org