

Octave Pass Bulkline Incident

In-Situ Burn Operation

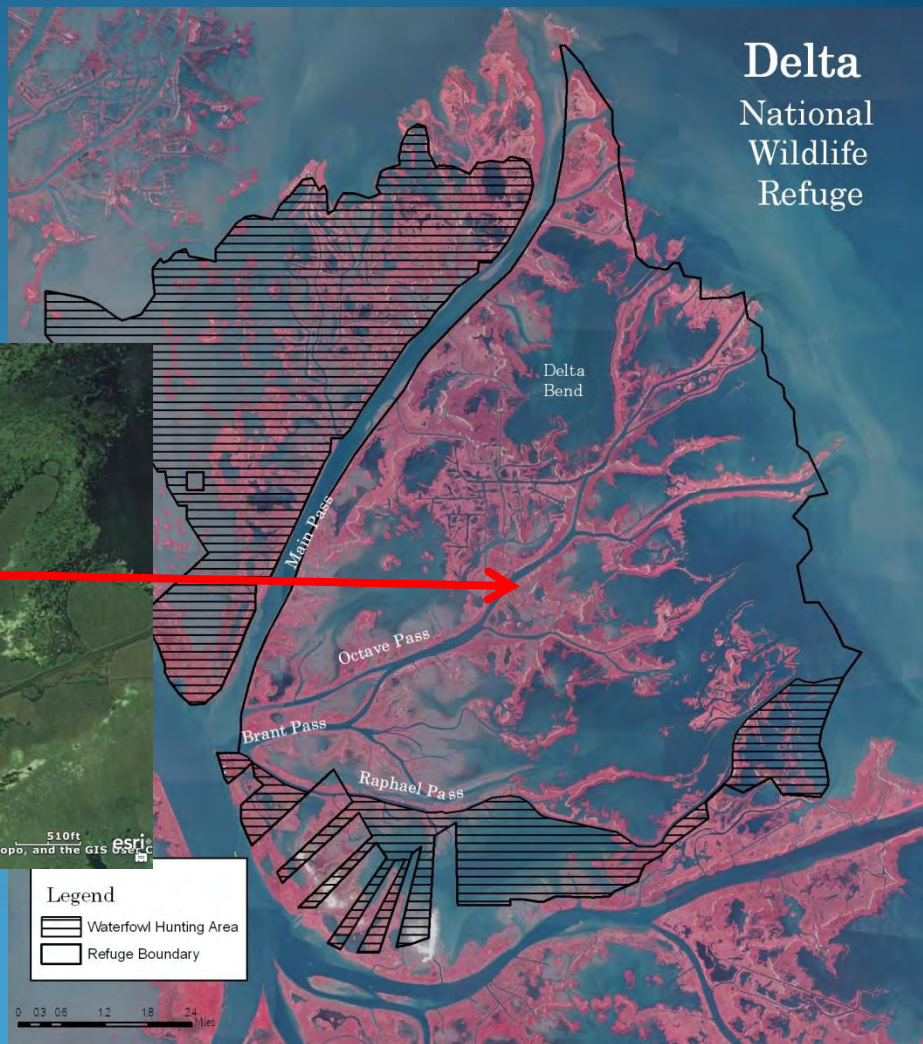
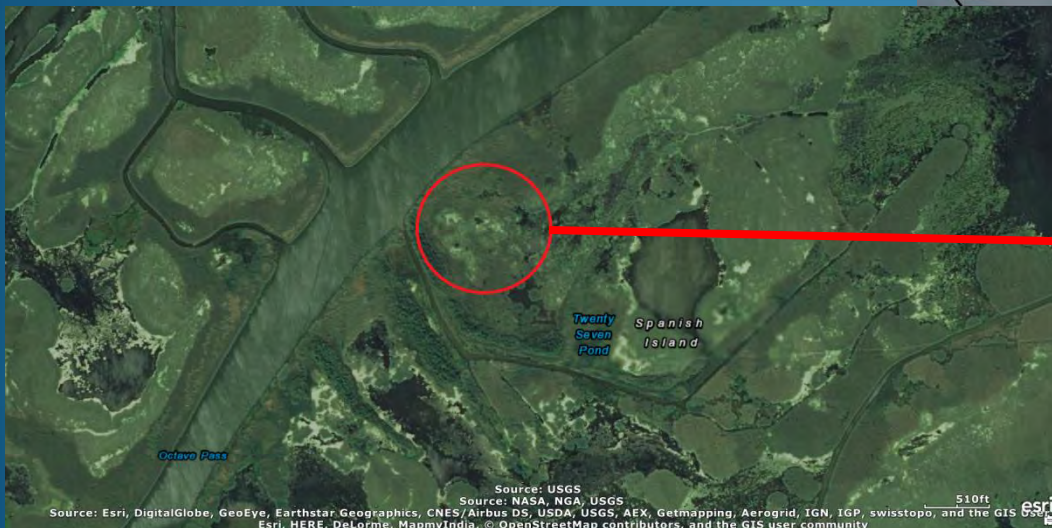
Delta National Wildlife Refuge





DELTA NWR

Delta
National
Wildlife
Refuge



Legend

- Waterfowl Hunting Area
- Refuge Boundary



Source: USGS
Source: NASA, NGA, USGS
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS user community
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Initial Response

- Spill Discovery
- Notifications and Mobilization of Resources
- Priorities for Cleanup
 - Securing the Discharge
 - Containment Strategy
 - Mechanical Recovery
- Ongoing Assessment of Impacted Area



**A bulkline ruptured, discharging
~100 bbls of South LA Crude**

**Approximately 10 acres were oiled,
heavy oil within a ~ 3 acre area**



05/31/2014 01:58 PM

In-Situ Burn Application

- Initial ISB discussion b/t TPIC & USFWS
- Conducted test burn of representative sample of oil
 - Test burn successful
- ISB Application/Checklist (NOLA ACP Appendix C)
 - Feasibility Analysis
 - Incident/Spill Data
 - Weather & Environmental Conditions
 - Proposed Burning Plan

Initial Meeting @ Delta Duck

- Will This Oil Even Burn?
- Damage to Sensitive Coastal Ecosystem
- Mitigating Potential Impacts to Endangered Species
- Public & Media Interest
- RRT Consultation & Concurrence

Preparing for the Burn

- Unified Command is Formed
- Critical Role for Environmental Unit
 - In-Situ Burn Operational Checklist
 - In-Situ Burn & Site Safety Plan Development
- Notification to RRT VI

USFWS Perspective

- Recruited our fire experts to assist with formulation of ISB plan and Rx
- Biologist/managers coordinated response and served as habitat experts. What effects would burn have?
- As land managers, our decisions are based on the best possible outcome for the resource, accepting trade-offs
- Held RRT call from the field and received very positive feedback
- Expressed the situation was ideal to attempt the ISB
- Spill site was surrounded on 2 sides by a spoil bank and on 2 sides by open water.
- Favorable winds/weather for next few days
- Very Remote location (human health concerns)

Preparing for the Burn

- RRT VI Conference Call
 - Site Characterization
 - Net Environmental Benefit
 - Responder & Public Safety
- Finalizing Burn Plan/Site Safety Plan
- Tactical Planning & Personnel Assignments
- FOSC Approval

Conducting the Burn

- UC Approval of Burn & Site Safety Plans
- USFWS Press Release
- On-site Response Teams
 - Ignition, Control, & Suppression
 - Air Monitoring
 - Lookouts
 - Security & Safety
 - Helo Support



Burning by Tuesday !









Our Staff and Fire Crew coordinated with, and provided expertise to, IC to accomplish a very effective and safe burn. This planning and approval occurred over a very short time line.



 Additional burn locations ignited 1145 on 04 JUN 14

 Burn locations from 03 JUN 14

Octave Header

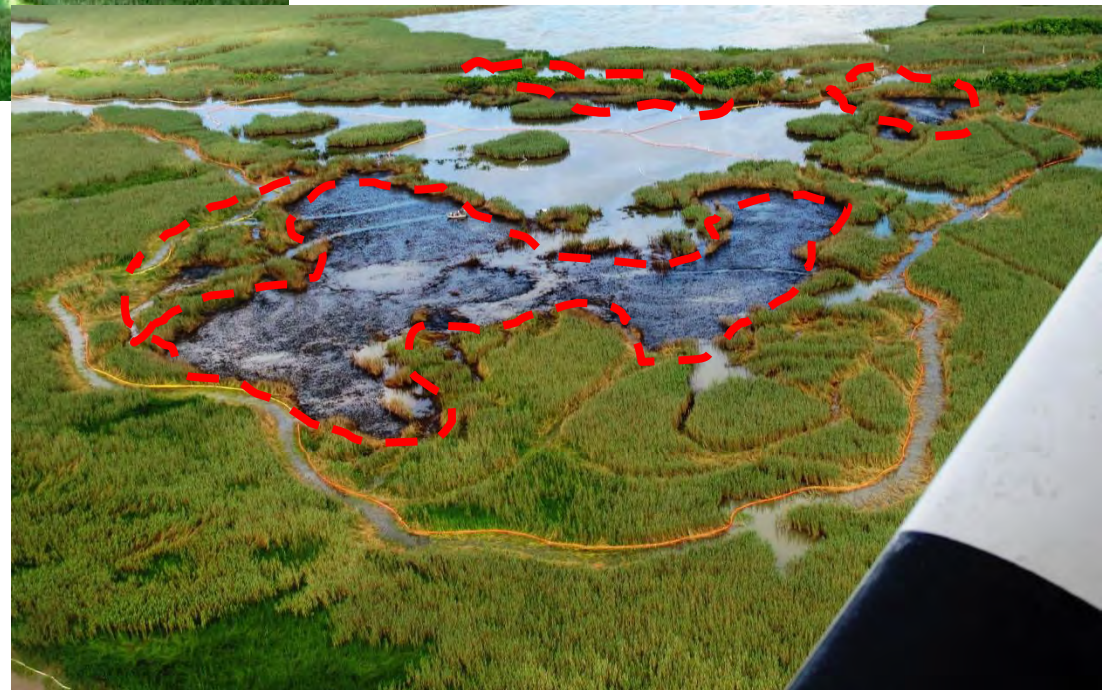
Oct

North 





Pre-Burn 02 JUN



Post-Burn 04 JUN

Reference Point 



Pre Burn 02 JUN

Post Burn 04 JUN

Reference Point

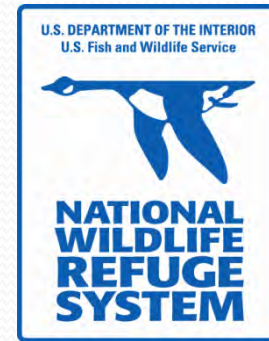


Post-Burn

- Immediate Site Assessment
- Monitoring Team conducted Sampling, Testing, & Disposal of Burn Residue
- Transition to Mechanical Recovery Ops



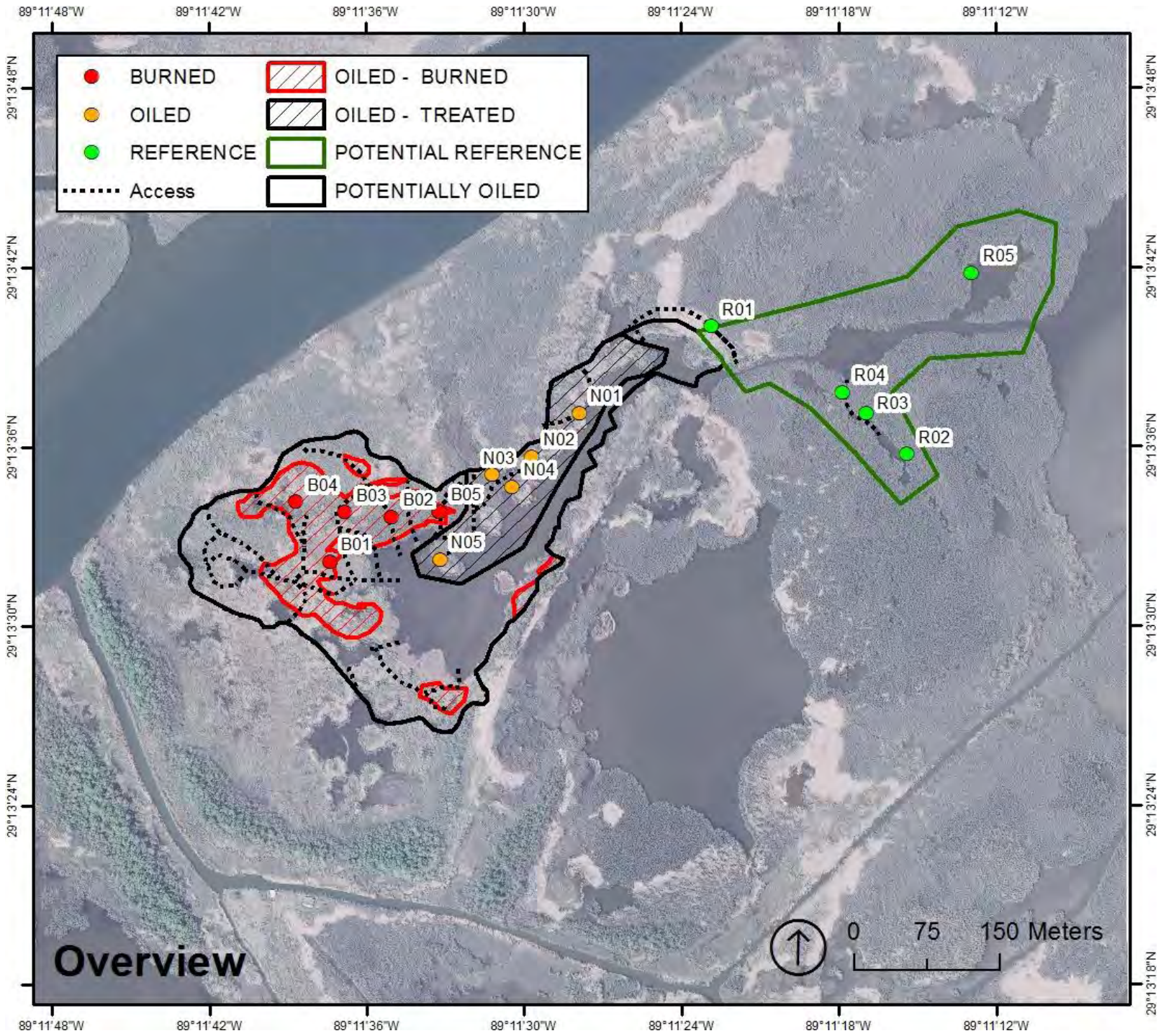
Study Team





Methods

- The study design was based on three oiling and treatment classes:
 - Heavily oiled and burned
 - Heavily oiled and not burned
(includes flushing, sorbent use)
 - Reference (not oiled or treated)
- 5 replicate stations per oiling/treatment class
- Vegetation and sediment chemistry sampling conducted on 12 June 2014, September 2014 and September 2015, (to date)



Oiled – Burned Overview



June 2014

Oiled – Burned Overview



Sept. 2014





Mechanical Cleanup operations continued to clean areas with residual product (and areas where the product thickness would not carry the fire).



Key Takeaways & Lessons Learned

- UC Coordination
- Support & Expertise of USFWS
- RRT Consultation & Concurrence
- Emphasis on Safety, Comms, and Work Assignments
- Strategic Communications
- Was this operation a success?

USFWS Perspective

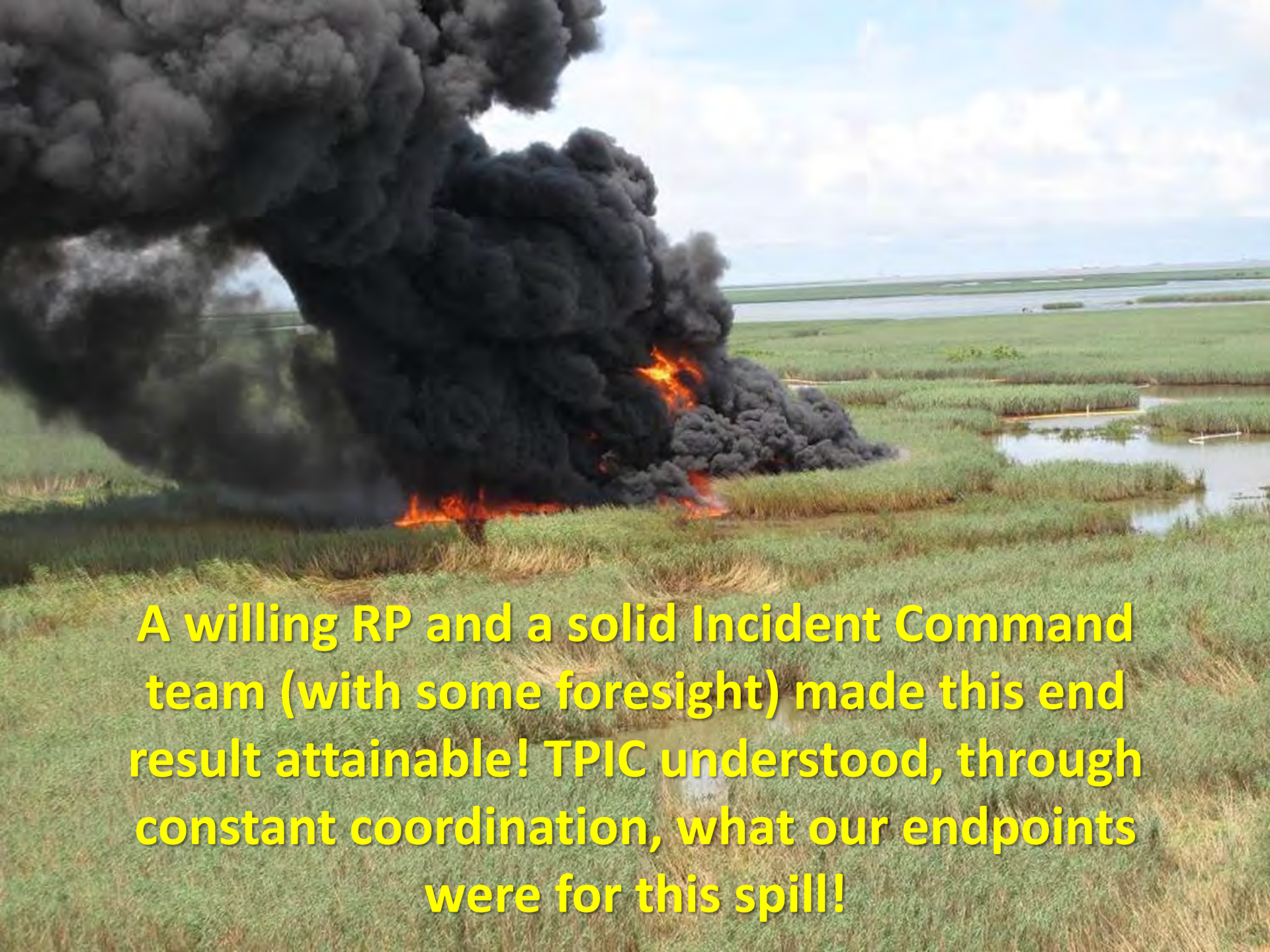
- Ideal situation to accomplish the ISB
- Sped the clean up process by MONTHS and considerably reduced damage to the marsh and refuge resources
- We are accustomed to burning on NWR's, comes as 2nd nature to us, ISB as a response technique is not foreign to refuges either!
- Regrowth of the habitat has been tremendous, actually allowed for “set back succession” and allowed vegetation with better wildlife value to flourish (even if only for a short duration)
- Outcome could not have been better considering where we started.



10/16/2014



2016/02/03



A willing RP and a solid Incident Command team (with some foresight) made this end result attainable! TPIC understood, through constant coordination, what our endpoints were for this spill!