

Offshore Operators Committee Engagement with BSEE on Decommissioning of Pipeline Related Infrastructure in Water Depths Beyond 182-meters

Evan H. Zimmerman, Executive Director



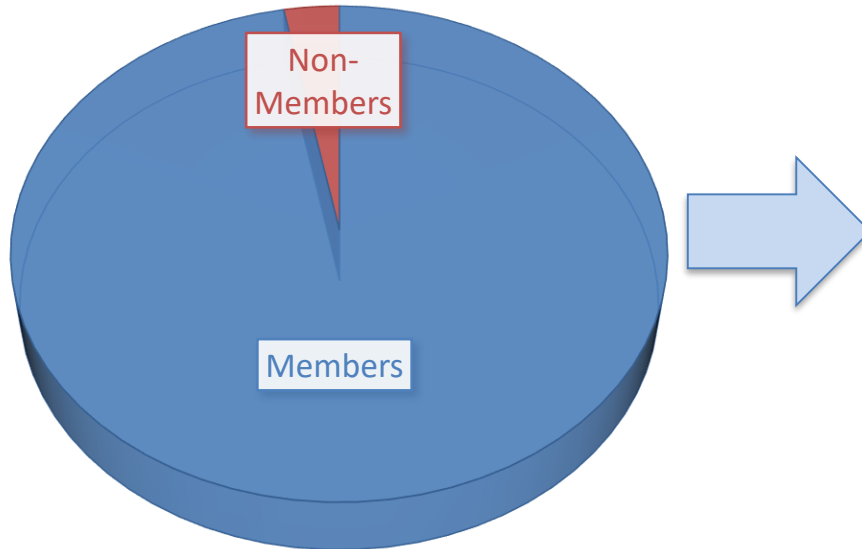
Who is OOC?

*Technology, Safety and Collaboration in Offshore
Energy Development since 1948*



Offshore Operators Committee (OOC)

OCS PRODUCTION

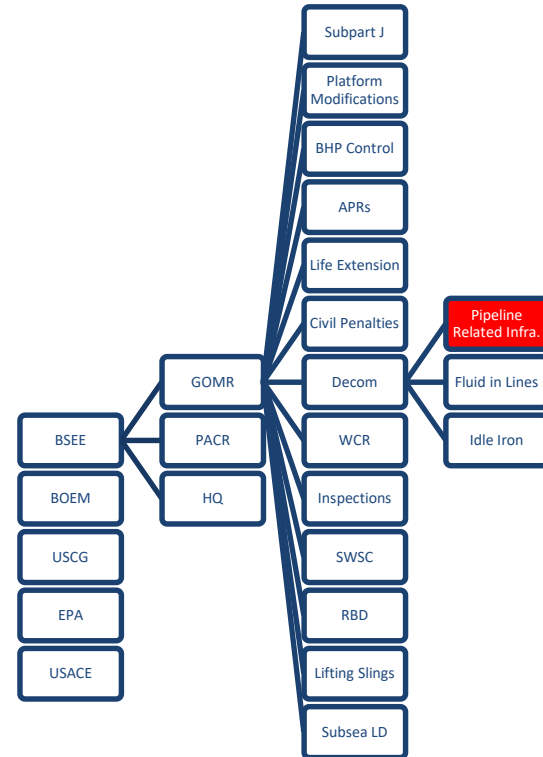
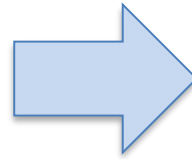


Executive Subcommittee Members

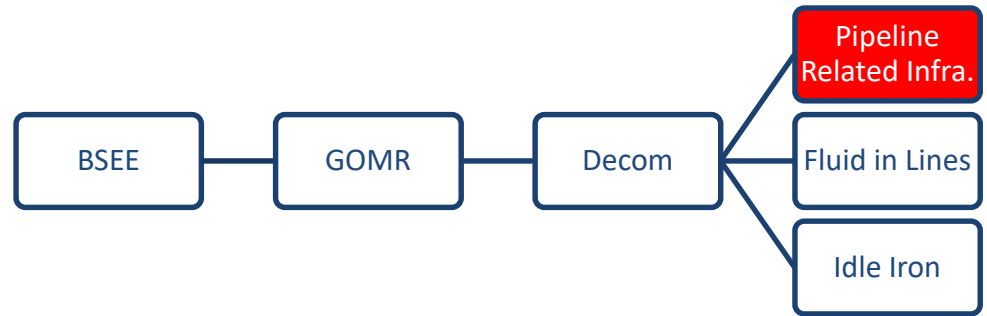
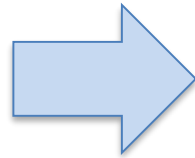
1. Anadarko Petroleum Corp.
2. Arena Offshore, LP
3. BHP Billiton Petroleum (GOM), Inc
4. BP America
5. Chevron
6. Cox Oil
7. Diamond Offshore Drilling
8. Eni Petroleum US, LLC
9. EnVen Energy Ventures
10. Equinor US
11. ExxonMobil Production Company
12. Fieldwood Energy, LLC
13. Freeport McMoRan
14. J. Connor Consulting
15. LLOG Exploration Company, LLC
16. Murphy Expl. & Prod. Co. - USA
17. Shell Exploration & Production Co.
18. Talos Energy Company
19. W & T Offshore, Inc



OOC Engagement



OOC Engagement



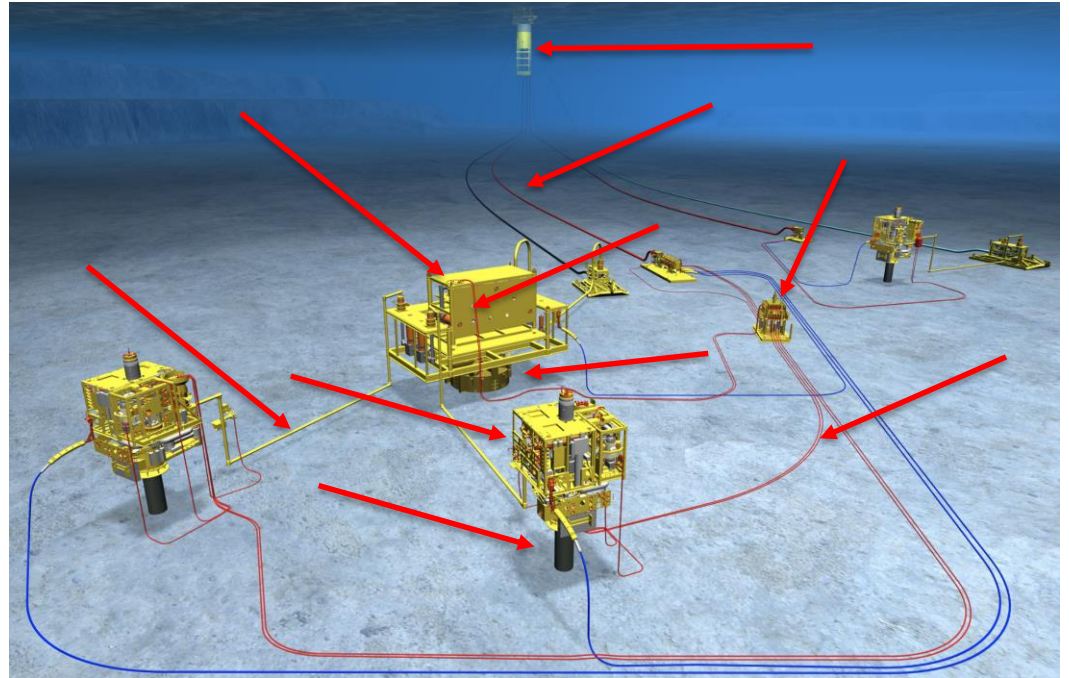
What is Pipeline Related Infrastructure?

... and Why Do I Care?



Pipeline Related Infrastructure

- Wellhead
- Subsea Tree
- Jumper
- Manifold
- Umbilicals
- Flying Leads
- Foundations
- Umbilical Termination Assembly

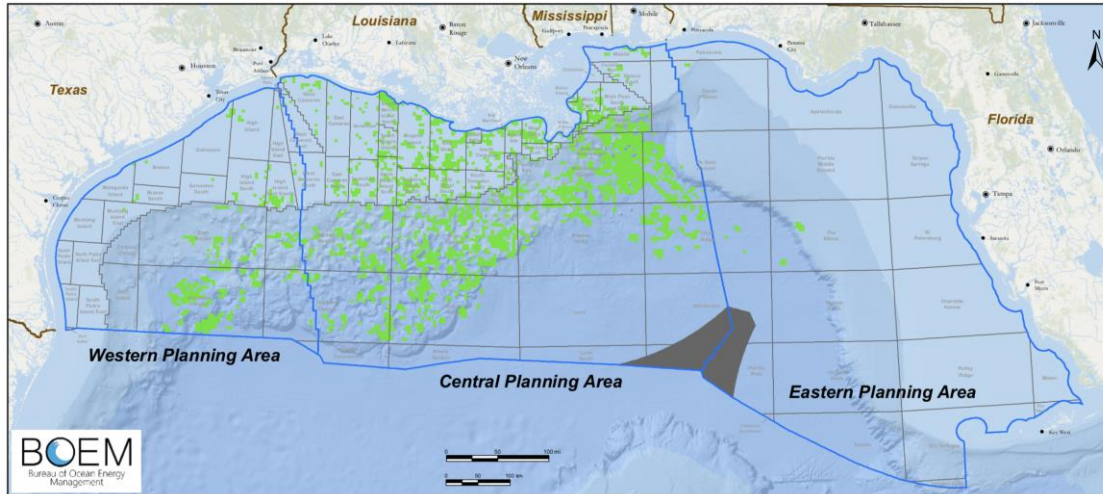


Credit: FMC



BSEE & GOM Policy

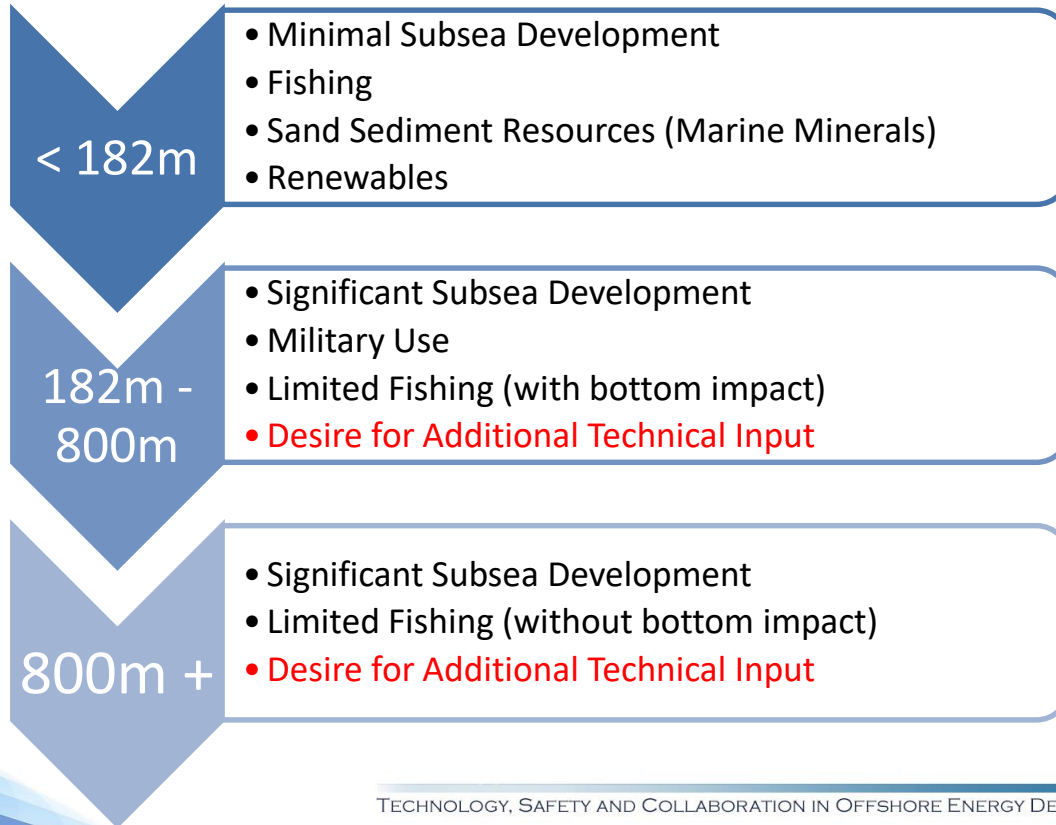
Blocks and Active Leases by Planning Area
August 1, 2019



- Deepwater Field Life Cycle
- Increasing DIP Requests
- Need to Update Policy
- Public Commenting Period
- Finalizing Policy



BSEE Policy Insight



Comment Letter: Request For Information for Decommissioning In Place



February 25, 2019

Submitted via email and via www.regulations.gov

Ms. Lakeisha Harrison
Chief, Regulations and Standards Branch
Bureau of Safety and Environmental Enforcement
45600 Woodland Road
Sterling, Virginia 20166

RE: Oil and Gas and Sulfur Operations in the Outer Continental Shelf-Request for Information ("RFI") Regarding Potential Impacts of Decommissioning-in-Place ("DIP") of Pipeline-Related Infrastructure in Deepwater

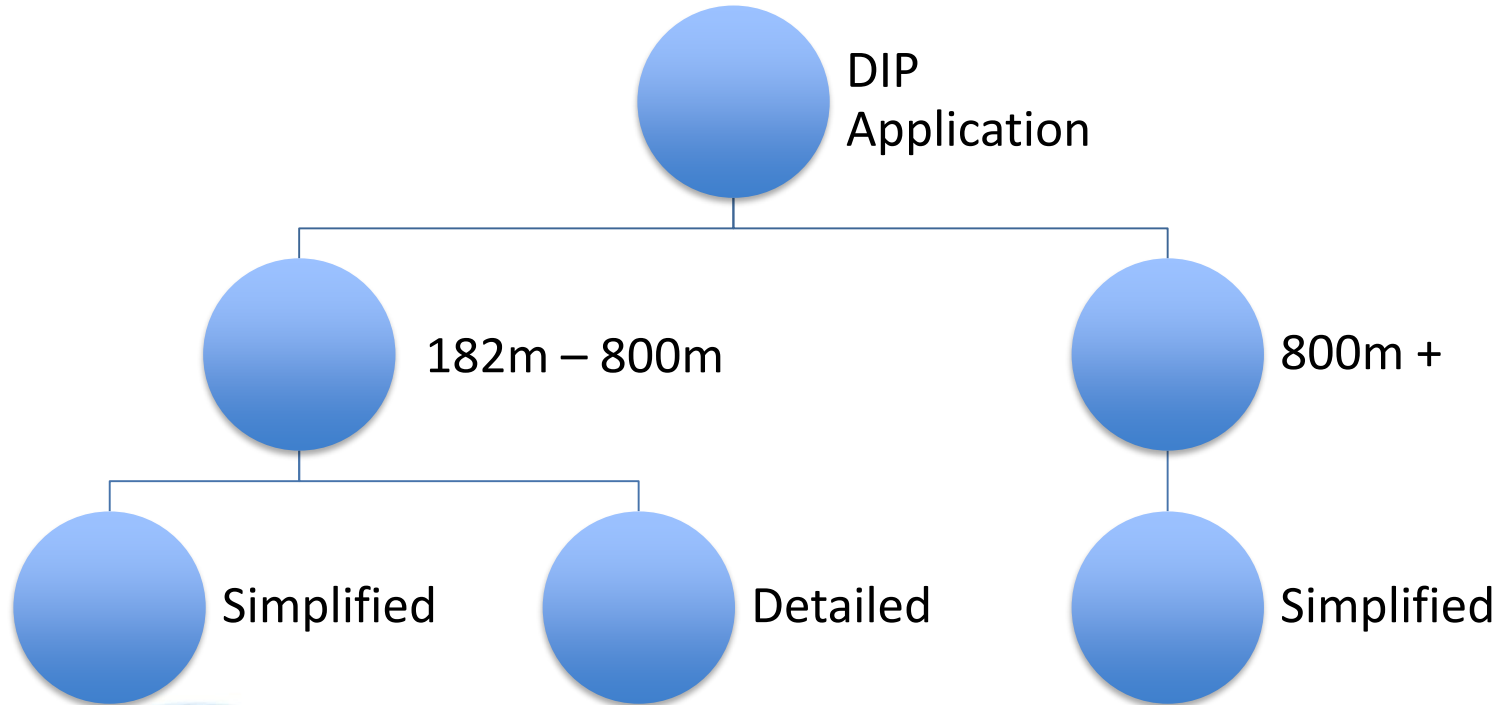


General Recommendations

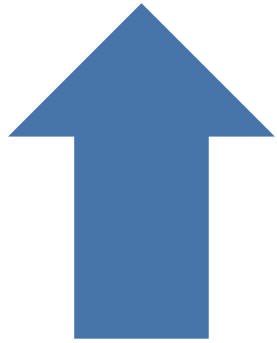
1. 800-meters and beyond DIP does not obstruct other uses of OCS
2. **Extension of limit to 550-meters**
3. DIP with heights of 11-meters ok 182 meters and beyond
4. Utilize risk-based & environmental cost/benefit analysis for 182 to 800 meter depths



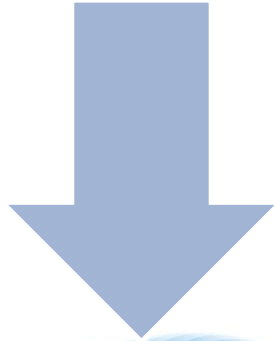
Assessment Methodology



Assessment Methodology - Simplified



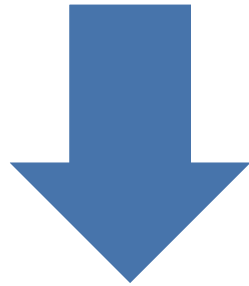
Remove
Obstructing &
Simple Items



DIP Non-
Obstructing,
Habitat &
Risky Items



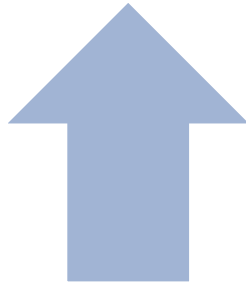
Assessment Methodology - Detailed



Negative &
Positive
Impact from
Removal



Negative &
Positive
Impact by
DIP



Negative



- Loss of habitat
- Uncertainty created safety risk
- Emissions from activity
- Etc.

Positive



- Ease of removal
- Reduced obstruction
- Etc.



Assessment Methodology – Safety Risk

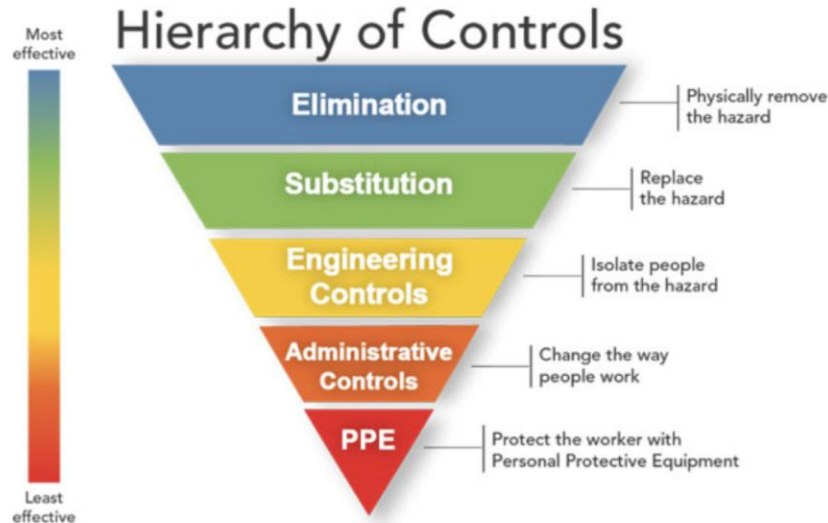
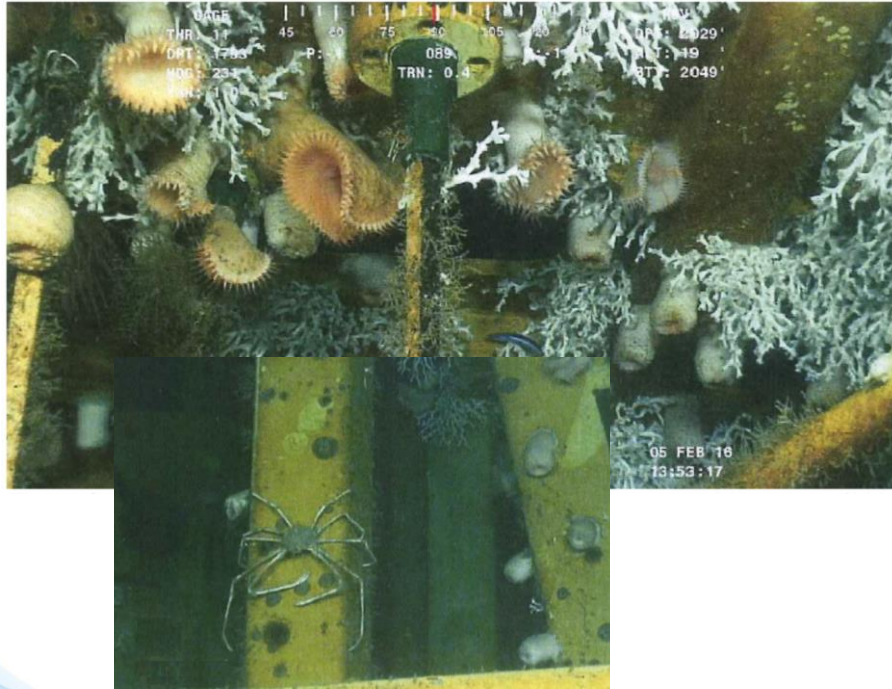


Figure B.1 The National Institute for Occupational Safety and Health's (NIOSH) Hierarchy of Controls

1. Use of equipment at or near its safe working limits;
2. Conducting removal operations in proximity to other nearby offshore infrastructure, including crossings;
3. The presence of mud or cuttings buildup that may be present on the pipeline-related infrastructure;
4. Damaged infrastructure to be decommissioned;
5. Uncertainty associated with infrastructure that has sustained damage due to a hurricane or mudslide event; and
6. Potential trapped pressure in pipeline-related infrastructure that may pose safety risk to personnel.



Assessment Methodology – Environmental Risk



- Lophelia Growth
- Spider Crab
- 618-meter (2029-feet) depth



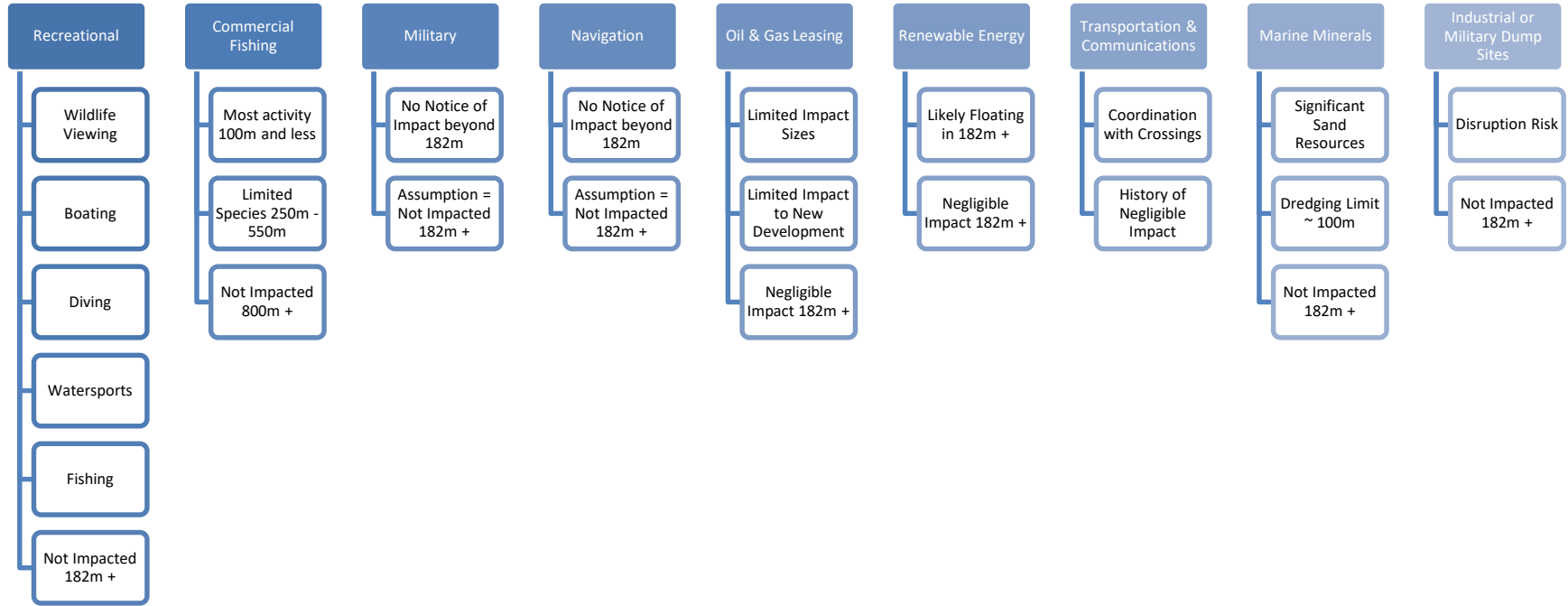
Other OCS Uses Evaluation



- Depths Beyond 182m (600-feet)
- Maximum 11m (35-feet) Off Seafloor
- Sparse Small Footprint



Other OCS Uses



OCS Use - Recreational

No Impact
182m +

No Impact
182m +

No Impact
182m +

No Impact
182m +

No Impact
182m +

Wildlife
Viewing

Boating

Diving

Watersports

Fishing



OCS Use – Commercial Fishing

No Impact
182m +

Typical Trawling (100m)

Negligible
Impact 182m +

Rare Trawling (250-550m)

No Impact
182m +

Deep Fishing 550m +



OCS Use – Military

No Impact
182m +

No Notice of Impact



OCS Use – Navigation

No Impact
182m +

No Notice of Impact



OCS Use – Oil & Gas Leasing

No Impact
182m +

Future Well Siting

Negligible
Impact 182m +

Future Subsea Architecture



OCS Use – Renewable Energy

**Negligible
Impact 182m +**

Future Device Location

**Negligible
Impact 182m +**

Future Cabling



OCS Use – Transportation & Communication

No Impact
182m +

Transportation

Negligible
Impact 182m +

Communication Cabling



OCS Use – Marine Minerals

No Impact
182m +

Sand Sediment Resources

No Impact
182m +

Other Marine Mineral Mining



OCS Use – Industrial or Military Dump Sites

No Impact
182m +

Not Dumping Near Infrastructure



Summary of OOC Comments

1. Transparent Risk & Environmental Evaluation Process
 - Simplified Method
 - Detailed Method
2. Negligible to No Impact on Future OCS Uses for Decommissioning In Place



Comment Letter References

1. GOM & Atlantic deep coral and commercial fishing depths study referencing the royal red shrimp.
<https://repository.library.noaa.gov/view/noaa/18065>
2. Military dumping (types of military dumping done) and the depth range.
<https://fas.org/sgp/crs/natsec/RL33432.pdf>
3. Shrimp trawling depths
https://www.coris.noaa.gov/activities/resourceCD/resources/trawl_report_bm.pdf
4. Shelf's silt deposits from Mississippi River
<https://pubs.er.usgs.gov/publication/70137845>
5. Hierarchy of Control <https://www.cdc.gov/niosh/topics/hierarchy/default.html>
6. BOEM Lophelia II Missions <https://www.boem.gov/Curriculum-Lophelia-II/>



Related Topics

- Fluid in Lines
 - Discharge Allowed Under NPDES Permit
 - Not Covered by Permit After Decom
 - Waiting on Letter from EPA
- Idle Iron / Decom Timing
 - Campaign Approach
 - Well Plugging Priority



You Want to Know More?

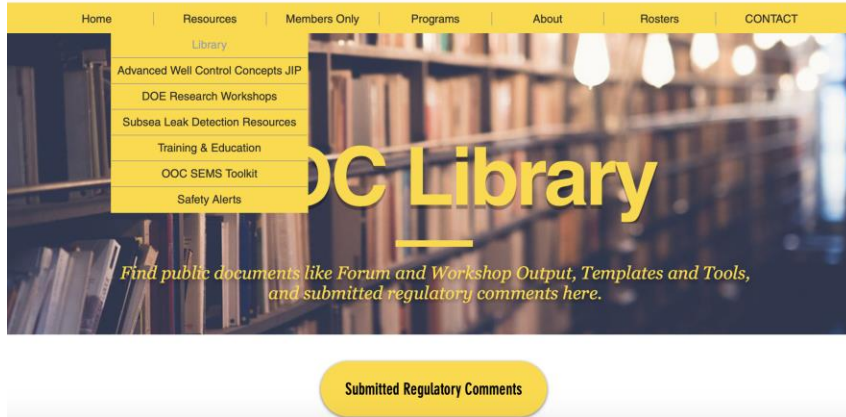


Offshore Operators Committee

Technology, Safety and Collaboration in Offshore Energy Development since 1948

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The screenshot shows the OOC Library website. At the top is a yellow navigation bar with links for Home, Resources, Members Only, Programs, About, Rosters, and CONTACT. Below this is a 'Library' dropdown menu with options: Advanced Well Control Concepts JIP, DOE Research Workshops, Subsea Leak Detection Resources, Training & Education, OOC SEMS Toolkit, and Safety Alerts. The main content area features a background image of a library with the text 'OOOC Library' in large yellow letters. Below this, it says 'Find public documents like Forum and Workshop Output, Templates and Tools, and submitted regulatory comments here.' At the bottom of the screenshot is a yellow button labeled 'Submitted Regulatory Comments'.

The OOC Website

- Library of submitted comments
- ~ 50+ Public Items
- ~ 300+ Member Items



Questions?

Evan@theooc.org

