

Avoidance and Minimization Measures / Alternative Analysis

Establishing operational starting and end points

Clean Ocean has shown a benthic study of the cable corridors from 100' to 250'. Clean Ocean's methodology using the JW Fishers metal detectors, dive wing along with manual diving allows all involved to understand the corridor and any potential impacts. At the time permits are issued and cable retrieval operations commence the cable corridors ocean environment will be studied and recorded by Clean Ocean's work class ROV as the large ROV has the necessary horsepower to hold the video and recordings specific to the corridors in question.



Clean Ocean Initiative, Inc.

Submarine Cable Depth Data

Mayaguez #1 SAJ-2015-02643 (SP-DCM)	Begin: 893ft End: 7023ft
Mayaguez #2 Mayaguez to Desecheo Island SAJ-2015-02641 (SP-DCM)	Begin: 320ft End: 320ft
Desecheo Island to Santo Domingo	Begin: 320ft End : 1780ft
Aguadilla #3 SAJ-2015-02638 (SP-DCM)	Begin: 134ft End: 12644ft
Aguadilla #4 SAJ-2015-02635 (SP-DCM)	Begin: 138ft End: 1184ft
Ponce #5 SAJ-2015-02640 (SP-DCM)	Begin: 606ft End: 1927ft
Ponce #6 SAJ-2015-02639 (SP-DCM)	Begin: 601ft End: 8028ft

The full study is to identify any and all objects currently on the cable corridor at all applicable depths where cable retrieval will occur. This could include active cables, other decommissioned cables, archaeological objects and any type of sensitive benthic resource.

Clean Ocean will have a policy in effect prior to pulling any cables "any and all appurtenances are to be studied prior to retrieval operations." Clean Ocean has a very real liability as it relates to the damage of active cables, archaeological objects, or any environmentally sensitive resources.

Clean Ocean has and will invest in the proper equipment to insure all entanglements, reefs or any sensitive appurtenances are properly protected and the cables are cut and processed at safe distances not to affect the appurtenances. Furthermore, the Chickasaw has a detection system on the reel in the event an unexpected appurtenance should be encountered, in other words if the weight increases suddenly the reel comes to an automatic stop allowing for further protection.

Clean Ocean has done years of planning for this operation and has identified the proper method and equipment to cut around any and all appurtenances on the cable, including any natural resources. Clean Ocean personnel will be trained and prepared to do whatever is necessary to prevent damage to sensitive areas. Clean Ocean has also agreed to share all recorded data of the cable routes with NOAA. The research vessel and the Chickasaw will be manned at all times with a marine biologist to identify and report any sensitive environmental resources affected by Clean Ocean's operations and has the authority to stop operations. The marine biologist will coordinate with Clean Ocean's engineers the proper procedure for protection of the resource.

Clean Ocean has a solid plan and investment in place to have "no impact" on sensitive resources and will remain steady on the statement that Clean Ocean's operation will have "no impact" on any sensitive benthic resource. Clean Ocean will also provide studies of deep water areas and cut around any appurtenances natural or otherwise to insure no damage of unknown resources. The protection of the ocean during operation is paramount and a part of Clean Ocean's ongoing mission and will be conducted in a professional manner consistent with good operating procedure. All Clean Ocean's data upon request will be shared with applicable federal agencies.