

MEMORANDUM FOR RECORD

SUBJECT: Determination of positive federal Clean Water Act jurisdiction for gas and oil survey activity occurring in Big Cypress National Preserve, Collier County, FL. The project number is SAJ 2016-1849. The entity undertaking the activity is Burnett Oil Company, Inc. As of 5/27/2017, survey activities occurred over 225,896 linear feet (42.8 miles) equating to an area of between 62.2 and 77.8 acres of jurisdictional wetlands within Big Cypress National Preserve. Between 2017 and 2019, additional survey activities occurred in areas now totaling 169 miles. Survey activity occurred in previously roadless areas of high quality wet prairie and dwarf cypress strand wetland communities. Future oil and gas survey activity is proposed. This memo demonstrates that the oil and gas survey activity at this location is a Corps of Engineers' regulated activity pursuant to the Clean Water Act.

SUMMARY: The Corps of Engineers made the determination of No Permit Required on March 1, 2017, for the activity shown in this Memo. Information obtained by the Corps subsequent to surveying activity indicates that the activity described in this memo is regulated under the Clean Water Act because the activity *equates to mechanized land clearing, ditching or channelization resulting in redeposit of fill greater than incidental fallback. The activity causes an identifiable individual and cumulative adverse effect on an aquatic function and change (s) to the bottom elevation of ... a water of the United States...*

FINDINGS: As explained below, future oil and gas survey activity at this location should be regulated by the Corps of Engineers under Section 404 of the Clean Water Act. The activity equates to mechanized land clearing, ditching and channelization that results in a change in the bottom elevation of the wetland creating slough-like water flow conditions (areas of faster running water) that did not previously exist. The survey activity has the adverse effect of degrading...waters of the U.S. A change in the abundance and distribution of macrophytes (plants) and a change in water flow patterns results from this survey activity that causes a cumulative adverse impact that is not de minimis. The difference in water depth between impacted and unimpacted areas averages 3.64 inches and some areas as much as 7 inches. The typical topographical gradient within the Big Cypress National Preserve is reported as six (6) inches per mile (Duever, 1986, cited from Quest Ecology, June 2019). Gradient changes of 3.64 inches and/or 7 inches is therefore substantial for this location given such slight natural variation. This impact was confirmed by the Corps during a site visit on February 4, 2020.

DISCUSSION;

PART 323—PERMITS FOR DISCHARGES OF DREDGED OR FILL MATERIAL INTO WATERS OF THE UNITED STATES

§ 323.2 Definitions

...(c) The term dredged material means material that is excavated or dredged from waters of the United States. (d)(1) Except as provided below in paragraph (d)(2), the term discharge of dredged material means any addition of dredged material into, including redeposit of dredged material other than incidental fallback within, the waters of the United States. The term includes, but is not limited to, the following:... (iii) Any addition, including redeposit other than incidental fallback, of dredged material, including excavated material, into waters of the United States which is incidental to any activity, including mechanized landclearing, ditching, channelization, or other excavation.

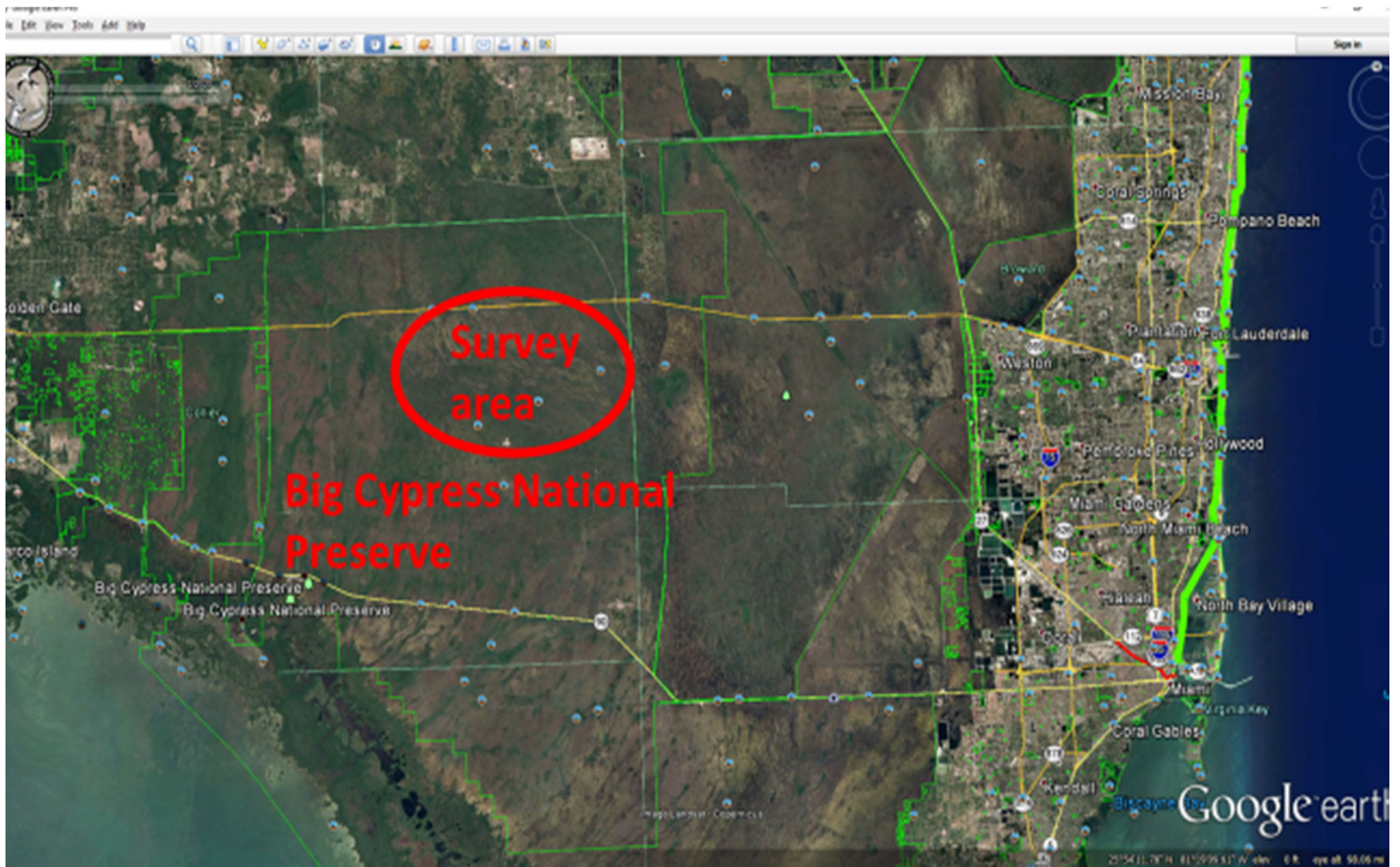
(2) The term discharge of dredged material does not include the following: ... (iii) Incidental fallback. (3) Section 404 authorization is not required for the following: (i) Any incidental addition, including redeposit, of dredged material associated with any activity that does not have or would not have the effect of destroying or degrading an area of waters of the United States as defined in paragraphs (d)(4) and (d)(5) of this section; however, this exception does not apply to any person preparing to undertake mechanized landclearing, ditching, channelization and other excavation activity in a water of the United States, which would result in a redeposit of dredged material, unless the person demonstrates to the satisfaction of the Corps, or EPA as appropriate, prior to commencing the activity involving the discharge, that the activity would not have the effect of destroying or degrading any area of waters of the United States, as defined in paragraphs (d)(4) and (d)(5) of this section. The person proposing to undertake mechanized landclearing, ditching, channelization or other excavation activity bears the burden of demonstrating that such activity would not destroy or degrade any area of waters of the United States.

(5) For purposes of this section, an activity associated with a discharge of dredged material degrades an area of waters of the United States if it has more than a de minimis (i.e., inconsequential) effect on the area by causing an identifiable individual or cumulative adverse effect on any aquatic function. (e)(1) Except as specified in paragraph (e)(3) of this section, the term fill material means material placed in waters of the United States where the material has the effect of: (i) Replacing any portion of a water of the United States with dry land; or (ii) Changing the bottom elevation of any portion of a water of the United States...

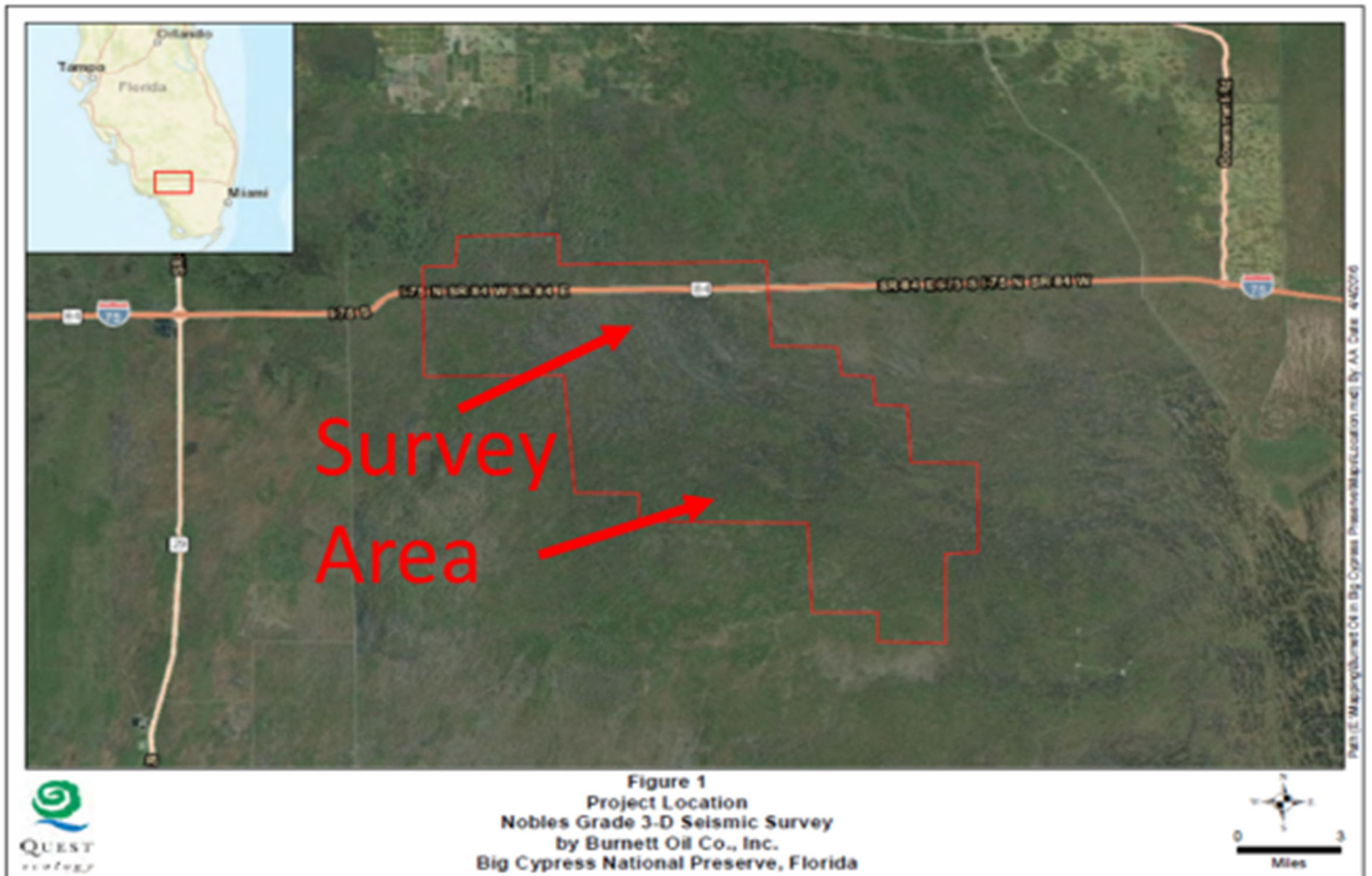
BIG CYPRESS NATIONAL PRESERVE:

Big Cypress National Preserve was established October 11, 1974. The preserve is 729,000 acres in size. Approximately one million visitors visit the preserve each year. The preserve is a freshwater wetland swamp ecosystem. It provides the largest contiguous acreage of habitat for panthers in south Florida. The preserve has one of the largest fire management programs in the National Park System, burning roughly 60,000 acres each year.

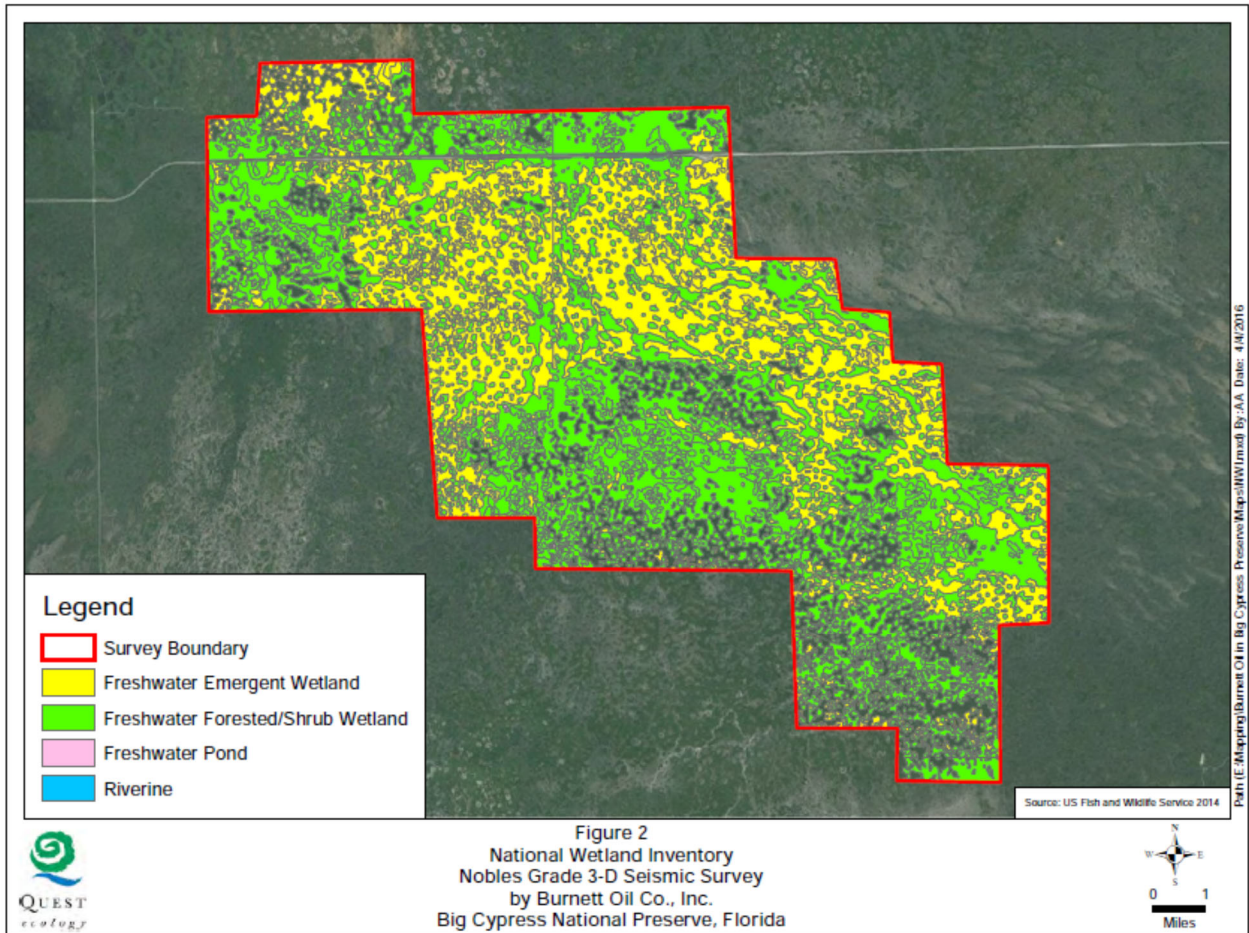
Location of oil and gas survey area within Big Cypress National Preserve



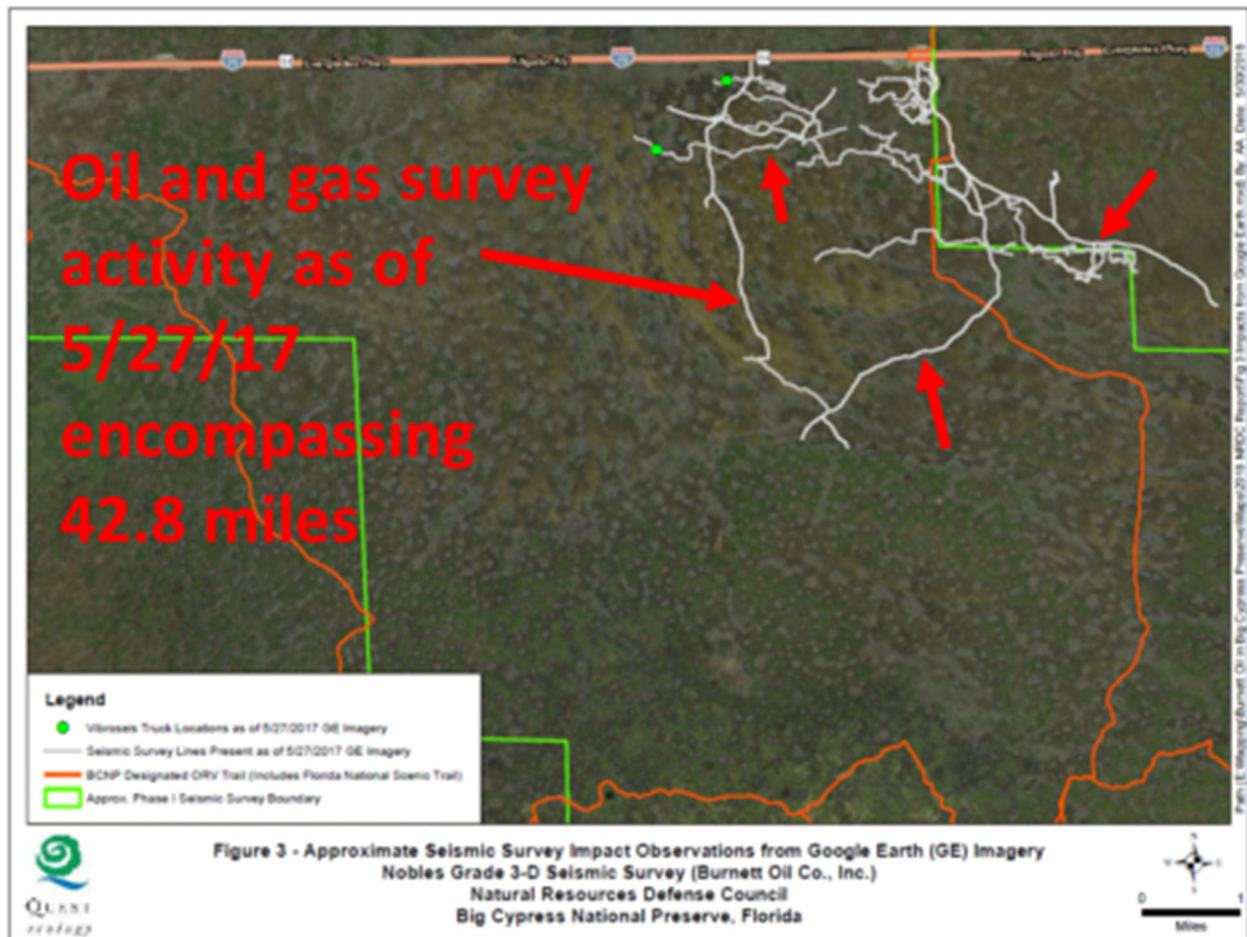
Location of oil and gas survey outer boundary area measuring 110 square miles total:



Wetlands cover types in survey area:



Oil and gas survey activity conducted as of 5/27/17 encompassing 42.8 miles and measuring between 62.2 and 77.8 acres.



Depiction of total number of oil and gas survey lines as of June 2019 measuring 169 miles.

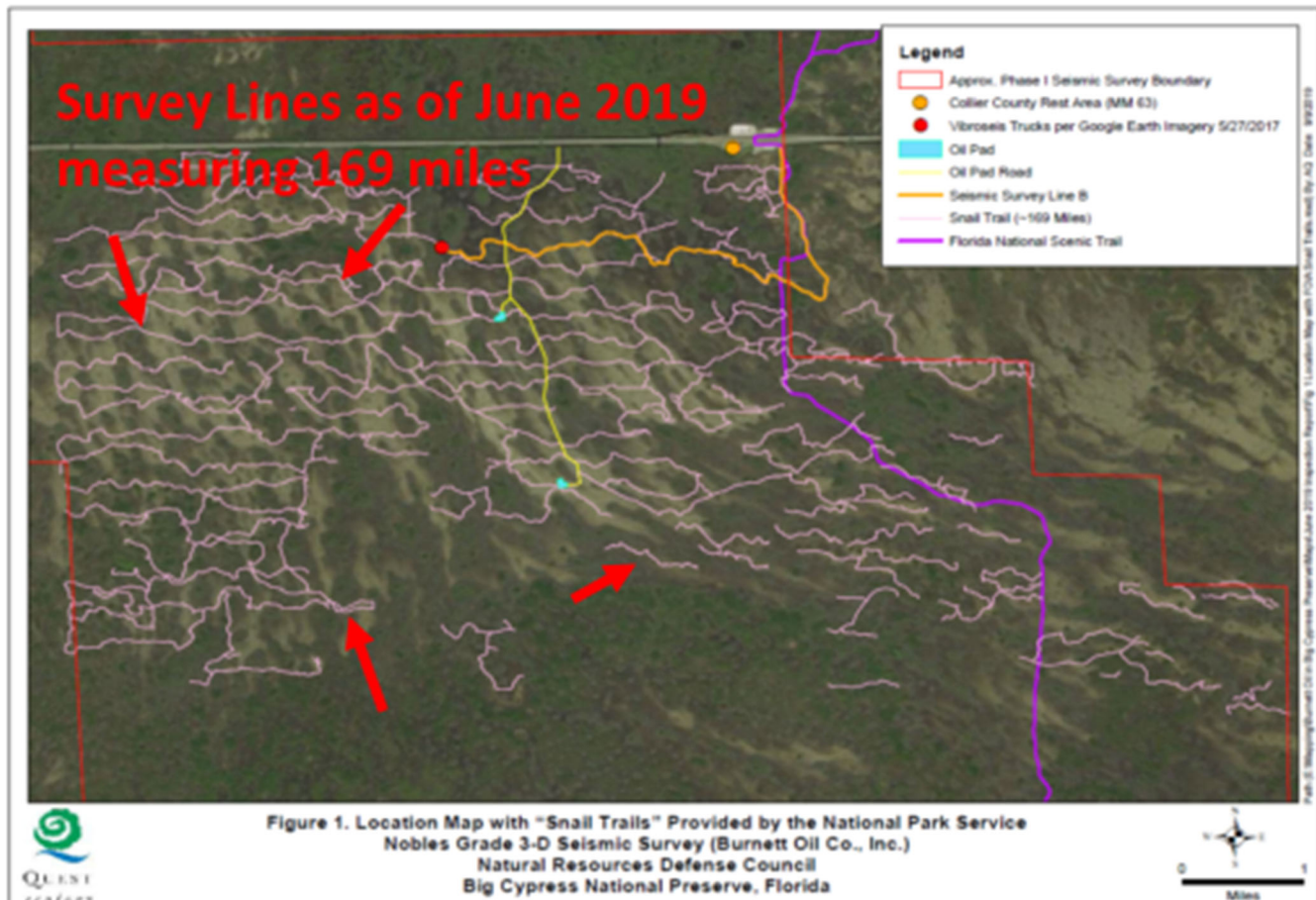


Photo stations documenting conditions are lettered A through T:

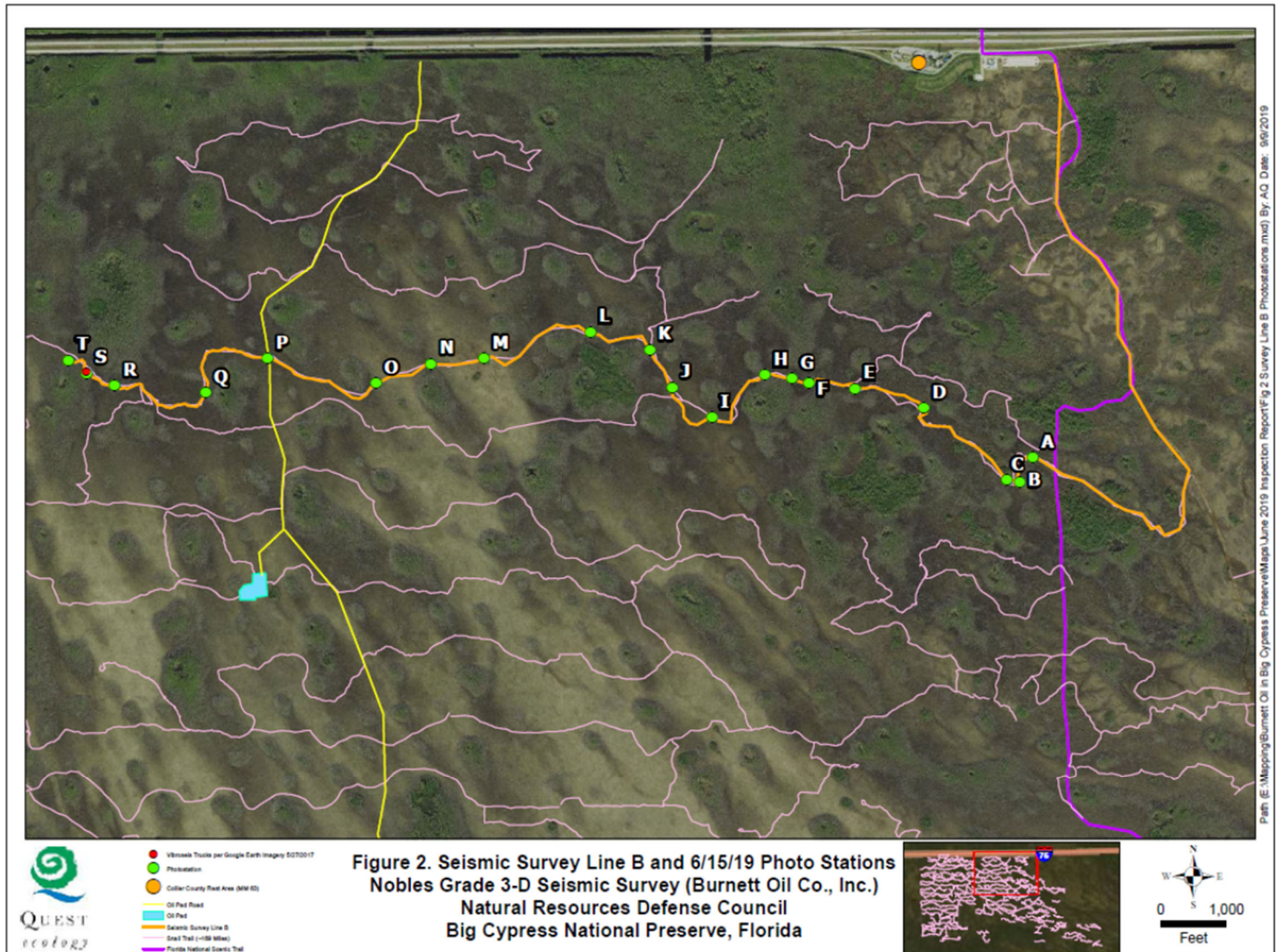


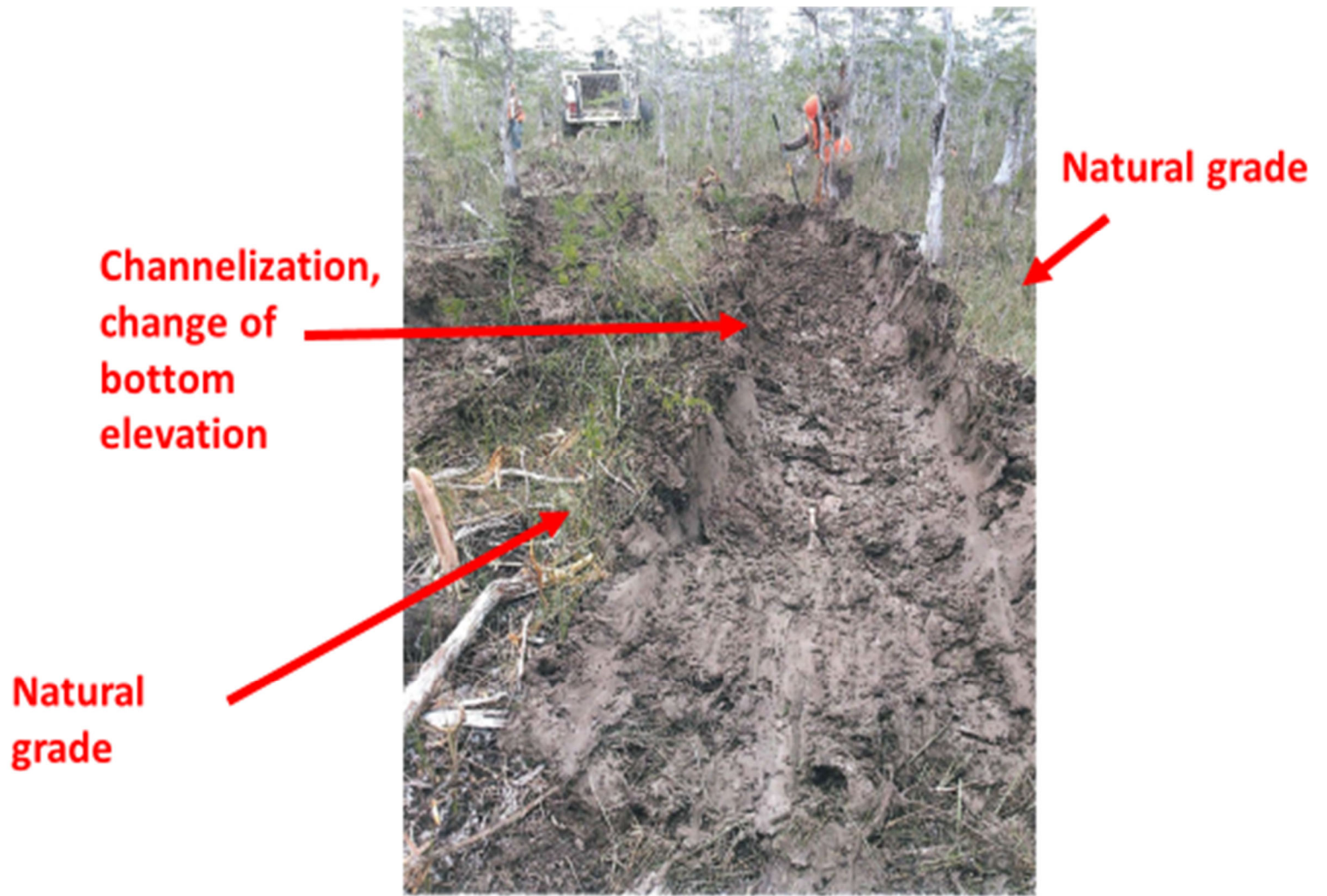
Photo of oil and gas survey vehicles:

Survey vehicles



Photo 2: View northeast of 5 vibroseis vehicles staged in a cypress strand wetland at Photostation B.

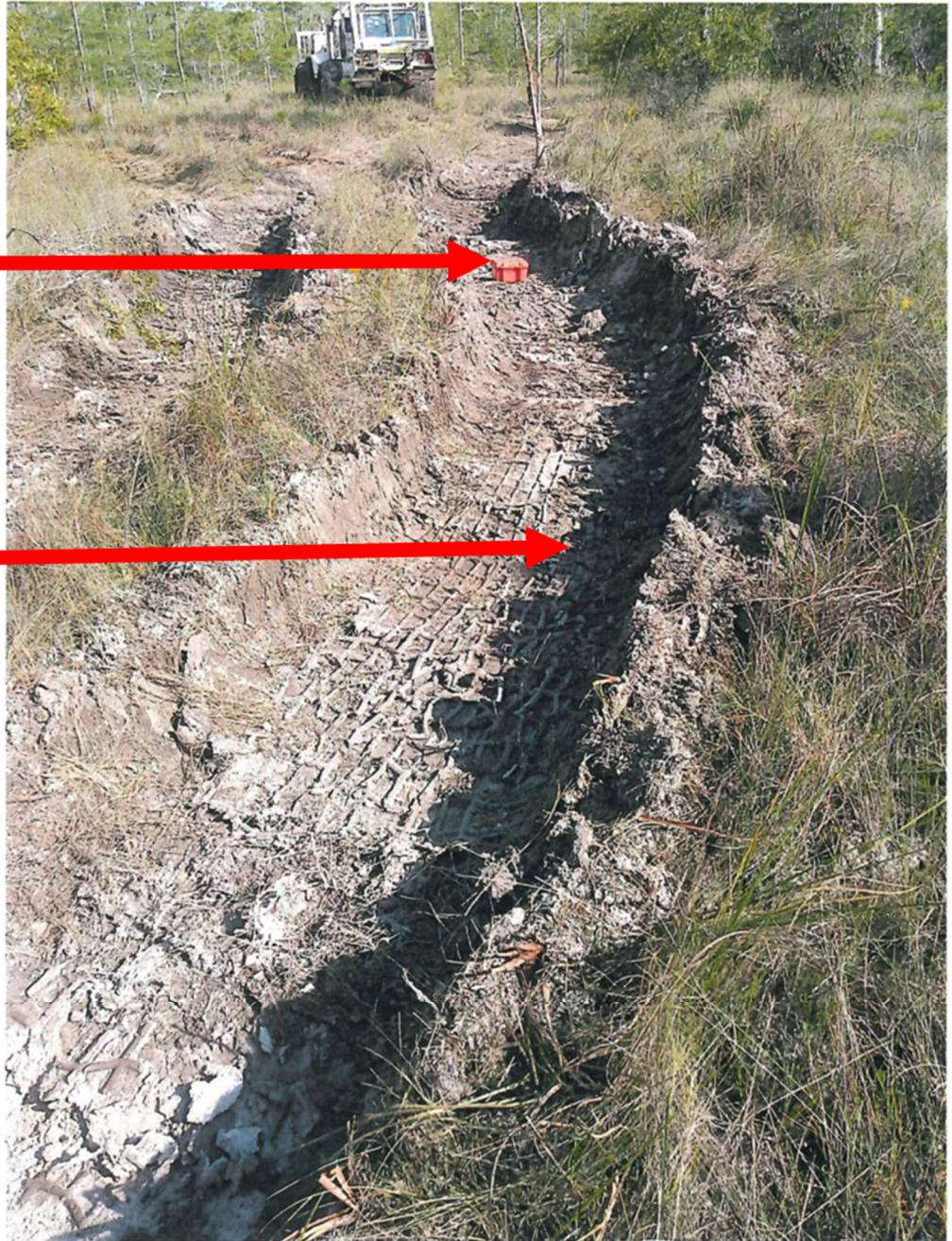
Photo of impact caused by oil and gas survey vehicle activity in Big Cypress National Preserve that changes the bottom elevation and causes channelization:



Photos of impacts caused by oil and gas surveying activity that change the bottom elevation of the wetland:

See tool
box for
scale

See channelization,
change of bottom
elevation that is easily
identifiable



Change in bottom elevation and topography that is more than incidental fallback. In the wet season this creates slough like conditions that did not previously exist. Figure of photo station E:

Seismic survey line 5 photos



Photo 5: View east from Photostation E showing example of a seismic survey line greater than 15 feet wide at a location where vibroseis vehicles created two lanes of impact around an area of deep rutting.

Change in bottom elevation and topography that is more than incidental fallback. In the wet season this creates slough-like conditions that did not previously exist. Photo station F:



Photo 6: View west from Photostation F showing deep ruts, cut dwarf cypress stumps from 2017 survey activities.

Photo station H below, change in bottom elevation of wetland:

Seismic Survey Line B Photo



Photo 9: View west from Photostation H.



Photo 10: View west of more extreme rutting (~21 inches deep) observed ~100 feet west of Photostation H.

Photo station M, change in bottom elevation;



Photo 15: View west from Photostation M.



Photo 16: View east from Photostation M.

Slough-like (faster running water) condition created that did not previously exist at photo station Q.



Photo 17: View east from Photo Station Q.

CONCLUSION:

The activity described in this memo should be regulated under the Clean Water Act because the activity equates to mechanized land clearing, ditching or channelization resulting in redeposit of fill greater than incidental fallback that causes an identifiable individual or cumulative adverse effect on an aquatic function and change to the bottom elevation of ... a water of the United States...

The survey activity should be regulated under 33 C.F.R. 325 until such time that the surveying entity, pursuant to 33 C.F.R 323.2:

“demonstrates to the satisfaction of the Corps, or EPA as appropriate, prior to commencing the activity involving the discharge, that the activity would not have the effect of destroying or degrading any area of waters of the United States... The person proposing to undertake mechanized landclearing, ditching, channelization or other excavation activity bears the burden of demonstrating that such activity would not destroy or degrade any area of waters of the United States.”

Until such time that the survey entity demonstrates otherwise, future survey activities using the techniques described in this Memo should be subject to regulation under Section 404 of the Clean Water Act 33 C.F.R. 325. The entity conducting said activity should be advised as such by the Corps in writing prior to conducting additional survey activity at this location.

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