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RE: **SWG-2018-00213** - Olin Blue Cube Operations LLC in Brazoria County

Dear Policy Analysis Branch,

We are writing on behalf of Bayou City Waterkeeper<sup>1</sup>, and Gulf Restoration Network (“GRN”)<sup>2</sup>. We have serious concerns about the application for a Section 404 Permit (**SWG-2018-00213**) and Water Quality Certification submitted to the United States Army Corps of Engineers (“Corps”) and Texas Commission on Environmental Quality (“TCEQ”), respectively, by Olin Blue Cube Operations, LLC (“Applicant”).

The Applicant requests Section 404 permitting and a Water Quality Certification (“WQC”) for its unspecified salt dome deployment project (“Project”). The Project would add many small hydrologic barrier across the Oyster Creek watershed in the form of roads without culverts. We are concerned about the lack of description of chemicals, substances, liquids or gases to be stored in the salt cavern. Such information is necessary to comment upon potential impacts. While a project of this magnitude is significant in its own right, we are concerned about the additive, indirect and cumulative effects of continued salt dome development within the watershed. Although the Applicant also proposes a Mitigation Plan upriver on the Brazos watershed to offset any unavoidable losses to wetland functions caused by project implementation, we are concerned about the low ratio of replacement of riparian acreage, and about the inevitable indirect and cumulative wetland effects that may result from a project of this scale.

GRN opposes the Applicant’s request for a Section 404 Permit and WQC, and we ask The Corps and TCEQ to deny this request based on the following concerns:

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<sup>1</sup> Bayou City Waterkeeper's mission is to ensure the aquatic integrity of the Lower Galveston Bay watershed by focusing on the protection of wetlands and other critical habitats, advocating for adequate mitigation of lost wetland resources, and enforcing all aspects of compliance with the Clean Water Act.

<sup>2</sup> GRN is a diverse coalition of individual citizens and local, regional, and national organizations committed to uniting and empowering people to protect and restore the natural resources of the Gulf of Mexico.

## ***1. Water Dependence of The Project has not been demonstrated by the Applicant.***

The intent of Corps regulation is to avoid the unnecessary destruction or alteration of Waters of the United States, including wetlands, and to compensate for the unavoidable loss of such waters. Corps regulations require that no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge that would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences.

Based on this provision, an evaluation is required in every case for use of non-aquatic areas and other aquatic sites that would result in less adverse impact to the aquatic ecosystem, irrespective of whether the discharge site is a special aquatic site or whether the activity associated with the discharge is water dependent. A permit cannot be issued, therefore, in circumstances where an environmentally preferable practicable alternative for the proposed discharge exists.

For proposed discharges into wetlands and other special aquatic sites, The Corps requires consideration of whether the activity associated with the proposed discharge is “water dependent.” Water dependency is defined in terms of an activity requiring access or proximity to or siting within a special aquatic site to fulfill its basic project purpose.

According to public notice,<sup>3</sup> the purpose of the Project is to construct four new brine ponds for brine water storage, two new stormwater detention ponds and associated outfalls and roads.

According to 40 CFR §230.10(a)(3):

[W]here the activity associated with a discharge which is proposed for a special aquatic site (as defined in subpart E) does not require access or proximity to or sitting within the special aquatic site in question to fulfill its basic purpose (i.e. not water dependent), practicable alternatives that do not involve special aquatic sites are presumed to be available, unless clearly demonstrated otherwise. In addition, where discharge is proposed for a special aquatic site, all practicable alternatives to the proposed discharge which do not involve a discharge into a special aquatic site are presumed to have less adverse impact on the same aquatic ecosystem, unless clearly demonstrated otherwise.<sup>4</sup>

Wetlands are considered “special aquatic sites.”<sup>5</sup> There is no reason or explanation given by the Applicant concerning why this development must be sited in wetlands to “fulfill its basic

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<sup>3</sup> [SWG-2018-00213](#), 12 July 2018.

<sup>4</sup> 40 C.F.R. §230.10(a)(3) (2009).

<sup>5</sup> 40 C.F.R. §230.41.

purpose.” Since the burden of proof rests with the Applicant, it must therefore be concluded that this proposal is not water dependent. And according to the regulations, non-wet practicable alternatives must then exist.<sup>6</sup>

*In its present form, The Corps and TCEQ must deny the Applicant’s requests for a Section 404 Permit and WQC.*

## **2. Project Alternatives have not been addressed.**

In general, the regulations provide that no discharge of dredged or fill material shall be permitted: (1) if there is a practicable alternative to the proposed discharge; (2) if the discharge causes or contributes to violations of applicable state water quality standards; (3) if the discharge will cause or contribute to significant degradation of the environment; and (4) unless all appropriate steps have been taken to minimize potential adverse impacts.<sup>7</sup> The Corps’ regulations also require that destruction of wetlands is to be avoided to the extent practicable.<sup>8</sup> The regulations further provide that “practicable alternatives” include “not discharging into the waters of the U.S. or discharging into an alternative aquatic site with potentially less damaging consequences.”<sup>9</sup> If a project is not “water dependent,” as is the case with salt dome storage, the guidelines contain a presumption that a less environmentally damaging practicable alternative exists while also requiring that the applicant clearly demonstrates that practicable alternatives which would not involve discharge of fill material into special aquatic sites were not available.<sup>10</sup>

Indeed, commercial solutions such as storage tanks are available. Constructed storage would easily avoid wetlands and special aquatic sites. The Applicant must show why the constructed methods of storage are insufficient. If the site must be impacted, the Applicant must justify hydrologically altering or impounding local wetlands.

Publicly-available documents provide no evidence that the Applicant has engaged in a proper alternative analysis, to determine if non-wet potential project sites exist. It seems like non-wet sites on this salt dome exist, and we request an alternatives for those sites. The alternative

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<sup>6</sup> It should be further noted that 40 C.F.R. §230.20(a)(2) allows for the consideration of alternative sites *not owned* by the Applicant if they can be reasonably obtained and utilized for the basic purpose. Here, where the basic purpose is chemical or liquid storage, it can be easily assumed that numerous non-wetland properties or even sites on the same salt dome could be reasonably obtained to fulfill the basic purpose, and it is clearly within the Applicant’s burden to demonstrate otherwise.

<sup>7</sup> 40 C.F.R. § 230.10.

<sup>8</sup> 33 C.F.R. § 320.4(r).

<sup>9</sup> 40 C.F.R. §§ 230.5(c), 230.10(a).

<sup>10</sup> 40 C.F.R. § 230.10(a)(3).

analysis must include direct, indirect, secondary, and cumulative impacts that take into account aspects of water quality, wildlife, and flood protection. Presently, the public has not received any information as to why the Project must be sited in the Applicant's preferred location.

Impacts to wetland areas could obviously be minimized if the development were relocated to non-wet regions. As noted above, a burden to show the non-existence of practicable alternatives rests with the Applicant, when the proposed project is located in a special aquatic habitat and is not water-dependent.

We request a Tier II alternatives analysis for the project's 401 certification. The public should be able to comment on such responses. More information is needed on alternatives examined.

Because the Applicant has not shown the Project to be water dependent, it is then assumed under the regulations that practicable alternatives exist to aspects of the Project that impact Waters of the United States. The Applicant has failed to demonstrate adequate consideration of alternatives, or an avoidance of impacts to the maximum extent practicable. Therefore, BCWK and GRN respectfully submit that The Corps cannot issue the requested permit under Clean Water Act Section 404.

*We request an adequate alternatives analysis in response to this letter, including alternative methods, as well as non-wet site locations.*

***3. Direct, indirect, secondary, and cumulative impacts must be fully considered.***

Given the information available in public documents, it does not appear that USACE or the Applicant have fully weighed the costs and benefits relevant to the Project. Direct, indirect, secondary, and cumulative impacts of the proposed wetland fill and clearing remain overlooked.

The fill of such a large area is in violation of the federal and state anti-degradation policy. The Texas policy states that "Discharges that cause pollution that are authorized by the Texas Water Code, the Federal Clean Water Act, or other applicable laws must not lower water quality to the extent that the Texas Surface Water Quality Standards are not attained."<sup>11</sup>

Should a sinkhole develop, as with the Texas Brine project in the wetlands of Bayou Corne, in Assumption Parish Louisiana, the impacts to wetlands could be significantly magnified. We request an impact bond to insure the preservation of wetland values in the event of a collapse.

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<sup>11</sup>[Texas Water Code, §26.003](#)

As mentioned above, the Project's direct impact over 25 wetland acres is certainly significant. There would be considerable impacts to water quality and wildlife habitat.

Additionally, the Federal regulations have not been fully implemented. Per executive orders 11988 and 11990, in order to prevent impacts to wetlands certain aspects need to be analyzed. Title 18 of the Code of Federal Regulations states:

It is the policy of the Council to provide leadership in floodplain management and the protection of wetlands. Further, the Council shall integrate the goals of the Orders to the greatest possible degree into its procedures for implementing the National Environmental Policy Act. The Council shall take action to: Avoid long- and short-term adverse impacts associated with the occupancy and modification of floodplains and the destruction or modification of wetlands; Avoid direct and indirect support of floodplain development and new construction in wetlands wherever there is a practicable alternative; Reduce the risk of flood loss; Promote the use of nonstructural loss reduction methods to reduce the risk of flood loss; Minimize the impact of floods on human health, safety and welfare; Minimize the destruction, loss or degradation of wetlands; Restore and preserve the natural and beneficial values served by floodplains; Preserve and enhance the natural and beneficial values served by wetlands.<sup>12</sup>

Given that the Public Notice does not thoroughly adhere to the executive order, The Corps and TCEQ should deny the permit application.

The destruction of these wetlands would further weaken the areas vulnerability to rainstorms, as well as coastal storms.

The Code of Federal Regulations recognizes the significance of secondary impacts from wetland destruction by emphasizing that "minor loss of wetland acreage may result in major losses through secondary impacts."<sup>13</sup> Where more than acres of wetlands are involved, and the likelihood of a brine or chemical spill to destroy more wetlands is known, it is unacceptable that the Applicant offers no analysis of these probable impacts.

The cumulative impacts on storm and flood protection must also be taken into consideration. This project will foreseeably incite additional construction and in turn jeopardize even more wetlands unique to this area. This activity, combined with similar wetland-destroying projects, could result in more flooding in nearby communities, *as well as degraded water quality in*

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<sup>12</sup> 18 C.F.R. §725.2.

<sup>13</sup> 40 C.F.R. §230.41.

*Oyster Creek and surrounding wetlands.* The whole area must be looked at as an interrelated ecological unit in order to adequately assess the cumulative impacts.

*Since the Public Notice does not assess, or even recognize, the potential direct, indirect, and cumulative impacts that will result from the disruption of over 25 acres of wetlands, The Corps and TCEQ cannot approve this proposal as submitted.*

**4. The Applicant must develop disaster-response plans, and local floodplain officials should be included in the notification of this permit since the proposed site sits within an area vulnerable to flooding.**

The Applicant must have plans for disaster response scenarios, in place prior to project permitting. We have yet to see any mention of this sort, in any public documents.

These waterlogged wetlands are susceptible to deluge rain events. However, the Applicant makes no mention of any emergency containment plans for brine or fluids. This is deeply concerning, given the proposed site's distinct geography.

The disaster response plan should include response for a sinkhole or collapse situation, the necessity for which is evidenced by what happened to the people of Bayou Corne in Assumption Parish Louisiana.

It is also concerning that once the salt dome is created, there could be opportunity for the storage of hazardous substances that could have even more disastrous effects on the surrounding wetlands and environment if there were to be a spill or subsurface breach.

We request that the Brazoria county emergency manager be notified of this application.

*The Applicant's application must be deemed inadequate until it submits a spill-response plan. We also request that local floodplain managers be notified of the associated, significant flood and spill risks.*

**5. The Public Notice fails to adequately describe the Mitigation Plan.**

Federal law also requires the Applicant to compensate for, or mitigate, the damages resulting from the destruction of our nation's wetlands, should a permit be issued. In the public notice, there is a proposed plans for the use of a riparian mitigation area to offset any unavoidable

losses to wetland functions caused by project implementation.<sup>14</sup> This practice is to be commended, and this site should be expanded to meet the full mitigation requirement.

The Corps “must ensure that adequate [mitigation plan] information is included in the Public Notice to enable the public to provide meaningful comment,” providing exception only for data which is “legitimately confidential for business purposes.”<sup>15</sup> According to the joint EPA/USACE “Compensatory Mitigation for Losses of Aquatic Resources; Final Rule,” mitigation plans for all wetland compensatory mitigation projects must contain the twelve elements, including:<sup>16</sup>

- site selection criteria
- baseline information for impact and compensation sites
- ecological performance standards
- monitoring requirements

The mere mention of legally-required details does not satisfy this requirement of “adequate information” to allow “meaningful comment.” Considering that localities in Coastal Texas have a strong public interest in minimizing the effects of storm surge and localized flooding, the nature and location of compensatory mitigation is of vital importance to those who wish to provide public comments. As just one example, canopy-cover values ought to be publicly provided, given the significant impacts to forests that make up the majority of this proposal’s potential wetland destruction.

For the sake of detail, further mitigation requirements in 33 C.F.R. § 332 are included below.

To satisfy the Clean Water Act, mitigation plans must provide a level of detail “commensurate with the scale and scope of the impacts”<sup>17</sup> and include the following information:

1. “A description of the resource type(s) and amount(s) that will be provided, the method of ecoregion, physiographic province, or other geographic areas of interest.”<sup>18</sup>

We request a description of the IHGM category for these wetlands. IHGM has been noted to undervalue the importance for wet prairie habitat on the Texas coast, even as the risk of coastal flooding from surge and rain increase.

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<sup>14</sup> [SWG-2018-00213](#), 12 July 2018.

<sup>15</sup> 40 CFR § 230.94(b).

<sup>16</sup> 33 CFR § 322.4(c).

<sup>17</sup> 33 C.F.R. § 332.4(c).

<sup>18</sup> 33 C.F.R. § 332.4(c)(2).

2. “A description of the factors considered during the site selection process. This should include consideration of watershed needs, onsite alternatives where applicable, and the practicability of accomplishing ecologically self-sustaining aquatic resource restoration, establishment, enhancement, and/or preservation at the compensatory mitigation project site.”<sup>19</sup>

We have stated the benefits of riparian mitigation, but the assumptions of iHGM should be public. In a location so close to the coast, it may be more beneficial to mitigate PEM marsh coastally.

3. “A description of the legal arrangements and instrument, including site ownership, that will be used to ensure the long-term protection of the compensatory mitigation project.”<sup>20</sup>
4. “A description of the ecological characteristics of the proposed compensatory mitigation project site.... This may include descriptions of historic and existing plant communities, historic and existing hydrology, soil conditions, a map showing the locations of the impact and mitigation site(s) or the geographic coordinates for those site(s), and other site characteristics appropriate to the type of resource proposed as compensation. The baseline information should also include a delineation of waters of the United States on the proposed compensatory mitigation project site.”<sup>21</sup>

Although the two mitigation banks mentioned are sited appropriately for riparian flooding, the public cannot comment on the magnitude of mitigation, since it is not listed, and whether the applicant needs to consider coastal flooding.

5. “A description of the number of credits to be provided, including a brief explanation of the rationale for this determination,” including “an explanation of how the compensatory mitigation project will provide the required compensation for unavoidable impacts to aquatic resources resulting from the permitted activity.”<sup>22</sup>
6. “Detailed written specifications and work descriptions for the compensatory mitigation project, including, but not limited to, the geographic boundaries of the project; construction methods, timing, and sequence; source(s) of water, including connections to existing waters and uplands; methods for establishing the desired plant community;

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<sup>19</sup> 33 C.F.R. § 332.4(c)(3).

<sup>20</sup> 33 C.F.R. § 332.4(c)(4).

<sup>21</sup> 33 C.F.R. § 332.4(c)(5).

<sup>22</sup> 33 C.F.R. § 332.4(c)(6).

plans to control invasive plant species; the proposed grading plan, including elevations and slopes of the substrate; soil management; and erosion control measures.”<sup>23</sup>

Over and over we see a lack of attention to the flow of water on wet prairie sites, although documentation exists to show this flow. We question whether impacts to waters have been avoided with appropriate techniques on this site, as well as whether the mitigation bank has committed to a satisfactory degree of mitigation.

7. “A description and schedule of maintenance requirements to ensure the continued viability of the resource once initial construction is completed.”<sup>24</sup>
8. “Ecologically-based standards that will be used to determine whether the compensatory mitigation project is achieving its objectives.”<sup>25</sup>

We are particularly concerned with the flood attenuation values of wetlands, and question whether the mitigation will compensate for such.

9. “A description of parameters to be monitored in order to determine if the compensatory mitigation project is on track to meet performance standards and if adaptive management is needed. A schedule for monitoring and reporting on monitoring results to the district engineer must be included.”<sup>26</sup> The mitigation plan must provide for a monitoring period that is sufficient to demonstrate that the compensatory mitigation project has met performance standards, but not less than five years. A longer monitoring period must be required for aquatic resources with slow development rates (e.g., forested wetlands, bogs).<sup>27</sup>
10. “A description of how the compensatory mitigation project will be managed after performance standards have been achieved to ensure the long-term sustainability of the resources, including long-term financing mechanisms and the party responsible for long-term management.”<sup>28</sup>
11. “A management strategy to address unforeseen changes in site conditions or other components of the compensatory mitigation project, including the party or parties responsible for implementing adaptive management measures. The adaptive management plan will guide decisions for revising compensatory mitigation plans and

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<sup>23</sup> 33 C.F.R. § 332.4(c)(7).

<sup>24</sup> 33 C.F.R. § 332.4(c)(8).

<sup>25</sup> 33 C.F.R. § 332.4(c)(9).

<sup>26</sup> 33 C.F.R. § 332.4(c)(10).

<sup>27</sup> 33 C.F.R. § 332.6.

<sup>28</sup> 33 C.F.R. § 332.4(c)(11).

implementing measures to address both foreseeable and unforeseen circumstances that adversely affect compensatory mitigation success.”<sup>29</sup>

12. “A description of financial assurances that will be provided and how they are sufficient to ensure a high level of confidence that the compensatory mitigation project will be successfully completed, in accordance with its performance standards.”<sup>30</sup>
13. The mitigation plan must provide for a monitoring period that is sufficient to demonstrate that the compensatory mitigation project has met performance standards, but not less than five years. A longer monitoring period must be required for aquatic resources with slow development rates (e.g., forested wetlands, bogs).<sup>31</sup>
14. The compensatory mitigation requirements must be clearly stated and include special conditions that “must be enforceable.” The special conditions must: “(i) Identify the party responsible for providing the compensatory mitigation; (ii) Incorporate, by reference, the final mitigation plan approved by the district engineer; (iii) State the objectives, performance standards, and monitoring required for the compensatory mitigation project, unless they are provided in the approved final mitigation plan; and (iv) Describe any required financial assurances or long-term management provisions for the compensatory mitigation project, unless they are specified in the approved final mitigation plan....”<sup>32</sup> “The special conditions must clearly indicate the party or parties responsible for the implementation, performance, and long-term management of the compensatory mitigation project.”<sup>33</sup>
15. “The real estate instrument, management plan, or other mechanism providing long-term protection of the compensatory mitigation site must, to the extent appropriate and practicable, prohibit incompatible uses (e.g., clear cutting or mineral extraction) that might otherwise jeopardize the objectives of the compensatory mitigation project.”<sup>34</sup>

A key element of a legally adequate mitigation plan is the inclusion of ecological performance standards for assessing whether the mitigation is achieving its objectives, and these are described under 33 C.F.R. § 332.5:

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<sup>29</sup> 33 C.F.R. § 332.4(c)(12).

<sup>30</sup> 33 C.F.R. § 332.4(c)(13).

<sup>31</sup> 33 C.F.R. § 332.6.

<sup>32</sup> 33 C.F.R. § 332.3(k).

<sup>33</sup> 33 C.F.R. § 332.3(l).

<sup>34</sup> 33 C.F.R. § 332.7(a).

“Performance standards should relate to the objectives of the compensatory mitigation project, so that the project can be objectively evaluated to determine if it is developing into the desired resource type, providing the expected functions, and attaining any other applicable metrics (e.g., acres).”<sup>35</sup>

And, further:

“Performance standards must be based on attributes that are objective and verifiable. Ecological performance standards must be based on the best available science that can be measured or assessed in a practicable manner. Performance standards may be based on variables or measures of functional capacity described in functional assessment methodologies, measurements of hydrology or other aquatic resource characteristics, and/or comparisons to reference aquatic resources of similar type and landscape position. The use of reference aquatic resources to establish performance standards will help ensure that those performance standards are reasonably achievable, by reflecting the range of variability exhibited by the regional class of aquatic resources as a result of natural processes and anthropogenic disturbances. Performance standards based on measurements of hydrology should take into consideration the hydrologic variability exhibited by reference aquatic resources, especially wetlands. Where practicable, performances standards should take into account the expected stages of the aquatic resource development process, in order to allow early identification of potential problems and appropriate adaptive management.”<sup>36</sup>

*To assure that minimization and mitigation in the same watershed and for the correct type of wetlands are occurring, we request that, at the minimum, mitigation banks the and avoidance and minimization statement used are included in the Public Notice. Since this regulation is not followed, the Public Notice is incomplete and must be reissued with a mitigation plan.*

**6. The final plan, with mitigation plan included, should be made available to the public before any permits are granted.**

We feel that the current Public Notice system is not adequate to fully involve the public in the Section 404 permitting process. The only items available to the public throughout the entire process is the Corps Public Notice. And significantly, these documents are released before The Corps and the Applicant go through the “avoid, minimize, and mitigate” process.

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<sup>35</sup> 33 C.F.R. § 332.5(a).

<sup>36</sup> 33 C.F.R. § 332.5(b).

The public is therefore never given an opportunity to comment on the final project, including the mitigation plan. We have often been told that many changes happen to the permits before they are issued, but the public never sees them until the wetlands have already been filled and water quality altered.

*We request more information in the initial Public Notice (e.g., mitigation plans, efforts made to avoid impacts, necessity of project location, adequate alternative analysis, environmental assessments, etc.). Because this regulation is not followed, the Public Notice is incomplete and must be reissued with a mitigation plan.*

**7. We question whether any wetland mitigation could completely replace the functions and values lost.**

Should any impacts to wetlands occur because of the Project, mitigation is required. Given the history of failure of mitigation, we feel that it would be extremely difficult to replace the function and values of this particular wetland if offsite mitigation takes place.

Recent surveys of wetland mitigation functions in the Galveston District<sup>37</sup> have noted systematic losses of palustrine emergent wetlands in particular. Only 15% of mitigation was considered fully successful. The results push us toward the conclusion that avoidance must be taken more seriously, especially when non-wet sites are available.

Recent scientific literature reviews of general wetland mitigation sites have described these kinds of failure in detail, but the failure is due partially to the fact that the functions of wetland soils are largely unaccounted for:<sup>38,39</sup>

[O]verall lack of recovery of biogeochemical functioning may have been driven largely by the low recovery of the carbon storage and the low accumulation of soil organic matter.

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<sup>37</sup> GTI / HARC June 2017, Toward Wetland Protection in the Houston-Galveston Region. GLO No. 16-068-000-9112 counties surveyed included Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller.

<sup>38</sup> Spieles, D. J. 2005. Vegetation Development in Created, Restored, and Enhanced Mitigation Wetland Banks of the United States. *Wetlands*. 25:51-63.

<sup>39</sup> Moreno-Mateos D , Power ME , Comín FA , Yockteng R , 2012 Structural and Functional Loss in Restored Wetland Ecosystems. *PLoS Biol* 10(1): e1001247. [doi:10.1371/journal.pbio.1001247](https://doi.org/10.1371/journal.pbio.1001247).

A LSU master's thesis has outlined the failure to replace ecological functions by the New Orleans District 404 regulatory branch.<sup>40</sup> Although acreages were replaced around a 1:1 ratio, a functional analysis showed that the acreage of improved wetland needed to replace ecological functions was close to 2.4:1 for every acre destroyed.

The mention of purchasing compensatory credits is inadequate information to base an evaluation of cumulative impacts from loss of wetland function. Even if mitigation were to take place within the same hydrologic basin, we question whether any amount of acreage offsite would be able to replace the functions and values (local flood mitigation, local flora/fauna, etc.) that these wetland tracts currently perform.

**As a whole, it is essential to avoid and minimize impacts to these unique bodies.**

*We request more information in the initial Public Notice on efforts made to avoid impacts, necessity of project location, and agency comments.*

**8. The Project has not demonstrated a public benefit without financial commitment that must be required of such a hazardous area.**

As already noted, The Corps must not only consider alternative locations and storage methods, it must also choose the least-damaging practicable alternative.<sup>41</sup> The least-damaging practicable alternative is the “no action” alternative. This alternative goes to the heart of this entire process – whether there even exists a public need for the Project, although there are obvious public risks.

These risks don't seem to be able to evaluated, since the contents to be placed into the cavern are nowhere described.

No mention is made regarding how the actual residents of Clute and Brazoria County would benefit from the Project. Community members are instead likely to be left with all the unaccounted, external costs of the Project: health and environmental impacts, reduced flood protections, heightened spill risks, and the countless other costs associated with the climate-disrupting reliance on fossil-fuel infrastructure.

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<sup>40</sup> WETLAND MITIGATION BANKS AND THE NO-NET-LOSS REQUIREMENT: AN EVALUATION OF THE SECTION 404 PERMIT PROGRAM IN SOUTHEAST LOUISIANA by Abbey Anne Tyrna

[http://etd.lsu.edu/docs/available/etd-04102008-141642/unrestricted/Tyrna\\_thesisx.pdf](http://etd.lsu.edu/docs/available/etd-04102008-141642/unrestricted/Tyrna_thesisx.pdf).

<sup>41</sup> 40 C.F.R. § 230.10(a).

Given the well-known volatility of oil markets, the Applicant ought to demonstrate the long-term viability of the Project, and include a bond for site reclamation. To demonstrate at least some of the projected project-related benefits, an analysis that includes no fewer than five years of historical market data should be included and weighed in the decision-making process.

## **SUMMARY**

- 1. Water dependence of the Project has not been demonstrated by the Applicant.**
- 2. Project Alternatives have not been addressed.**
- 3. Direct, indirect, secondary, and cumulative impacts must be fully considered.**
- 4. The Applicant must develop a spill-response plan, and local floodplain officials should be included in the notification of this permit, since the proposed site sits within an area vulnerable to flooding.**
- 5. The Public Notice fails to adequately describe the mitigation plan.**
- 6. The final plan, with mitigation plan included, should be made available to the public before any permits are granted.**
- 7. We question whether any wetland mitigation could completely replace the functions and values lost.**
- 8. The Project has not demonstrated a public benefit without a financial commitment that must be required of such a vulnerable area.**

The Applicant has not shown that the basic purpose of the Project is water-dependent, has not demonstrated a lack of practicable alternatives, has not assessed significant impacts, has only vaguely described plans for compensatory mitigation, and has not explained how the Project offers public benefit or is in the public interest.

Since Katrina, Ike, and now the rains of Harvey, BCWK and GRN are beyond alarmed by the wetland destruction occurring throughout Texas and the Gulf Coast. We hope the Corps and TCEQ will act upon the above comments accordingly.

In order to keep us and the public properly informed, we request notification of denials, approvals, and/or changes to the Applicant's request for a Section 404 Permit and WQC.

We look forward to a written response.

[sent via e-mail]



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