TECHNICAL MEMORANDUM

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TO:	Kate Zultner, Texas General Land Office
FROM	Dave Buzan, Freese and Nichols, Inc.
SUBJECT:	Technical Memo on the Resource Management Code Viewer, Beta Version
PROJECT:	Work Order No. 8553, Under GLO Contract No. 13-333-003
DATE:	January 19, 2015
CC:	Elizabeth Vargas, General Land Office; Luke LeBas, Atkins

GLO RESOURCE MANAGEMENT CODE BETA VIEWER – SUGGESTED EDITS

Freese and Nichols, Inc. (FNI) commented on the revised Resource Management Codes (RMC) and sensitive areas definitions. FNI staff reviewed the GIS geospatial data, data layers, data sources, and codes associated with the sources of the data. FNI tested the GIS RMC Beta Viewer to verify appropriate data were included and available in a user-friendly manner. The following are the compiled comments and suggested edits to the GLO RMC Beta Viewer.

- Each base map opened when selected.
- Suggest a pop-up box appears in the middle of the screen when someone opens the Viewer. The contents of the pop-up box would explain how the user should use the viewer to see the RMC's (including the Contents feature).
- There needs to be more detail instructions on how to make selections, and dig down into tables, how to select features, query and zoom to features.
- When a tract is selected, a pop-up box appears showing the designated RMC's for the tract. If possible, it would be helpful to see a brief definition of the RMC when the mouse is placed over each code. The user would not have to separately select the definitions each time to see code definitions. The current structure requires the user to go back and forth from the listed RMC's for the tract to the document with definitions of the RMC's.
- In Matagorda Bay, when "CA" is selected, two colors show up. It would be helpful to understand what the blue color indicates.
- When you click on a tract and hit the arrows to go to the next, they don't seem to go in any order, nor do we understand why they have the arrows for some tracts.
- RMC definitions document:
  - It would be more useful to have the RMC Codes defined in the initial identify box that comes up with a scroll down option. Hyperlinking to a pdf is cumbersome as the average user would likely be working with one monitor and have to flip back and forth between documents. Example: http://www.arcgis.com/home/webmap/viewer.html?webmap=953ab0462a0c4f2f870c3524e5f12b8e

- o We suggest adding an introduction at the beginning of this document to explain how the information is presented.
  - o An error message appears when the USACE construction guidelines link is selected.
- There are lease sale-nominated tracts inland, for example some scattered in the area west of San Antonio to Dilley and south to Kenedy. Our understanding is that all tracts to which RMCs applied were coastal. If that is the case, we suggest not showing inland tracts with the viewer.
- Pull-down menus. It is not clear what their expected utility is. For example, the "Zoom to" selection zooms out until the map is at its smallest size. The "Description" selection goes to "Error: Services Directory has been Disabled." We suggest eliminating all selections on the pull-down menus that do not provide data.
- It should be the default for layers in the Contents table to be turned on and expanded all the way out allowing the user to first see all data available on the web map. The user can then choose which layers are relevant to their search and turn on/off what they would rather not look at. When content layers are not completely expanded out showing their symbology, a casual user might overlook that there are sub-layers that can be turned on.
- It would be useful to be able to run a query for multiple codes and see the selection. If it is possible to do this across layers it is not easy to figure out how to do this.
- Suggest adding a tutorial on how to use the query features. For a non GIS user, some query features are confusing.
- Suggest changing the Content menu to the Default tab as opposed to the About tab.
- When you select a tract, there is a "Zoom to" selection. We suggest adding a "Zoom back" feature.
- It was difficult finding how to edit the map (map notes).
- Content:
  - o All Descriptions – There is a lot of GIS type information in here that may be confusing to the average user. Suggest simplifying to give a simple description or placing the simplified description at the top with the GIS information following.
  - o An error message appears when the USACE construction guidelines link is selected.
  - o Some items in the pop-up box could be moved to a toolbar on the main web interface.
  - o We suggest fewer drop-down menus.
  - o Lease Sale Nominated Tracts 07/2014:
    - Table – unclear exactly what these are.
    - You have to "enable the pop-up". We suggest making it the default.
    - Change symbols – We experimented with this and found it difficult to do. We were unable to undo what I had done.
    - An error message appears when "Description" is selected.
  - o Submerged Tracts:
    - There is a lot of GIS type information in here that may be confusing to the average user. Suggest simplifying to give a simple description or placing the simplified description at the top with the GIS information following.
  - o Sensitive Areas:

- When a layer is selected, for example "Hard Banks," it would be beneficial to see the definition of that sensitive area at the top of the page followed if necessary with the other information which the average user may not understand.
- Selection appears on the screen after what seems like a relatively long time after being selected or will not load at all.
- Information included in some of the tables is sometimes blank, or a "0 "value.
- Description – There is a lot of GIS type information in here that is confusing to the average user. Suggest simplifying to give a simple description or placing the simplified description at the top with the GIS information following.
- Suggest having sensitive areas identified in the callout with the RMC codes.
- Suggest including an identification/pointer tool function that identifies (and defines) the various "sensitive areas" with point and click functionality.
- Color code "Designated Critical Habitat" bright, red, and obvious since this category is a major constraint.

- Legend:
  - In the Environmental Sensitivity Layer the 'Wind Farm Location Buffers' should not be lumped into the same color coding as many of the Coastal Protected Areas.
  - We suggest using a combination of colors, shapes, or hatching. It was difficult at times trying to interpret what was being represented by a particular color on a base map with colors. If emphasis continues on use of different colors, ability to choose a white base map may facilitate distinguishing different colors.
  - "Waterbodies" appears but there is no indication of how to select it.
  - It was difficult to figure out the contents page and how to open.
  - Some codes just say "tracts". We suggest presenting the information in another way.
  - Certain layers in the legend could be combined and cause less confusion (e.g., "Special Flood Hazard Areas" is comprised of numerous FEMA Q3 layers that could likely be combined into one layer; another example is "Submerged Aquatic Vegetation" with comes from NOAA and TPWD). The numerous sources needed for a layer could simply be explained in the description.