



Florida Department of Environmental Protection

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August 26, 2010

Collier County
3301 E. Tamiami Trail
Naples, FL 34112

c/o Stephen Keene
Coastal Planning and Engineering, Inc.
2481 NW Boca Raton Blvd.
Boca Raton, FL 33431

REQUEST FOR ADDITIONAL INFORMATION (RAI #1)

JCP File Number: 0142538-009-JC, Collier County
Applicant Name: Collier County
Project Name: Wiggins Pass Maintenance Dredging

Dear Mr. Keene:

This letter is to acknowledge receipt of your application on July 27, 2010 for a Joint Coastal Permit, pursuant to Chapter 161 and Part IV of Chapter 373, Florida Statutes; and authorization to use state-owned submerged lands, pursuant to Chapter 253 and 258, Florida Statutes.

Please be advised that your permit application is considered to be incomplete as provided for by Chapter 120.60, Florida Statutes, and Rule 62B-49, Florida Administrative Code. Receipt of information listed below is required. The items of information are numbered to correspond with the item numbers on the application form.

When replying to this Request for Additional Information (RAI), please address your response to my attention (the undersigned permit processor). Please keep your RAI response separate from Scope of Work (SOW) submittals to the Project Manager in the Bureau's Beach Erosion Control Program. Misdirecting your response or combining your response with SOW matters will delay the review of your application. Please feel free to **courtesy copy** any other individuals with your response, but only responses addressed to the permit processor will be reviewed as part of your permit application.

Please submit three (3) hard copies of your response. Also, please prepare and submit one (1) electronic copy of your response (response document text, all attachments, and drawings) and submit it on a CD in Adobe Acrobat Reader® (.pdf) format.

5. *Describe in general terms the proposed activity including any phasing.*

Please correct the discrepancies in the datum between the project description and the permit drawings.

- Project description in **Attachment 5** states, for the segment of the channel between stations 0+00 and 1+00, the dredge depth is -7.5 feet, MLW and between station 2+00 and 15+00, the dredge depth is -12 feet, MLW, excluding the 1 foot overdredge allowance.
- Permit sketches of **Attachment 24** provide cross-sectional profile plots of the channel at stations 0+00 through 14+00. For stations 0+00 through 2+00, the dredge depth is -8.7 feet, NAVD and for stations 3+00 through 13+00, the dredge depth is -13.2 feet, NAVD, excluding the 1 foot overdredge allowance.
- Assuming the dredging plan for the channel is as indicated in the permit sketches of **Attachment 24**, please confirm that: for the segment of the channel between stations 0+00 and 2+00, the dredge depth is -8.7 feet (not -9.2 feet), NAVD and for the segment of the channel between stations 3+00 and 13+00, the dredge depth is -13.2 feet (not -13.7 feet), NAVD, such that, for the segment of the channel between stations 2+00 and 3+00, the dredge depth will gradually slope seaward from -8.7 feet to -13.2 feet, NAVD.

Limit the seaward dredging distance of the channel to station 13+00 or 14+00 to be consistent between the project description (item 5) and the permit sketches (item 24), since little or no material will be dredged between stations 14+00 and 15+00. We acknowledge that all of the dredged material from the channel in this dredging event will be placed in the most effective area below MLW of Barefoot Beach State Preserve (between approximately R-11.4 and R-14.2).

If the applicant or the applicant's consultant has any questions about this comment or information requested above, please contact Subarna Malakar, Coastal Engineer, at 850-488-7847.

10. *Please identify by number any JCP / DBS / Wetland Resource / ERP / ACOE Permits pending, issued or denied for projects at the location, and any related enforcement actions.*

The JCP Compliance officer has indicated that a deliverable for your previous project is apparently now past due. Please immediately contact the JCP Compliance Officer to discuss resolution of the apparently missing deliverables outlined here. She states: "Our records system shows that the following item is past due for Collier County, coincidentally it is for Wiggins Pass: Wiggins Pass Maintenance Dredging 0142538-001-JC- Boating navigation survey was required to be conducted in 2009 and submitted 90 days later. The last boating navigation survey received was completed in 2004. The requirements are provided on page 14 of the permit:"

11. *Have you obtained approval from the Department of State, Division of Historical Resources? If yes, provide a copy of the letter of approval.*

We have requested this information on your behalf, but it has not yet been received. No further action is required of you at this time, however, your application will remain incomplete until the information is received.

13. *A copy of the Division of State Lands title determination. If you do not have title determination, department staff will request that the Division of State Lands conduct a title check.*

The title information check on your project reveals two existing easements (No. 30353 (5165-11) and 29908 (5265-11)) and one existing lease (No. 3869 to Collier County for Barefoot Beach State Recreation Center) in the current project area - as well as state owned submerged lands. Your project will require a "letter of no objection" from the other easement/lease holder, and the applicant is required to obtain and submit those letters to FDEP.

19. *Written evidence, provided by the appropriate governmental agency having jurisdiction over the activity, that the proposed activity, as submitted to the Department, is consistent with the state-approved Local Comprehensive Plan.*

We acknowledge that you will provide this information. Your application will remain incomplete pending your response.

23. *Complete sets of construction plans and specification for the proposed activity, certified by an engineer duly registered pursuant to Chapter 471, Florida Statutes. The plans shall clearly distinguish between existing and proposed structures and grades, and shall include the following:*

- a. *Plan view of the proposed activity depicting the mean high-water line, any easement boundary and the erosion control line (if applicable) within the area of influence of the proposed activity. Identify the boundaries of significant geographical features (e.g., channels, shoals) and natural communities (e.g., submerged grass beds, hardbottom or mangroves) within the area of influence of the activity. Include a north arrow and a scale bar on each drawing.*

Full-size scaled drawings were not received in your application. However, these drawings can be submitted as a Notice to Proceed Item.

Please show the MHWL, easements, the requested mixing zone, OFW limits and Aquatic Preserve/State Park boundaries on PV-1. This is a new permit application - for clarity, please eliminate the 2000 permit dredge template on PV-1 and only include the dredge limits requested in the current application.

Please see Item 5 above and Item 33a below. Your application will remain incomplete pending receipt of revised drawings and/or project description.

- c. *Details of construction, including materials and general construction procedures and equipment to be used (e.g., construction access, dredging method, dredged material containment, pipeline location).*

We acknowledge you will use a cutter-head hydraulic dredge and booster pump/spill barge system for the dredge and nearshore placement work. You state the pipeline will be limited to use areas shown on drawing page PV-1. If your response to Items 28 and 33d below show natural resources in this area (based upon a survey performed <6 months ago), the contractor work area may need to be redesigned to avoid impacts.

24. *In addition to the full-size drawings requested above, the information required under Paragraphs (20), (22) and (23) above shall be provided on 8 1/2-inch by 11-inch paper, certified by an engineer duly registered pursuant to Chapter 471, Florida Statutes. Each drawing shall include an accurate scale or dimensions, and all information shown on the drawing shall be clearly legible.*

Please address Items 23a and c above on the smaller drawings. Although the 8.5 x 11 inch drawings were legible, use of a larger font on any revised drawings, when possible, would be an improvement.

25. *An aerial photograph or map with a scale of 1" = 200', showing: the project boundaries, DNR Reference Monument locations, major county landmarks, boundaries of significant natural communities (e.g., submerged aquatic vegetation, hardbottom or mangroves) and special aquatic or terrestrial sites (parks, sanctuaries, refuges, Outstanding Florida Waters, aquatic preserves, etc.) within the project boundary and a minimum of 1,000 feet in both shore parallel directions of the project boundary.*

Please clarify why the legend on page 7 of 7 indicates "August 2009 SSS survey" yet the narrative under Item 21 references a July 2009 CPE hardbottom survey was performed. What do the initials in SSS survey represent? If there is a field report summarizing that survey, please include as part of your response it in support of Item 28. We note the proximity of OFW to the project work area, which sometimes overlap. Please note that turbidity may not exceed background levels inside OFW boundaries (please see items 33d and 34 below).

27. *Permit applications for excavation or fill activities shall include the following detailed information concerning the material to be excavated and the existing or native material at the beach fill site:*

- a. *Site plans showing the location of all core borings and the boundaries of the area to be excavated.*

Please provide a new plan view of the area to be dredged showing the core locations and boundaries of the individual dredge areas if necessary to address the remaining comments under item #27.

- c. *Particle size and color analysis of the sediment. Gradation curves, frequency distribution curves and data analysis sheets should be produced from sieve analysis of each stratum in the core. Grain size distribution must be determined down to the standard unit 230 sieve size. Color analysis of moist sediment should use Munsell system of hue, value and chroma.*

The information provided in the application submittal indicates that there are vibracores (the 2009 CPE vibracores) in the dredge area. According to the map provided there are no vibracores in the dredge area. How is this material being characterized? Is there any evidence from past dredge events that would indicate the material from the dredge area is expected to be beach compatible?

- f. *A sediment QA/QC plan that will ensure that the sediment to be used for beach restoration or nourishment will meet the standards set forth in paragraph 62B-41.007(2)(j), F.A.C.*

Please provide a sediment QA/QC plan required in Chapter 62B-41.008(1)(k)4.b. This is a completeness item that needs to be reviewed and approved during the application review process, not as a Notice to Proceed item. The maintenance dredge template sediment QA/QC plan should be used for this project.

28. *Using an established natural community classification system, describe each natural community within the area of influence of the proposed activity and include:*
- a. *Acreage.*
 - b. *Identification of the flora and fauna to the lowest taxon practicable.*
 - c. *Characterization of dominant and important flora and fauna and estimates of percent biotic cover.*
 - d. *Sampling locations, date of sampling or measurements and methods used for sampling.*

In 1994 hardbottom was apparently found close to the nearshore disposal areas shown on the drawings submitted under Item 25. The permit drawings (Item24) include a note that says hardbottom details represent 1994 and 2009 CPE sidescan sonar results. Is this based upon an in-water survey? If so, provide the data from this survey in support of Item 28. If not, a recent baseline natural resource survey off Barefoot Beach, conducted during the summer months is

required to be submitted as a completeness item. Please differentiate between ephemeral (less than 30cm of sand depth coverage) and persistently exposed nearshore hardbottom in these surveys. Biological monitoring will be required at all hardbottom adjacent to the Pass or within 400 feet of any nearshore disposal areas. The applicant/agent is advised to contact Dr. Kosmynin about the current requirements of the post-construction biological monitoring plan and the in-water baseline survey prior to conducting this survey in the field. The previous Collier County project can be used as a basis for developing a similar protocol even if the specific transect and quadrat locations will differ.

30. *Results of available wildlife surveys that have been conducted on the site, and any comments pertaining to the proposed activity from the Florida Fish and Wildlife Conservation Commission.*

How high will the nearshore berm be below Mean Low Water after the dredged material is disposed of in the nearshore?

Since the project does not involve any activity above Mean High Water, FWC don't see any major turtle or shorebird issues with this project if it takes place outside sea turtle nesting season and no activity takes place on the beach. Updated Manatee conditions will apply.

31. *A current Biological Opinion from the U.S. Fish and Wildlife Service or the National Marine Fisheries Service, when the Florida Wildlife Conservation Commission has determined that the proposed project will result in a take of marine turtles, which could not be authorized without an incidental take determination under federal law.*

We acknowledge your statement that a biological opinion is not needed because the dredged material is being disposed of in the nearshore marine environment with no creation of a new beach or shoal. The project does not involve any activity above Mean High Water. However, FWC has asked USFWS to confirm whether or not this project needs a BO.

33. *Analysis of the expected effect of the proposed activity on the coastal system including but not limited to:*
- a. *Analysis of the expected physical effect of the proposed activity on the existing coastal conditions and natural shore and inlet processes. The analysis should include a quantitative description of the existing coastal system, the performance objectives of the proposed activity, the design parameters and assumptions, relevant computations, validation of the results and the data used in the analysis.*

An abridged engineering report (Attachment No. 33a) was submitted with the permit application for Item 33a. The objectives of the report are to improve navigation and reduce erosion on Barefoot Beach State Preserve.

- There are some figures (#2, 3, 4 & 11) referred to but missing in the report. Please provide the missing figures.
- Comment: An updated sediment budget was developed for Wiggins Pass and adjacent shorelines. Analysis of the sediment budget and the sediment transport directions seems to indicate the inlet is being refilled after dredging from both south and north of Wiggins Pass.

The report states “The erosion on Barefoot Beach is partially caused by sand lost to the inlet after dredging, but the major cause is a lack of sand bypassing.” Dredging the channel (ebb shoal) does not seem to help with the long term reduction of erosion at Barefoot Beach. It appears dredging the channel is mainly to improve navigation, temporarily.

- A cross-sectional profile of the rock or rubble substrate at station 1+00 is shown in Figure 13. What is the extent of this rock or rubble substrate across the stations about station 1+00?

If the applicant or the applicant’s consultant has any questions about this comment or information requested, please contact Subarna Malakar, Coastal Engineer, at 850-488-7847.

DEP – Parks and Recreation staff expressed support for a maintenance dredging project for Wiggins Pass; however, they would like the applicant to consider design modifications to alleviate post-construction erosion concerns in the vicinity of R-17 in Delnor-Wiggins Park. Please respond to the issues raised in the attached letter from DEP Parks and Recreation.

- b. *Analysis of the compatibility of the fill material with respect to the native sediment at the placement site. The analysis should include all relevant computations, the overflow ratios, and superimposed graphs of the cumulative grain-size distribution and the frequency distribution of the fill material over the data for the existing or native sediment at the placement site. Provide computations of borrow area volume and composite fill material characteristics (mean grain size and sorting, percent carbonate content) in an electronic spreadsheet.*

Please update the compatibility analysis if necessary based upon the responses to item 27 above.

- d. *Analysis of how water quality and natural communities would be affected by the proposed project. Provide graphic representation (depiction) of the area of direct and secondary influence of the proposed activity and delineate the natural communities within that area. All required surveys shall be representative of conditions existing at the time of submittal. Surveys of submerged aquatic vegetation (SAV) shall be conducted in the field during the growing season for a given climatic*

region such that they capture the full areal extent and biomass of the SAV community. Species composition and spatial distribution shall also be addressed by the survey. Estimate the affected acreage of each impacted community.

Please respond to the issues raised in the attached letter from DEP Parks and Recreation.

Water Quality: Some project areas are designated Outstanding Florida Waters, and will be subject to 0 NTU turbidity above background conditions at the edge of the mixing zone during all construction activities within their boundary. Post-construction turbidity and the general effect of the project on water quality within the project area is of concern to the Department for meeting the permitting and water quality standards. Can dredge and placement areas be adjusted to eliminate turbidity in OFW? Please discuss the during- and post-construction turbidity expected from the project, paying particular attention the need for a mixing zone variance in OFW.

Note: If a mixing zone is proposed, provide a narrative description and graphic representation of the mixing zone. Identify any areas within the proposed mixing zone that contain significant submerged resources. Explain why the size of the proposed mixing zone is the minimum necessary to meet water quality standards and provide justification for that size.

Mixing Zone: What will be the size of the mixing zone for this project? The generic turbidity monitoring protocol submitted suggests it may be 150 meters in diameter. The applicant must justify the size of any mixing zone citing your project specific conditions, whether or not a variance is required. Provide justification for that mixing zone size (in both the offshore and downcurrent directions) even if it is less than the 150 meters size that the Department is authorized to issue without a variance. In your response specifically address the additional limitations on work in OFW. If you do request a mixing zone variance please address the variance application requirements of Rule 62-110.104 FAC. Your application should:

- provide documentation as to why “There is no practicable means known or available for the adequate control of the pollution involved.”
- provide justification for the requested size;
- demonstrate why that size is the minimum necessary to meet the turbidity standard;
- list the turbidity control measures that will be used to minimize turbidity;
- show the hardbottom resources that would be encompassed within the mixing zone;
- provide a graphic representation of the requested mixing zone.
- identify any areas within the proposed mixing zone that contain significant submerged resources.

- discuss how the elevated turbidity within the mixing zone would affect the encompassed hardbottom communities; and
 - include the additional variance fee
- e. *Reasonable assurances that a regulated activity will not cause unacceptable cumulative impacts pursuant to Rules 40X-4.302(1)(b) and 62B-41.002(19)(b), F.A.C.*

Cumulative impact avoidance would include avoidance or minimization of sedimentation and light reduction (chronic turbidity) to seagrasses in the pass and nearshore hardbottom off the beaches, which is missing from the explanation provided in this response. This item will remain incomplete pending your response to the other items listed in this RAI.

34. *Describe the location and details of the erosion, sediment and turbidity control measures to be implemented during each phase of construction and all other measures used to minimize adverse effects to water quality.*

Note the turbidity monitoring standards you propose may not be sufficient to meet the OFW requirements in all project areas. What level of turbidity (specify maximum and average NTU's) can be expected in each of these areas during construction? After construction?

37. *A narrative description of any proposed mitigation plans, pursuant to Rule 62-345, F.A.C., including purpose, a comparison between the functions of the impact site to the mitigation site, maintenance, monitoring, estimated cost, construction sequence and techniques. For proposed artificial reefs, indicate the water depth, depth of sand overlying bedrock, proposed relief and materials (type, size and shape).*

Please respond to the issues raised in the attached letter from DEP Parks and Recreation about down drift erosion triggers.

If native dune vegetation will be planted on Delnor-Wiggins Park for erosion control, please include detailed plan view and cross-sectional drawings of the planting plan in your permit sketches. Ensure there is sufficient detail as to the size, species and distance between planting units in your drawing. Please elaborate on the irrigation details (or state on the plans there will be none) and how public access will be controlled immediately after planting. Include any replanting plan details and planting success criteria in your response.

A physical monitoring plan may be required for this project. A biological monitoring plan will be required for this project (see item 28 above). Please submit drafts of both for review in your response.

39. *A fee, as set forth in Rule 62B-49.006, F.A.C.*

The sum of the fees required by Chapters 62-4, 62B-41, and 18-21, Florida Administrative Code, has been calculated as **\$11,120**. Please submit this amount by check made out to the Department of Environmental Protection, with the DEP File No. **142538-009-JC** clearly indicated on the face of the check. A breakdown of the fees is as follows: Rule 62-4.050(4)(h)1.b. requires \$9,120 for the total area of 17.7 acres of wetlands or surface waters directly affected by construction, Rule 62B-41.0085(3)(c) requires \$2,000 for the 50,000 cy designated for offshore disposal. If a mixing zone variance is requested **an additional variance application processing fee of \$830** will also be required in addition to the above fees.

Please note that the fee calculated above must be sent to the Department within **45 days** of submittal of your response (or partial response) to this RAI, or the application shall be denied (without prejudice) according to Rule 62B-49.006, F.A.C. If you believe that there is an error in the fee calculation, please contact Bureau staff BEFORE submitting your response to this RAI.

The Southwest Florida Regional Planning Council has reviewed the information contained in the application, and on local knowledge, the project has been found to be regionally significant and consistent with adopted goals, objectives, and policies of the Strategic Regional Policy Plan. They further find the construction is in order with the prior dredging of the Pass and the county will be following the proper sea turtle and shore bird protocols and working outside of the nesting season. They provide no additional comments.

Please publish the enclosed Notice of Application. Pursuant to Section 403.815, Florida Statutes and Rule 62-110.106, Florida Administrative Code, you (the applicant) are required to publish at your own expense the enclosed Notice of Application. This notice shall be published one time only within 14 days, in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, Florida Statutes, in the county where the activity is to take place. The applicant shall provide proof of publication to the Department within seven (7) days of publication.

If the applicant fails to provide all information required to complete the application within six (6) months after a request for additional information has been sent, the staff will close the permit application file after written notice to the applicant, except that a request for an extension of time for a period agreeable to the Department, but not to exceed one year, shall be granted upon demonstration by the applicant that the delay in completion of the application has been caused by matters beyond the control of the applicant. Application files closed under these procedures shall be closed without prejudice and a new application, accompanied by the appropriate fee, shall be required to renew the application.

If the processing of the application is prolonged, or if a storm event is known to have altered the shoreline such that the staff determines that the topographic and bathymetric survey data is no

longer adequate to complete its analysis, then an updated survey shall be required as specified in Item No. 20 above. In the event that an updated survey is required, the application shall be treated as an amended application.

If I may be of any further assistance, please contact me at the letterhead address (add Mail Station 300), by e-mail at merrie.neely@dep.state.fl.us or by telephone at (850) 413-7785.

Sincerely,



Merrie Beth Neely, Ph.D.
Processor, Environmental Specialist III
Bureau of Beaches and Coastal Systems

Enclosure(s): Notice of Application
Jeff Raley's Parks and Recreation Memo (draft version 8-25-10)
2009 Manatee Conditions for In-water work (FWC)

cc:

Gary McAlpin, Collier County
Lucy Blair, DEP, South District
Jeff Raley, DRP
Parks Small, DRP
Subarna Malakar, BBCS
Mike Barnett, BBCS
Vladimir Kosmynin, BBCS
Bob Brantly, BBCS
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