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From:Mike MurrayTo:Britta MuiznieksCc:Thayer BroiliSubject:Re: Turtle Nest Relocation Guidelines for CAHADate:06/13/2010 11:29 AM

Thanks. For the purposes of the FEIS and final version of Table 10, I think we should use this information and describe the annual evaluation/consultation process (in the text section of FEIS we could describe the 2010 locations as an example of how the process works). In the first condition listed below ("when the nest is located at or below the average low tide line"), should it be "average high tide line"?

Thanks again,

Sent from my BlackBerry Wireless Handheld ▼ Britta Muiznieks

---- Original Message -----From: Britta Muiznieks sent: 06/13/2010 10:30 AM EDT To: Mike Murray Cc: Thayer Broili subject: Turtle Nest Relocation Guidelines for CAHA Mike-I've asked Michelle to contact Matthew and Sandy McPherson

regarding closure sizes and timing of night driving restrictions.

Here are CAHA's current relocation guidelines for sea turtle nests (excerpt from Michelle's turtle comments attached below).

Anyway, below is the decision making criteria that we follow when relocating a nest. Items in Blue are from the NCWRC handbook. Items in Red are specific to CAHA. At the beginning of every nesting season, we sit down with NCWRC and discuss these additional criteria and whether they are appropriate and consistent with the guidelines, recovery plan, and the goals of sea turtle management. This assessment of the beach is done EACH YEAR, since the beach is liable to change between nesting seasons.

Nests should be moved *only* when one or more of the following situations exist:

- The nest is located at or below the average low tide line where *regular* inundation will result in embryonic mortality. Relocate any nests that are found in existing "troughs" or flooding pools. At the beginning of 2010 there is one north of Ramp 34, one south of Ramp 38, and one in between Ramp 70 and 72.
- The nest is laid in an area that is known to be susceptible to erosion:

(Relocate the nest if it is located in any of the following locations)

- Bodie Island Spit any nest at Bodie Island should be relocated to S. of R23
- Lighthouse Beach groins Call your supervisor...it will be a tough call.
- Cape Point any nests found between the southern exit of the bypass and Salt Pond Rd. should be relocated to in between the bypass or west of Salt Pond Rd.
- Isabel Inlet any nests that are found in Isabel Inlet should be relocated to Hatteras Village unless the nest is on top of

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the existing dune.

- North Ocracoke any nest in the flats of N. Ocracoke should be moved south of R59.
- South Ocracoke any nest south of the dune line on South Point should be relocated to between R70 and R72 (so long as it is not in the area of the "trough."
- The nest is laid in an area in which unusual, but lawfully conducted, human activities pose a serious threat to nests, such as emergency dune pushing following a major storm event. When these situations arise, you will be notified by NCWRC and given instruction on nest relocation protocol that may be unique to the situation at hand. This generally does not occur at CAHA. Your supervisor will alert you if specific activities will alter normal protocol.
- When eggs are verified it is found that there are broken eggs that have resulted in yolk dripping down into the egg chamber. This situation can increase predation. Relocate the nest according to normal guidelines and gently rinse the eggs that have a high amount of yolk on them. This can result from either predation or vehicle impact. If this situation occurs due to a vehicle or other human activity, call your supervisor and document prior to relocation.
- For any questions on relocation, or to make a difficult call, call your supervisor.

All together this makes up the decision criteria for moving nests at CAHA. It is important to re-iterate that this is for 2010 **only**, and that these protocols will most likely be revised prior to the 2011 nesting season. These additional criteria are determined based on how the beach looks, where we know water table issues are going to be, what type of erosion occurred over the past year, and where troughs are forming. It is NOT based on old and obscure data that does not correlate nest success with beach type. It is NOT based on any human-related activities, such as driving, lighting, or pedestrian access. It is NOT based on which areas nests could be impacted by storms (because that is everywhere).

In CAHA's nest management training manual, the following is the guidelines techs are given as to where to relocate nests to:

- Always make a plan before removing eggs from the nest.
- Relocate to the highest place on the beach possible without getting into vegetation.
- Do not put relocated nests on a steep slope or scarp.
- You should NEVER relocate for an access issue, but do keep this in mind while relocating (i.e. If you have a choice on whether to move a nest north of R44 or south of R44, choose north of R44.)
- Never move a nest more than 1 mile from its original location, unless it is a nest that meets the criteria for an area that is susceptible for erosion. In those cases, follow the guidelines above.

[attachment "Michelle's Turtle Issue Comments Relocation.docx" deleted by Mike Murray/CAHA/NPS]

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