

0024597

From: [Britta Muiznieks](#)
To: [Mike Murray](#)
Cc: [Darrell Echols](#)
Subject: Re: Fw: Desired Future Conditions
Date: 11/06/2009 11:08 AM

Mike-

I am currently rethinking how often we will be conducting our CWB walkthroughs in the future. I was recently on a conference call with John Stanton and David Allen to discuss the CWB Cooperative Agreement. I was under the impression that it was a staffing issue as to why NCWRC did not monitor their CWBs more closely. It turns out that this is not the case. In previous years they had conducted CWB surveys every other year. In some nationwide discussions Chuck Hunter had wanted them to change to surveys conducted every 5 years to avoid too much disturbance to the colonies. They came up with a compromise and switched to surveying every 3 years. In light of this, I think we are disturbing our colonies way too much by conducting weekly walkthroughs. There will be certain areas where we will have to conduct more frequent walkthroughs to find PIPL nests, but we may have to disturb some terns to find PIPL nests. I think we will still conduct walkthroughs during the survey window but we more than likely will be missing the actual peak nest counts which will vary somewhat year to year. We may have to rely on other indicators of nesting such as birds in incubating posture. This will be easier to do in some areas than in others. In some areas the techs will be able to do this with a window mounted spotting scope. In other areas this will not be possible and the techs will need to figure out how to approach a colony on foot without disturbing the birds. Since we have not attempted to do this much in the past, I don't know what sort of numbers we will come up with and whether or not they will be comparable with the numbers that we had this year. We will have to monitor our colonies closely to make sure that they are adequately protected to maintain the buffer distance required by the consent decree but this can be done by closely monitoring the birds nesting on the periphery of the colony and not disturbing the entire colony. We will just have to rely on other indicators (e.g. birds in incubating posture) to assume incubation and nest presence. I know that people like to have actual nest counts but we may have to back off of getting exact numbers in the future.

In light of all this, I would recommend staying with "Establish trend of increasing or stable number of nests (or evidence thereof) during a (floating) two week census window". In the future I would not recommend disturbing the colonies as much as we did in 2009.

Hope this helps. I'm working from home today so if you need to contact me please call my cell phone.

Britta Muiznieks
Wildlife Biologist
Cape Hatteras National Seashore
252-475-8348-cell

-----Mike Murray/CAHA/NPS wrote: -----

To: Britta Muiznieks/CAHA/NPS@NPS
From: Mike Murray/CAHA/NPS
Date: 11/06/2009 09:57AM
cc: Darrell Echols/CAHA/NPS@NPS

Subject: Fw: Desired Future Conditions

Britta,

See Tim's comments about the attached version of DFCs. Can you live with his recommendations, which are:

- Target for turtle nest re locations would be <30% (*not* <20%)
- Eliminate "habitat availability" as a DFC variable for PIPL (i.e., not have a target for this)
- Are you able to translate the CWB short-term targets into numbers, e.g., based on the 2007, 2008, and/or 2009 actual numbers? Need a yes or no response. If yes, then what should the numbers be? For example, instead of saying the short-term target is: "Establish trend of increasing or stable number of nests." For the short-term target, we could say something like: "Establish trend of increasing or stable number of nests relative to the 2007-2008 (or 2007-2009?) baseline average of _____ # nests."

Thanks!

Mike Murray
Superintendent
Cape Hatteras NS/ Wright Brothers NMem/ Ft. Raleigh NHS
(w) 252-473-2111, ext. 148
(c) 252-216-5520
fax 252-473-2595

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----- Forwarded by Mike Murray/CAHA/NPS on 11/06/2009 09:41 AM -----

**Timothy
Pinion/Atlanta/NPS**

ToSandra Hamilton/DENVER/NPS,
mike_murray@nps.gov

cc

11/06/2009 09:35 AM SubjectRe: Fw: Desired Future Conditions



Hi, Sandy and Mike. I realize that I am a bit tardy on this response. Mike and I had a chance to talk briefly about the DFCs this week. I think that the version below is reasonable for the reasons that Mike describes. One change that I recommend is for the number of sea turtle nests relocated. Based on a conversation with Matthew Godfrey, <30% is probably a better target in North Carolina. I have not been able to come up with a good habitat variable for PIPL. The depredation rate target for AMOY should be verified by the park (it probably already has) to make sure that it is reasonable. VA DGIF didn't have any data that could help refine this target. Finally, it might be useful to translate the CWB short-term and long-term targets into specific numbers based on 2007 and 2008 surveys.

--Tim

Tim Pinion

Wildlife Biologist and T & E Coordinator
National Park Service, Southeast Region
100 Alabama St., SW. 1924 Bldg.
Atlanta, GA 30303
404-507-5815
Timothy_Pinion@nps.gov

 Sandra Hamilton/DENVER/NPS

**Sandra
Hamilton/DENVER/NPS**

ToTimothy
Pinion/Atlanta/NPS@NPS

cc

SubjectFw: Desired Future Conditions

10/30/2009 06:44 PM

Here they are (below attached to Mike's email). Thanks, Tim!

Sandy Hamilton
Environmental Protection Specialist
National Park Service - Environmental Quality Division
Academy Place
P.O. Box 25287
Denver CO 80225
PH: (303) 969-2068
FAX: (303) 987-6782

----- Forwarded by Sandra Hamilton/DENVER/NPS on 10/30/2009 04:43 PM -----

**Mike
Murray/CAHA/NPS**

ToTimothy Pinion/Atlanta/NPS@NPS
ccSandra

Hamilton/DENVER/NPS@NPS,
lfox@louisberger.com, Darrell
Echols/CAHA/NPS@NPS, Thayer
Broili/CAHA/NPS@NPS, Britta
Muiznieks/CAHA/NPS@NPS

10/22/2009 09:09
AM

SubjectDesired Future Conditions

Tim,

Please review the attached, latest draft of Desired Future Conditions (DFCs), which the park considers a final draft, and offer any feedback or suggestions. As background:

- We used some of Greg Eckert's work to edit and create an introductory narrative description of what "Desired Future Conditions" are. Please edit this freely to make it make sense to you (hopefully in plain English and not in scientific jargon). If the NPS has a standard description of DFCs, I would prefer to use it since it is probably already well reviewed and tested, but I am not aware of such language.
- In principle, we think that there should be a few more DFCs for T&E species, than for non-T&E species. The only exception is for seabeach amaranth, since we appear to be in a "none present" situation.
- **Piping Plover** : We have left a place holder for a DFC on "habitat availability." Need to decide if we can come up with a practical target or not, and move forward.
- **Sea Turtles**: We eliminated "depredation rate" and "hatchling disorientation" from the sea turtle DFCs for several reasons: We felt there were too many DFCs

for sea turtles compared to the number for piping plovers, so we selected the four we believed to be most significant. Compared to the impacts of predation on shorebird nesting, predation of sea turtle nests has generally been a potential, but limited actual concern here. Predator impacts of sea turtle nests will continue to be monitored, documented, and addressed, in part, through the predator control plan. Hatchling disorientation will continue to be monitored, documented and evaluated as well. For example, we have identified creating a lighting assessment tool in the Adaptive Management Initiatives section of the Species Management Strategy Table. Once we have that sort of tool, we would be better able to determine if there is a statistical correlation between hatchling disorientation incidents and proximity to particular light sources, although our ability to address some light sources may be limited. The reality is that light sources outside of the Seashore are not under our control and we may have little influence on the establishment of a light ordinance. (We have recent communications indicating less interest on the part of Dare County and the state in pursuing the light ordinance option, so that appears to be deferred for the foreseeable future.)

- **AMOY:** As discussed previously, we decided to eliminate "nest survival" as a DFC for AMOY, since the fledg rate is the ultimate indicator of success and we wanted to reduce the number of DFCs to the most meaningful indicators.
- **CWB:** We decided not to use the "% of NC goal by species" that you had fleshed out for us. Once we saw the numbers that were calculated (we appreciate your effort to do that!), it was clear that some of the potential targets (e.g., least terns) were realistic and achievable, and some were not (e.g., for common tern and gull-billed tern) given the current status of breeding activity on the Seashore. One issue that has become more clear to us about basing the CWB targets on any calculation using older data is that for both the park and state data prior to 2007, it is unclear whether consistent survey methodology (technique, timing, etc.), data compilation, and quality assurance occurred. Britta has spent countless hours reviewing the data and seems convinced that we have no way of ensuring a valid comparison of CWB data collected prior to 2007. A second issue is that when nesting numbers are low (as with COTE and GUTE), it is more difficult to stabilize and increase the nesting population to a sustainable level than it is to produce an increase when there is already a sustainable level present (as with LETE). As a result, we believe it would be an appropriate short-term DFC to have a qualitative target of achieving a positive trend of increasing or stable level of nesting activity, then use that as a starting point on which to base a long-term target of a 20% increase over the level of nesting achieved in the short-term. If you have other ideas that would provide a realistic but ambitious target, feel free to suggest something else.

Hopefully, these changes make sense to you too. If you have thoughts or suggestions on how to improve any of the above, please feel free to suggest it

[attachment "Desired Future Conditions combined.10.22.09.doc" deleted by Timothy Pinion/Atlanta/NPS]

Thanks,

Mike Murray
Superintendent
Cape Hatteras NS/ Wright Brothers NMem/ Ft. Raleigh NHS
(w) 252-473-2111, ext. 148
(c) 252-216-5520

0024601

fax 252-473-2595

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[attachment "Desired Future Conditions combined.10.22.09.doc" removed by Britta Muiznieks/CAHA/NPS]