

Exploring Gulf restoration issues with individuals working on the ground and in the water



## Dr. Charles "Pete" Peterson, UNC Chapel Hill

Pete, Alumni Distinguished Professor, has a split professional personality, pursuing traditional academic goals of research and teaching while also serving on governmental policy-making boards and contributing to processes that better implement environmental stewardship. He has served on the science review panel to the *Exxon Valdez* Oil Spill Trustee Council since 1989.



## Stan Senner, Ocean Conservancy

Stan, Director of Conservation Science, started at the Ocean Conservancy in October 2009. For the previous 10 years, he was Executive Director of the National Audubon Society's Alaska State Office. Stan also worked for seven years as the State of Alaska's Chief Restoration Planner and then Science Coordinator for the *Exxon Valdez* Oil Spill Trustee Council following the spill.

### LESSONS LEARNED FROM EXXON: SCIENTIFIC PERSPECTIVES ON RESTORATION

**ELI:** In the *Exxon Valdez* case, a team of scientists evaluated restoration projects before sending them to the trustees to consider. What criteria did the team use in evaluating projects? Were they the same ones the trustees used?

**Stan:** In November 1994, the trustees adopted a Restoration Plan, which included a series of policies that were the foundation of the entire restoration program. For example, one of these policies was that any "proposed restoration strategies should state a clear, measurable and achieved endpoint." The scientific review team had more specific criteria that guided their reviews, and these criteria were derived from the trustees' policies.

**Pete:** The scientific review team considered several criteria, all of which are fairly standard. We first considered whether the project

related to injury assessment or restoration. We then considered issues such as: does the project relate to an injured natural resource? Will the project cause more harm to the ecosystem? Is there a good scientific basis for it? We also went further and questioned whether the set of projects was complete, or if it ignored an important component of or process in the ecosystem. We moved along cautiously with this process, often beginning with pilot projects to ensure that they would be effective and not cause harm to the ecosystem.

In regard to the trustees' review of the projects, they didn't have the time to delve into the details or have the same expertise as the scientists. The trustees did, however, determine whether a project was of sufficient importance to deserve endorsement and commitment. They also followed the legal guidelines appropriate for natural resource restoration.

**ELI:** How were the criteria for evaluating restoration projects selected?

**Stan:** As I mentioned, the trustees' policies (and consequently, the criteria) were included in the Restoration Plan. Some of these policies came from legal regulations. Others were a matter of common sense. Still others probably reflected the trustees' judgments about what would be acceptable to the public. Finally, staff members like me convened symposia, held workshops, and gathered public comment on restoration policies, criteria, and the kinds of things the public wanted to see get done in the way of restoration.

**ELI:** Were those criteria effective? Did they restore the injured resources?

**Stan:** Of course, criteria on their own don't restore injured resources, but the trustees' policies and criteria were very effective as filters, helping to ensure that what went forward in the way of restoration projects was linked to injured resources, feasible, and consistent with the Restoration Plan and priorities contained in annual work plans. The criteria helped ensure that what went forward wasn't just a random collection of projects but had some integrity as a package.

**Pete:** I would also note that, in some cases, it was determined that restoration projects should not be implemented because either the system did not lend itself to intervention or we did not want to risk further harm by moving forward with a project.

**ELI:** Based on your experience in the Exxon spill, do you have any advice for those involved in the *Deepwater Horizon* restoration process?

**Pete:** Yes, I have plenty of advice. Several of us worked on a report that was just released by Pew Environment Group. One of the points we make there is that restoration cannot be done piecemeal, but must consider the broader consequences. For example, we must consider the consequences of climate change when restoring salt marshes, which were heavily damaged by the oil spill. Climate change is causing intense storms to occur more frequently and sea levels to rise. This, in turn, is causing marsh edges to disappear. This means that restored salt marshes are likely to have a short lifetime. Restoration must take into account these broader consequences if it is to be successful. Restoration projects also need to build in resilience, so that they are durable.

Some other advice includes: the public needs to be involved early in the process, restoration projects must not be at cross purposes, and states can't be given carte blanche to spend money on any project they want and call it restoration.

**Stan:** I would add that I think it is critical for the *Deepwater Horizon* trustees to clearly articulate to the public how they intend to proceed: how will decisions be made? What policies and criteria will give the program direction and ensure it remains on track? And how will the public be meaningfully engaged? Interested members of the public need to ask these questions of the decision makers. Right now, there is not a lot of clarity and transparency, and – in the long run – this will compromise the effectiveness and success of the process and the restoration program.