

**Notes from meeting between NPS and partners regarding potential wetlands
restoration at Prisoners Harbor, Santa Cruz Island, Channel Islands National Park
5 April 2007**

Alex Brodie
Island Packers

Alex identified his viewpoint as that of “concessionaire.” Although he is supportive of wetland restoration at Prisoners Harbor, he wants the NPS to also improve the visitor experience at the site.

Visitors come to Prisoners Harbor either by Island Packers or by private boat. If they’re coming via Island Packers they’re on the island for only a short time and they’re supervised by the boat operators. These visitors either walk on the beach, go onto TNC lands (if they have a permit), or take the more strenuous hike up to the Navy site. There’s not much for visitors to do at Prisoners Harbor, and they may feel confined at the site. Any wetland restoration project should not exacerbate these problems by further restricting visitor access. The wetland restoration will improve their experience, but visitors need “something to do” such as a walk on a boardwalk, and/or self-education via interpretive displays. Birders will enjoy a restored wetland, but if they don’t have an acceptable path they will trample sensitive resources in order to get a look at the birds. Bird blinds may be a good idea to provide an area of focus for these visitors.

Other visitors arrive via private boat. These visitors may have a sense of entitlement, may have been coming to Prisoners Harbor for a long time, and may disregard park rules, particularly dog-access restrictions. This unrestricted access may harm park resources, including plants and animals making use of newly-restored wetlands. The NPS may need more presence and/or security measures to regulate visitor activities at the site if the restoration proceeds. The NPS should provide visitors with the information provided to the group here today: that wetland benefits are lost as more people intrude on natural habitat.

Visitors will respond well to subtle guidance about appropriate and inappropriate uses of sensitive resources, such as boardwalks to direct traffic, interpretive signs to educate and concentrate visitors, bird blinds and elevated viewing structures to provide activities for wildlife-watchers.

Follow-up comments:

- *Q:* Does the NPS provide for overnight visitors at Prisoners Harbor? *A:* accommodations at Del Norte for park guests; general visitors can hike over the hill and camp at Scorpion; private boaters can tie-up to the floating dock

- Sarah Chaney suggested that the NPS should develop guidelines for appropriate use of Prisoners Harbor
- Freddie Romero expressed his desire that interpretive signs should not indicate too precisely where the remains of the village site are. Also, he favors alternative opportunities for viewing park resources, such as boardwalks, blinds, and elevated viewing structures.

Tony Brown
Santa Cruz Island Foundation

Tony is positive about wetland restoration here, but cautions against “wholesale deconstruction” of the corrals. Tony would be agreeable to the NPS removing most of the corrals, but advocates leaving a narrow remnant – perhaps one corral, narrowed against east side of the road. This would preserve a semblance of what the Stanton-era corrals looked like, and also serve as a buffer between the road and the wetland wildlife habitat. Visitors wouldn’t know (and therefore wouldn’t mind) that the corrals were originally more extensive.

Tony is also concerned about impacts from moving up to 10,000 cubic yards of fill from the site. This must be accomplished with sensitivity to bird habitat. The work should be completed with an excavator rather than a bulldozer, in order to minimize impacts to wildlife.

Finally, Tony advocates creation of an elevated structure (a “catwalk”) for visitors to view the wetland.

Follow-up comments:

General support for Tony’s ideas.

Jean Arnold
University of California Los Angeles

Jean described the village site at Prisoners Harbor as one of the most significant in Western North America; an irreplaceable non-renewable resource. The site’s significance is due to

- the longevity of occupation (1000s of years, perhaps uninterrupted occupation);
- the remains of a unique redwood polehouse (not seen anywhere else in Chumash territory);

- the fact that it is a largely intact site, explored through excavations in the 1990s;
- the society of the people who lived here, which was a politically- and economically-complex hunter-gatherer society. This type of society is very rare. Jean argues that we need to preserve the physical remains of and learn more about this society;
- the site is tied to named individuals who lived here, some of them were high-ranking people, some with living Chumash descendants.

Jean states that the NPS needs to preserve the site as it is now (it has been heavily damaged in the past, bulldozing in the 1920s). She does not wish to see the site undergo any additional damage, such as that that might be caused by a flood.

Jean sees this project as potentially exciting because wetland restoration could return some wildlife and vegetation communities that were present during the period of Chumash occupation. These natural resources were available to the people who lived here for 1000s of years; it “just makes a whole lot of sense” to restore some of them to this site.

Jean advocates putting the main flow of the creek on the west side of the archeological site, as it was pre-historically. However, Jean also suggests leaving part of the levee in place (the portion that abuts archeological site) in order to keep the water on the east side of the site “where it needs to be” during heavier floods. She wonders if perhaps the addition of a berm on the south side of the site might protect it from surface water that flows around from the west. Jean is also concerned about ground water – will the project cause a permanent rise in groundwater near the village site? This might promote wildlife habitat, but may degrade buried deposits at the edge of the archeological site. Jean would like to hear more information about the project’s potential to raise groundwater levels from the NPS.

Jean is also concerned about the displacement of cultural material from the levee, if the NPS removes it as a part of this project.

Follow-up comments:

Jean’s graduate students request more information about how the restoration would impact the sediment regime at the village site; they’re concerned that the project could increase sediment movement and thereby impact the loosely-consolidated archeological materials. Jean agrees: a better understanding of how the restoration would change the sediment regime would be very helpful. Also: the NPS needs to make sure that archeologists have good access to the site in the future.

Paul Collins

Santa Barbara Museum of Natural History

Paul expressed his intense interest in seeing a wetland restoration project at Prisoners Harbor proceed. This represents the best opportunity anywhere on the Channel Islands to restore freshwater habitat. It's a great opportunity to invite back waterbirds and shorebirds birds that have disappeared from or stopped breeding on the Channel Islands; these species would potentially re-colonize the island if habitat was improved. However, Paul is concerned about the effect of soil removal on Western Harvest Mouse. Previously, this species was only known from locations on the island, including here at Prisoners Harbor; recently Charles Drost has shown that the mouse is more broadly distributed on the island. Paul suggests that the NPS must be careful to ensure that the harvest mouse population is protected during any restoration activities. This will require through consideration of its habitat requirements throughout the planning process.

Paul suggests that the planning process should consider how to lay out the marsh with regard to what type of species the NPS wants to attract to the site. The restoration should include deeper water habitats in some areas, and also construct islands of upland habitat within the wetland. These islands would provide nesting habitat for waterfowl such as Teal. The project could promote mud-flat habitat in the areas near the beach where the soils have a high clay content.

The negative aspect of the potential project, from Paul's perspective, is that the park would lose some of the island's human history from the last 150 years by removing a portion or all of the corrals. Paul advocates a balance between natural and historical resources, and suggests that the NPS leave some of the historical structures in place to balance against the gains for natural resources.

Paul is concerned about the extent of the Kikuyu grass. He suggests that the NPS needs a plan for how to manage this weed both during and after reconstruction of the wetlands. Also, Paul brought up the point that if the NPS retains some of the corrals the restoration plan should describe what type of vegetation should grow in those areas and outline long-term management strategies. Paul argued that any corral areas left in place should not provide Kikuyu grass habitat, as this would be too much of a long-term maintenance problem.

Paul noted that the Western harvest mouse is now a resident in the Prisoners Harbor wetland areas, and that the NPS should be sure to leave sufficient appropriate habitat for this species in the design.

Paul also expressed a concern for where the excavated fill would be placed. He worries that if the NPS creates a flat area of fill nearby, that eventually the NPS will use that area for development – either housing or camping. Paul noted that that if that happens, then the disturbance from a campground could negate the benefits of the wetland restoration (i.e., this well within the ideal 300' buffer). Also, these soils would then easily wash back into the excavated wetland areas.

Finally, Paul noted that the island's recovery from a century of grazing will reduce sediment delivery to the site.

Follow-up comments:

- Jeanne notes that although the Kikuyu grass is invasive and non-native, it protects the archeological resources on the site
- Paul wonders if the NPS could replace this function with a native plant that would protect these resources equally well?
- Sarah points out that Kikuyu grass does not form seed in California, with the consequence that the NPS could retain and contain the Kikuyu grass on the archeological site. Sarah notes that she had been spraying the Kikuyu before the pigs were eradicated, but she became aware that, because of its role in protecting the archeological resources, that the Kikuyu shouldn't be removed. Sarah also noted that native Cucumber and mugwort are colonizing the archeological site.

Marla Daily
Santa Cruz Island Foundation

Marla's biggest concern: how can a project of this magnitude be proposed when the park GMP is from 1985 and doesn't include the Prisoners Harbor site? Something as important as this project should be addressed as a sub-topic of the General Management Plan. The GMP will comprehensively address things such as the management of cultural sites on the island. For example, the GMP should address protecting the Prisoners Harbor pier, the oldest continuously-operating pier in California.

Marla stated that although the CHIS enabling legislation does not require the NPS to restore sites to pre-disturbance conditions, the enabling legislation *does* call for the NPS to protect cultural resources. She's not sure where we come up with the mandate to restore pre-European conditions – this is a large extrapolation beyond the original legislation for the park. Marla stated that the CHIS enabling legislation identifies seven things that the NPS must protect seven things *equally* – including archeological resources, natural resources, historical resources, and marine resources – with no favoritism given to any of these resources. We are supposed to protect the resources that are here, not create new resources.

Marla was upset about the NPS graphics of aerial photographs of the site. These outline the potential wetland restoration areas, but don't adequately delineate the location of the corrals. She felt that this was an irresponsible representation of the site. She stated that wetland restoration would cause “destruction of a huge component of the cultural history of this island” - primarily the Stanton-era legacy.

Marla would like to see the levee left in place: the purpose of the levee is to protect the warehouse. If we remove the levee we will threaten the historic building.

Charles Drost
USGS

Charles notes that the Western harvest mouse is a rare species on the island. Although there are scattered populations across a “good bit” of SCI, the Prisoners Harbor site has the largest known population. The nearest neighboring population is up at Lake Pasture 2.5 to 3 miles “over the ridge from here.” Therefore, the Prisoners Harbor population is pretty isolated; the NPS needs to take care that it does not become extirpated. Charles presented a map of places at Prisoners Harbor where the mice have been trapped: in three different habitats, mostly down toward the ocean end of the site; areas of dense vegetation including Kikuyu, *Scirpus*, and shrub habitat. His map of trapped mice seemed to indicate that most were found near or in the narrow wetland strip behind and paralleling the beach and near the other remaining wetlands.

Charles indicated that he thought that, if planned and sequenced carefully, that the restoration activities would not extirpate the harvest mouse population, and over the long term an increase in wetland vegetation should be beneficial to the harvest mouse population, and increase the site’s carrying capacity.

Follow-up comment:

- Q: Can Harvest Mouse be relocated? A: Yes, the park has some experience with that from a project on Anacapa Island.

Lyndal Laughrin
University of California Santa Barbara

Lyndal expressed his personal support for enhancing the wetland areas. He’s not supportive of preserving the corrals – he argued that they are too detrimental to the biological benefits that could be gained from wetland restoration. However, in general, he advocates striking a balance between natural and cultural resources preservation. Putting on his “university hat” Lyndal noted that maintaining a diversity of natural, cultural, and historical resources provides the most number of opportunities for education and research.

Lyndal argued that people today do not need to perpetuate the resource damage instigated by previous land owners and land managers. He noted that if the Caires and Stantons had been required to follow modern environmental-protection laws, that the structures at Prisoners Harbor would never have been built.

Lyndal gave us perspective on the potential value of the site as a wetland, from the perspective of a long-term resident and manager of the island. He said that he's seen many breeding birds on the site during wetter years, including coots, ducks, and redwing blackbirds. He also pointed out that the island is still recovering from 150 years of overgrazing, which caused accelerated erosion. Now that the vegetation communities are recovering there will be less run off and less sediment movement. The NPS should consider this in their hydrologic and sediment models.

Follow-up comments:

- Mike Martin asked if there is any information available on rates of uplift rates. Lyndal responded that there is information on this available in the literature.

Freddie Romero **Chumash Tribe**

Freddie is in favor of wetland restoration, in order to restore resources that The Creator provided. He has profound concerns about protection of the site; the cultural artifacts are not just "shells in the ground" they represent the identity of the Chumash. Freddy argues that the historic resources also need to be protected, because they represent the beginnings of modern civilization here at Prisoners Harbor.

Freddie is very concerned that removal of the levee could push artifacts from the village site into the wetland area.

Freddie encouraged continued collaboration and mutual respect so that everyone's interests can be addressed adequately. He noted that everyone at the meeting has a purpose in this project, and that that should be respected.

Freddie noted that the NPS should be very careful about telling people about the arch site. Any wetland restoration will increase the number of people coming to the island, therefore the NPS may need to increase its presence at Prisoners Harbor, and monitor the site to make sure that visitors do not degrade resources.

Julie Tumamait **Chumash Island descendant**

Julie first noted that she is happy to observe all the recent changes to Prisoners Harbor and Santa Cruz Island, such as the exotic plants and animals that the NPS has removed, and the native species that have returned to the island. She was very happy to have a

chance to talk with all the meeting participants, and suggested that this group should take one more field trip out to the island to discuss the project.

Julie advocated that the NPS proceed very slowly with whatever it plans to do at the site. The NPS needs to keep everyone informed about the process step-by-step. The native people of the island need to come to the site, and bring their children out here too; many island Chumash descendants – some in their 70s and 80s – have never been out to the island. Native people can feel intimidated by professionals - they might not know the scientific names of the plants, for example - but they are connected spiritually to the place and the creatures here. Julie is looking forward to learning more about the natural and cultural resources from people with university expertise.

Julie noted her concern about adverse impacts from the excavation and movement of large amounts of dirt, but she's confident that the collaboration of experienced specialists here at the meeting can mitigate adverse impacts. She is particularly concerned about impacts on small animals such as the harvest mouse. She agrees with earlier comments that a bulldozer should not be used. She would like more information about the plans for the restoration, including what plants would be planted, and encourages everyone to review information that's available (including Jean Arnold's studies) and comment on it as it becomes available. She argued that the NPS needs to protect the legacy of 1000s of years of human occupation at the site, and is worried about impacts from overdevelopment of the site

Follow-up:

- Alex Brodie noted that in his experience people come to the island for spiritual reasons, but that the NPS needs to prevent them from loving the island to death. He also pointed out that this site is a great resource for education.

Lotus Vermeer

The Nature Conservancy

Lotus is delighted that NPS is undertaking this project to enhance the native plant and animal communities on the island. When the Nature Conservancy gifted Prisoners Harbor and the Isthmus to NPS, TNC wanted to provide greater and better visitor experience, and she sees this project as being in line with those goals. She notes that the NPS needs to take great care to protect archeological resources, and to take advantage of opportunities to educate and interpret the the biological, cultural, historical resources of the site for the public. She's looking forward to further collaboration.

Lotus also suggested that TNC and the NPS should collaborate on other projects in the watershed, such as removing eucalyptus trees. She noted that eucalyptus draw a lot of

water from local groundwater systems; these trees should be removed to restore more natural flows to the stream.

Earl Whetsell

Channel Islands National Park

Earl is very positive about the wetland restoration, and doesn't see anything that should keep us from doing the project. However, he wants to know:

- 1) What would the long-term maintenance needs for the wetland be? (e.g., would the NPS have to dredging the mouth of the creek periodically to promote discharge to the ocean?);
- 2) Where will the excavated fill be moved to?

Earl wants to ensure that the NPS protect resources such as the village site, the road, the warehouse, and the pier as the NPS proceeds with this project.

Sarah Chaney

Channel Islands National Park

Sarah is concerned that the NPS could spread invasive plants to other parts of the island through moving fill from Prisoners Harbor to disposal sites. The NPS must have a plan for preventing this from happening.