



August 25, 2004

Ben Berto
Marin County Community Development Agency
Civic Center, Room 308
3501 Civic Center Drive
San Rafael, CA 94903

RE: Lawson's Landing Sand Quarry Exotic Vegetation Removal Program

Dear Ben,

Thank you for faxing me the Monk & Associates exotic vegetation removal program for the Lawson's Landing Sand Quarry. The program does not meet basic standards of efficacy and safety. It cannot therefore be regarded as satisfying the sand quarry permit conditions. Having ignored the requirement to remove exotic vegetation from the quarry for 8 years, the owners should not now be allowed to claim that they should be able to continue mining while they come up with a scientifically defensible vegetation removal program. The program is likely to progress much more quickly if its design and successful implementation is a condition of re-opening the quarry.

I am enclosing some information on EBG eradication which I hope will be helpful to you in evaluating the M&A program:

- A letter from Point Reyes National Seashore about the methods and costs of its EBG eradication program.
- A NPS briefing paper on EBG with information on eradication procedures.
- A chapter from *Ecology and Restoration of Northern California Coastal Dunes*.
- An excerpt from *Invasive Plants of California's Wildlands*.
- The Herbicide Application Guidelines, Project Design Criteria, and Environmental Assessment for the Oregon Dunes EBG eradication program (by email).

The Oregon Dunes NRA (part of Siuslaw National Forest) European beachgrass removal program is the only program with extensive experience of chemical EBG control. That program provide considerably more detail than is included in the Monk & Associates plan. Among other things, it addresses worker safety, public notification, protection of endangered species and water, all of which are missing from the M&A program. For example, the Oregon program finds that chemical controls may not be appropriate when native species are present and should not be applied within 50 feet of surface water. Oregon program uses only "Rodeo herbicide with LI-700 surfactant because these products have low toxicity compared to other glyphosate formulations and surfactants regarding effects on terrestrial and aquatic species including invertebrates." In the light of this information, the M&A program should document the basis of its reliance on Roundup.

It may also be instructive that the Oregon Dunes program used to rely solely on chemical control, using a 7.5% solution of Rodeo with a surfactant, but this approach has been replaced with a combination of mechanical, manual, and chemical methods because, according to Dan Segotta, Botanist with the Siuslaw National Forest, spraying alone resulted in an annual dose that threatened to exceed the legal annual application rate of glyphosate.

In order to demonstrate that the M&A Lawson's Landing Exotic Vegetation Removal Program will be safe and effective, the following questions should be answered.

1. What is the scientific or clinic basis for the following decisions?
 - the choice of herbicide (Roundup v Rodeo)
 - whether or not to use a surfactant
 - the appropriate dosage, (which differs between the 2.5 oz per gallon used in June 2004 and the proposed 6.4 oz per gallon in future sprayings).
 - the spraying season
 - reliance largely on chemical controls, instead of incorporating mechanical and manual means
2. What protocols have been adopted to ensure
 - public notification?
 - protection of surface waters and groundwater?
 - protection of native invertebrates and native vegetation?
 - identification of sensitive and listed species, including dune tansy, woolly-headed spineflower, and dune scarab beetle, that may be present in the spraying area?
 - safe and effective use of heavy machinery to dispose of the dead EBG?
 - that the maximum cumulative amount of glyphosate sprayed per acre per year will not exceed the legal limit?
1. What are the goals and targets by which the spraying program's effectiveness will be judged?
2. Does this program meet all state and federal environmental standards, including those in the California Environmental Quality Act?
3. Does this program require review by interested agencies such as the Army Corps of Engineers (given the delineated wetlands on the property), the Regional Water Quality Control Board, or the Coastal Commission?

These and other questions should be answered if the eradication plan is to be effective and safe. Until they are, the permit conditions cannot be said to have been met and quarrying should not be allowed to continue.

Sincerely,



Catherine Caufield
Executive Director