BERKELEY: OFFICE OF ENVIRONMENT, HEALTH AND SAFETY
317 UNIVERSITY HALL #1150

March 11, 2008

Ms. Barbara Cook, P.E.
Chief, Northern California – Coastal Cleanup
Department of Toxic Substances Control
700 Heinz Avenue, Suite 200
Berkeley, CA 94710

RE: Notification for Herbicide Use to Control Invasive Non-native Plants in the Coastal Prairie and Western Stege Marsh Uplands, Richmond Field Station, Richmond, CA

As part of the University of California, Berkeley's Richmond Field Station Remediation and Restoration Project, the University is restoring marsh and upland coastal terrace prairie to create habitat for the California clapper rail and other species that reside in these habitats. Removal of invasive non-native weeds is a critical activity required to ensure the success of the restoration. The weed abatement is being performed in accordance with the Invasive/Exotic Vegetation Management Program (BBL January 2004) as required by Section 5.16 the DTSC Site Investigation and Remediation Order Docket No. I/SE-RAO 06/07-004.

As part of the marsh ecotone and marsh edge upland prairie restoration, the University is planning on creating a 10 to 12 feet-wide weed- free buffer zone around the outer edges of the restored upland plots. The buffer zone, shown on the attached map, will be located along the northern and western perimeter of marsh edge upland plots 11, 12, 13, and 14. The purpose of this buffer is to remove weed seed sources in close proximity to the native habitat being created.

The buffer zone will be created with wood chips piled to a depth of approximately six inches. Prior to placement of the chips, the University is planning on applying the herbicide Aquamaster to remove weeds currently growing in the buffer zone. Aquamaster is registered for aquatic use and is non-poisonous to aquatic species. While the buffer zone is in a non-aquatic upland environment, this herbicide was chosen due to the proximity to Western Stege Marsh. Use of the herbicide is necessary because methods such as blanching will not effectively remove all weeds and hand pulling is cost and time prohibitive. Aquamaster will be applied as a 2% solution of glyphosate as recommended by Phil Cody, UC Berkeley Grounds Manager (see attached September 15, 2006 pesticide recommendation letter). Aquamaster will be mixed with the surfactant Competitor, a modified vegetable oil which enhances the ability for glyphosate to penetrate the plant surface. Blazon Blue Spray Pattern Indicator colorant will be used to identify sprayed areas. Material Safety Data Sheets (MSDSs) sheets for these products are attached.

Herbicide application will be performed by a licensed applicator who is staff member of Shelterbelt Builders, the restoration contractor currently under contract with the University. Personnel applying the herbicide will wear personnel protective equipment in accordance with the manufacturer's directions. Herbicide will be applied only on days when no rain is forecasted for at least 24 hours and when wind speeds are at or below 5 miles per hour sustained (15 minute

average). The University will maintain records of the dates and quantities of Aquamaster used and incorporate these records into the future marsh monitoring reports completed in accordance with the Western Stege Marsh Restoration Project Monitoring Plan (BBL 2004) required by Section 5.16 of the DTSC Order.

In addition to use of Aquamaster for creation of the weed abatement buffer zone, spot application of the herbicide may occur during 2008 in the marsh edge plots and in the upland coastal terrace prairie where it is needed to control a Harding grass (*Phalaris aquatica*) infestation. The University plans to commence herbicide treatments on or soon after Thursday March 13, 2007.

If you have any questions or need further information please contact me (642-4848, gjhaet@berkeley.edu) or Karl Hans (643-9475, khans@berkeley.edu).

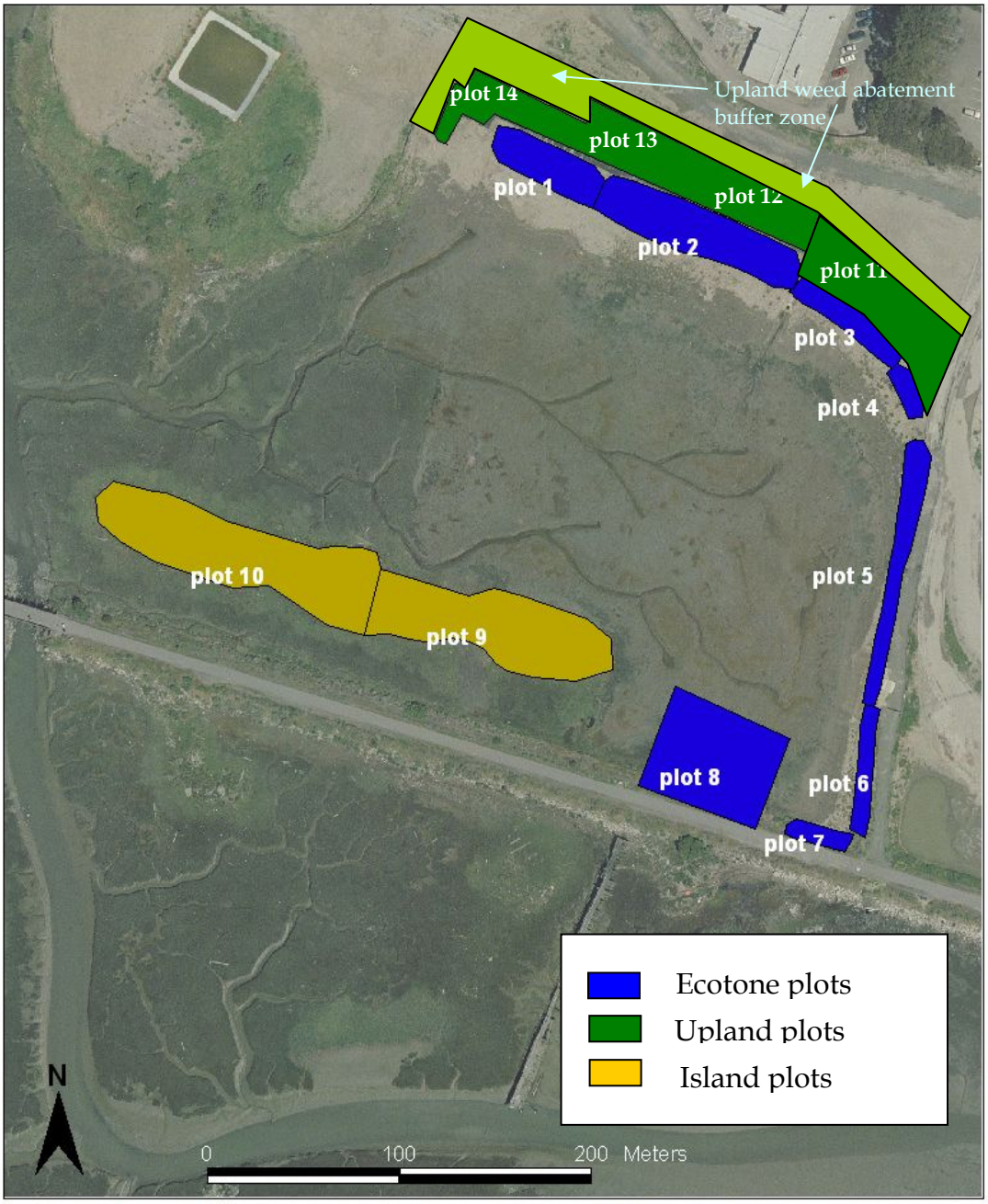
Sincerely,

Greg Haet
Associate Director- Environmental Programs

Attachments:
Figure- March 2008 Restoration Plots and Buffer Zone Map
September 16, 2006 Pesticide Recommendation Letter from Phil Cody, UC Grounds
MSDS- Aquamaster
MSDS- Competitor
MSDS- Blazon

cc: Mark Freiberg, Director
Karl Hans, Senior Environmental Scientist, EH&S
Phil Cody, Grounds Manager, Physical Plant- Campus Services

University of California, Berkeley Richmond Field Station
Western Stege Marsh Restoration Site Marsh Plots (March 2008)



UNIVERSITY OF CALIFORNIA AT BERKELEY

BERKELEY • DAVIS • IRVINE • LOS ANGELES • RIVERSIDE • SAN DIEGO • SAN FRANCISCO

SANTA BARBARA • SANTA CRUZ

GROUNDS SERVICES OF PHYSICAL PLANT-CAMPUS SERVICES 11A EDWARDS STADIUM #1386 BERKELEY, CALIFORNIA 94720-1386

To: Monica Wadsworth Stafford

From: Philip Cody

Subject: Phalaris aquatica

Date: September 15, 2006

My recommendation to treat Harding grass (*Phalaris aquatica)* and bristly ox tongue (*Picris echiodes)* in the coastal terrace prairie and in the upland marsh areas at the Richmond Field Station is to spot treat with a 2 percent solution of glyphosate applied as a foliar spray to actively growing plants. A broadcast rate of 1.5 to 2.0 lb ai/acre is also effective for large infestations. Ideal timing for this treatment is either at the early heading stage of development (mid- to late spring) or in early fall. Harding grass that is suffering from water stress will not be controlled. Activity is slow with this herbicide, often taking two to four weeks. Repeat applications should be made if regrowth occurs or to control plants not killed by the first treatment.

Use particular caution around standing bodies of water and also in the sensitive habitats of species such as the salt marsh harvest mouse and the clapper rail to avoid introduction of glyphosate into these areas.