



PRUNUSKE CHATHAM, INC.

**ADDENDUM TO THE RESTORATION AND LAND
MANAGEMENT PLAN
FOR THE PATTERSON POINT PRESERVE**

Prepared for: Friends of Villa Grande
Prepared by: Harold Appleton, RPF, Prunuske Chatham, Inc.
April 2013

Revised July 27, 2013 By Friends of Villa Grande Board

Introduction

A “Conceptual Restoration Plan” for the preserve was prepared in 2010. The plan included a map with vegetation types, a preliminary list of higher plant species, and recommendations for vegetation management and restoration. The primary recommendation was the removal of invasive plant species to allow for the natural regeneration of native plants. Protection of young seedlings, follow-up invasive species removal, and some planting of desirable native species was also recommended.

Friends of Villa Grande (FoVG) have been doing a commendable job in following these recommendations. The purpose of this addendum is to answer specific questions and give additional, specific guidance.

Upper Sandy Beach Area - *Pruning of ash, erosion control and planting*

Several native ash trees lean over the beach and have some lower branches that restrict safe access. Rope swings have been attached to some of the weak branches. Moderate pruning of specific lower branches was discussed in the field with three members of FoVG. In general, pruning here is best undertaken in September after nesting season and when sap flow is reduced. However, because it is easy to determine if any nests are in the branches, some careful pruning could be undertaken earlier in the year if the trees are free of nests. See the attached pruning guidelines.

Under the ash trees and closer to the bank is an area infested with ivy. This could be removed and replaced with grasses and grass-like species as follows:

- In September, and no later than October 15, remove the ivy by hand, digging out all roots and disposing of the material at an approved, off-site facility.
- Smooth the ground by raking on contour and broadcast most of the seed mix listed in Table 1
- Over the area, secure a layer of coir mat with 18-inch fabric pins. The edges should be trenched-in four to six inches and secured with pins every 18-inches. The center of the mat is secure on approximately 24-inch centers. See Table 2 for a materials list and the Erosion Control Fabric Installation guide from PCI’s publication, *Groundwork*.

- After securing the mat, broadcast a small additional amount of seed and cover with ¼-inch of un-enhanced (no added nitrogen) mature compost (See Table 2).
- A few container-grown plants such as *Festuca californica* or *Carex obnupta* (or *barbarae*) could be planted through the mat. X-cut the mat and re-pin the opening after installing each plant.
- If possible, lightly water the area every few days until the rains come. This gives a head-start on germination and establishment.
- Occasional watering during the first spring and summer will speed up plant establishment.

Table 1 – Seed Mix

	Product	Rate or Quantity	Source
Molate red fescue	<i>Festuca rubra (molate)</i>	1.25 pounds/1,000 sq.ft.	Le Ballister's, Santa Rosa

Table 2 – Materials List

	Product	Rate or Quantity	Source
Coir mat	Dekowe 700, Landlok CF7, or BioD-Mat 70		White Cap, Stevenson Supply
18-inch fabric pins		18" centers - one pin every 2.25 sq. ft.	White Cap, Stevenson Supply
No-extra nitrogen mature screened compost	"Harvest Moon Organic Vineyard Compost" or equal	1/4-inch deep	Grab-n-Grow

Gravel Beach Area – Barrier planting

Apparently some beach users have accessed the inner preserve from this point to use the inner zone as a latrine. Existing willows and other tree species provide some shade but do not create enough of a barrier to discourage access. It may be difficult to find plants to use here that tolerate shade and flooding. A dense planting of species in Table 3 could be tried on an experimental basis on the first slope behind the beach. Plant on 1.5 to 2-foot centers. Because the area floods frequently, it may be best to install the plants in the spring and irrigate them semiweekly during spring and summer of the first year or two. Normally, willows and dogwoods can be outplanted from sprigs - however, not in the spring when all the plant's stored energy goes into producing leaves and flowers. Therefore, if spring outplanting of these species is anticipated, root the cuttings in Tree-pot size containers (4-inch wide by 14-inches deep) in the late summer.

Table 3 – Gravel Beach Barrier Planting

Species		planting stock	quantity*
California blackberry	<i>Rubus ursinus</i>	one gallon or deepot	
Cow parsnip	<i>Heracleum lanatum</i>	one gallon or deepot	
ninebark	<i>Physocarpus capitatus</i>	one gallon or depot or sprig	

sandbar willow	<i>Salix exigua</i>	tree pot	
spicebush	<i>Calycanthus occidentalis</i>	one gallon or deepot	
stinging nettle	<i>Urtica dioica ssp. gracilis</i>	one gallon or deepot	
stream dogwood	<i>Cornus sericea ssp. sericea</i>	tree pot	

*Measure the area to be planted and determine square footage.
 Divide the square feet by 4 (=2x2-foot spacing) for total numbers

Swales – Continuing weed removal and re-planting

FoVG is working in the swales and hummocks in the middle of the preserve to remove sections of ivy and blackberry and revegetate with natives. The patch-work approach currently being undertaken could be continued to minimize potential habitat and erosion impacts. Prior to weed removal, scout the target area for native plants hidden within the dense non-natives and flag these specimens to be protected. Weeding may need to be delayed until late summer if bird nesting is an issue. Continue to plant the shade-tolerant local native plant species that have been successful in earlier plantings.

On the hummocks, a thin layer of forest mulch (1/2 to 1-inch depth) could be spread after re-planting both to reduce moisture loss and to minimize rainfall-impact surface erosion. However, it is anticipated that some of the mulch may wash away during flooding, or get buried in silt, so the mulch should be a light application of local forest mulch, not enhanced with any fertilizer.

Hedgerow- Along property line

After the property line is surveyed by a licensed surveyor, weed control and re-planting of a hedgerow can begin. Table 4 shows a list of candidate species. The width of the hedgerow planting could be a minimum of six feet.

Table 4 – Hedgerow Planting

Species		planting stock	quantity**
coast live oak	<i>Quercus agrifolia</i>	4'x14" tree pot	
coffeeberry	<i>Rhamnus californica</i>	one gallon or deepot	
coyote brush	<i>Baccharis pilularis</i>	one gallon or deepot	
pacific wax myrtle	<i>Myrica californica</i>	4'x14" tree pot	
toyon	<i>Heteromeles arbutifolia</i>	one gallon or deepot	

Deleted
 Deleted

**Measure the area to be planted and determine square footage.
 Divide the square feet by 36 (=6x6-foot spacing) for total numbers

Typically, the best planting time for native plants in the wild is the fall after the first rains. At each planting spot, clear weeds from a 3-foot by 3-foot area scraping down to bare mineral soil. Dig the planting hole the same depth as the tree pot, and install the plant with the root crown slightly above grade. After the last anticipated seasonal flooding has passed, apply a 3-inch deep layer of coarse wood mulch (e.g. Grab-n-Grow "Arbor Mulch") to help keep the weeds down and the moisture in. Keep the mulch 2-inches away from the trunk of the plant. Supplemental watering may be needed weekly (or more) during the spring and summer of the first year or two. Do not over-water, as this will reduce gaseous exchange and create anaerobic conditions. Allow the surface to dry out a little between waterings. Pull weeds as needed and be on the lookout for browse damage - protect the plants if necessary.

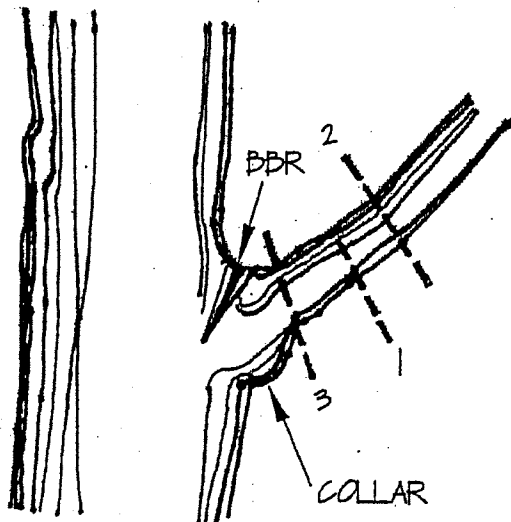
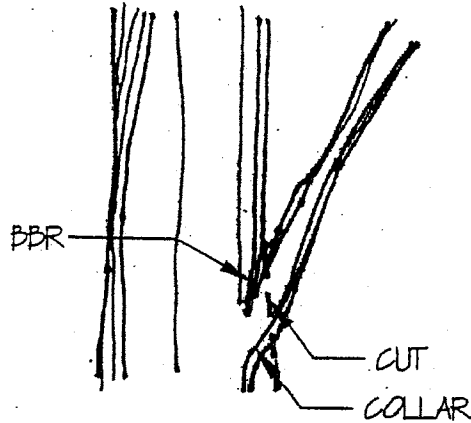
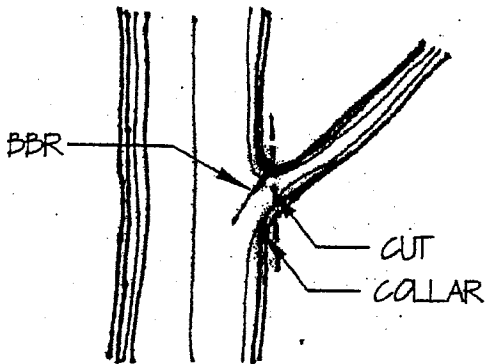
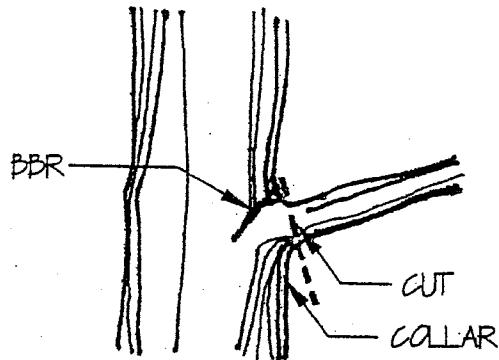
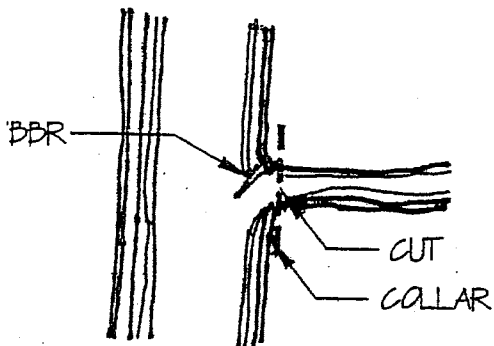
Additional Plants Found

As work progresses, volunteers may discover plants that were not on the original plant list that should be added in. One native plant discovered on the March 28, 2013 visit is mule fat, *Baccharis salicifolia* (i.d. to be confirmed when it flowers).

Attachments

- Techniques for Making the Pruning Cut
- Erosion Control Fabric Installation
- Willow Sprig Planting Details and Notes

WHEN REMOVING LARGE LIMBS, MAKE THE FINAL CUT (DASHED LINE) JUST OUTSIDE THE BRANCH BARK RIDGE (BBR) AND THE OUTER PORTION OF THE COLLAR.



REMOVE A LARGE LIMB BY MAKING THREE CUTS. MAKE THE FIRST CUT ON THE BOTTOM OF THE LIMB ABOUT 12 INCHES FROM BRANCH ATTACHMENT AND 1/3 THROUGH LIMB. MAKE THE SECOND CUT ON THE TOP ABOUT 1 INCH FROM THE UNDER CUT. THEN, MAKE THE FINAL CUT JUST OUTSIDE THE BBR AND THE OUTER PORTION OF THE COLLAR.

Prunuske Chatham, Inc.
400 Morris St., Ste. G
Sebastopol, CA 95472

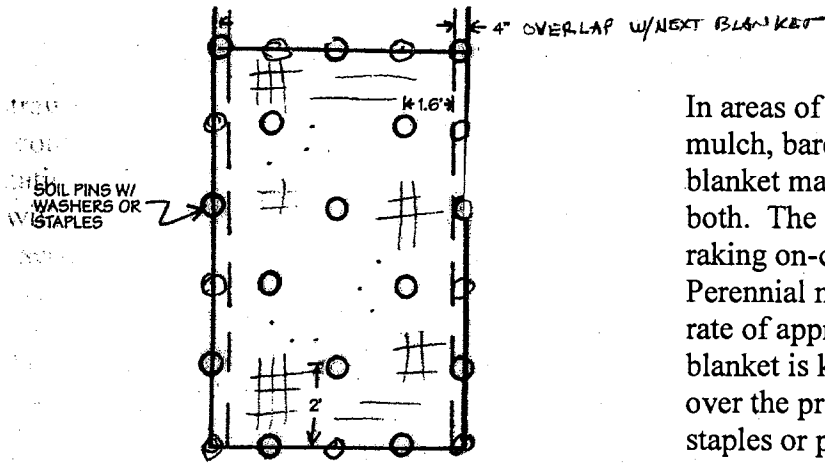
DATE: APRIL 1999
SCALE: NTS
CHECKED BY: HA
DRAFTED BY: MH/DP
DESIGNED BY: MH

TECHNIQUES FOR
MAKING THE
PRUNING CUT

SHEET

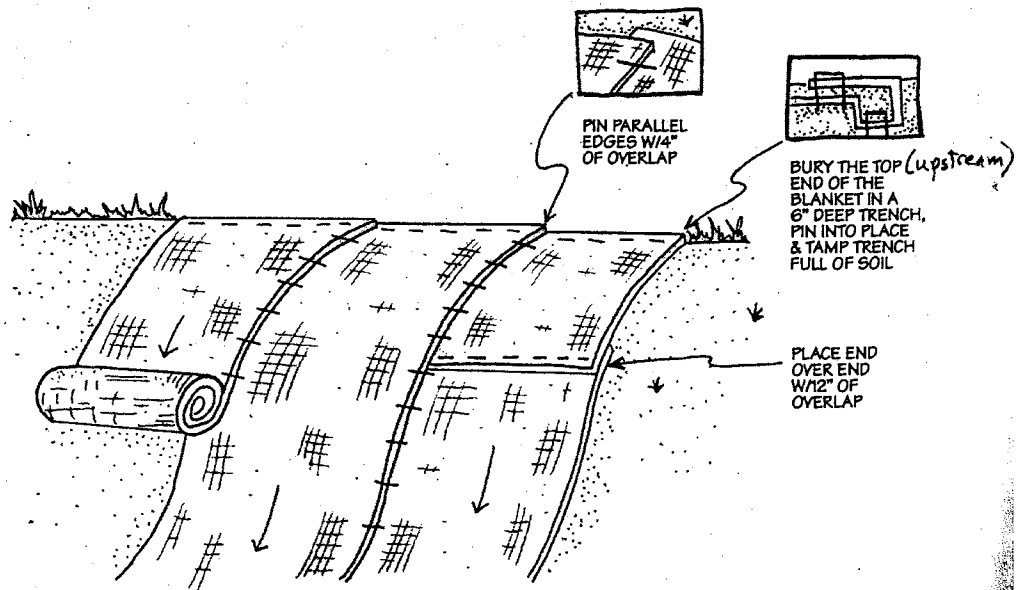


PRUNUSKE CHATHAM, INC.



Pin spacing for erosion control blanket on a 2:1 slope

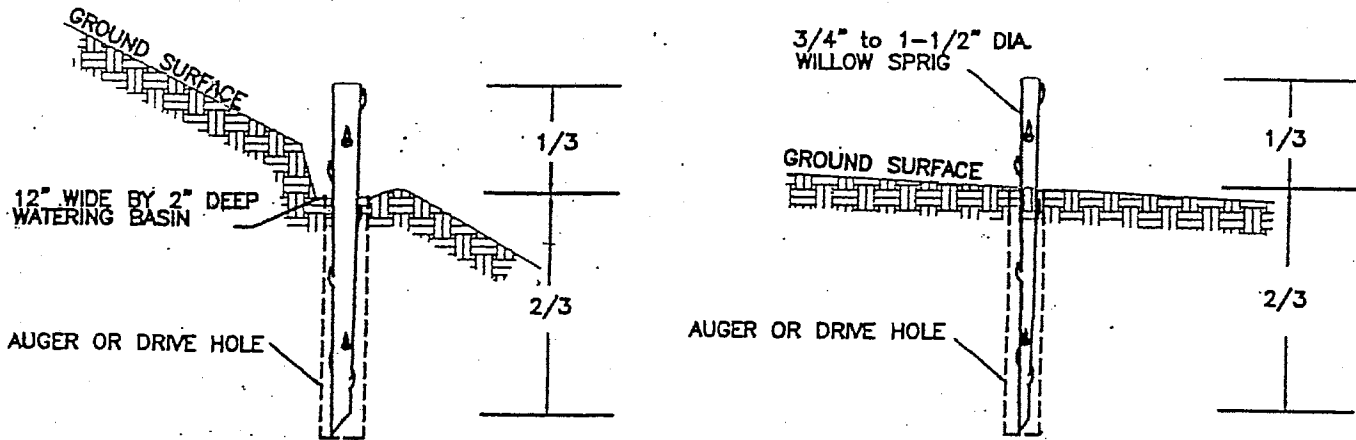
In areas of steep slopes, rather than applying rice straw mulch, bare ground may be protected with erosion control blanket made of straw or coconut fiber or a combination of both. The soil surface must first be raked smooth with final raking on-contour to provide micro-ridges to catch seed. Perennial native grass seed is then broadcast over the site at a rate of approximately 1 ¼ pounds per 1,000 square feet. The blanket is keyed into the top of the slope and rolled down over the prepared seeded soil. Blankets are secured with staples or pins & washers to ensure smooth close blanket-to-soil contact. Do not use blankets with plastic netting which can trap birds, snakes, and other small animals.



Erosion control fabric installation



PRUNUSKE CHATHAM, INC.



1. CUT AND INSTALL WILLOW SPRIGS AFTER WILLOWS HAVE GONE DORMANT, GENERALLY OCTOBER TO FEBRUARY.
2. SPRIGS SHOULD BE CUT AND INSTALLED ON THE SAME DAY. KEEP THE SPRIGS COVERED AND MOIST CONTANTLY DURING TRANSPORT. IF STORED OVERNIGHT, SPRIGS MUST BE IMMERSERD IN WATER.
3. SPRIGS SHOULD BE 3/4" TO 1-1/2" DIAMETER AND THREE FEET LONG MINIMUM.
4. A LEAD HOLE SHOULD BE AUGERED OR DRIVEN EQUIVALENT TO 2/3 THE DEPTH OF THE SPRIG.
5. CUT THE TOP OF EACH SPRIG SQUARE AND THE BOTTOM SLANTED TO INSURE THE PROPER END IS PLACED DOWN. BUDS MUST BE POINTED UP.
6. TRIM ALL BRANCHES OFF OF SPRIG WITH LOPPERS OR HAND PRUNERS BEFORE PLANTING.
7. IF AUGER IS USED TO DRILL HOLES, COMPACT FILL IN 6" LIFTS.
8. LOCATION OF WILLOW SPRIGS TO BE STAKED AND PIN FLAGGED IN FIELD BY REVEGETATION SPECIALIST BEFORE PLACEMENT OF ANY WILLOWS.
9. WILLOW SPRIGS MUST BE ALIVE AT TIME OF INSTALLATION.

WILLOW SPRIG PLANTING DETAILS AND NOTES

Not to Scale