

RESOLUTION NO. 94-19

**A RESOLUTION OF THE BOARD OF SUPERVISORS
OF THE COUNTY OF NAPA, STATE OF CALIFORNIA,
ESTABLISHING METHODS FOR DETERMINING SLOPE,
OUTLINING CONTENTS OF EROSION CONTROL PLANS, LISTING SENSITIVE
WATERCOURSES, ESTABLISHING STANDARD EROSION AND SEDIMENT
CONTROL SPECIFICATIONS AND OUTLINING CONTENTS OF VINEYARD
REPLANTING PROGRAMS.**

WHEREAS, the Board of Supervisors is considering amendment of the adopted conservation regulations; and

WHEREAS, as a part of this process, the Board of Supervisors directed the Conservation, Development and Planning Director to evaluate the effectiveness of the adopted regulations and make recommendations for improving the conservation program, and


WHEREAS, the Planning Director, after consulting with the two consultants who have assisted in administration of the regulations, has recommended that standard measures be included ~~in the revised conservation~~ regulations to streamline the preparation of plans and that vineyard replanting program requirements be clearly outlined; and

WHEREAS, in this regard, it has been recommended that the following technical standards entitled "Standard Erosion & Sediment Control Specifications" and "Vineyard Replanting Program Contents" (attached hereto as Exhibit D and Exhibit E) and the three Exhibits attached to Resolution 91-61 entitled "Slope Determination Methodology", "Erosion Control Plan Contents" and "List of Additional Watercourses" (attached hereto as Exhibits A, B, and C) be considered for inclusion in the ordinance;

NOW THEREFORE BE IT RESOLVED, that on and after the effective date of the ordinance amending the Conservation Regulations adopted by this Board on March 1, 1994, the technical standards of Exhibit A, B, C, D and E hereto shall be incorporated by reference into the ordinance and Resolution 91-61 shall be deemed rescinded and replaced by this Resolution.

The foregoing resolution was read, considered, and adopted at a regular meeting of the Board of Supervisors of the County of Napa, State of California, on the 1st day of March, 1994, by the following vote:

AYES:	SUPERVISORS	<u>VARRELMAN, RIPPEY, FERRIOLE, BATTISTI AND NEGRI</u>
NOES:	SUPERVISORS	<u>NONE</u>
ABSTAIN:	SUPERVISORS	<u>NONE</u>
ABSENT:	SUPERVISORS	<u>NONE</u>



 FRED NEGRI, Chairman
 Board of Supervisors

ATTEST:

MARY JEAN MCLAUGHLIN
 Clerk of the Board

By: Teri Sisson, Deputy

APPROVED AS TO FORM
 Office of County Counsel
 By: D. Zaltsman (PS)
 Date: 3-25-94

st\ccp\res\ltn.D3

APPROVED MAR 01 1994
 BOARD OF SUPERVISORS
 COUNTY OF NAPA

MARY JEAN MCLAUGHLIN
 CLERK OF THE BOARD

BY Keri J. Bush Deputy

EXHIBIT A
SLOPE DETERMINATION METHODOLOGY

The purpose of this exhibit is to assist the applicant in determining what information will be necessary for review and approval of his project. When the percent slope of a project (development area or the area that will be disturbed by grading and/or clearing) exceeds 30%, the project must meet specific performance standards established in the Conservation Regulations administered through the Use Permit process. Projects occurring on slopes between 5% and 30% will be reviewed and evaluated administratively by the Director or his designee under performance standards established in the Conservation Regulations.

The percent slope for a proposed project is described as the ratio of the vertical distance to the horizontal distance, or the elevation change in feet divided by distance in feet measured perpendicular to the contours. Percent slope of the development area described herein is **the natural slope of the existing terrain**, not the finished or proposed percent slope resulting from the project.

In order to clarify the means of determining slope for the varied development proposals, the following three development categories were devised:

- 1) STRUCTURAL DEVELOPMENT
- 2) ROAD/ACCESS DEVELOPMENT
- 3) GENERAL LAND CLEARING

1. STRUCTURAL DEVELOPMENT

- a) Percent slope of the structural development area is measured perpendicular to the contours across the building pad and driveway when the driveway is less than 50 feet in length. The slope determination will be made by evaluating a plot plan identifying contour intervals of 2 to 5 feet, with a scale of 1"=20' or better.
- b) When a driveway exceeds 50 feet in length, the slope of the structural development area is measured perpendicular to the contours across the foundation and area of ground disturbance around the foundation of the proposed structure. The driveway slope is measured separately as identified in the Road/Access Development category below.

2. ROAD/ACCESS DEVELOPMENT

The analysis of slope determination for grading involving a roadway longer than 50 feet shall be determined using the following criteria and shall be based on mapping with a scale of 1"= 100' (maximum) with contour intervals of 5 feet or less.

- a) The approximate centerline of the proposed roadway shall be stationed with 0+00 being assigned to the point where grading commences (conform with existing road).

- b) Cross sections shall be taken at each station 100 ft. apart, i.e. 1+00, 2+00 etc., extending to the outer limits of grading. When the road is less than 200' long, then three equally spaced cross sections shall be taken. The axis of each cross section shall be perpendicular to the contours pertinent to the section. These sections shall be drawn to a scale of 1" = 10' horizontal and vertical. An average cross section slope shall be calculated by dividing the difference in elevation of the cut and/or fill catch points by the intervening distance.
- c) The average slope of the project is to be determined by averaging all of the cross sections excluding those measured at less than 5% slope.
- d) If the average slope is less than or equal to 30%, an administrative permit can be issued. If the average is greater than 30% or if three (3) or more cross sections exceed 50%, the grading cannot be approved unless a Use Permit is approved. If the average is greater than 50%, a variance will be required.

3. GENERAL LAND CLEARING

When the landclearing project involves 30 acres or less, the slope of contiguous lands (i.e., not separated by streams, roads, or noncleared areas) is measured from a map with a scale of 1"=200'(maximum) with contour intervals of 20 feet, or at a contour interval acceptable to the Resource Conservation District.

When the landclearing project involves greater than 30 acres, the slope of contiguous lands (i.e., not separated by streams, roads, or noncleared areas) is measured from a map with a scale of 1"=200'(maximum) with contour intervals of 5 feet.

If any portion within the contiguous area to be cleared is greater than 30% slope, then the following standards apply:

- a) Any area greater than 50% slope cannot be cleared or graded unless a variance is approved through a discretionary process.
- b) If the total area of any contiguous clearing is larger than one (1) acre, subareas up to one acre in size in the 30%-50% slope range may be cleared subject to administrative approval by the Director or his designee. Clearing of areas in the 30%-50% slope range exceeding one (1) acre will require a use permit approval.
- c) If the total contiguous area to be cleared or graded is less than one (1) acre, no more than 1/3 of the project area to be cleared or graded may exceed 30% slope, subject to administrative approval by the Director or his designee.

EXHIBIT B
EROSION CONTROL PLAN CONTENTS

These standards are intended to supplement the Conservation Regulations Ordinance # 911 and provide guidelines for fulfilling the requirements of Section 12455 (b) of the Ordinance. Within the standards are specific details for Erosion and Sediment Control Plans required for grading and land clearing projects (hereafter referred to the "development area") which take place within the unincorporated portion of the County of Napa on slopes greater than 5%, as calculated by the procedure set forth in Exhibit "A" attached hereto and incorporated by reference herein.

When a development project occurs on a development area with slopes of 5% or greater, grading and/or clearing may be permitted only if, in addition to compliance with any other requirements of state, federal or local law, an erosion control plan has been submitted to and approved by the Conservation, Development and Planning Director or his designee or the Commission. The erosion control plan shall be prepared by a person or firm authorized to prepare plans per Section 12455(d) of the Conservation Regulations. The plan shall contain the following information:

A. Narrative The narrative section shall provide a description of the following items as applicable to the specific project:

- 1) The nature and purpose of the land disturbing activity and the amount of grading involved.
- 2) General description of existing site conditions, including topography, vegetation and ~~soils.~~
- 3) Natural features onsite including streams, lakes, reservoirs, roads, drainage, and other areas that may be affected by the proposed activity.
- 4) Soil types/soil series identified in the Soil Conservation Service (SCS) Napa County Soil Survey.
- 5) Critical areas, if any, within the development site that have serious erosion potential or problems.
- 6) Proposed erosion control methods including:
 - a) All drainage systems and facilities, walls, cribbing or other erosion protection devices to be constructed with, or as a part of the proposed work.

- b) Proposed vegetative erosion control measures including location, type and quantity of seed, mulch, fertilizer and irrigation; timing and methods of planting, mulching and maintenance of plant material and slopes until a specified percentage of plant coverage is uniformly established.
- 7) Stormwater stabilization measures, if the development of the site will result in increased peak rates of runoff that may cause flooding or channel degradation downstream.
- 8) An implementation schedule showing the following:
 - a) The proposed clearing, grading, and/or construction schedule.
 - b) The proposed schedule for winterizing the site (generally by October 15 of each year the permit is in effect.)
 - c) The proposed schedule of installation of all interim erosion and sediment control measures, including the stage of completion of such devices at the end of the grading season (generally October 15) of each year the permit will be in effect.
 - d) The schedule for installation of permanent erosion and sediment control devices where required.
- 9) Where a geotechnical report or soils engineering report was required for the project, the geotechnical consultant shall certify that the applicable portions of the plans have been prepared in accordance with the recommendations contained in the geotechnical report.
- 10) The estimated cost of implementation of the erosion and sediment control measures.

B. Site Plan The site plan shall be prepared by professionals as indicated in Section 12455(d) and shall be drawn on a 24"X 36" sheet to the scale and with the contour interval specified in subsection C below for the type of development project (structure, road, or agricultural clearing). The site plan shall include all of the following:

- 1) Name and signature of the registered civil engineer or other licensed individual under whose direction the erosion control plan was prepared.
- 2) The vicinity of the site in relation to the surrounding area.
- 3) Owner's name and address.
- 4) Site address of the project and the Assessor Parcel Number.
- 5) North Arrow, scale of map, and contour interval in feet.

- 6) The entire parcel shall be identified on the plan. If only a portion of the site will be developed, the entire parcel may be shown as a detail, with the area to be developed, cleared, and/or graded drawn to the appropriate scale as identified in Section C.
- 7) Existing and proposed contours prepared to the appropriate scale (identified in Section C below).
- 8) General location and character of existing vegetation covering the site, and the location of and species of trees with a trunk diameter of 12 inches or more DBH, within 10 feet of the area to be disturbed. Identify which trees are to be removed, and which trees will remain. (Groves of trees may be identified in general numbers and species types.)
- 9) Location and boundaries of soil types, and identification of potentially serious erosion problem areas within the development area.
- 10) Location, width, direction of flow, and approximate location of top and toes of banks of any watercourses and drainages.
- 11) Location of proposed and existing buildings, structures, onsite sewage disposal facilities, wells, easements, or underground utilities on the property where the work is to be performed.
- 12) Location and details of all drainage systems and facilities, walls, cribbing or other erosion protection devices to be constructed in connection with, or as a part of the proposed work.
- 13) Specifications and cross sections, profiles, elevations, dimensions and construction details based on accurate field data.
- 14) Location of vegetative erosion control measures including proposed planted areas and irrigation, if any.
- 15) Proposed vineyard planting layout, including terraces.

C. Scale and Contour Intervals for Erosion Control Plans

- 1) **Structures** Map scale should be 1"=20' or better for the development area. Contour should be drawn at 2' to 5' intervals.
- 2) **Roads** Map scale should be 1"= 100' or better with a contour interval of 5' or less.
- 3) **General Land Clearing** On clearings less than 30 acres, map scale should be 1"=200' or better with 20' contour intervals. Where clearings exceed 30 acres, map scale should be 1"=200' or better with 5' contours, or contour intervals acceptable to the Resource Conservation District..

D. Submittal of Plans

1. Four copies of the Erosion Control Plan shall be submitted for review and approval to the Conservation, Development and Planning Department (CDPD). This includes both the narrative portion and the plot plan.
2. Upon approval by the Planning Director or his designee or the Commission, one copy shall be retained by the CDPD, and an approved copy shall be available on site during the construction phase.

EXHIBIT C
LIST OF ADDITIONAL WATERCOURSES

Streamside buffers required by Section 12456(b)(1) of the Conservation Regulations shall be provided for the following specifically identified watercourses:

Adams Creek	Nash Creek
Bear Canyon Creek	Pickle Creek
Bell Canyon Creek	Pope Creek
Burton Creek	Rector Creek
Butts Valley Creek	Redwood Creek
Chiles Creek	Ritchie Creek
Conn Creek	Sage Creek
Cyrus Creek	Soda Canyon Creek
Dry Creek	St. Helena Creek
Dutch Henry Creek	Sulphur Creek
Dyer Creek	Suscol Creek
Garnett Creek	Swarz Creek
Hardin Creek	Trout Creek
Huichica Creek	Troutdale Creek
James Creek	Tucolay Creek
Maxwell Creek	Upper Sarco Creek
Mill Creek	Van Ness Creek
Montgomery Creek	Wooden Valley Creek
Moore Creek	Wragg Creek
Murphy Creek	York Creek
Napa Creek	

EXHIBIT D

STANDARD

EROSION & SEDIMENT CONTROL

SPECIFICATIONS

The following standard specifications for soil erosion and sediment control are to be used on structural/non-agricultural projects, except for road projects, with a natural cross slope of 15 percent or less.

1. For projects constructed during the period of October 1 through April 1 a silt fence or straw bale dike shall be installed along the downslope edge of the disturbed area, prior to the commencement of grading. The sediment retention structure will be located so that all runoff from the construction site is contained. Sediment retention structures are to be inspected regularly and sediment removed when the depth of sediment is one-half the height of the structure. Silt fences and straw bale dikes shall be installed according to the attached installation details.
2. All areas of exposed soil are to be seeded, fertilized and mulched the first fall/winter following construction. Seeding specifications are as follows:

SEED MIX ONE
(application rate = 37 lbs/acre)

blando brome	40%
zorro annual fescue	8%
lana vetch	12%
rose clover	15%
crimson clover	15%
sub clover	<u>10%</u>
TOTAL	100%

SEED MIX TWO
(application rate = 35 lbs/acre)

blando brome	35%
rose clover	20%
annual ryegrass	15%
crimson clover	10%
creeping red fescue	15%
zorro annual fescue	<u>5%</u>
TOTAL	100%

FERTILIZER

12-12-12 400 lbs/acre
or
15-15-15 300 lbs/acre
or
16-20-0 300 lbs/acre

MULCH

straw 3,000 lbs/acre
or
wood fiber (if hydroseeded) 2,000 lbs/acre

3. Plot plan or grading plan shall identify the following:
- a. Site location; assessor parcel number and address (if known)
 - b. Property owners name, address and phone number.
 - c. Locations where measures will be installed.
 - d. Installation details shall be attached to the plot plan.

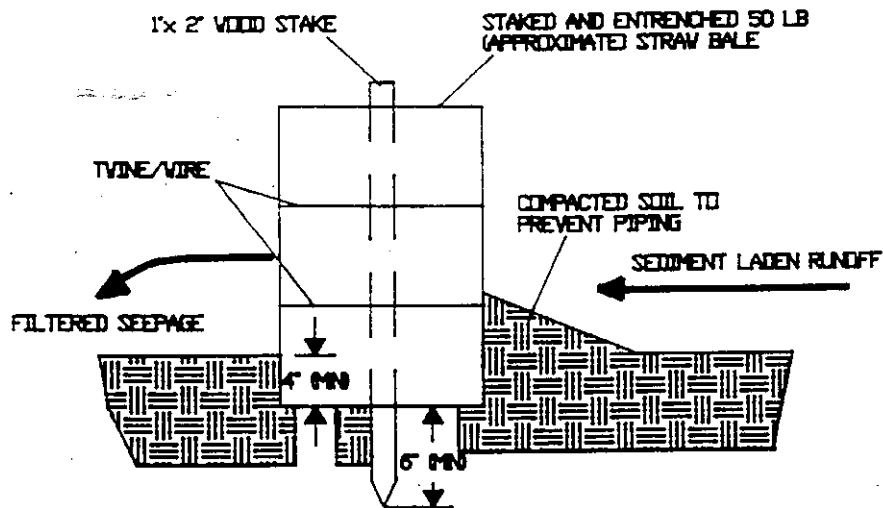
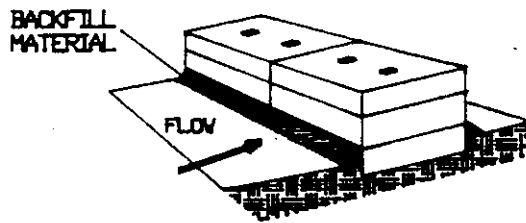
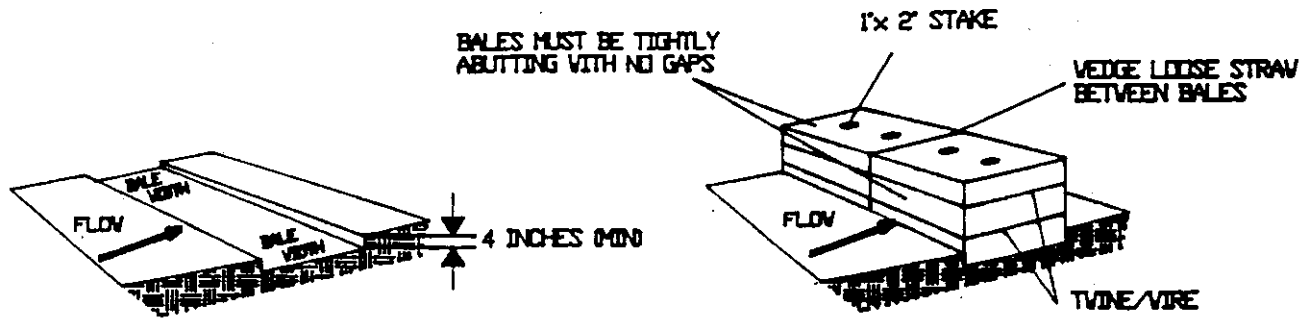
FIGURE 1: STRAW BALE INSTALLATION

Straw bales can be used as dikes to stabilize temporary channel flowlines or as a perimeter filter barrier. Straw bales must be installed in a trench, staked and backfilled if they are to be effective in reducing flow velocity and filtering sediment from runoff.

Straw bale dike perimeter filters should be limited to 0.25 acres per 100 feet of barrier.

When used to stabilize channel flowlines, no P-Factor credit will be given (see Table 1 of the IECA short course notes).

Straw bales should not remain in place more than 12 months after installation unless it can be determine significant deterioration has not occurred. When used as a perimeter filter, sediment should be removed when material is within six inches of the top of any bale.



CROSS-SECTION OF A PROPERLY INSTALLED STRAW BALE

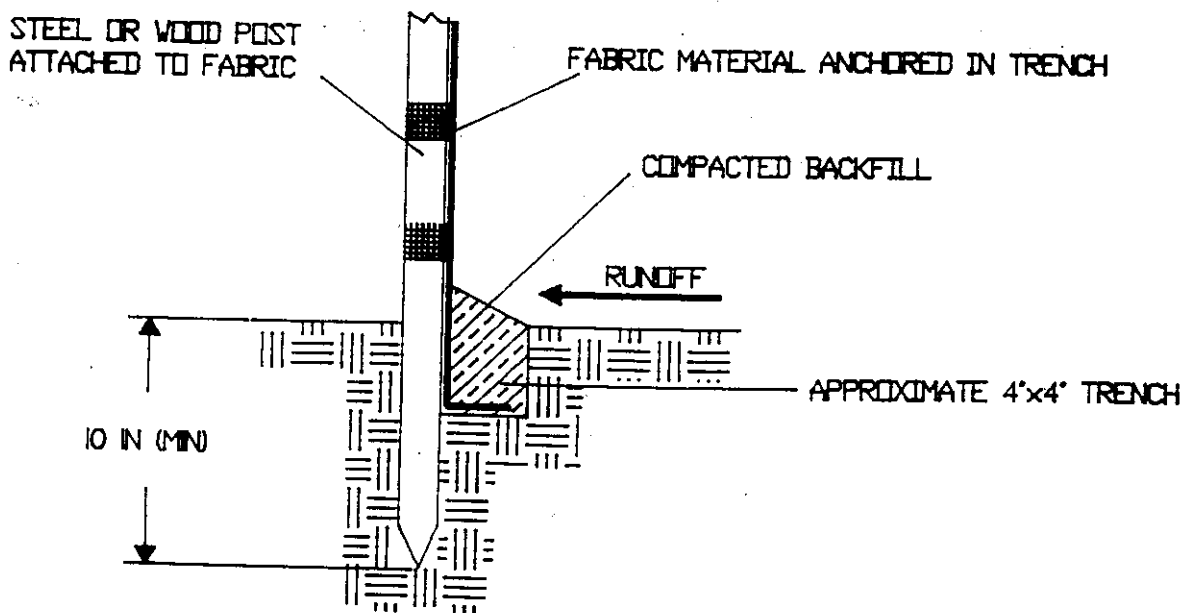
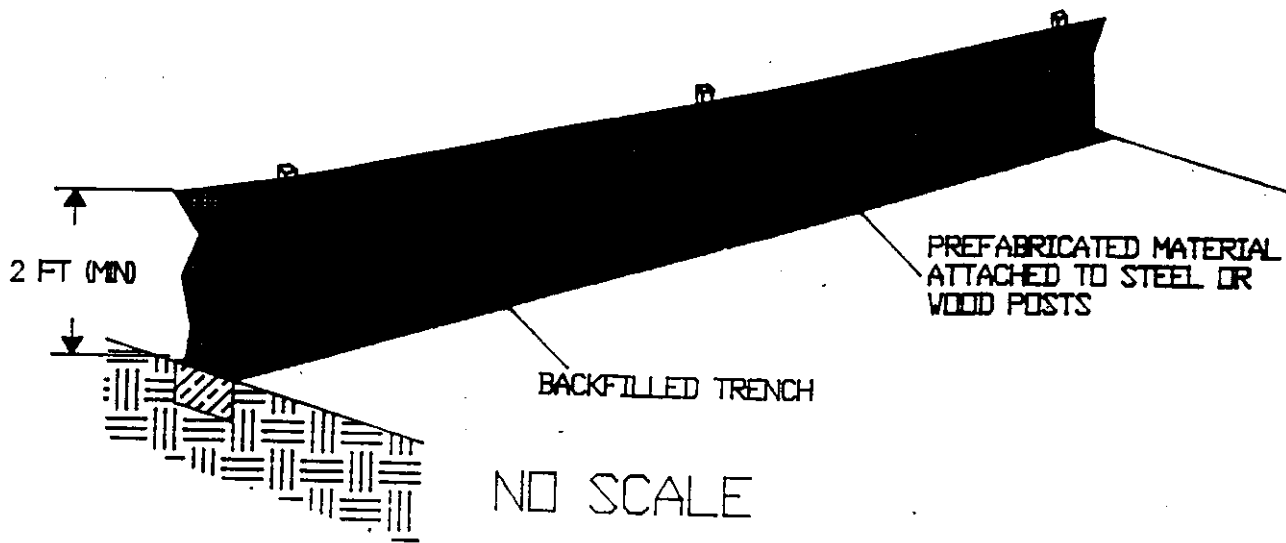
STRAW BALE INSTALLATION

FIGURE 7: PREFABRICATED FILTER FENCE INSTALLATION

Filter fences (also known as silt fences) should be installed where sediment from sheet flow or rill and gully erosion will enter directly onto adjacent property.

Filter fences should be limited to 0.25 acres per 100 feet of barrier and be installed per manufacturer's recommendations. When installing, it is important the fabric material be anchored into a trench and backfilled.

Maintenance of filter fences is similar to that of straw bale dikes in that the fabric must be inspected and needed repairs implemented after every storm event. Sediment deposits should be removed when material reaches a depth of one-half the fence height.



PREFABRICATED FILTER FENCE INSTALLATION

1/2/81

EXHIBIT E
VINEYARD REPLANTING PROGRAM CONTENTS

These standards are intended to supplement the Conservation Regulations Ordinance # 911 and provide guidelines for fulfilling the requirements of Section 12456 of the Ordinance. Within the guidelines are details for submittal of Vineyard Replanting Programs for any vineyard replanting project under Section 12456 in the unincorporated portion of the County of Napa on slopes greater than 5%, as calculated by the procedure set forth in Exhibit "A" attached hereto and incorporated by reference herein.

When a vineyard replanting project occurs on a development area with slopes greater than 5%, grading and/or clearing may be permitted only if, in addition to compliance with any other requirements of state, federal or local law, a Vineyard Replanting Program has been submitted to and approved by the Conservation, Development and Planning Director or his designee, unless a full erosion control plan is being prepared pursuant to Section 12455 (d)(2)(A)(ii). The Vineyard Replanting Program shall be prepared by a person or firm authorized per Section 12456 of the Conservation Regulations. The degree of complexity of the replanting program submitted will be as complex as the project itself. The program shall contain the following information:

A. Narrative A one- to two- page narrative section shall provide a description of the following items as applicable to the specific project:

- 1) The nature and purpose of the land disturbing activity and the amount of grading involved.
- 2) General description of existing site conditions.
- 3) Natural features onsite including streams, lakes, reservoirs, roads, drainage, and other areas that may be affected by the proposed activity.
- 4) Soil types/soil series identified in the Soil Conservation Service (SCS) Napa County Soil Survey.
- 5) Critical areas, if any, within the development site that have serious erosion potential or problems.
- 6) Proposed erosion, runoff and sediment control methods.
- 7) An implementation schedule showing the following:
 - a) The proposed clearing, grading, and/or construction schedule.
 - b) The proposed schedule for winterizing the site (generally by October 15 of each year the permit is in effect.)

- c) The proposed schedule of installation of all interim erosion and sediment control measures, including the stage of completion of such devices at the end of the grading season (generally October 15) of each year the permit will be in effect.
 - d) The schedule for installation of permanent erosion and sediment control devices where required.
- 8) The estimated cost of implementation of the erosion and sediment control measures.

B. Site Plan The site plan may be prepared by the owner or his designee as indicated in Section 12456 and drawn on an 8 1/2" X 11" sheet, or larger if appropriate and shall include all of the following:

- 1) Name and signature of who prepared the vineyard replanting program.
- 2) The vicinity of the site in relation to the surrounding area.
- 3) Owner's name and address.
- 4) Site address of the project and the Assessor Parcel Number.
- 5) North Arrow and scale of map, if any.
- 6) The entire parcel shall be identified on the plan with the portion to be developed shown in detail if necessary.
- 7) Location and boundaries of soil types, and identification of potentially serious erosion problem areas within the development area.
- 8) Location, width, direction of flow, and approximate location of top and toes of banks of ~~any watercourses and~~ drainages (does not require survey).
- 9) Location of all erosion and sediment control measures to be constructed in connection with, or as a part of the proposed work, including location of proposed planted areas.
- 10) Proposed vineyard planting layout, including terraces.

C. Submittal of Program

- 1. Four copies of the Vineyard Replanting Program shall be submitted for review and approval to the Conservation, Development and Planning Department (CDPD). This includes both the narrative portion and the plot plan.
- 2. Upon approval by the Planning Director or his designee, one copy shall be retained by the CDPD, and an approved copy shall be available on site during the construction phase.