



Attachment A



Cultivation & Operations
Plan Addendum



Cultivation and Operations Plan Addendum

Applicant: Alex Lindsay

Permit Application: 11608

APN: 211-331-027

Cultivation Square Footage

The correct cultivation square footage totals are: Mixed Light: 2,200 square feet, Outdoor: 5,234 square feet. These changes are reflected in the updated site plan.

Water Source

The surface water diversion on APN 211-331-028 has been decommissioned and water lines to the point of diversion have been removed. The irrigation sources for the project are a permitted groundwater well and rainwater catchment from the gutters attached to the residence. The Well Completion Report has been included with this submission.

Water Usage

The following is a table of the water use for the cannabis irrigation. These are based on previous monthly usage. The source is groundwater well amended with rainwater catchment.

Table 1: Updated monthly water usage for cannabis irrigation.

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Gallons	1500	1500	4500	4500	6500	16500	18500	23500	24500	24500	1500	1500

This results in an annual use of 129,000 gallons of irrigation water.

Mixed Light Cultivation

The cultivation areas used for mixed light operations run two cycles annually.

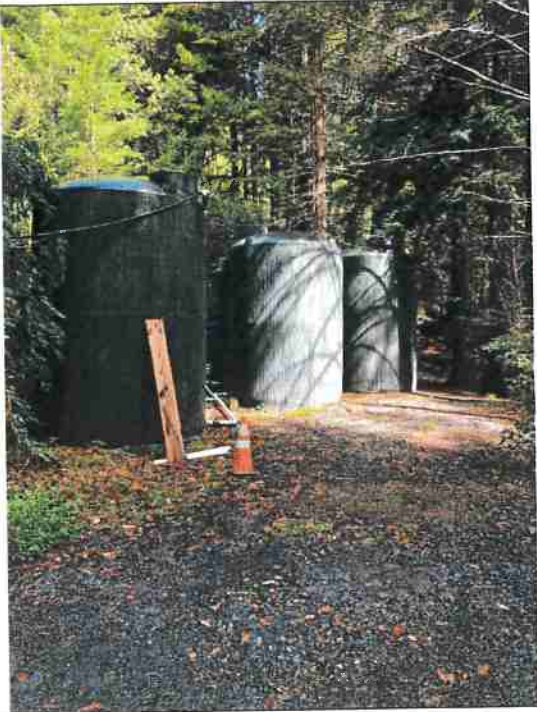
Electricity Source

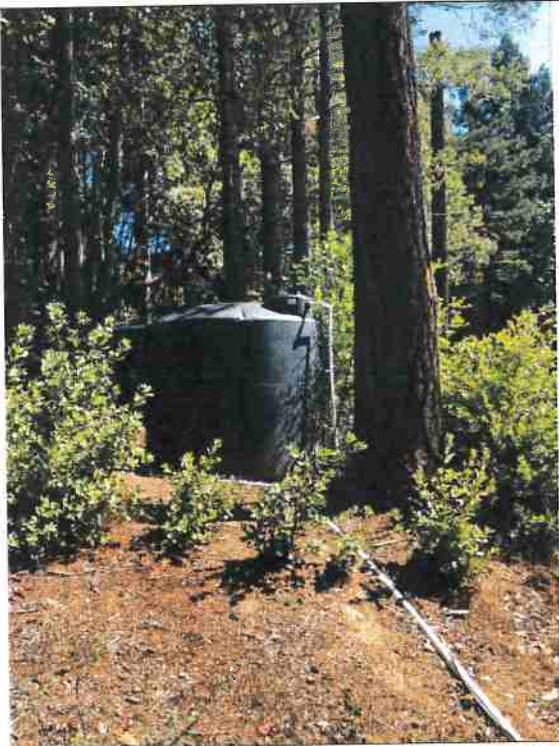
Electricity is provided by a residential PG&E service drop.

Attachment B





Photos

Picture No. 1		
October 10, 2019		
Description: Water tank array		

Picture No. 2		
October 10, 2019		
Description: Water tank array		



Picture No. 3		
October 10, 2019		
Description: Water tank array		

Picture No. 4		
October 10, 2019		
Description: Catch tank for rainwater catchment system		



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Site Management Plan – Picture Log – Finnzland Farms, LLC

March 2020

Picture No. 5		
October 10, 2019		
Description: Groundwater well		

Picture No. 6		
October 10, 2019		
Description: Paved entrance to property		



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Attachment C



Selected BPTC Measures
Data Logs & Measure
Checklists

Selected Best Practicable Treatments & Control (BPTC) Measures, Data Logs and Measure Checklists

- A) Year Round BPTCs
- B) Conditional BPTCs
- C) BPTC Schedule & Conditional BPTCs
- D) Daily Water Usage Log
- C) Land Disturbance Weather Log
- D) Road and Drainage Feature Maintenance
Log
- E) Winterization Checklist
- F) Erosion Control Checklist
- G) Soil Disposal and Management Checklist
- H) Erosion and Sediment Control BMPs

Year-Round BPTCs

In order to maintain compliance with the State Water Board General Order the following conditions shall be met all throughout the year.

Cannabis cultivators shall comply with the minimum riparian setback below for all land disturbance, cannabis cultivation, facilities (material/vehicle/equipment storage, pump locations, portable toilet, water storage), and equipment maintenance/usage:

Class I watercourses - Stream that flows 9 months or more of the year, fish present or includes a habitat to sustain fish migration and spawning, lakes, ponds and springs. **Maintain a 150 feet setback.**

Class II watercourses - Intermittent watercourse that runs 3 to 9 months a year, provides habitat to non-fish aquatic species. **Maintain a 100-foot setback.**

Class III watercourses - Ephemeral watercourse that runs 3 months or less a year, does not provide habitat for riparian vegetation or aquatic species. **Maintain a 50-foot setback.**

Maintain a complete spill kit on site. Use spill kit and properly dispose of any spilled agricultural chemicals, petroleum products, or any other hazardous chemicals. Properly dispose all wastes off-site. **All Agricultural products and fuel products require separate storage areas with secondary containment.** Hazardous materials shall only be used by their label usage. No unpermitted pesticides or chemicals are allowed on site. No agricultural products shall be used in the 48 hours before a forecast of 0.25 inches or more with a 50% or greater chance.

Temporary sediment controls (seeding and strawing, straw wattles, hay bales, silt fences, etc.) shall be **installed within 7 days of any land disturbance activities.** Only native seed and plants shall be used for revegetating disturbed areas.

Road approaches to water crossings should be rocked if not paved. The steeper the road the higher quality of surfacing. Winter roads shall be surfaced. Asphalt grindings not allowed for surfacing.

All applicable permits shall be obtained before working around surface water or wetlands. Habitat in and immediately around streams cannot be disturbed without the correct permits. These may include CWA 401/404 permits, Regional Water Board WDRs, and CDFW 1600.

Soil, construction, and waste materials should be stored in an area that is stable, contained, and outside of the riparian setbacks.

Cultivator shall inspect their water distribution system regularly and immediately repair any leaks.

No domestic wastewater shall be disposed without meeting applicable local and regional regulations. Septic systems must be permitted. Porta-Potties should be sited on stable flat ground and maintained regularly.

Surface water diversions for cannabis cultivation shall be recorded daily. Additionally, the water usage for cannabis cultivation shall be recorded daily. Surface water shall not be diverted from April 1st to October 31st. Surface water diversions must allow 50% of the streamflow to bypass the point of diversion. Surface water diversions are not permitted unless the flow of the watercourse diverted from meets the designated Numeric Flow Requirement. Groundwater may be subject to forbearance, if State Water Board decides so.

For each water delivery make sure to obtain a receipt and information needed to fill out the Water Delivery Log.

Before any land disturbance activity is initiated the conditions on the Land Disturbance Weather Log must be met and it must be filled out through the duration of activities.

Prior to the rainy season and whenever there are large storm events the Road and Drainage Maintenance log shall be filled in. Prior to November 15th the Winterization Checklist shall be completed.

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BPTCs Schedule												
Monitoring Element	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Water Usage Log	X	X	X	X	X	X	X	X	X	X	X	X
Road and Drainage Maintenance Log	X	X	X	X					X	X	X	X
Winterization Checklist										X	X	
Surface Water Diversion Forbearance				X	X	X	X	X	X	X		

Conditional BPTCs	
If	Then
You plan to do any land disturbance work (grading, clearing, terracing, roadbuilding, culvert installation, etc.)	Make sure you are in possession of all necessary permits (CDFW LSAA, County Grading Permit, etc.). Maintain the Land Disturbance Weather Log, Erosion Control Checklist, and Soil Disposal and Management Checklist. Install erosion and sediment controls within 7 days of the completion of the project. If the project is an emergency project in the winter period (Nov 15 th to April 1 st) the Regional Water Board and CDFW must be notified.
A storm produces 0.5 inches of rain within 24 hours or a storm produces 1 inch of rain over 7 days	Fill out the Road Drainage Feature Maintenance Log.
A 48 hours prior rainfall forecast predicts 0.25 inches of rain with 50% chance or greater	No agricultural chemicals/products can be applied.
Your diversion is a surface water diversion	Maintain Water Diversion Log as well as Water Usage Log.
There is exposed ground on your property	Erosion controls must be applied under the guidance of the Erosion Control Checklist.

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Daily Water Diversion Log

- Fill out daily, write down the date and the metered amount
- Only record diversion for cannabis irrigation - not domestic or other irrigation usage
- Install meter as close to diversion source as reasonable
- Measuring device must have 15% accuracy
- Records must be kept on site, available for up to 5 years

[illegible]

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Daily Water Usage Log

- Fill out daily, write down the date and the metered amount
- Only record usage for cannabis irrigation - not domestic or other irrigation usage
- Use a meter as installed as close to point of irrigation or use estimate based on amount of time watering and known irrigation rate
- Records must be kept on site, available for up to 5 years

[illegible]

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Water Delivery Log

- For each water delivery make sure to obtain a receipt with the following
 - Name
 - Address
 - License Plate Number, State Issuing
 - A copy of the Water Haulers License
 - A copy of Haulers Water Right or other authorization to take water
 - Quantity and source of water

[illegible]

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Land Disturbance Weather Log

A land disturbance is any activity that increases the amount of soil that will runoff the property when it rains. Examples of this are construction/maintenance of roads, building construction, grading, and site clearing. Please acknowledge the following requirements when engaging in land disturbance activities:

- Prior to any land disturbance the cultivator shall have a Biologist investigate the proposed site and inform CDFW and CALFIRE if any sensitive plant or wildlife species are identified
- Work that is valued over \$500 in labor and material costs are to be performed by a licensed contractor
- No land disturbance activities are allowed during the Winter period (Nov 15 to April 1) unless authorized by a Regional Water Board Executive Officer

Fill out this log when you are doing permitted to do land disturbance work with the above condition met. For each day of land disturbance activity, the 24-hour forecast must be checked and recorded. If the 24-hour forecast reports a chance of precipitation at 50 percent or greater of 0.5 inches or more within that period than all land disturbance work was stop and erosion controls put into place.

[illegible]

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[illegible]

Road and Drainage Feature Maintenance Log

Road surfaces and drainage features (culverts, drop inlets, trash racks) shall be closely inspected before the rainy season and after large storm events. Record the dates of inspection and mark down any maintenance work that was completed. Perform inspection and maintenance when any of the following occur:

- Prior to the start of the rainy season
- A storm produces 0.5 inches of rain within 24 hours
- A storm produces 1 inch of rain over 7 days

Examples of road and drainage feature maintenance:

- Wood or debris blocking entrance of ditch relief culvert or stream crossing culvert
- Sediment blocking rolling dip outlet removed and disposed of
- Rocking road where it is necessary

Any sediment or debris removed should be stabilized on a flat area away from surface water or stormwater flow.

Date	Pre-rainy season check or storm event	Maintenance Notes

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Road and Drainage Feature Maintenance Log

[illegible]

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Winterization Checklist

The winter season as defined by the State Water Board begins November 15th and ends April 1. Before the winter season begins the cultivator must go through this and the associated checklist and make sure the property that enrolled is winterized. The two associated checklists are the Erosion Control Checklist and the Soil Disposal and Management Checklist. Each time the winterization is completed sign and date below.

By November 15th complete the following:

- Complete the Erosion Control Checklist
- Complete the Soil Disposal and Management Checklist
- Block off seasonal roadways
- Refrain from using any heavy equipment during the winter season unless authorized
- Install linear sediment controls (silt fences, wattles) on the face of exposed slopes at the following spacing:
 - Slopes 0%-25% at 20 feet maximum apart
 - Slopes 25%-50% at 15 feet maximum apart
 - Slopes 50% and greater at 10 feet maximum apart
- Install linear sediment controls at the toe and break of any exposed slopes
- Complete the Drainage Feature Maintenance Log prior to the start of the rainy season
- Stabilize all disturbed areas and construction entrances and exits
- Stabilize all stockpiles using Stockpile Management BMPs (included with this document)
- All exposed or bare ground (cultivation area, access pathways) shall have erosion repair and control measures in place
- Any applicable checklist items that were not completed by November 15th should be reported on this form as well as a schedule for completion.

Date	Notes	Signature
Ex. 11/05/18	ex: Wattles installed a upper cultivation area, perimeter of cultivation area seeded and mulched, all other checklists complete	DB

Best Practical Treatments & Controls (BPTCs)

[illegible]

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Erosion Control Checklist

The Erosion Control Checklist should be completed when any of the following occur:

- Within seven days of completing any land disturbance activities (grading, terracing, etc)
- When any earthwork using heavy equipment occurs
- Prior to the start of the winter period (Nov 15th)

Each time the Erosion Control Checklist is completed sign and date this checklist.

Complete the following measures if applicable:

- Disturbed areas and/or stockpiles should be controlled by one or a combination of the following methods
 - Seeded and mulched
 - Hydroseed
 - Replanted
 - Stockpile Management BMPs
 - Rock slope protection
- The lower gradient perimeter of disturbed areas should be controlled by one or a combination of the following methods
 - Gravel bag berms
 - Fiber rolls
 - Straw bale barriers
 - Silt fences
 - Sediment settling basins
- Complete the Soil Disposal and Management Checklist
- Block off seasonal roadway
- Refrain from using any heavy equipment during the winter season unless authorized
- Install linear sediment controls (silt fences, wattles) on the face of exposed slopes at the following spacing:
 - Slopes 0%-25% at 20 feet maximum apart
 - Slopes 25%-50% at 15 feet maximum apart
 - Slopes 50% and greater at 10 feet maximum apart
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Date	Notes	Signature
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Erosion Control Checklist

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Soil Disposal and Management Checklist

The Soil Disposal and Management Checklist should be completed when any of the following occur:

- Whenever soil, growth medium, or construction materials are to be stored on site.
- Prior to the start of the winter period (Nov 15th)

Each time the Soil Disposal and Management Checklist is completed sign and date this checklist.

Complete the following measures if applicable:

- Ensure that all soil, growth medium, and construction materials are stored in a stable, contained manner outside of the riparian setbacks.
- Large organic materials (woody debris, root balls) should be stored separate from soil stockpiles. These materials should be properly disposed of (landfill, burning, composted).
- Sediment control devices (silt fences, straw wattles, strawbales) and tarps should be used to protect soil stockpiles from erosion.
- Alternatively, the stockpiles can be vegetated to prevent erosion
 - Revegetate using a mix of native plant species and seed.
 - Cover with straw at a rate of two tons per acre
 - Apply non-synthetic netting or similar erosion control fabric (jute) on slopes greater than 2:1
- Any soil that is not stored for reuse or vegetated shall be disposed of at an appropriate green waste facility.

<i>Date</i>	<i>Notes</i>	<i>Signature</i>
<i>Ex. 11/05/18</i>	<i>ex: Leftover growth medium has been tarped and surrounded by straw bales on the flat by the cultivation area.</i>	<i>DB</i>

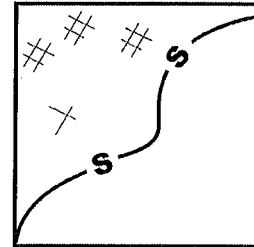
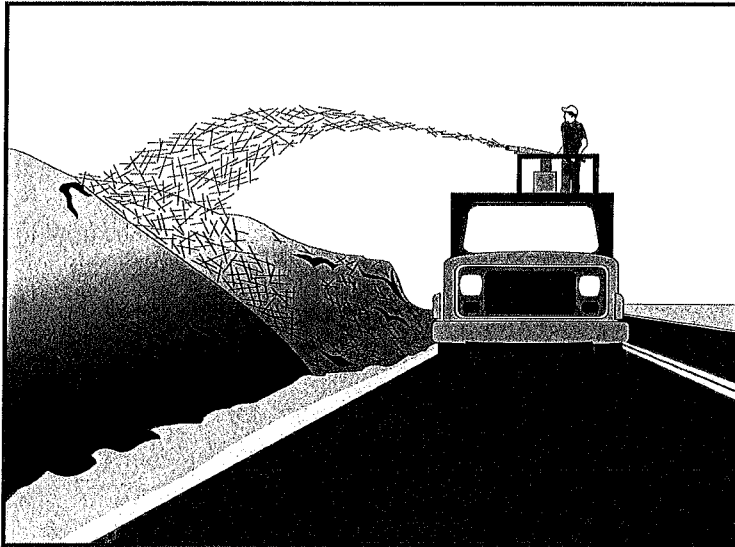
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Soil Disposal and Management Checklist

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Erosion and Sediment Control BMPs



Standard Symbol

BMP Objectives

- Soil Stabilization
- Sediment Control
- Tracking Control
- Wind Erosion Control
- Non-Storm Water Management
- Materials and Waste Management

Definition and Purpose Straw mulch consists of placing a uniform layer of straw and incorporating it into the soil with a studded roller or anchoring it with a stabilizing emulsion. This is one of five temporary soil stabilization alternatives to consider.

Appropriate Applications

- Straw mulch is typically used for soil stabilization as a temporary surface cover on disturbed areas until soils can be prepared for revegetation and permanent vegetation is established.
- Also typically used in combination with temporary and/or permanent seeding strategies to enhance plant establishment.

Limitations

- Availability of erosion control contractors and straw may be limited prior to the rainy season due to high demand.
- There is a potential for introduction of weed-seed and unwanted plant material.
- When straw blowers are used to apply straw mulch, the treatment areas must be within 45 m (150 ft) of a road or surface capable of supporting trucks.
- Straw mulch applied by hand is more time intensive and potentially costly.
- May have to be removed prior to permanent seeding or soil stabilization.
- "Punching" of straw does not work in sandy soils.

Standards and Specifications

- Straw shall be derived from wheat, rice, or barley.
- All materials shall conform to Standard Specifications Sections 20-2.06, 20-2.07 and 20-2.11.
- A tackifier is the preferred method for anchoring straw mulch to the soil on slopes.
- Crimping, punch roller-type rollers, or track-walking may also be used to incorporate straw mulch into the soil on slopes. Track walking shall only be used where other methods are impractical.
- Avoid placing straw onto the traveled way, sidewalks, lined drainage channels, sound walls, and existing vegetation.
- Straw mulch with tackifier shall not be applied during or immediately before rainfall.

Application Procedures

- Apply loose straw at a minimum rate of 3,570 kg/ha (4,000 lb/ac), or as indicated in the project's special provisions, either by machine or by hand distribution.
- If stabilizing emulsion will be used to anchor the straw mulch in lieu of incorporation, roughen embankment or fill areas by rolling with a crimping or punching-type roller or by track walking before placing the straw mulch. Track walking should only be used where rolling is impractical.
- The straw mulch must be evenly distributed on the soil surface.
- Anchor the mulch in place by using a tackifier or by "punching" it into the soil mechanically (incorporating).
- A tackifier acts to glue the straw fibers together and to the soil surface. The tackifier shall be selected based on longevity and ability to hold the fibers in place.
- A tackifier is typically applied at a rate of 140 kg/ha (125 lb/ac). In windy conditions, the rates are typically 200 kg/ha (178 lb/ac).
- Methods for holding the straw mulch in place depend upon the slope steepness, accessibility, soil conditions and longevity. If the selected method is incorporation of straw mulch into the soil, then do as follows:
 - Applying and incorporating straw shall follow the requirements in Standard Specifications Section 20-3.03.
 - On small areas, a spade or shovel can be used.

- On slopes with soils, which are stable enough and of sufficient gradient to safely support construction equipment without contributing to compaction and instability problems, straw can be “punched” into the ground using a knife-blade roller or a straight bladed coultter, known commercially as a “crimper.”
- On small areas and/or steep slopes, straw can also be held in place using plastic netting or jute. The netting shall be held in place using 11 gauge wire staples, geotextile pins or wooden stakes. Refer to BMP SS-7, “Geotextiles, Plastic Covers and Erosion Control Blankets/Mats.”

Maintenance and Inspections

- The key consideration in Maintenance and Inspection is that the straw needs to last long enough to achieve erosion control objectives.
- Maintain an unbroken, temporary mulched ground cover while DSAs are non-active. Repair any damaged ground cover and re-mulch exposed areas.
- Reapplication of straw mulch and tackifier may be required by the Resident Engineer (RE) to maintain effective soil stabilization over disturbed areas and slopes.
- After any rainfall event, the Contractor is responsible for maintaining all slopes to prevent erosion.



Standard Symbol

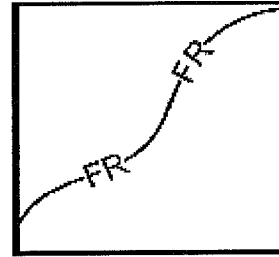
BMP Objectives

- Soil Stabilization
- Sediment Control
- Tracking Control
- Wind Erosion Control
- Non-Storm Water Management
- Materials and Waste Management

Definition and Purpose A fiber roll consists of wood excelsior, rice or wheat straw, or coconut fibers that is rolled or bound into a tight tubular roll and placed on the toe and face of slopes to intercept runoff, reduce its flow velocity, release the runoff as sheet flow and provide removal of sediment from the runoff. Fiber rolls may also be used for inlet protection and as check dams under certain situations.

■ Appropriate Applications

This BMP may be implemented on a project-by-project basis with other



BMPs

when determined necessary and feasible by the RE.

■ slopes

Along the toe, top, face, and at grade breaks of exposed and erodible to shorten slope length and spread runoff as sheet flow.

- Below the toe of exposed and erodible slopes.

■ the (refer to

Fiber rolls may be used as check dams in unlined ditches if approved by Resident Engineer (RE) or the District Construction Storm Water Coordinator SC-4 "Check Dams").

■ or the Inlet

Fiber rolls may be used for drain inlet protection if approved by the RE District Construction Storm Water Coordinator (refer to SC-10 "Storm Drain Protection").

- Down-slope of exposed soil areas.
- Around temporary stockpiles.
- Along the perimeter of a project.

- Limitations ■
- Runoff and erosion may occur if fiber roll is not adequately trenched in.
 - Fiber rolls at the toe of slopes greater than 1:5 may require the use of 500 mm (20" diameter) or installations achieving the same protection (i.e., stacked smaller diameter fiber rolls, etc.).
 - Fiber rolls may be used for drainage inlet protection if they can be properly anchored.
 - Difficult to move once saturated.
 - Fiber rolls could be transported by high flows if not properly staked and trenched in.
 - Fiber rolls have limited sediment capture zone.
 - Do not use fiber rolls on slopes subject to creep, slumping, or landslide.

Standards and Specifications

Fiber Roll Materials ■

Fiber rolls shall be either:

- (1) Prefabricated rolls.
- (2) Rolled tubes of erosion control blanket.

Assembly of Field Rolled Fiber Roll

- Roll length of erosion control blanket into a tube of minimum 200 mm (8 in) diameter.
- Bind roll at each end and every 1.2 m (4 ft) along length of roll with jute-type twine.

Installation

- Slope inclination of 1:4 or flatter: fiber rolls shall be placed on slopes 6.0 m apart.
- Slope inclination of 1:4 to 1:2: fiber rolls shall be placed on slopes 4.5 m apart.
- Slope inclination 1:2 or greater: fiber rolls shall be placed on slopes 3.0 m apart.
- Stake fiber rolls into a 50 to 100 mm (2 to 4 in) trench.

- Drive stakes at the end of each fiber roll and spaced 600 mm (2 ft) apart if Type 2 installation is used (refer to Page 4). Otherwise, space stakes 1.2 m (4 ft) maximum on center if installed as shown on Pages 5 and 6.
- Use wood stakes with a nominal classification of 19 by 19 mm (3/4 by 3/4 in), and minimum length of 600 mm (24 in).
- If more than one fiber roll is placed in a row, the rolls shall be overlapped; not abutted.

Removal

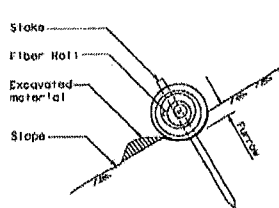
- Fiber rolls are typically left in place.
- If fiber rolls are removed, collect and dispose of sediment accumulation, and fill and compact holes, trenches, depressions or any other ground disturbance to blend with adjacent ground.
- Repair or replace split, torn, unraveling, or slumping fiber rolls.

Maintenance and Inspection

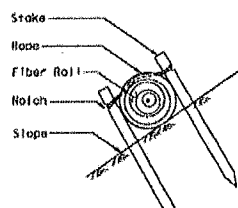
- Inspect fiber rolls when rain is forecast. Perform maintenance as needed or as required by the RE.
- Inspect fiber rolls following rainfall events and a least daily during prolonged rainfall. Perform maintenance as needed or as required by the RE.
- Maintain fiber rolls to provide an adequate sediment holding capacity. Sediment shall be removed when the sediment accumulation reaches three quarters (3/4) of the barrier height. Removed sediment shall be incorporated in the project at locations designated by the RE or disposed of outside the highway right-of-way in conformance with the Standard Specifications.

SC-5

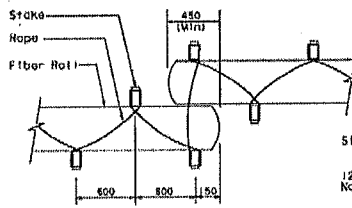
Fiber Rolls



SECTION
TEMPORARY FIBER ROLL
(TYPE 1)



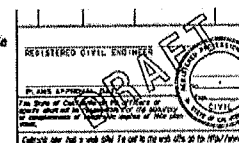
SECTION
TEMPORARY FIBER ROLL
(TYPE 2)



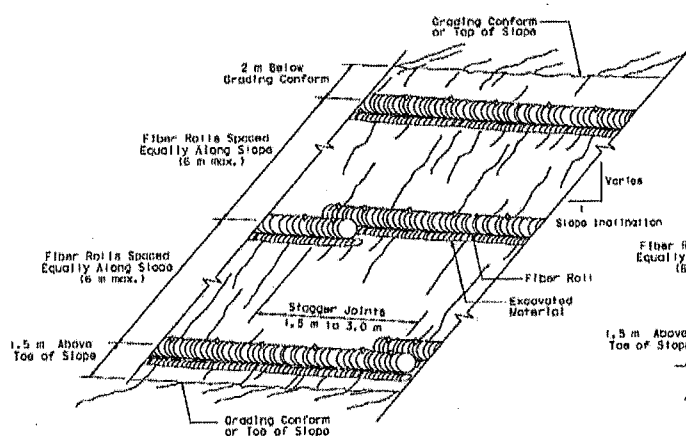
PLAN



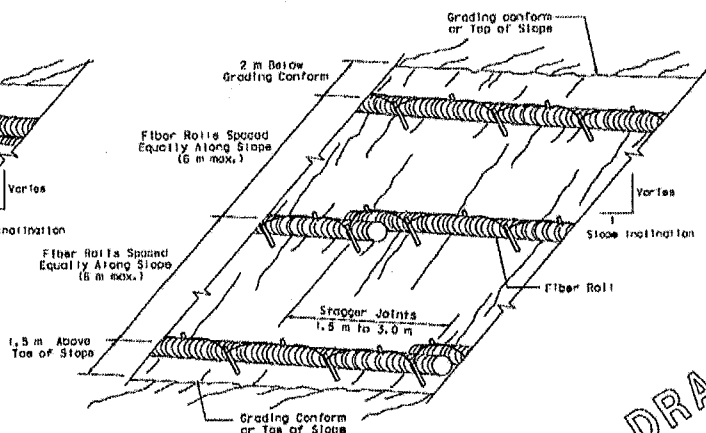
ELEVATION
NOTCH DETAIL



NOTE
1. Temporary fiber roll spacing varies depending upon slope inclination.



PERSPECTIVE
TEMPORARY FIBER ROLL (TYPE 1)

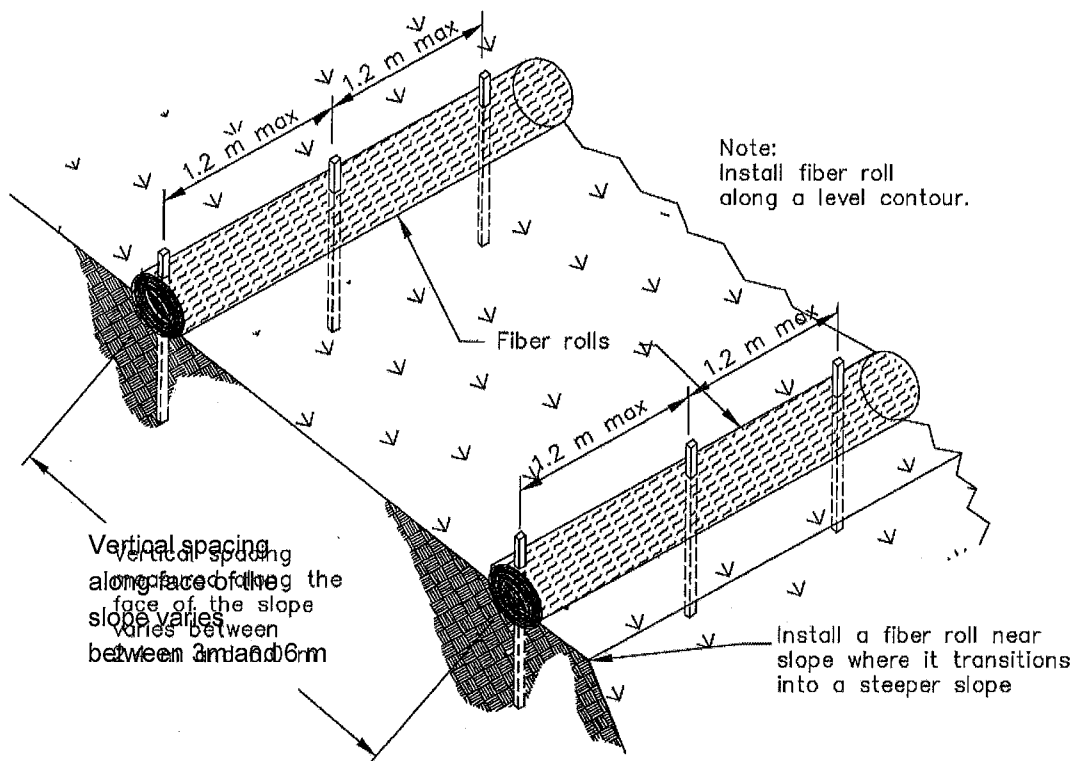


PERSPECTIVE
TEMPORARY FIBER ROLL (TYPE 2)

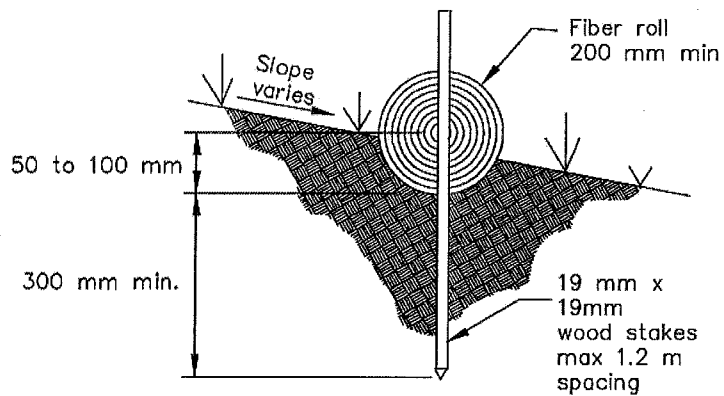
TEMPORARY WATER POLLUTION CONTROL DETAILS

DRAFT



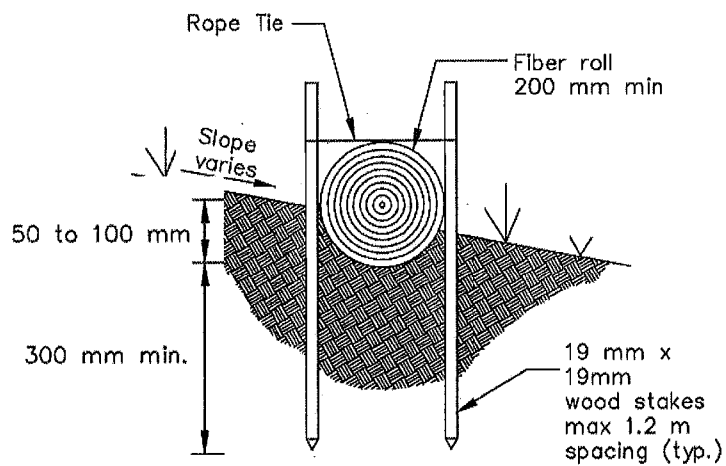
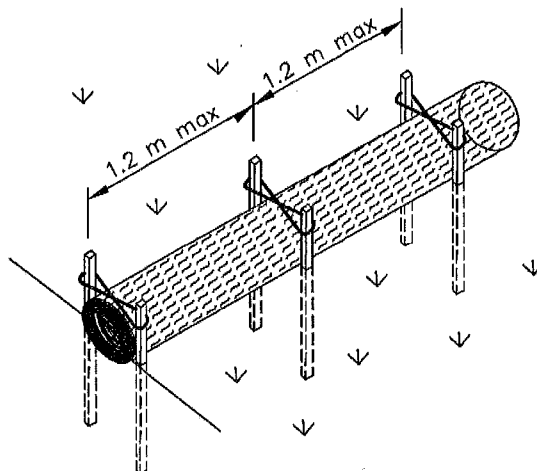


TYPICAL FIBER ROLL INSTALLATION
N.T.S.



ENTRENCHMENT DETAIL
N.T.S.

N.T.S.



OPTIONAL ENTRENCHMENT DETAIL