California Regional Water Quality Control Board
North Coast Region
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Edmund G. Brown, Jr.,
Governor

Complaint Inspection Report
Erik Windschitl Burnt Ranch Property

Date:	December 9, 2010
To:	Diana Henrioulle-Senior Water Resource Control Engineer David Leland-Supervising Water Resource Control Engineer
From:	Stormer Feiler, Environmental Scientist,
Subject:	Complaint Inspection of Erik WIndschitl Property
Landowner:	Erik WIndschitl
Physical Address:	Undeveloped Parcel with tentative address of 1520 FS Road NO9
County:	Trinity
APN Parcel #:	011-020-05-00 (159 acre parcel)
Mailing Address:	P.O. Box 144 Burnt Ranch, CA 95527
Watershed:	Trinity River, Mill Creek, (Cal Water version 2.2 #1106.130303)
Violations:	Violation of Prohibitions 2 of the Water Quality Control Plan for the North Coast Region (Basin Plan) Action Plan for Logging, Construction, and Associated Activities and violation of the general construction storm-water permit.

Inspection Attendance on November 3, 2010
Stormer Feiler-Regional Water Board Environmental Scientist
Bruce Beck-CAL FIRE
Shane Cunningham – CAL FIRE
Ryan Harvey-Special Agent (Federal)

Introduction
This report provides a written record of the observations and findings I made on a November 3, 2010 inspection of the Windschitl property, Trinity County APN # 011-020-05-00 (Site). This inspection was conducted in response to a complaint received from CAL FIRE regarding potential water quality violations.

This report identifies potential and existing violations of the Water Quality Control Plan (Basin Plan) for the North Coast Region, and the Porter Cologne Water Quality Control Act (California Water Code). The findings and recommendations made within this report are limited to this authority.

Purpose of Inspection

The purpose of this inspection was to review the Site for active or potential water quality violations.

General Description

The Site is wooded with primarily Douglas Fir, White Fir, Red Fir, madrone and oaks. Drainage from the property discharges to Mill Creek and unnamed tributaries, which also lead to Mill Creek, all of which are blue-line streams on USGS Topographic Maps (USGS 12.5 minute Quads Ironside Mtn. and Hyampom Mtn.). Mill Creek is tributary to the Trinity River, which is listed as impaired on the federal Clean Water Act section 303(d) list due to excessive sediment. Steelhead trout and Chinook salmon are known to reside in these streams and rivers.

Inspection Observations and Findings

As noted above, the inspection team consisted of Cal Fire inspectors Bruce Beck, Shane Cunningham and Regional Water Board staff, Stormer Feiler. We reviewed the property by walking and driving. At the Site, employees of the property owner, Mr. Windschitl, were actively operating heavy equipment on the access road, and at other locations on the property.

Site Introduction

The parcel is 159 acres in size and was previously under permit for timber harvest (THP# 2-02-072 TRI). Site soils appear to primarily consist of a sandy loam with clay and with shale like particles scattered throughout. Some clay is visible in cut banks. The recent construction of pads encompasses approximately 6+ acres of ground disturbance; the pond, and road construction and reconstruction increases the disturbed area further. The slopes are steep and forested, with tree spacing ranging from 35-50 feet down to 20-25 feet between trees. The slopes are steep, ranging from 60% up to 100% or greater.

As discussed in more detail below, the site has 6 pads constructed from what appear to be unconsolidated earthen materials developed on the tops of steep mountains, two ponds dammed by berms developed from what appear to be loose unconsolidated earthen fill materials, and multiple roads have been recently constructed or re-constructed. The construction of these features has resulted in significant amounts of

earthen material side cast onto steep slopes that lead to watercourses. These slopes and the side-cast earthen materials are on slopes that range from 70% to in excess of 100%.

Developed Roads and Pads

As noted above, active road reconstruction was occurring on the day of the inspection; these activities were conducted under the supervision of a Mr. Tom Berrien. Mr. Berrien owned the excavator and caterpillar tractor that were working onsite. He did not own the water truck or backhoe that was also on the property. Mr. Berrien does not have a contractor's license and did not know of any permits for the work being conducted on the property. Mr. Berrien stated he did not think there was a timber harvest plan or a general construction storm-water permit issued for the work being conducted on the property. Mr. Berrien stated that he was only outsloping the roads and installing some rolling dips. While there, we observed Berrien employees hauling soil to apply to the road surface of the lower property entrance road. Cal Fire employee Bruce Beck issued a citation to Mr. Berrien the day of the inspection.

The inspection party noted that significant excavation of hill slopes was required to develop the observed pads and create the observed 100,000+ or - cubic yards of side cast earthen materials.

It was evident that most of the work we observed during the inspection had been completed this year. The first rains, which occurred roughly from October 20-24 caused multiple small debris flow failures from off the edge of the large pads constructed of what appear to beunconsolidated earthen fills. We observed that one of these debris flows had travelled several hundred feet from pad #2 on the attached map down to and across the Forest Service Road FS Road NO9. This flow was impressive in that the sediment appeared to flow as a highly liquid torrent that carried across the road with little apparent reduction in momentum at the change in grade provided by the road.

Based upon these observations there appears to be a high potential for catastrophic failure of the apparently unconsolidated earthen fill material that has been side cast from recently constructed roads and pads.

To reduce the potential for catastrophic failure and sediment delivery to streams in an impaired watershed I would recommend that all perched fill material on the pads be pulled back and compacted back into the excavated areas in a manner to mimic natural surface contours that facilitate dispersed surface drainage from precipitation or snowmelt. It is likely that excess spoils will be generated. Excess spoils should be end hauled to a stable location where there is no threat of delivery to surface waters, compacted and treated with standard erosion control management practices.

Side cast earthen materials off of roads that are near a surface stream or defined swale should be pulled back and stabilized in a location where adequate compaction can be achieved and there is no potential for delivery to surface waters. After compaction these excess materials should be treated with standard erosion control management practices.

Ponds

As mentioned above, we observed two ponds dammed with berms that were constructed recently from apparently unconsolidated earthen fill materials. Observations indicate that an excavator was used to do the work. There was no evidence to suggest that the fills forming the berms had been engineered or compacted to engineering standards.

The lower pond identified on the attached map was constructed in what appears to be an ephemeral channel that during past logging was used as a skid trail. The skid pattern was still in evidence in the swale/stream bottom and is likely obscuring the original drainage pattern. The earthen dam was already failing from the first rains; erosion was clearly evident in the downstream fill slope.

The Upper pond identified on the attached map is constructed adjacent to a Class II[1] stream channel. The earthen berm damming this impoundment appears to be constructed of unconsolidated earthen materials, which were failing, apparently from the first rains. The downstream fill face of the berm evidenced erosion that was delivering approximately 2-3 cubic yards of sediment to within approximately 25 feet of the Class II stream channel. This erosion is likely to progress through the winter and to result in substantial delivery of sediment to downstream receiving waters. In addition a pad of apparently unconsolidated earthen material was constructed directly below this impoundment within 10-12 feet of the stream.

Based upon the observations described in this report, the dams should be removed to reduce the potential for catastrophic failure of earthen fill materials. The areas of excavation should be restored by compacting earthen fill in engineered lifts assuring maximum compaction and shaping to mimic natural surface drainage patterns of dispersed flows. This work should be followed by a full re-planting of native vegetation to ensure surface stabilization and remediation success. It is likely that excess spoils will be generated. Excess spoils should be end hauled to a stable location where there is no threat of delivery to surface waters, and then compacted and treated with standard erosion control management practices.

[1] A Class II stream under California Forest Practice Rules is a stream capable of providing habitat to non-fish aquatic species, or a stream within 1000 feet of a Class I stream.

Construction of an impoundment may require a water rights permit from the county, State Water Resources Control Board's Division of Water Rights; a California Department of Fish and Game 1602 agreement; an Army Corps of Engineers (ACOE) section 404 permit, and a State of California section 401 Water Quality Certification; and compliance with the California Environmental Quality Act. It does not appear that any of these permits or authorizations has been received for the construction of the impoundments on the Site.

Removal of the impoundments may require permits from other county, state, and federal agencies, the discharger should consult with these agencies to determine if additional permits are required. Depending upon the nature and severity of the sites, some of this work may potentially be accomplished through emergency exemptions.

Inspection Photographs and Observations

The following set of photographs is provided with a heading that identifies the violations and provides recommendations as to remediation.

Roads and Pads

November 3, 2010 Photograph of Forest Service Road FSNO9 at the driveway to the Windschitl property where earthen materials appear to have been recently side cast over the edge of the road.

November 3, 2010 photograph a closer view of the side cast earthen material at the base of Windschitl property driveway. Here earthen materials were pushed over the edge of Forest Road NO9. Straw mulch was applied as the earthen materials had apparently failed during the first rains.

November 3, 2010 Pad #1 approximately an acre in size.

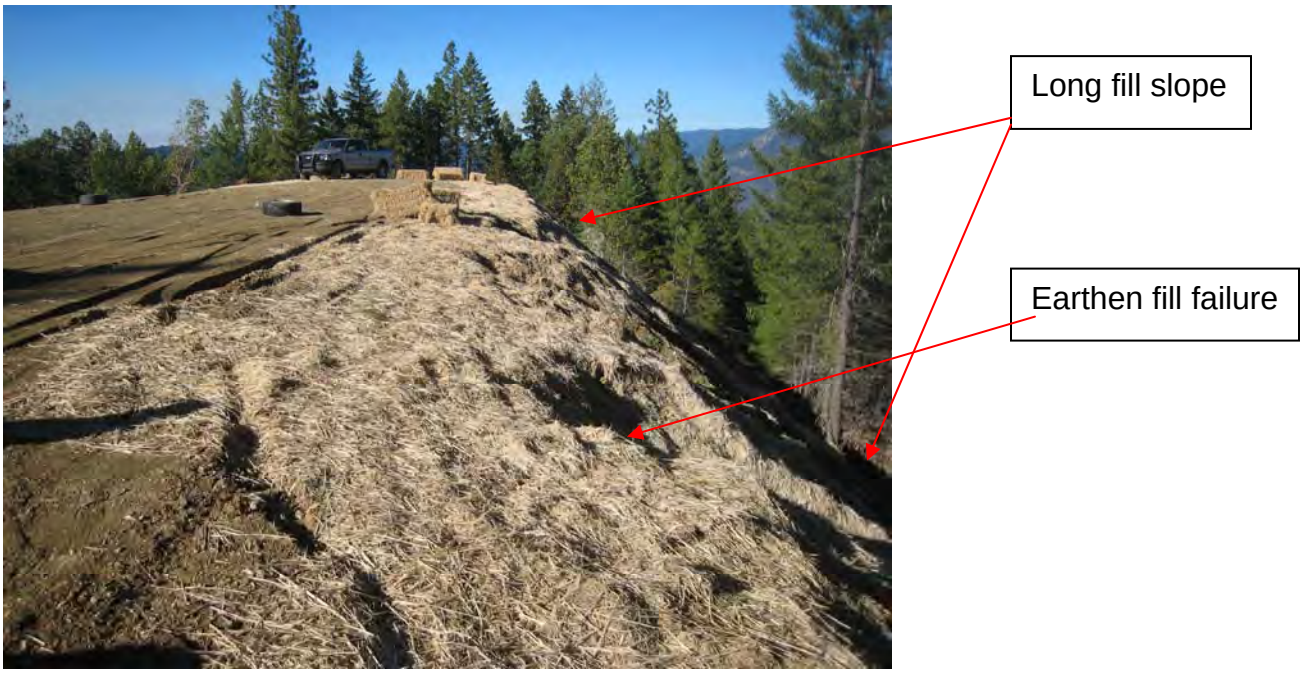
November 3, 2010-Grow site cut into slope near Pond 2.

November 3, 2010-New road construction down to Class II stream and site of Pond 2 construction.

November 3, 2010 Pad 2 this is the pad that failed and delivered sediment down and across FS Road NO9.

November 3, 2010 Pad 2 note the failing fill slope partially treated with hay and the fill burial around the trees.

November 3, 2010 pad 2 photo of debris slide gully and trees buried within earthen fills.



November 3, 2010 pad 2 edge of pad failing from first rains (note the long fill slope and material depth).

November 3, 2010 pad 2 fill slope failing after first rains

November 3, 2010 Pad 3 home site and possible grow site

November 3, 2010 Pad 3 home site above previous photo

November 3, 2010 pad 4 recently constructed earthen pad of unconsolidated fill material.

November 3, 2010 about 80 feet of a container partially buried on the North edge of pad 4 (note the unconsolidated nature of earthen fill materials)

November 3, 2010 access road up to Pad 4 (note the rutting from pick up trucks in the loose earthen fill materials)

November 3, 2010 pad 5 at top of property

November 3, 2010 access road to pad 5 (note the failing side cast off the road edge)

November 3, 2010 close up of failing side cast materials on road accessing pad 5 (note how these failing earthen materials are partially obscuring the lower road)

Ponds

November 3, 2010 lower pond earthen dam

November 3, 2010 overview of lower pond

November 3, 2010 view from off lower pond earthen dam looking down at the old skid trails and truck road that appear to have been developed in the center of a drainage. The fill failure is also visible along the right side of the photo.

November 3, 2010- Upper pond is an off stream pond constructed directly adjacent to a Class II Stream

November 3, 2010 Upper pond earthen fill berm/dam (Note the cracks forming in the fill that may indicate poor compaction and soil cohesion)

November 3, 2010 Upper pond fill failure down towards Class II stream.

Discussion

The photo record from the November 3, 2010 inspection illustrates many locations where excess earthen materials have been placed on steep slopes, increasing the potential for failure, and near watercourses, where the apparently unconsolidated fill materials have a high potential to erode and deliver. These earthen fill materials evidenced erosion from the first rains and are likely to erode further with additional precipitation and snow. Photographs illustrate that straw has been applied to failing side-cast earthen materials in some locations. This application of straw to these areas will not provide any protection against slope failure and/or mass wasting, and may be inadequate to control surface erosion considering the magnitude of the sites that threaten to deliver sediment through this winter period. The pads and ponds illustrated in the inspection photographs all threaten the discharge of sediment to surface waters within the Trinity River watershed. The construction of these facilities and the threatened discharge represent violations of the Basin Plan and the NPDES Construction Storm Water program.

Water Quality Control Plan for the North Coast Region (Basin Plan)

The Basin Plan contains specific standards and provisions for maintaining high quality waters of the state and restoring waters of the state in an impaired condition. The Basin Plan's "Action Plan for Logging, Construction, and Associated Activities" includes two prohibitions:

> Prohibition 1 – "The discharge of soil, silt, bark, slash, sawdust, or other organic and earthen material from any logging, construction, or associated activity of whatever nature into any stream or watercourse in the basin in quantities deleterious to fish, wildlife, or other beneficial use is prohibited."
>
> Prohibition 2 -"The placing or disposal of soil, silt, bark, slash, sawdust, or other organic and earthen material from any logging, construction, or associated activity of whatever nature at locations where such material could pass into any stream or watercourse in the basin in quantities which could be deleterious to fish, wildlife, or other beneficial uses is prohibited."

The discharge and threatened discharge of earthen materials to waters of the state described in this report represents a violation of Prohibition 1 and Prohibition 2 of the Action Plan for Logging, Construction and Associated Activities.

NPDES Construction Storm Water Program

The Regional Water Board typically implements the federal Construction Storm Water Program through a National Pollutant Discharge Elimination System (NPDES) general

permit for storm water discharges associated with construction and land disturbance activities (Water Quality Order No. 2009-0009 DWQ) (Construction Permit). This is a statewide permit developed by the State Water Resources Control Board and overseen by the nine Regional Water Boards. The permit is designed to ensure that construction storm water discharges are managed to control pollutants, to prevent offsite sedimentation, and to comply with water quality objectives.

The Construction Permit requires the project proponent submit a Notice of Intent (NOI) with the State Water Board, and develop and implement a Storm Water Pollution Prevention Plan (SWPPP) that includes best management practices to eliminate the discharge of waste to the land and the waters of the State. The SWPPP must be maintained on site and revised as necessary to reflect procedures necessary to control the discharge of waste. If a construction Project proponent has not submitted an NOI and has not developed and implemented a SWPPP, then the Project is in violation of both of these requirements. Should sediment from the Project discharge to receiving waters, that would constitute additional violations.

Summary

Based on my observations, it is evident that mitigation is required to ensure that erosion and sediment delivery to surface waters is reduced and slope stability is maintained over both the short and long term. To control erosion, the discharger should use the following definition of a controllable sediment source to guide evaluation of the Site as recommended below.

A controllable sediment sources is a site or location that meets all of the following conditions:

1. Is discharging or has the potential to discharge sediment to waters of the State in violation of the Basin Plan, or California Water Code.
2. Was caused of affected by human activity, and
3. May feasibly and reasonably respond to prevention and minimization management measures.

In addition the discharger should develop a full restoration plan for all affected areas that require additional work to ensure long and short term stability, this restoration plan should include replanting of affected areas.

Recommendations

All sites of recent construction should be reviewed by a Professional Geologist and evaluated and assessed for short and long term stability, where relevant recommendations should be made to prevent discharge of sediment to waters of the

State and United States. The assessment should include a stamped report describing the site and characterizing and evaluating the stability of the fill materials used in construction. The report should also characterize and calculate fill volumes that have a potential to fail in cubic yards or tons. All calculations and measurements used should be included in or attached to the report.

An Erosion Control Plan should be developed and stamped by a licensed professional experienced in developing erosion control and slope stability mitigation. The erosion control plan should provide estimates of potential discharge fill volumes and recommend mitigation for areas that are likely to fail and deliver sediment to waters of the state and United States. In addition, the ECP should include an assessment of priority for remediation for each site, restoration planting requirements to stabilize areas of mitigation work, and a time schedule to accomplish all repair and restoration work by October 15, 2011.

The following excerpts from this report should be used as guidance in meeting the requirements of the above recommendations.

After Regional Water Board approval, the Erosion Control Plan should be implemented immediately with all work completed date no later than October 15, 2011

“To reduce the potential for catastrophic failure and sediment delivery to all perched fill material on the pads should be pulled back and compacted back into the excavated areas in a manner to mimic natural surface contours that facilitate dispersed surface drainage by precipitation or snowmelt. It is likely that excess spoils will be generated. Excess spoils should be end hauled to a stable location where there is no threat of delivery to surface waters, and then compacted and treated with standard erosion control management practices.

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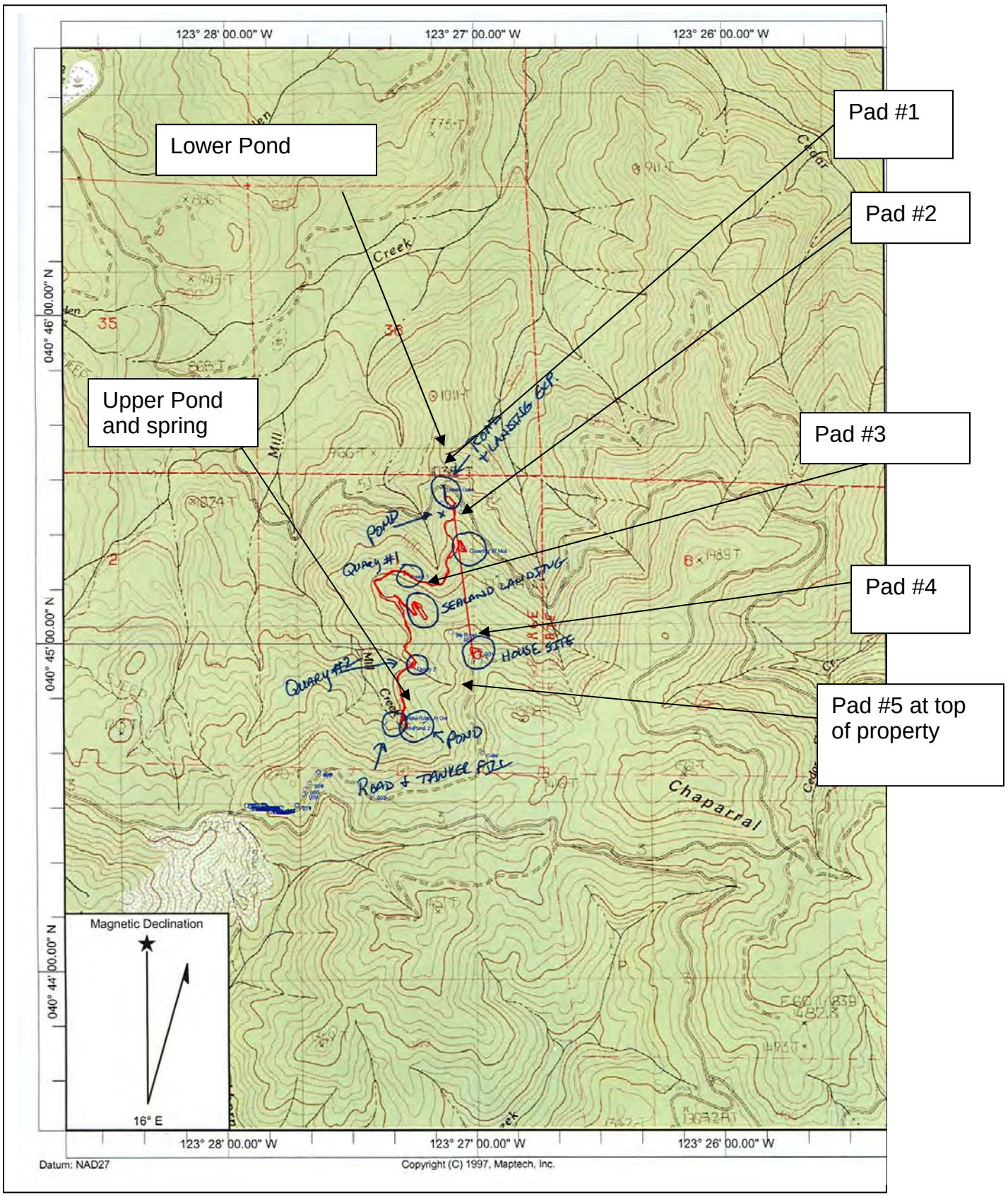
location where there is no threat of delivery to surface waters, and then compacted and treated with standard erosion control management practices.

The scope of work recommended within this report may require permits from other county, state and federal agencies in addition to Regional Water Board requirements. The discharger should check with these agencies to ensure compliance with all applicable laws and regulations.


Lower Pond
Upper Pond and spring
Pad #1
Pad #2
Pad #3
Pad #4
Pad #5 at top of property
123° 28' 00.00" W
123° 27' 00.00" W
123° 26' 00.00" W
040° 46' 00.00" N
040° 45' 00.00" N
040° 44' 00.00" N
Magnetic Declination
16° E
Datum: NAD27
Copyright (C) 1997, Maptech, Inc.
Creek
Mill
POND
Quarry #1
SEAPLAND LANDING
HOUSE SITE
Quarry #2
ROAD & TAILER FILL
Chaparral