

GREEN DIAMOND RESOURCE CO HCP FOREST PRACTICES CROSSWALK

Green Diamond Resource Company (GDRCo) is updating the Habitat Conservation Plan (HCP) Crosswalk to Standard Forest Practices (FP). The original cross walk, established in 2000, covered WAC 222-24 Roads and 222-30 Timber Harvest. The proposed crosswalk includes changes to the HCP prescriptions through minor modification or other consultation with regulators over the last 10 years, as well as replacement with WAC 222-22 Watershed Analysis rain-on-snow and slope stability prescriptions with the equivalent HCP provision.

Background

Current statues e.g. WAC 222-12-041 “Use of approved state and federal conservation agreements for aquatic resources” allows for the use of certain approved plans to exempt covered properties and activities from Forest Practice (FP) rules¹. GDRCo’s forest practices that would otherwise be regulated under WAC are compliant with Washington law when they are consistent with the prescriptions of the HCP when the following criteria are met:

- 1(a) The forest practices rule pertains to a species included within aquatic resources and that species is covered by an agreement listed in subsection 3 i.e. Habitat Conservation Plan (HCP)

- (b) The primary risk(s) to public resources addressed by the forest practices rules (e.g., delivery of sediment to waters from roads, harvest activities, or mass wasting events; chemical contamination of waters; inadequate recruitment of large woody debris; delivery of thermal energy to waters) is addressed in the agreement. The agreement may address the risk using different prescriptions, approaches, or timing than the forest practices rule. *Each topic is covered in the HCP, minor modification submittals or agency consultations.*

- 2(a) When the landowner submits an application or notification, *the landowner must include a proposed list of specific rules replaced i.e. the crosswalk*

- (b) The department will review and confirm whether the rules identified by the landowner meet the criteria identified in subsection (1) above i.e., *a copy of the crosswalk is submitted with the Forest Practice Application (FPA).*

- (c) At the request of the department, the landowner will confer in good faith with the department and provide the department and other interested parties with information necessary to assist the department in implementing this section. The HCP has a Scientific Advisory Team that has representation of all stakeholders in the HCP area: USFWS, NOAA, EPA, DOE, DNR, WDFW, Squaxin, Skokomish and Quinault Tribes.

The FPA includes the question: are you substituting prescriptions from an approved state or federal conservation agreement or watershed analysis? If the answer is YES, a crosswalk sheet is included in the FPA to reference which prescriptions will be used and which WACs are being substituted. GDRCo has provided the HCP prescriptions, supporting documentation and an HCP crosswalk to be kept on file with the DNR regional offices where GDRCo NW submits FPAs.

¹ in chapters [222-22](#) (Watershed Analysis) through [222-38](#) (Forest Chemicals)

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CROSSWALK

Table 1 Crosswalk between HCP and WAC

Used	Forest Practice Rule WAC	HCP Prescription Section Reference
YES	WAC 222-16-030 Water typing system	2.2.2.2 HCP Channel Classification Scheme (summary in Table 3 next page)
	WAC 222-16-031 Interim water typing system (3)b(i)b	Consultation under WAC 222-16-031 Interim water typing system (3)b(ii)C Informal Conference 7/1/2009
	WAC 222-16-035 Wetland typing system	5.2.3.2 HCP Wetlands Protection (Summary in Table 3 next page)
	WAC 222-16-051 (1) (i)-(g)	5.2.5 Unstable Slope protection & process The Watershed Analysis checklist is not needed
	WAC 222-22	
	WAC 222-22 100 (2)	
	WAC 222-24-020 – Road Location	Sec. 5.2.4.5 New Road Location, Design and Construction (including GDRCo Forest Road Specifications)
	WAC 222-24-025 – Road Design	Sec. 5.2.4.5 New Road Location, Design and Construction
	WAC 222-24-026 – Temporary Roads	Sec. 5.2.4.5 New Road Location, Design and Construction
	WAC 222-24-030 (1)-(9) – Road Construction	Sec. 5.2.4.5 New Road Location, Design and Construction
	WAC 222-24-030 (10)-(11) – Road Construction	Minor modification to 5.3.1(g)
	WAC 222-24-035 (2)(c) -- to the extent applicable to truck roads – Landing Locations	Sec. 5.2.4.5 New Road Location, Design and Construction
	WAC 222-24-040 (1) – Water Crossings WAC 222-24-070 (1)-Typed Waters <i>Np & Ns Excepted</i>	General Water Crossing HPA (# 119637-1) Type F waters
	WAC 222-24-040 (2)-(5) Water Crossings	Sec. 5.2.4.5 New Road Location, Design and Construction General Water Crossing HPA (# 119637-1)
	WAC 222-24-050 – Road Maintenance	Sec. 5.2.4.2 Road Remediation
	WAC 222-24-051 – Road Maintenance Schedule	Sec. 5.2.4.1 Road Inventory
	WAC 222-24-052 (other than (3)(e) and (5)) Road maintenance Standards (excepting (3)(e) DNR approval of abandoned roads and (5) brush control	Sec. 5.2.4.3 Road Maintenance (including STC Forest Road Specifications)
	WAC 222-30-010 (2)-(4) Policy Timber Harvesting in (2) riparian areas, (3) conversion of riparian areas, and (4) wetlands	Sec. 5.2.4.5 New Road Location, Design and Construction (including STC Forest Road Specifications) and 5.2.7 Experimental Management Minor Modification 2008

Table 1 (cont.)

Used	Forest Practice Rule WAC	HCP Prescription Section Reference
	WAC 222-30-020 – Harvest Unit Planning & Design as applied to: W. WA riparian Mgmt. Zones (5) Riparian leave tree areas (6) Forested Wetlands (7) Wetland Mgmt. Zones (8) Type A & B wetlands (11) Wildlife reserve tree management (12) Channel migration zones	(note: riparian conservation reserve widths are shown in Table 4) Sec. 5.2.1 Riparian Conservation Reserves Sec. 5.2.1 Riparian Conservation Reserves Sec. 5.2.3.2 Wetlands Protection (Table 5) Sec. 5.2.3.2 Wetlands Protection (Table 5) Sec. 5.2.3.2 Wetlands Protection (Table 5) Sec. 5.2.2 Supplemental Wildlife Tree Sec. 5.2.1 Riparian Conservation Reserves
	WAC 222-30-021 – W. WA riparian management zones	Sec. 5.2.1 Riparian Conservation Reserves (including App. B., Tables 26 (w/redaction) & 27 revised)
	WAC 222-30-021	Appendix B: Riparian Guidelines Table 26 Section 5.2.7 as modified via Minor Modification
	WAC 222-30-030 – Stream bank integrity	Sec. 5.2.1 Riparian Conservation Reserves (including App. B., Tables 26 & 27)
	WAC 222-30-040 – Shade requirements to maintain stream temperature	Sec. 5.2.1 Riparian Conservation Reserves (including App. B., Tables 26 & 27)
	WAC 222-30-045 – Salvage logging within riparian management zones	Sec. 5.2.1 & Minor Modification to 5.2.7
	WAC 222-30-70*(2) a Ground Based Logging Riparian management zone <i>Excepting b & c</i>	
	WAC 222-30-70(11) WAC 222-16-080 Critical habitats (state) of threatened and endangered species 1(j) 1(a) Bald Eagle	HCP Section 5.3.1 Marbled Murrelet USFWS revision letter August 11, 2006 Requires plan with WDFW

WATER TYPES HCP & DNR COMPARISON

Table 2 DNR Water Types and HCP Channel classes. The HCP channel classes are based on geomorphic characteristics, not flow or fish presence. Although a channel class may have segments that meet different DNR types, the most prevalent condition for each channel class is presented below.

DNR Type WAC 222-16-30	HCP Channel Class(s) that most often (based on % of stream length) equate to DNR Water Types.
Ns	AGL-Qo1, CIS-C1, ROP-Qc2, SIG-L1, SIG-M1, SIG-Qc1, SIG-Qo1,
Np	AGL-Qo2, CUP-C1,2, CIS-Qc1, ROP-Qc1, SIG-L2, SIG-2,3, SIG-Qc2,
F	AGL-Qa6, AGL-Qo3,4,5,6,7,8, CIS-C5, CIS-Qc3, CUP-C3,4,5,6,7,8, ROP-C7, ROP-Qa7, ROP-QC3,4,5,6,7,8, SIG-L3,4, SIG-M4,5,6, SIG-Qa6, SIG-Qc3, SIG-Qo2,3,4
S	AGL-Qa6, AGL-Qo7,8, CIS-Qc3, CUP-C6,8, ROP-Qa7, ROP-Qc3,5,6,7,8, SIG-L5, SIG-M5

The channel classes found in Table 2 Ns row may in some cases meet criteria for an Np or an F as the channel classification is based on physical (gradient, confinement, width) criteria rather than flow or fish presence. Likewise channel classes in the Np row of Table 2 may contain fish and equate to a Type F. HCP buffers are assigned based on perennial flow or fish presence In the FPA the channel class along with the water type (Np, Ns, F, S) in parenthesis e.g. AGL-Qo2 (F) or AGL-Qo2 (Np) will be entered in the appropriate table. Fish bearing and perennial streams receive the same buffer (Table 3 below, Table 26 in HCP), Seasonal Channels have a ½ ac of retention (80 trees) per 1000' feet of stream; either in a continuous buffer or grouped at sensitive sites.

WETLAND TYPES

Table 3 DNR Wetland types contrasted with HCP wetland types.

DNR Type (WAC 222-16)		HCP Type	Management Prescription	
Non Forested Wetland	Type A >0.5ac	Scrub/ shrub	Riverine any size Depressional>0.5ac	Consistent with RCR 20m buffer:10m no-harvest & 10m 50% harvest
	Type B >0.025 <0.5 ac	Emergent	Riverine any size Depressional>0.5ac	Consistent with RCR 20m buffer:10m no-harvest & 10m 50% harvest
		Aquatic bed	Riverine any size Depressional>0.5ac	Consistent with RCR 40m buffer:10m no-harvest & 30m 50% harvest
Forested		Forested	Riverine, Depressional Slope >1ac	Consistent with RCR 50% harvest 50% harvest

UNSTABLE SLOPES

Unstable slopes are protected with no harvest, continuous leave areas. GDRCo identifies unstable slopes through a process equivalent (Figure 1) to the state process as outlined in WAC 222-10-030(1). These areas are identified through;

1. LiDAR based contour maps
2. Harvest Unit Environmental Reviews
3. Prior knowledge e.g. certain lithotopo units (e.g. Sedimentary Inner Gorge, Crescent Island and Alpine Glacial) are immediately subject to detailed review when combined with a certain slope form².
Watershed analysis reports, geotechnical reports, etc.

There are three potential scenarios:

1. GDRCo makes a determination that the slope is unstable, the area of instability will be removed from the active harvest area and No further analysis for unstable slopes is necessary
2. In the case that GDRCo is confident a feature is stable but the feature meets the FP rule definition of potentially unstable per 222-16-50 (1) (i) A-E²
3. In cases where a road must be located on a RIL or there is concerns as to risk to public safety, a separate permit (i.e. "roads only" FPA) with a mitigation report per Board Manual 16 will be submitted in addition to the harvest FPA

GDRCo will contract for an assessment by a Qualified Expert per **222-10-030**, comparable to the process described by WAC 222-10-030(1). GDRCo uses Licensed Engineering Geologists (LEG) aka "Qualified Expert", to review any areas within the harvest unit boundary with site conditions indicative of instability. Presuming that the Qualified Expert determines the slope is stable; a report ³ will be submitted (a *Class III Geologic Review* ⁴), along with a cross walked FPA. The Class III Geologic Review describes the analysis that substantiates the location of the harvest unit boundary. The FPA will be cross walked with the HCP in accordance with **WAC 222-12-041(2)** and processed according to WAC 222-16-0511

² 222-16-50 (1)(i) For the purpose of this rule, potentially unstable slopes or landforms are one of the following (A) Inner gorges, convergent headwalls, or bedrock hollows with slopes steeper than thirty-five degrees (seventy percent); (B) Toes of deep-seated landslides, with slopes steeper than thirty-three degrees (sixty-five percent); (C) Ground water recharge areas for glacial deep-seated landslides; (D) Outer edges of meander bends along valley walls or high terraces of an unconfined meandering stream; or (E) any areas containing features indicating the presence of potential slope instability which cumulatively indicate the presence of unstable slopes.

³ *The expert must describe the potentially unstable landforms in and around the application site and analyze: (a) The likelihood that the proposed forest practices will cause movement on the potentially unstable slopes or landforms, or contribute to further movement of a potentially unstable slope or landform; (b) The likelihood of delivery of sediment or debris to any public resources, or in a manner that would threaten public safety; and (c) Any possible mitigation for the identified hazards and risks.*

NOTE: If No Such Landforms Are Present No Further Analysis Is Necessary

⁴ The GDRCo Class III Geologic Report template is based on Geological Reports completed by Qualified Expert reviews successfully permitted forest practices determined to not any criteria that would require a Class IV special. The reviews used as examples were recommended by DNR Forest Practice Science Team Lead.

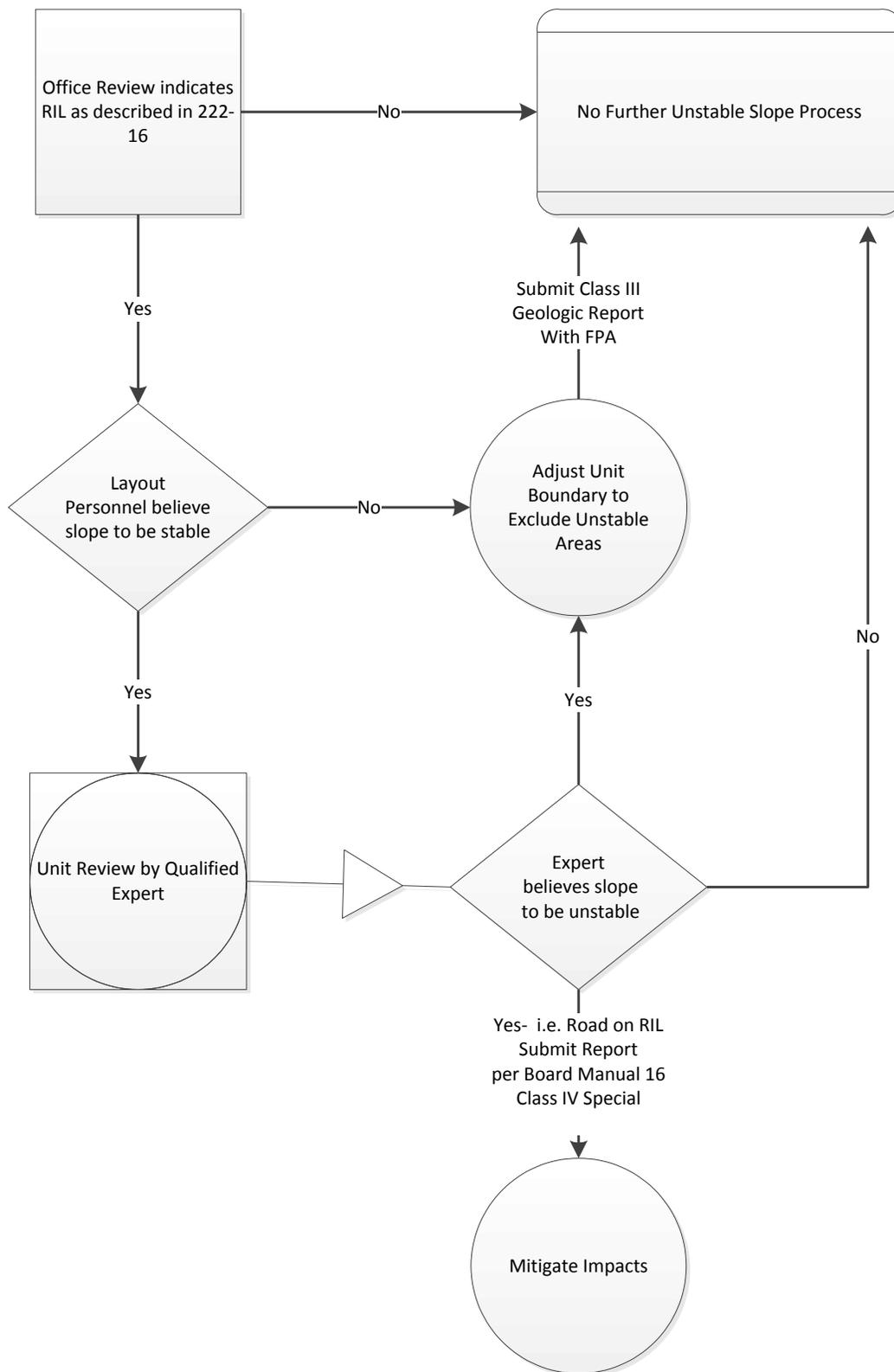


Figure 1 Decision process for unstable slopes. Under the HCP Crosswalk, harvest permits will go via the Class III Geologic Report route. The Mitigate Impacts route is in response to road locations on RIL or risk of person or property downslope of forest practice activity

CLASS III GEOLOGIC REVIEW *template*

Objective

This report documents the geotechnical evaluation of, and conclusions reached regarding, site conditions within Harvest Unit _____. GDRCo uses HCP prescriptions as alternatives to Standard Forest Practices and Watershed Analysis. The HCP prescription prohibits timber harvest on unstable slopes that have the potential to deliver to public resources. Our objective is to verify that the established harvest boundary (Figure 1) excludes areas of instability. Our conclusions are based on the review of existing data (Watershed Analysis, LiDAR, Geologic Maps) and field reconnaissance of selected areas with the greatest potential of instability. The attached map shows the survey route, locations of proposed roads, landings, streams and slope features identified during our site visit and the harvest unit boundary.

Office Review

The area of interest is underlain by Eocene aged terraced Crescent Formation (DNR 2005)..... The area is within the _____ Mass Wasting Map Unit 1, 2a, 3 and 6. The Watershed Analysis prescription calls for operational restrictions on _____. However, GDRCo has a HCP with an associated “crosswalk” that provides an exemption from WAC 222-22 (Watershed Analysis). Therefore, the sole criterion for modifying harvest patterns is the presence of unstable slopes within the harvest unit boundary. We reviewed a LiDAR generated bare earth hill shade model of the harvest unit. We did not observe any indication of _____ landslides within the boundaries of the unit. However, _____ slides were noted downslope of the harvest unit boundary, indicating that these areas were identified as unstable features and excluded from the unit.

Field Review

_____ performed a site visit on _____, with _____ of GDRCo. We observed _____ within the unit (Observation Points #.....,). In accordance with our recommendations, the harvest unit boundary was adjusted to remove this slope from the harvest unit as shown. We traversed _____ and did not find other unstable slopes or potentially unstable landforms within the unit boundary. We did note that _____ (Observation Point #,.....). The harvest unit boundary was located outside of these features.

Conclusion

Based on our office review and field reconnaissance, it is my opinion that Green Diamond has excluded potentially unstable landforms and areas of instability from the proposed harvest unit, consistent with the HCP prescription of “no harvest” on unstable slopes.

References

Figure (Map) The map will include

- | | | |
|---|---|---|
| 1. LiDAR Hill shade | 4. Evidence of Landslides | 7. Streams, and leave areas |
| 2. Harvest Unit Boundary | 5. Watershed Analysis Map | 8. Township, Range and Section numbers |
| 3. Existing and proposed roads and landings | 6. Unstable areas excluded from the harvest | 9. Survey route and/or observation points |

GDRCo UNSTABLE SLOPES MANAGEMENT HCP SECTION 5.2.5

GDRCo will:

- (a) *Use all of the existing information associated with mass wasting reports, causal mechanism reports and prescriptions currently set forth in each of the following formal Washington State Watershed Analyses: All such mass wasting information is hereby incorporated by reference and will be used only for the purposes of delineating unstable slopes.*

THIS DOES NOT IMPLY THAT GDRCo IS BOUND BY THE WATERSHED ANALYSIS PRESCRIPTIONS.

- (b) *Use information identified in **5.2.5(a)** above for delineating analogous unstable slopes in the unanalyzed portions of the Plan Area until the analysis identified in **5.2.5(c)** has been completed.*

THIS IS STANDARD OPERATING PROCEDURE FOR HARVEST LAYOUT DESCRIBED ON PAGE 5 OF THIS SUBMITTAL

- (c) *Within five years after the issuance of the initial ITP, complete an analysis of slope stability that delineates unstable slopes at a coarse scale and provides specific guidance for delineating unstable slopes at the timber harvest unit layout scale in the Plan Area where formal Watershed Analysis has not been conducted*

IN 2004, GDRCo RECEIVED A DRAFT COPY OF SUCH AN ANALYSIS FROM A VENDOR, EARTH SYSTEMS INSTITUTE. THE INFORMATION PROVIDED BY THE MODEL DID NOT ADD RIGOR OR PROVIDE ADDITIONAL INFORMATION IN THE IDENTIFICATION OF UNSTABLE LANDFORMS BEYOND WHAT COULD BE ASCERTAINED FROM EXISTING GIS DATA. GDRCo TERMINATED THE CONTRACT AND, AFTER CONSULTATION WITH THE SERVICES, IT WAS AGREED THAT GDRCo WOULD USE THE RESULTS OF THE DNR LANDSLIDE HAZARD ZONATION (LHZ) PROJECT INSTEAD. SPECIFIC GUIDANCE FOR DELINEATING UNSTABLE SLOPES (PG.5) HAD BEEN DEVELOPED BY THIS TIME. ULTIMATELY THE LHZ DID NOT PRODUCE A USEABLE METHOD TO MEET THE OBJECTIVE OF (C).

TO MEET THE OBJECTIVE, GDRCo OBTAINED LIGHT DETECTION AND RANGING, (LIDAR) DATA FROM THE PUGET SOUND LIDAR CONSORTIUM IN 2004 AND AUGMENTED THOSE DATA WITH MUCH HIGHER RESOLUTION LIDAR DATA FROM A PRIVATE VENDOR IN 2010. THESE DATA ARE USED BY GDRCo LAYOUT STAFF AND CONSULTING LICENSED ENGINEERING GEOLOGISTS IN IDENTIFYING AREAS OF INSTABILITY WITH MUCH MORE ACCURACY AND AT A MUCH FINER SCALE THAT WOULD HAVE BEEN POSSIBLE UNDER SCENARIOS ENVISIONED AT THE TIME OF HCP DRAFTING. GDRCo HAS COMMUNICATED THE METHODS USED TO MEET (C) TO THE SERVICES AND STAKEHOLDERS DURING ANNUAL SCIENTIFIC ADVISORY TEAM (SAT) MEETINGS, THUS MEETING THE CONDITIONS OF (E)

- (d) *Not harvest timber on slopes designated as unstable with the likelihood of delivery of sediment or debris to any public resources (i.e. fish, water quality, or capital improvements), or in a manner that would threaten public safety,*

THE ADDITIONAL LANGUAGE WAS ADDED, WITH APPROVAL BY THE SERVICES IN 2010 TO PROVIDE CONSISTENCY WITH OTHER SECTIONS OF THE HCP (PG. 6)

- (e) *Review with the Services and necessary slope stability experts the efficacy of all mass wasting related management guidelines and activities on a periodic five year basis.*

REGULAR MEETINGS WITH THE SAT FULFILLS THIS REQUIREMENT

MODIFICATION TO GDRCo HCP SECTION 5.2.5 Signature Block

Given the context that slope stability is used in the HCP, the limited effect of the change of language on management prescriptions or impacts to covered species, and the increase in consistency of the suggested language with WAC we request the Services approve the language change. Section 5.2.5 (d) to read *(d) not harvest timber on slopes designated as unstable with the likelihood of delivery of sediment or debris to any public resources, or in a manner that would threaten public safety.*

We do not anticipate any impact to listed species as a result of this minor modification. Instances where a resource consequence would occur are minimal to non-existent. As stated in the Implementation Agreement (IA) the Services have 60 days to respond to this request. However as it is in the interest of GDRCo to effect the change in the near future we have included a concurrence line at the bottom of this correspondence. Please feel free to contact me with questions or comments at (360) 427-4790.

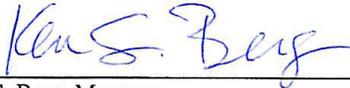
Sincerely



Eric Beach
Timberland Services Manager

Concurrence Signature Blocks

Please affirm your concurrence with signatures below:



Ken S. Berg, Manager
Washington Fish and Wildlife Office
U.S. Fish and Wildlife Service



Steven W. Landino
Washington State Director for Habitat Conservation
National Marine Fisheries Service

SUBMITTAL

Minor Modification to Green Diamond Resource Co (formerly Simpson) Olympic HCP Unstable Slopes- incorporation of delivery to definition/delineation

The Green Diamond Resource Co (GDRCo) Habitat Conservation Plan (HCP) emphasizes the protection and development of riparian forests as a primary strategy for satisfying the requirements of Section 10 of the ESA. The basic riparian forest strategy is supplemented by management prescriptions designed to address wetlands, unstable slopes, road construction, maintenance and decommissioning, and certain harvest limitations to modulate snow melt runoff. The HCP was been designed to minimize and mitigate any incidental take of the covered species by contributing to the maintenance and development of intact, ecologically connected, and naturally functioning aquatic and riparian ecosystems.

To ensure consistency within sections of the HCP as well as with the complementary Washington State Forest Practice Code, articulated in WAC 222, it is appropriate to append **HCP Section 5.2.5(d) Unstable Slopes Management Program** from the current language to *(d) Not harvest timber on slopes designated as unstable with the likelihood of delivery of sediment or debris to any public resources (i.e. fish, water quality, or capital improvements)¹, or in a manner that would threaten public safety*, the additional language underlined.

The HCP references unstable slopes in the context of slope stability effect on aquatic resources or the associated riparian forest. Examples include;

Section 6: Conservation Program Explained

- **6.2.1.1 Scope and character of the RCR Riverine.** Acreages are calculated on *unstable slopes within the functional riparian boundaries, delivering unstable slopes, outside but contiguous with, functional riparian boundaries*
- **6.2.1.2 RCR Boundaries** *Outer boundaries of the RCR are determined in two ways; by functional widths as designated in Table 26 of Appendix B or by the extent of adjacent unstable slopes as determined through provisions in Section 5.2.5,*
- **6.2.1.2.2 Unstable slope boundaries** *The RCRs are defined not only by the functional boundaries for each channel class but also by the extent of unstable, delivering side slopes. In many cases the delineation of unstable slopes describes a more extensive riparian leave area than would be derived by simply implementing the Break in slope (“BIS”) Channel migration or disturbance zone (“CMZ”) or (“CDZ”) Ordinary high water (“OHW”)*
- **6.2.1.2.3...** *all of the delivering unstable slopes are protected from harvest,*
- **6.2.5 Explanation of the Unstable Slopes Management Program** *Principal benefits to be derived from the application of the Unstable Slope Management Program (5.2.5) are a reduction in delivery of coarse and fine sediment to a wide array of channel classes.*

- *These delineation procedures and the HCP prohibition of timber harvest will directly benefit every aquatic species associations through a reduction of immediate site level and long term basin level cumulative effects. In particular, the flat tributary species association will enjoy improved breeding habitat. For coho and chum salmon this means less fine sediment in streambed gravels and for the Cottid species it means more open interstitial space beneath cobbles and boulders for nesting and egg incubation. Pool habitat will be deeper if less coarse sediment is delivered to low gradient streams and channel geometry will be maintained within limits conducive to cooler water temperatures.*

This section also references the Watershed Analysis Process (WAC 222-22) as integral to the HCP unstable slopes management e.g. *Simpson has conducted Washington State Watershed Analyses pursuant to WAC 222-22 in three Watershed Administrative Units:...These three watershed analyses were conducted on landforms that represent slope stability issues found in four of the five LTUs in the Plan Area. Simpson will apply the information on mass wasting processes from the formal analysis units.* Watershed Analysis has, as a central tenant, the concept of deliverability. That is, the likelihood that a material amount of wood, water, sediment, or energy will be delivered to fish habitat, streams, or capital improvements. Deliverability is dependent upon three conditions that must all be satisfied: 1) an impact is likely to occur; 2) the magnitude or size of the impact is sufficient to have a significant effect on the resource characteristic(s); and 3) the impact is likely to be delivered to a stream segment with a vulnerable resource.

Further HCP references to slope stability reiterating the aquatic (i.e. delivery) implications of mass wasting are found in: **Section 7: Potential Impacts, Minimization, and Mitigation Measures**. Examples include

- **7.3.1.1 Headwater Species Association** *Potential impacts to the headwater species association will be minimized by: 1) protecting un stable slopes with undisturbed no harvest continuous leave areas*
- **7.3.1.2 Steep Tributary Species Association** *...Additionally, the requirements associated with unstable slopes will provide additional unmanaged buffers to ensure maintenance of riparian forest function and hill slope stability*
- **7.3.1.4 Mainstem Species Association** *Impacts to the members of the mainstem species association will be minimized directly by implementing the RCR ... and unstable slopes prescriptions*

The stability references in the appendices are consistent with concern for aquatic resources.

- **Appendix A: Species Descriptions and Surveys** *The combination of riparian prescriptions and the prohibition on removal of large residual logs and protection of seeps, which are generally associated with unstable slopes, are expected to provide adequate protection...*

- **Appendix B Riparian Guidelines** *The primary management function of the Inner Gorge riparian strategy is the provision of LWD from unstable slopes. Unstable slopes adjacent to these (Unstable Slopes/Intermittent Flow) channel classes will also be afforded continuous protection.*

The sole reference of slope stability in the context of upland species is found in **5.2.2 Supplemental Wildlife Tree Conservation Program** Simpson will: (a) *Establish a wildlife tree conservation program that supplements trees retained for the Riparian Management Program (5.2.1), the Wetlands Conservation Program (5.2.3), and the Unstable Slopes Management Program (5.2.5) to ensure that the number of trees remaining throughout the Plan Area averages at least 8 trees per acre per section.* **Section 4.5 Wildlife Management Goals** indicates that conservation will occur in (1)....*stream and wetland riparian wildlife habitats and upland habitats adjoining those areas;* and (3) ... *primarily within riparian ecosystems, wetlands and adjacent stands in the Plan Area.* The proposed change in the unstable slope definition would not materially affect these goals as the conservation strategies are either riparian oriented or met through specific set asides for covered species (e.g. occupied murrelet stands) that are in place regardless of slope issues.

An additional benefit of the proposed language change is consistency with Washington State Forest Practices. Although lands under the HCP are exempt (WAC 222-12-41) from several sections of WAC 222, the Forest Practice Applications are processed by the Washington Department of Natural Resources. The differences in language between the HCP and WAC have been problematic with efficient permit processing in the past. All references in WAC 222 to slope stability incorporate the condition of delivery. For example **WAC 222-16-050** *Classes of forest practices on potentially unstable slopes or landforms described in (i) below that has the potential to deliver sediment or debris to a public resource or that has the potential to threaten public safety ...* and **WAC 222-10-030** **SEPA policies for potentially unstable slopes and landforms.** (1)(d) *relating to construction or harvest on potentially unstable slopes or landforms.* Where (b) the likelihood of delivery of sediment or debris to any public resources, or in a manner that would threaten public safety is conditional for application of the WAC. Such consistency in language would facilitate efficient permitting of forest practices on HCP lands.

Given the context that slope stability is used in the HCP, the limited effect of the change of language on management prescriptions or impacts to covered species, and the increase in consistency of the suggested language with WAC we request the Services approve the language change. Section 5.2.5 (d) to read (d) *not harvest timber on slopes designated as unstable with the likelihood of delivery of sediment or debris to any public resources, or in a manner that would threaten public safety.*

We do not anticipate any impact to listed species as a result of this minor modification. Instances where resource consequence would potentially occur are minimal to non-existent. As stated in the Implementation Agreement (IA) the Services have 60 days to respond to this request.

RIPARIAN AREAS DIMENSIONS

Table 4 HCP Table 26 (Revised) showing Riparian widths for Perennial and Fish bearing Channels.

Channel Class	Avg. Width (m)	Min. Width	Measure Point	Channel Class	Avg. Width (m)	Min. Width	Measure Point
AGL-Qa6	40 ⁵ /30	25	CMZ ⁷	ROP-Qc1	3 ac/1000ft.	20/10	CDZ
AGL-Qo1	3ac/1000ft ⁶ .	20/10	CDZ ⁸	ROP-Qc2	3/1	0	BIS
AGL-Qo2	3 ac/1000ft.	20/10	CDZ	ROP-Qc3	30/25	20	CMZ
AGL-Qo3	25/15	10	BIS ⁹	ROP-Qc4	20/15	10	BIS
AGL-Qo4	30/20	20	CDZ	ROP-Qc5	30/20	15	BIS
AGL-Qo5	20/10	5	BIS	ROP-Qc6	40/30	20	BIS
AGL-Qo6	30/20	10	BIS	ROP-Qc7	65/40	30	CMZ
AGL-Qo7	30/20	10	BIS	ROP-Qc8	40	30	BIS
AGL-Qo8	30	20	BIS	SIG-L1	3 ac/1000ft.	20/10	CDZ
CIS-C1	3 ac/1000ft.	20/10	CDZ	SIG-L	30/20	20	CDZ
CIS-C5	40/30	20	CDZ	SIG-L	20/15	10	BIS
CIS-Qc1	3 ac/1000ft.	20/10	CDZ	SIG-L	40	25	BIS
CIS-Qc2	3 ac/1000ft.	20/10	CDZ	SIG-M	3 ac/1000ft	20/10	CDZ
CIS-Qc3	30/25	20	CMZ	SIG-M	3 ac/1000ft	20/10	CDZ
CUP-C1	3 ac/1000ft.	20/10	CDZ	SIG-M	15	10	BIS
CUP-C2	25	15	CDZ	SIG-M4	40/25	20	BIS
CUP-C3	25	15	CDZ	SIG-M5	40	25	BIS
CUP-C4	25	15	CDZ	SIG-M6	50/30	30	CMZ
CUP-C5	25	15	CMZ	SIG-Qa6	40	25	CMZ
CUP-C6	30	20	CDZ	SIG-Qc1	3 ac/1000ft	20/10	CDZ
CUP-C8	35	25	BIS	SIG-Qc2	3 ac/1000ft.	20/10	CDZ
ROP-C7	40/40	20	OHWM	SIG-Qc3	25/15	10	CMZ
ROP-Qa7	50/40	30	CMZ	SIG-Qo1	3 ac/1000ft	20/10	CDZ
				SIG-Qo2	3 ac/1000ft.	20/10	CDZ
				SIG-Qo3	25/15	10	BIS
				SIG-Qo4	30	20	BIS

⁵ Windward/Leeward

⁶ Equates to 66' Buffer each side of channel

⁷ **not** synonymous with WAC 222-16

⁸ channel disturbance zone (~BFW)

⁹ break in slope



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United States Department of the Interior
Fish and Wildlife Service
United States Department of Commerce
National Marine Fisheries Service



National Marine Fisheries Service
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OCT 8 2008

Gerald G. Palmer
Vice-president / General Manager
Northwest Timberlands Division
Green Diamond Resource Company
215 North Third Street
Post Office Box 9001
Shelton, Washington 98584-0931

Dear Mr. Palmer:

This letter is in response to your August 4, 2008, request for minor modification of the Green Diamond Resource Company (Green Diamond) Habitat Conservation Plan (HCP). The U.S. Fish and Wildlife Service and National Marine Fisheries Service (Together, the Services) approve your request.

We appreciate your willingness and desire to embark on an accelerated rate of restoration. We believe that these changes to your HCP have the potential to increase the benefits to riparian association fish and wildlife, while limiting short-term impacts. We also believe there would be no change in the level of authorized take for any of the covered species. We hereby incorporate your request into our approval, specifically the portions of your request outlining the three example prescriptions, the role of the scientific advisory team, and the pre- and post-harvest monitoring.

It is our understanding that, as riparian management moves from an experimental to operational (adaptive management) basis, the Scientific Advisory Team (SAT) will continue to be provided with a list of the following year's units and acreages planned for treatment, type of treatment, and monitoring components to be used, at the annual SAT meeting. The acreages treated, associated prescriptions, and available monitoring results will be documented in the annual HCP compliance report sent to the Services. The Services also request that you include the pre- and post-harvest stream shade levels, and descriptions of, and proposed management response to, substantial natural disturbance (e.g. windthrow, channel avulsion) within treated riparian areas in the annual HCP compliance report. We understand that a subset of treatment sites will also have stream temperature monitoring and we request that you also include these data in the compliance report. Any additional prescriptions not described in this submittal will be vetted by the SAT prior to implementation.

The Services request that substantial disturbance (to include windthrow, channel avulsion, and mass wasting) within managed riparian areas be quantified and documented so that the assumptions your request for modification are based on can be objectively evaluated over time.

For example; Green Diamond states that “no cases of excessive windthrow were evident”; in the annual report we would like to see:

- 1) Orthographic aerial photography of disturbed areas that
 - a) Had been treated and
 - b) Adjacent riparian areas that were not managed (reference stands)
- 2) Ground level photographs of the same treated and reference stands and
- 3) Quantitative values such as trees per acre remaining following disturbance and acres impacted by such catastrophic natural disturbance.

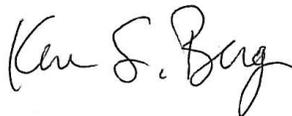
As your Forest Practices Applications are submitted, you will translate the riparian restoration objectives and associated three general example prescriptions into harvest-unit specific prescriptions and measurable criteria which will aid the Washington Department of Natural Resources – Forest Practice Division in implementing State rules and substitute rules, as well as aid the Services in compliance monitoring. In some cases, submission of such Forest Practices Applications may require classification as “even-aged” management if overstory trees to be retained are few enough to require classification as such. Even though, at this time, we cannot envision the exact circumstances that might require the retention of so few overstory trees.

We appreciate your plan to scope the placement of Large Woody Debris, as specified in the HCP (5.2.7 (b)), in stream reaches with Channel-Migration-Zone or Break-in-Slope prescriptions for the potential of large wood placement / addition. We are looking forward to working with you on scoping and implementing this element of the HCP.

The Services realize that the Washington Department of Ecology does not support your request to expand the experimental management strategy at this point in time. However, we believe that Green Diamond’s request has the potential to accelerate riparian forest development to late seral forest conditions without significantly impacting stream temperature, one of the parameters of concern to Washington Department of Ecology and the Services. If responsibly implemented with the safe guards proposed (no impacts on water quality by not decreasing stream shade in areas where stream temperatures are controlled by riparian vegetation) we expect an overall ecological benefit.

Your request for minor modification is hereby approved. Thanks for your interest in restoration of riparian forests. Please call Bill Vogel (USFWS) or Stephanie Ehinger (NMFS), if you have any questions.

Sincerely,



Ken S. Berg, Manager
Western Washington Fish and Wildlife Office
U.S. Fish and Wildlife Service



Steven W. Landino
Washington State Director
for Habitat Conservation

RIPARIAN PRESCRIPTIONS

#1 Ecological Thin - Conifer dominated/ Mixed stands > 40 yrs

Goal: Accelerate the development of complex stand structure and increase the long term potential delivery of ecological services to the stream channel as well as providing terrestrial wildlife habitat structure.

Rationale: Thinning overstory Douglas-fir to a relative density of less than 40 will increase resources available to retained trees, release advance regeneration in the understory and provide seed bed for natural regeneration of a subsequent cohort of shade-tolerant conifer. The treatment should increase growth rates for dominant trees and increase forest canopy structure. Removal of the majority of large overstory hardwoods (primarily cottonwood) in the dominant canopy layer will allow insolation to penetrate to lower canopy levels and result in increased growth rates of existing intermediate and suppressed shade tolerant conifers. Retention of conifer and hardwood species in canopy positions other than the dominant layer will allow for structural development and species diversity within the stand.

Prevalent Conditions: Mixed conifer species comprise the overstory, ages range from 40-80 yrs. The presence of regeneration and intermediate and lower canopy layers is highly variable depending on species mix, environmental conditions at stand establishment and post-establishment disturbance. Treatments vary dependent on site conditions.

Prescription: The treatments include thinning to enhance conditions for seed production, associated underplanting to create a new age class and release established regeneration from competition with the overstory (generally target co-dominant cohort for removal). Thinning may be done uniformly throughout the stand (e.g., target a particular diameter class), in patches (gap creation) or by individual tree selection (based on the form of stems to be removed e.g., poles). These treatments serve to create an uneven-aged stand in which new age classes develop in the moderated microenvironment provided by the residual trees.

#2 Hardwood thin - Alder dominated stand

Goal: Accelerate the successful establishment of a seral vegetation component; e.g., shade-tolerant conifer in stands where the onset of overstory senescence is imminent.

Rationale: The hardwood overstory is reaching senescence. Removal of the overstory and the creation of seedbeds for natural regeneration will release suppressed conifer and accelerate the establishment of a third cohort of conifer. This will provide increased forest structure and maintain plant diversity within the stand.

Prevalent Conditions: Overstory is composed of 40-45 yr old (nearing senesce) red alder at ~160 tpa. There are generally scattered large Douglas-fir, and occasional cottonwood and big leaf maple. Conifer regeneration may be absent or represented by advanced regeneration on nurse wood and soil substrates. The understory is composed of sword fern, salmonberry, and vine maple on gently sloping land forms. These riparian areas generally have a high site class and provide good ground on which to operate in the appropriate season.

Prescription: Harvest the red alder component found within the treatment area. In areas adjacent to water bodies classified as "temperature sensitive" retain 2 rows of overstory trees directly adjacent to the channel to maintain stream shade. Retain all conifers including regeneration, and retain all other hardwood species (e.g., big leaf maple, cottonwood, Oregon ash and cascara) within the treatment area except as required for operations. Pile slash to provide an element of terrestrial wildlife habitat and to facilitate planting. Following harvest activity, plant shade-tolerant conifer (e.g., western redcedar, western hemlock) at densities of 100-400 per acre.

#3 Mechanical Thin - Plantation conifer stands 20-30 yrs

Goal: Accelerate the rate of individual tree and stand growth, increase plant diversity and stand structure.

Rationale: These stands are now fully occupying the site; silvicultural intervention is needed to preclude the onset of decreased tree growth rates and/or competitive mortality. The low light levels of the forest floor inhibit understory development. Thinning will increase resources available for both overstory and understory vegetation response.

Prevalent Conditions: On many sites on the Olympic tree farm, harvest prior to the onset of current forest practices resulted in riparian stands being logged and subsequently replanted with Douglas-fir. The current conditions include dense (ca. 400 tpa), young (20-30 yr), and evenly spaced stands occupying the site up to the ordinary high water mark (OHWM). Douglas-fir is the only commercially viable species for this treatment. Criteria for commercial thinning:

Slopes < 40% to allow ground based equipment to operate; the site class must be 50 year Douglas-fir site index 100 or higher.

Prescription: Remove 30-50 % of trees by stem count. Post thinning density between 180-200 tpa. The operator will select trees and retain the largest trees with > 40% live crown. Post-treatment relative density (RD) ~ 35-40. Only crop trees (e.g., Douglas-fir) will be thinned. Uneven spacing and the creation of gaps will occur. No operations in swales or wet areas, or areas of low stem density. Where operationally feasible, trees can be removed up to the water's edge, provided there is no ground disturbance within 5 m of the stream channel.

#4 Salvage- post catastrophic disturbance^α

Goal: Reestablish functioning riparian conditions through management intervention as quickly as site conditions allow.

Prevalent Conditions: a windstorm results in blow-down of more than 100 meters of timber, measured along the length of the stream

Rationale: Windthrow on a stand level can create a successional bottleneck; a lack of conifer tree seed sources combined with large volumes of down wood lacking the size and decay characteristics to serve as nurselogs occupy areas that serve as seedbed for conifer establishment. Removal of the sound tree boles to create growing space, augmenting wood recruitment to the stream channel and planting conifer seedlings will all serve to accelerate the re-establishment of riparian function. The presence of existing roads in proximity to the buffer provides opportunity for low impact salvage of the entire RCR while providing increased short term LWD recruitment to the stream.

Prescriptions^β: Salvage entire tree boles on the upper terrace that do not recruit to the stream channel; leave tops and branches in the riparian area. Salvage 1 log length (~40') from the butt of trees whose tops may be within the stream channel bankfull width but are spanning or non-functional. Leave all trees that have recruited to the stream channel (Figure 1). Trees leaning away or parallel to the stream channel as a result of the windstorm may be logged. No equipment over the primary slope break.

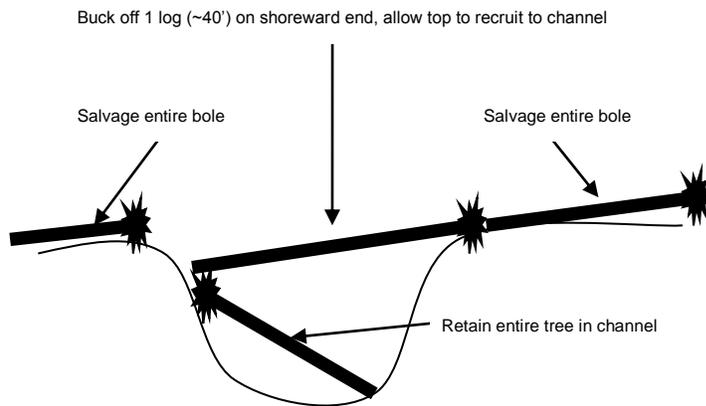


Figure 2 Schematic of windthrow management

^α (HCP Appendix F; Changed Circumstances)Simpson and the Services will confer to establish appropriate supplemental or changed prescriptions for salvage harvest of the windthrow- this submittal serves as that conferral
^β prescriptions will be established consistent with the HCP Appendix F:

#5 Other Prescriptions

#5a Property protection

Goal: Remove existing or potential hazards (e.g. tree fall likely to cause damage) to personnel or property

Rationale: Riparian set asides frequently contain large trees and snags. Following the harvest of adjacent upslope areas occasionally these habitat elements are at increased risk for windthrow.

Prevalent Conditions: Large trees located within a riparian conservation reserve (RCR) identified as having a high likelihood of post harvest windthrow. Given the prevailing wind direction, there is a significant probability that these trees, if windthrown, could damage the fixed assets located in close proximity to the riparian leave area.

Prescriptions: To mitigate for loss of woody debris recruitment potential from management action, the portions of the bole of hazard tree will be bucked and dropped into the channel. To mitigate for potential loss of nurse logs, plant 1-200 shade tolerant conifer per acre within the immediate RCR adjacent upstream and downstream to the hazard tree removal.

#5b Adjustments for Road/Infrastructure within RCR or wetland buffer area

Goal: Mitigate for impacts of infrastructure within leave areas by retention of equivalent set asides

Rationale: Portions of the Olympic Tree farm road system were constructed prior to the HCP. Occasionally these roads are located in areas identified as prescriptive set asides for wetland or stream channels. Acre for acre exchange of leave area with otherwise unencumbered acres will provide equivalent ecological services to the aquatic and terrestrial systems.

Prevalent Conditions: A road is within the buffer, using the road as the buffer margin creates a condition less than the required width.

Prescriptions: Set aside an equivalent acreage as the area impacted by the infrastructure. The selected area should be in as close proximity to the impacted area as possible- e.g. added width on other sides of the buffer. The ecological services from the mitigation area should be at least equal to, or ideally, greater than those that would have been provided from the original leave area.

5.3.1 MARBLED MURRELET

Simpson (*now GDRCo*) will:

(a) Establish and implement the RCR program.

(b) Prohibit harvest in all occupied murrelet habitat currently existing or hereafter developing within the RCRs.

(c) Prohibit harvest in all occupied murrelet habitat outside the RCRs. For the purposes of this paragraph, and paragraphs (d) through (h) below, occupied murrelet habitat shall mean those areas of murrelet habitat identified by the 1995 Simpson habitat assessment that is determined to be occupied using the latest survey protocols approved by both the USFWS and the WDFW. The most recently approved protocol is defined in the Pacific Seabird Group ("PSG") document: *Methods for surveying marbled murrelets in forests* (Ralph et al. 1994), and as amended by the March 8, 1995 information letter (Ralph et al. 1995). Simpson will implement these survey protocols with ten surveys per year for two consecutive years during 1998 and 1999. Any murrelet habitat that is not found to be occupied based on the 1998 and 1999 surveys will be deemed to be unoccupied and no further surveys of these habitats will be required for the remaining term of the Plan. However, if at a later time, nesting is detected in previously surveyed habitats; the stands will be considered occupied.

(d) Limit timber harvest within 300 feet of any occupied murrelet habitat located outside of the RCR so that such harvest will not reduce the residual stand stem density within such 300 foot buffer to less than 75 trees per acre with 12 inches DBH or greater, including 5 trees greater than 20 inches in DBH, where they exist. The width of the buffer zone may be reduced in some areas to a minimum of 200 feet and extend to a maximum of 400 feet as long as an average of 300 feet is maintained.

(e) Refrain from timber harvest and road construction within 300 feet of occupied murrelet habitat where such habitat is within an RCR and where such buffer is located within in the RCR.

(f) Limit timber harvest or road construction within 300 feet of occupied murrelet habitat where such habitat is within an RCR and where such buffer is located outside of the RCR so that such harvest will not reduce the residual stand stem density within such 300 foot buffer to less than 75 trees per acre with 12 inches DBH or greater, including 5 trees greater than 20 inches in DBH, where they exist. Provided, however, that Simpson need not protect more than 150 acres of such buffers which are located outside of an RCR over the Plan Area.

(g) Refrain from road construction, felling, bucking, cable yarding, helicopter yarding, tractor and wheeled skidding and slash disposal/prescribed burning within 0.25 mile of an occupied marbled murrelet site during the two hours after sunrise and the two hours before sunset from April 1 to August 31.

(h) Refrain from blasting at any time from April 1 to August 31 within 1.0 mile of an occupied murrelet site.



United States Department of the Interior
Fish and Wildlife Service
United States Department of Commerce
National Marine Fisheries Service



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AUG 11 2006

Gerald G. Palmer
Vice President and General Manager
Green Diamond Resource Company
Northwest Timberlands Division
215 North Third Street
Shelton, Washington 98584-0931

Dear Mr. Palmer:

This letter is in response to your July 17, 2006, request for a minor modification of your Olympic Tree Farm Habitat Conservation Plan (HCP) with respect to provisions designed to avoid take of marbled murrelets through harassment. Both the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) believe it would be appropriate to revise the marbled murrelet disturbance provisions as a minor modification in conformance with this letter and as revised in the enclosed table.

Your letter is correct in stating that the FWS reconsidered the distances, dates, and other provisions within which incidental take was likely to occur and presented these changes in a programmatic Biological Opinion for the Olympic National Forest in the spring of 2002, and has since used revised provisions (see enclosed table) in subsequent biological opinions with the U.S. Forest Service and other agencies. While we coordinated with other FWS offices within the three states containing marbled murrelets, we are aware that some confusion still exists regarding what these changes meant and how distances and dates relate to each other. Part of this confusion occurs due to the State forest practices rules in Washington State which are not designed to avoid all take of marbled murrelets, and due to the attempts to tailor distances and dates to other agencies and situations.

We anticipate that incidental take due to harassment of murrelets can occur due to flushing an adult from the nest or from causing missed feedings. Therefore, during the "early nesting season" when egg-laying and incubation are occurring, it is appropriate to avoid disturbing adults on the nest. During that time of year, the adults may be on the nest at any time of the day or night. However, during the "late nesting season" when we expect that almost all of the eggs have hatched but the adults are still feeding their young during early mornings and late evenings, it is appropriate to avoid disturbing the adults during those times of the day. We recognize that birds are generally more "tenacious" and less-likely to abandon a nest as the nesting chronology proceeds. The distances developed are based upon the best-available science which continues to be scant. The potential to learn more in the future is high.

The provisions discussed with respect to the Olympic National Forest include distances used to assess where incidental take through harassment was reasonably certain to occur. This concept is different than a concept of defining distances that avoid all disturbances (changes in behavior that do not result in injury) of murrelets. A difference between Green Diamond and the U.S. Forest Service is that Green Diamond's HCP provides the Company with long-term assurances.

However, in spite of these subtle differences, we believe it would be appropriate for Green Diamond, in their Olympic Tree Farm HCP, to use similar provisions to those referenced in your request with the following stipulations:

1. Use the distances that are more current and contained in the enclosed table.

The enclosed table does not differentiate between sizes of blast material, therefore the 120 yard provision for a blast of 2 pounds has been deleted and all blasting has a provision of 1 mile. In the enclosed table, we include large helicopter and large airplanes within the 1 mile provision. However, for 1-mile distances, information specific to the site, equipment, and methods can be used to shorten or lengthen the 1-mile distance for these activities. We do note that there need not be restrictions relative to use of heavy equipment and chainsaws along heavily used roads where noise levels are naturally high at frequent intervals. These are the differences between your proposal and our response (the enclosed table).

2. Agreement would be subject to future reconsideration. Should the FWS learn that these distances are not the appropriate distances to use and should FWS develop other distances or procedures to avoid take of marbled murrelets through harassment, Green Diamond, FWS, and NMFS would once again jointly modify the HCP to reflect such information. For instance, if the accepted distances became larger in the future, we would incorporate the larger distances up to, but not exceeding, the current provisions in your HCP (e.g., 0.25 mile). Although larger distances or more-restrictive provisions could be incorporated in the future if you agreed to such provisions.

3. Relationship of dates and times. The distances contained in the enclosed table should apply at all times of the day and night between April 1 and August 5. The distances would apply only during the 2 hours after sunrise and 2 hours before sunset periods from August 6 to September 15 ("late nesting season").

In summary, your request for a minor modification should be considered approved with the stipulations above including the stipulation allowing for limited change in the future as additional information may become available. If you have any additional questions or comments, please contact William Vogel at (360) 753-4367.

Sincerely,



Ken S. Berg, Manager
Western Washington Fish and Wildlife Office
U. S. Fish and Wildlife Service



Steven W. Landino
Washington State Director
for Habitat Conservation

Appendix 1, Olympic National Forest programmatic BO (September 30, 2004)
Harassment distances for Marbled Murrelets and Spotted Owls

Activity	Combined injury threshold distances: murrelet / spotted owl
a blast, a large helicopter, a large airplane	1 mile* / 1 mile*
a small helicopter or a single-engine airplane	120 yards / 120 yards
an impact pile driver, a jackhammer, or a rock drill	60 yards / 60 yards
chainsaws (firewood cutting, hazard trees, pre-commercial thinning, and commercial thinning)	45 yards / 65 yards
heavy equipment	35 yards / 35 yards

* Site-, equipment-, and method-specific information can be used to shorten or lengthen the 1-mile distance for these activities.

HCP 5.2.2 COARSE WOODY DEBRIS RETENTION LETTER



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United States Department of the Interior
Fish and Wildlife Service



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JAN 17 2008

Gerald G. Palmer
Vice President and General Manager
Green Diamond Resource Company
Northwest Timberlands Division
215 North Third Street
Shelton, Washington 98584-0931

Dear Mr. Palmer:

This letter is in response to your November 29, 2007, request for a minor modification of your Olympic Tree Farm Habitat Conservation Plan with respect to provisions for retention of woody debris. Both the U.S. Fish and Wildlife Service and the National Marine Fisheries Service approve your request.

Harvested areas in Site Class I and/or Site Class II (Douglas-fir, 50-year, site-index tree height of 125 feet or more) will continue to conform to the original provision of 2 downed logs with a small end diameter greater than or equal to 12 inches and a length greater than or equal to 20 feet or equivalent volume. We believe the interpretation of "equivalent volume" only includes pieces that are 12 inches or larger on the small end. This modification will not change those situations. However, on Site Class III, IV, or V (Douglas-fir, 50-year, site-index tree height of less than 125 feet), your Company may provide equivalent woody debris retention volume consisting of piled woody debris material with individual pieces less than the 12 inch minimum diameter. In all cases, old-growth logs shall not count towards this requirement.

We believe your new suggested minimum volume of 200 board feet per pile is a generous interpretation of equivalent volume compared to a 20-foot, 12-inch (small end) log. We also appreciate the clarification regarding your internal procedures for mapping these areas at the harvest unit level. We appreciate your inclusion in your proposal that the modification would be included in the Adaptive Management Acreage Account. For each acre of Site Class III, IV, or V where the new provision is employed, the Adaptive Management Acreage Account will be credited with the equivalent of one tree which in the account is equivalent to 1/160th of an acre. Therefore for each acre treated under the new provision, the account would be credited with 0.0065 acres.

Your proposal demonstrated that the new provision would be expected to provide an equal level of function for the small mammal community. We believe that such a change is consistent with the intent of the minor modification provisions as well as the intent of adaptive management. We are very interested to see how units harvested under the various provisions will compare in future years as the subject stands mature through time.

Gerald G. Palmer

2

In summary, your request for a minor modification should be considered approved. If you have any additional questions or comments, please contact William Vogel at (360) 753-4367.

Sincerely,



Ken S. Berg, Manager
Western Washington Fish and Wildlife Office
U. S. Fish and Wildlife Service



Steven W. Landino
Washington State Director
for Habitat Conservation

cc:
WDFW, Olympia (D. Whipple)
WDNR, Olympia (G. Graves)

5.2.6 HYDROLOGIC MATURITY

Simpson (*now GDRCo*) will:

Manage forest cover in the sub-basins in following table such that hydrologically mature forests cover at least 50% of the area in each sub-basin and no more than 25% of the area in each sub-basin is covered by hydrologically immature forests. Hydrologically mature forest cover refers to stands with greater than 70% total crown closure that are less than 75% deciduous.

Hydrologically immature refers to stands with less than 10% crown closure and/or are greater than 75% deciduous cover. These definitions are taken directly from the methods used in the assessment of hydrologic maturity for watershed analysis in the State of Washington (Board Manual: Standard Methodology for Conducting Watershed Analysis, Version 3.0, November 1995).

Basins of the CUP where harvest will be timed to prevent extensive coverage of immature forest canopy.

Basin	Simpson Acres
830 Creek	1,084
Aristine Creek	1899
Devils Club Creek	811
Dry Bed Creek	1,543
North Mt. Creek	952
Save Creek	787
South Mt. Creek	860
	Total 7,936

5.3.2 BALD EAGLE

Simpson (*now GDRCo*) will:

- (a) Establish and implement the RCR program (Section 5.2.1) and the Wetlands Conservation Program (Section 5.2.3)
- (b) Comply with all Washington state rules (as such rules currently exist) regarding the conservation of eagle roost and nest sites (RCW 77-12-655; WAC 232-12-292).

Minor Modification to Green Diamond Resource Company (Formerly Simpson) Olympic HCP Section 5.3 Prescriptions That Address Specific Wildlife Species 5.3.2 Bald Eagle

The Green Diamond Resource Company (GDRCo) Habitat Conservation Plan (HCP) emphasizes the protection and development of riparian forests as a primary strategy for satisfying the requirements of Section 10 of the ESA. The basic riparian forest strategy is supplemented by management prescriptions designed to address wetlands, unstable slopes, road construction, maintenance and decommissioning, and certain harvest limitations to modulate snow melt runoff. The HCP was been designed to minimize and mitigate any incidental take of the covered species by contributing to the maintenance and development of intact, ecologically connected, and naturally functioning aquatic and riparian ecosystems.

Prescriptions pertaining to Eagles are found in sections 5.3.2. Simpson will:

- (a) Establish and implement the RCR program (Section 5.2.1) and the Wetlands Conservation Program (Section 5.2.3)
- (b) Comply with all Washington state rules (as such rules currently exist) regarding the conservation of eagle roost and nest sites (RCW 77-12-655; WAC 232-12-292¹⁰).

On April 11, 2011 the Fish and Wildlife Commission voted to relax current state requirements for site-specific management plans for bald eagles, which were removed from the federal Endangered Species Act in 2007 and are considered recovered in Washington State. Habitat protection for bald eagles will continue under the federal Bald and Golden Eagle Protection Act, but site-specific state management plans (i.e. the "No Conditions" Bald Eagle Management Plan¹¹) will no longer be required unless bald eagles are again listed as a state threatened or endangered species. Further communication with WDFW (Gary Bell, Wildlife Biologist with WDFW Habitat Program Protection Unit) indicated that Eagle Plans were no longer being written and the appropriate permitting requirement was to submit a signed/dated copy of the Pacific Region USFWS Bald Eagle Management guidelines page to DNR with their FPA¹².

¹⁰ WAC 232-12-292 Bald eagle protection rules Site management plan for bald eagle habitat protection 6.1 The purpose of the site management plan is to provide for the protection of specific bald eagle habitat in such a way as to recognize the special characteristics of the site and the landowner's property rights, goals and pertinent options.

¹¹ Forest Practice Rules (WAC 222-16-080 6e) require a bald eagle management plan for activities within ½ mile of and eagle nests or ¼ mile of an eagle roost.

<http://wdfw.wa.gov/publications/pub.php?id=00579>

This document will then serve as a Special Wildlife Management Plan for processing purposes under current forest practice laws.

On June 2, 2011, GDRCo was contacted by Bruce McDonald, WA Department of Natural Resources South Puget Sound Region Forest Practice Manager who indicated that we would need to complete a SEPA analysis for any Forest Practice Application for activities on the HCP lands within notification distance (1/2 mi.). Bruce cited WAC 222-16-080¹³ that classifies such an action as a Class IV special¹⁴. This creates a permitting obstacle for lawful activities conducted under the HCP.

However, simply by modifying the text in Section 5.3.2 to reflect the current USFWS Bald Eagle Management Guidelines & Conservation for the Pacific Region¹⁵ will be compliant with forest practice permitting requirements. The Washington state rules regarding the conservation of eagle roost and nest sites are used in the HCP, the change of language will not have an effect on management prescriptions or impacts to covered species, and will increase the consistency of language between the HCP with WAC. GDRCo requests the Services approve the language change of Section 5.3.2 (b) to read:

1. Avoid clear-cutting or removal of overstory trees within 330 feet (100 m) of both active and alternate nests at any time.
2. Avoid timber harvesting operations, including road construction and chain saw and yarding operations, during the nesting season within 660 feet (200 m) of the nest. The distance may be decreased to 330 feet around alternate nests within a particular territory, including nests that were attended during the current nesting season but not used to raise young, after eggs laid in another nest within the territory have hatched.

¹² 5/11/2011 Email from Gary Bell Wildlife Biologist, WDFW Habitat Program Protection Unit - As we discussed, WDFW is in the process of transferring the issuance of bald eagle management plans to the US Fish and Wildlife Service. ...Basically, if the applicant agrees to follow the standard USFWS guidelines, they can submit a signed/dated copy of the guidelines page to DNR with their FPA. This document will then serve as a Special Wildlife Management Plan for processing purposes under current forest practice laws. Final details concerning the FPA processing methodology are not yet completed, but WDFW can provide concurrence to DNR that a USFWS eagle plan is adequate via email until things are "official". As always, feel free to contact me if you have any questions, Gary

¹³ WAC 222-16-080 Critical habitats (state) of threatened and endangered species. (1) Critical habitats (state) of threatened or endangered species and specific forest practices designated as Class IV-Special are as follows: (a) Bald eagle (*Haliaeetus leucocephalus*) - harvesting, road construction, aerial application of pesticides, or site preparation within 0.5 mile of a known active nest site, documented by the department of fish and wildlife, between the dates of January 1 and August 15 or 0.25 mile at other times of the year; and within 0.25 mile of a communal roosting site. Communal roosting sites shall not include refuse or garbage dumping sites

<http://www.fws.gov/pacific/eagle/guidelines/timber3yes.html>

¹⁴ WAC 222-16-050 (1) "Class IV - special." Except as provided in WAC 222-16-051, application to conduct forest practices involving the following circumstances requires an environmental checklist in compliance with the State Environmental Policy Act (SEPA), and SEPA guidelines, as they have been determined to have potential for a substantial impact on the environment. It may be determined that additional information or a detailed environmental statement is required before these forest practices may be conducted. (b) Specific forest practices listed in WAC 222-16-080 on lands designated as critical habitat (state) of threatened or endangered species

¹⁵ <http://www.fws.gov/pacific/eagle/guidelines/timber3yes.html>

3. Selective thinning and other silviculture management practices designed to conserve or enhance habitat, including prescribed burning close to the nest tree, should be undertaken outside the nesting season.
4. If burning during the nesting season is necessary, do the following:
 - a. Conduct burns only when adult eagles and young are absent from the nest tree (i.e., at the beginning of, or end of, the nesting season, either before the particular nest is active or after the young have fledged from that nest).
 - b. Take precautions such as raking leaves and woody debris from around the nest tree to prevent crown fire or fire climbing the nest tree.
5. Avoid construction of log transfer facilities and in-water log storage areas within 330 feet (100 m) of active and alternate nests nest.
6. Eagle roost site protection plans have been developed by the WDFW and Green Diamond for all identified roost sites on the HCP lands.
 - a. These plans will continue to be implemented for the duration of the HCP.
 - b. Green Diamond will adopt USFWS guidelines for protection of roost sites when USFWS develops such guidelines and implement the protection on any roost areas identified in the future on the HCP lands.

We do not anticipate any impact to listed species as a result of this minor modification. As stated in the Implementation Agreement (IA) the Services have 60 days to respond to this request. However as it is in the interest of GDRCo to effect the change in the near future we have included a concurrence line at the bottom of this correspondence. Please feel free to contact me with questions or comments at (360) 427-4790.

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Sincerely,



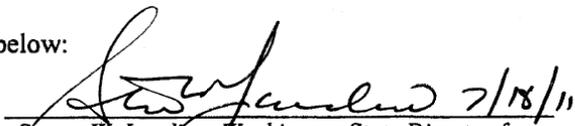
Eric Beach
Timberland Services Manager

Concurrence Signature Blocks

Please affirm your concurrence with signatures below:



Ken S. Berg, Manager
Washington Fish and Wildlife Office
U.S. Fish and Wildlife Service



Steven W. Landino, Washington State Director for
Habitat Conservation
National Marine Fisheries Service

ENTIRE SUBMITTAL

October 20, 2010

Steven Landino
NOAA Fisheries
Southwest Washington Branch
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Lacey, WA 98503

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USFWS
Western Washington Fish And Wildlife Office
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Lacey, WA 98503

Dear Sir

Sincerely

Eric Beach
Timberland Services Manager

Concurrence Signature Blocks

Please affirm your concurrence with signatures below:

Ken S. Berg, Manager
Washington Fish and Wildlife Office
U.S. Fish and Wildlife Service

Steven W. Landino
Washington State Director for Habitat Conservation
National Marine Fisheries Service