

# **3<sup>rd</sup> ANNUAL REPORT**

**submitted to  
The California Department of Fish and Wildlife**

**by  
Green Diamond Resource Company**

**in fulfillment of requirements specified in the Marten Safe Harbor Agreement with the California Department of Fish and Wildlife, pursuant to the California State Safe Harbor Agreement Program Act (Fish & G. Code, 2089.2 et seq.) for incidental take of Humboldt marten.**

**1 March 2022**

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# I. Introduction

On April 27, 2018, Green Diamond Resource Company (Green Diamond) and the California Department of Fish and Wildlife (CDFW) entered into a Safe Harbor Agreement (Agreement) under the California State Safe Harbor Agreement Program Act (Fish & G. Code, 2089.2 et seq.). The purpose of this Agreement is to provide a net conservation benefit to the Humboldt marten (*Martes caurina humboldtensis*) and assure Green Diamond that no additional regulatory burdens, fines, or penalties will result from management activities that are designed to benefit marten within 363,967 acres of the Green Diamond ownership in California (the Enrolled Lands). Based on contemporary survey efforts, the Humboldt marten is rare or absent from the majority of the Enrolled Lands; however, the Enrolled Lands account for approximately 12 percent of the area that is within 15 km (dispersal distance) of the known extant population. Through implementation of habitat management and research commitments, the Marten Safe Harbor Agreement (MSHA) is designed to increase the species' population and range, promote the creation of new habitat, and enhance existing potential habitat within the Enrolled Lands.

The key elements of Green Diamond's MSHA include:

- retention and recruitment of marten denning habitat in the form of green wildlife trees and snags following the Terrestrial Retention of Ecosystem Elements (TREE) guidelines,
- creation of a 2,098-acre no-harvest Marten Reserve Area,
- additional habitat management and monitoring measures applied to the Marten Special Management Area (a 127,217-acre area identified as a high priority connectivity area between known occupied sites),
- incorporate riparian and geologic retention measures as defined in Green Diamond's Aquatic Habitat Conservation Plan,
- technical and financial support for assisted dispersal of martens and associated research,
- retention and protection of known den sites, and
- research and monitoring of the marten population across the property.

The following report documents the third year of management under the MSHA and includes details specified to comply with the monitoring and reporting requirements of this agreement. Included are sections about marten occupancy surveys, marten habitat retention in timber harvest plans, water tank monitoring, and other information required for the annual reporting requirements.

The reporting period of this report was from September 1, 2020 to September 1, 2021.

## II. Marten Studies

### A. Methods

#### 1. Marten Occupancy Surveys

In order to estimate marten occupancy, Green Diamond established a randomly located sampling frame for remote camera stations across the Enrolled Lands and a portion of the Potential Marten Source Area (PMSA). The sampling frame consisted of remote camera stations centered at a 2-km grid spacing within the Marten Special Management Area (MSMA), Moore Tract, and PMSA. Each camera station (sampling unit) consisted of one or two cameras located within 200 meters of the grid point resulting in a total of 163 sampling units. Of the 163 sampling units, 126 were located within the MSMA, 5 were located within the Moore Tract and 32 were located within the PMSA (Figure 1). Green Diamond established an additional 58 sample units centered at a 4-km grid spacing in the balance of the Enrolled Lands resulting in 221 total sample units. These sample units utilized an identical survey protocol and were suitable for detecting marten.

In order to estimate marten occupancy, all sampling units were surveyed each year for the first two years. After the first two years, Green Diamond will continue to monitor marten occupancy by conducting non-invasive surveys on at least one-half of the MSMA every five years such that a complete survey would occur by year ten. The sampling period is October through March for each year the surveys occur. The survey grid was divided into five sampling blocks in order to sample all stations with a logistically feasible approach while accounting for spatial issues and comparisons among the various watersheds. Sampling blocks were randomly selected to determine sampling order. Sampling order in year one will remain the sampling order in subsequent survey years to allow for comparisons and account for seasonal variation in detection rates. All sample units within a sampling block were surveyed simultaneously.

Green Diamond deployed high-end Reconyx brand cameras (Reconyx Inc., Holmen WI, USA) at each sampling station. Models included first generation Hyperfire HC500, HC600, PC800, PC900, and second generation Hyperfire HP2X. Camera stations were baited with two raw chicken drumsticks and commercial trapping lure (Caven's Gusto Lure, Minnesota Trapline Products, Pennock MN) secured to a tree within 5 – 15 feet of the camera.

Cameras were deployed for a minimum of 21 days and were checked and rebaited weekly. During the current reporting period, two cameras were used at 32 stations (20% of 2-km spaced stations) to further evaluate the influence of multiple cameras on estimates of detection probability.

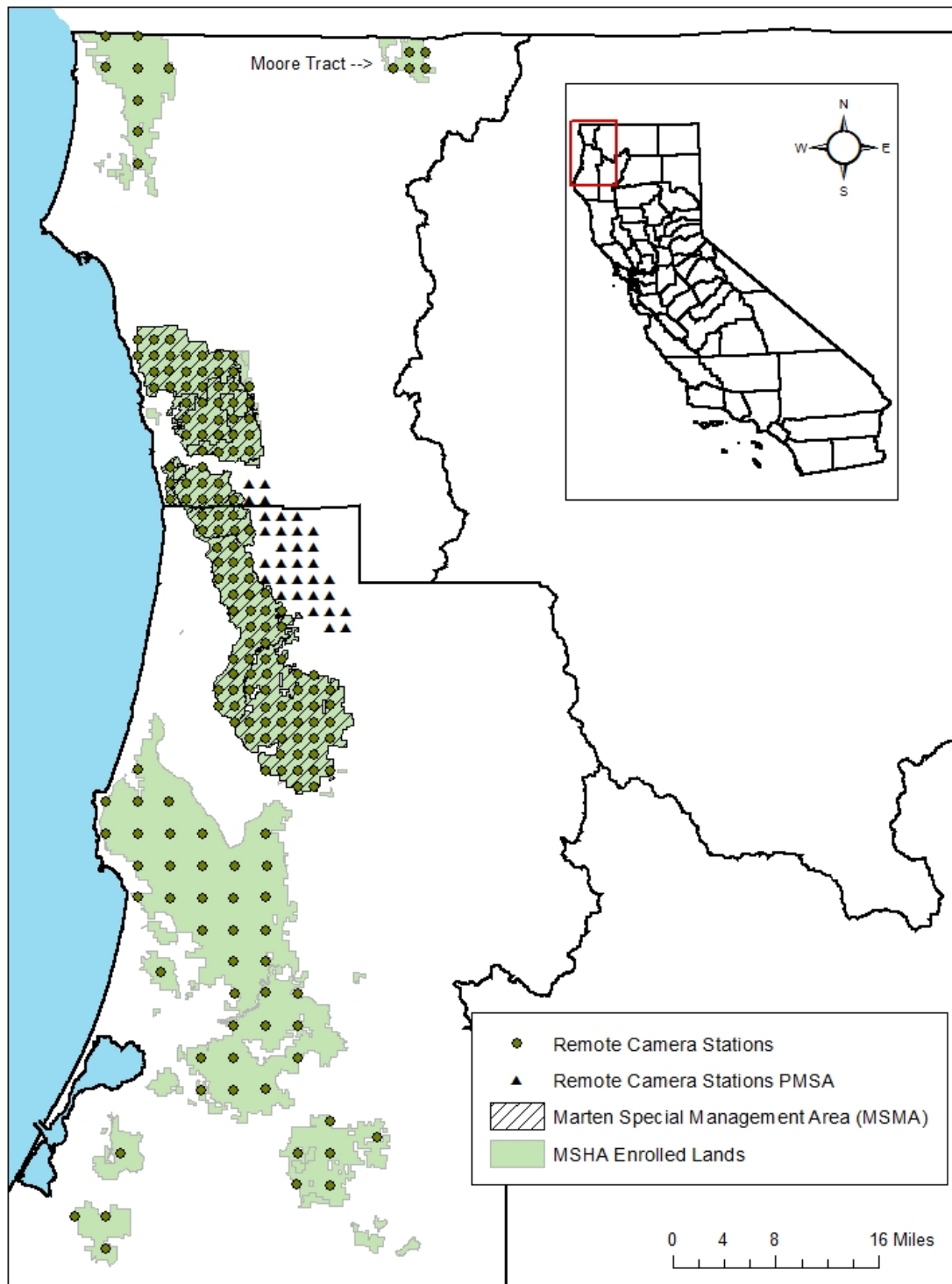


Figure 1. Monitoring stations within the Enrolled Lands and Potential Marten Source Area (PMSA) 2018-2020.

## **2. Water Tank Surveys**

Water tanks within the Enrolled Lands were inspected during the current reporting period and measures were taken to prevent marten from becoming entrapped. Inspections determined if openings greater than two inches existed, and if the openings were secure and effective in excluding wildlife.

Tanks were composed of either plastic (newer/modern tanks) or steel material (older tanks originating from the early 1900s to 1960s). Plastic tanks usually required little to no exclusion efforts while the majority of steel tanks required repairs in this or a previous year using a variety of exclusion techniques and specialized tools. A powder fastener was often utilized to drive nails into the steel surfaces of the tank to fasten mesh around openings. The primary issues with using steel mesh were oxidation which was mitigated by applying a coat of spray paint. However, this technique has been monitored and proven to be a long-lasting repair method.

## **3. Assisted Dispersal**

Green Diamond agreed to provide financial and technical support for a marten assisted dispersal (MAD) feasibility analysis conducted by CDFW. Via the MAD feasibility analysis, CDFW will evaluate and assess habitat suitability of potential release sites for martens within their historical range that are within typical dispersal distance of the core population. Green Diamond will provide financial and technical support for the capture and assisted dispersal of marten based on the recommendations of the MAD feasibility analysis. Green Diamond will work with CDFW and other partners to capture, collar, and release martens from recommended source areas to recommended release areas. The recommended release areas may include portions of the Enrolled Lands. Green Diamond will also provide financial and in-kind technical support to monitor collared martens in the recommended release areas.

## **4. Marten Research**

Green Diamond committed to cooperation with state, federal, tribal, or non-governmental organizations engaged in original research on the Covered Species to advance the understanding of the ecology, conservation, and management of the species. Cooperation shall include a range of activities including but not limited to permitted access to its timberlands, contributions of biological staff time and expertise, or voluntary monetary contributions. Any additional commitments to marten research will be voluntary and established at the time of, and subject to, the terms of an agreed study design with measurable objectives and a demonstrated capacity to complete the research.

## **5. Prevention of rodenticide use**

Anticoagulant rodenticide poisoning has been identified as a potential threat to marten. Anticoagulant rodenticides are used to eradicate or suppress rodent pest populations in illegal marijuana cultivation sites to minimize economic losses. Exposure to

anticoagulant rodenticides can cause direct mortality and potentially increase the risk of predation or other diseases. Measures were taken to discourage unauthorized marijuana cultivation and associated rodenticide use within the Enrolled Lands. In addition to maintaining a system of controlled access for the Enrolled Lands, security patrols were conducted to detect cultivation sites, and if detected, eradication efforts were conducted in coordination with the Sheriff's Department.

## **B. Results**

### **1. Marten Occupancy Surveys**

Surveys were not conducted during the reporting period.

### **2. Water Tank Surveys**

Sixty-four water tanks were located within the Plan Area in 2021, and all 64 tanks were inspected for damage or openings (Figure 2, Appendix I). An increased effort to survey the property for tanks resulted in a larger number of tanks monitored on the property compared to previous years. Past exclusion installations were also assessed for continued integrity. Twenty-five of the 64 tanks had openings repaired in previous years, and 21 were still functional. Eleven tanks were found to have new openings or damage to previous patches, and all 11 were repaired. Thirty-nine of the 64 tanks did not require exclusion installations. No fisher, marten, or other remains were identified in or around the 64 tanks.

### **3. Assisted Dispersal**

During the current reporting period, Green Diamond continued to collaborate with the U.S. Fish and Wildlife Service (USFWS), U.S. Forest Service (USFS), Yurok Tribe, and the National Council for Air and Stream Improvement (NCASI) to analyze existing data and collect new data on Humboldt marten within the Enrolled Lands and Potential Source Area as part of the initial feasibility assessment for Assisted Dispersal. The initial analyses include demographic summaries, population estimates, and conservation value of slash piles; and once finalized, the results will be included in future reports.

During 2019, 2020, and 2021, Green Diamond continued to work with USFS in fulfilling a research and report commitment to USFWS (Arcata CA Field Office) regarding a feasibility assessment for assisted dispersal. The USFS has submitted a series of reports to USFWS for these tasks. While these tasks were not specifically identified within the SHA, they do represent in-kind effort for two positions within Green Diamond's Conservation Planning Department. Desiree Early, Senior Terrestrial Wildlife Biologist, and Keith Hamm, Conservation Planning Manager, provided technical support and participated in writing and review of the information contained in the reports to USFWS. Approximately 12 hours of staff time was committed to attending meetings and technical review of these reports in 2020 and approximately two hours in 2021.

#### **4. Marten Research**

In 2020, Green Diamond collaborated on several research projects for Humboldt marten. One project was completed in 2020 and published in 2021 in Northwest Science (Delheimer et al. 2021) that compares reproductive ecology of Pacific martens in northern California. A second collaborative effort was a range-wide habitat model for Pacific marten that was initiated in 2020 and published in January 2021 (Moriarty et al. 2021, PeerJ 9:e11670 <http://doi.org/10.7717/peerj.11670> ). Green Diamond also began facilitating a Traditional Section 6 Grant project entitled “Promoting recovery of Humboldt marten with a rapid assessment of population size of the north coastal California extant population.” This grant was approved in November 2020, and pilot work was conducted in summer of 2021. Project implementation is scheduled to occur in Fall 2022.

In 2020 and 2021, Green Diamond also facilitated a non-invasive survey effort on the Enrolled lands conducted by Rogue Detection Teams and the National Council for Air and Stream Improvement (NCASI). The results of these surveys are pending further analysis at the genetics laboratory Oregon State University and will be provided or referenced in future annual reports. Finally, Green Diamond collaborated with Dr. Katie Moriarty and Oregon State University graduate student Jordan Ellison on a study entitled “Investigating the Conservation Value of Slash Piles for Humboldt Marten and Fishers.” The preliminary results of this project were presented at the 2021 Annual Conference of the Western Sections of The Wildlife Society. As these studies are completed, additional references to results will be provided in annual reports.

#### **5. Prevention of rodenticide use**

In 2020, two trespass marijuana cultivation sites were identified within the Enrolled Lands, and cleanup efforts were conducted at both sites during the current reporting period. No additional sites were identified in 2021, however, security patrols were limited due to active wildfires and Covid-related restrictions.

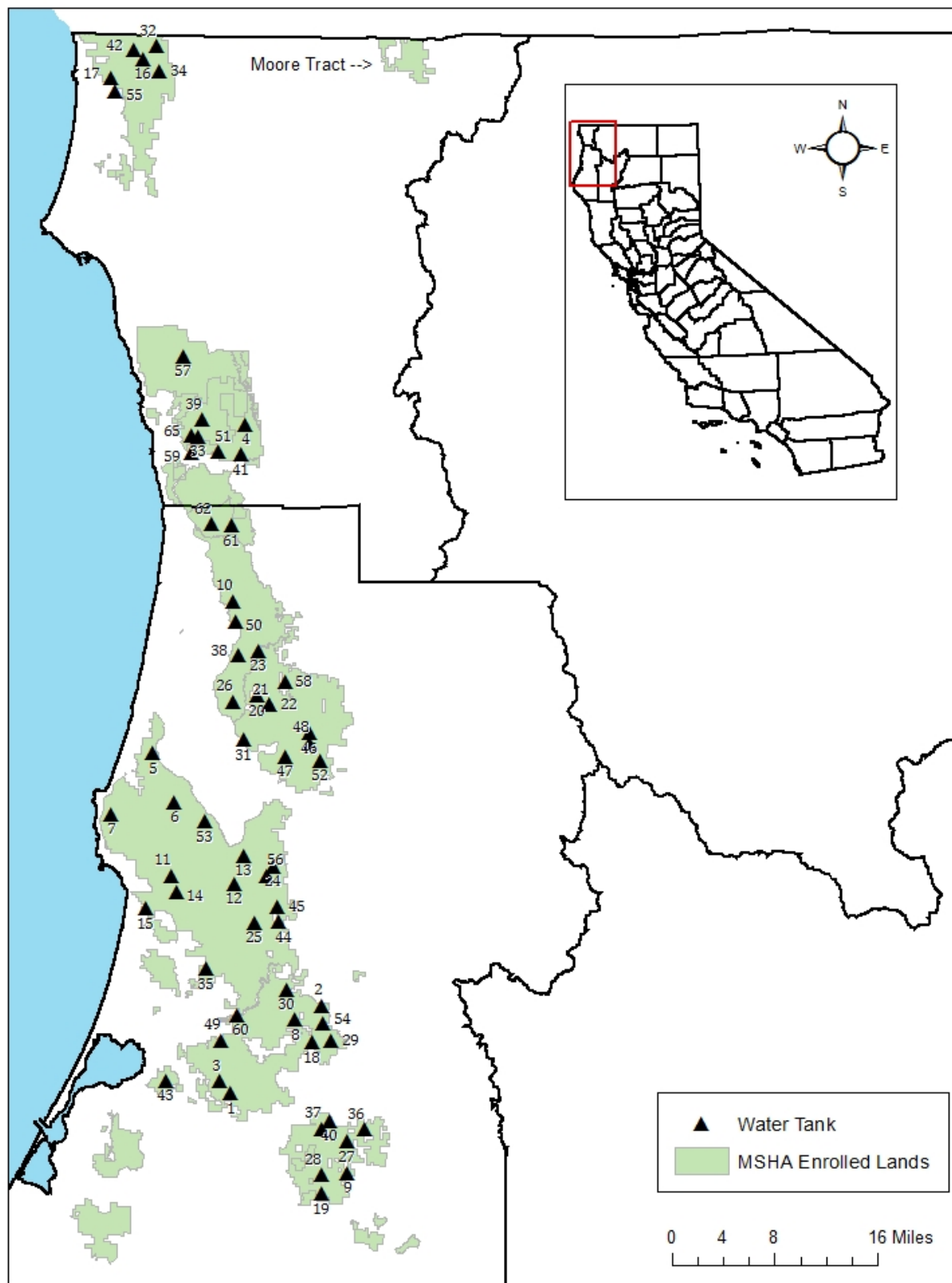


Figure 2. Water tank locations within the Enrolled Lands.

## **C. Discussion**

Green Diamond will conduct an occupancy analysis using the results from 2018-2019 and 2019-2020 sampling periods, and the results of this analysis will be made available in the fourth annual report. All active and historic water tanks were inspected during the current reporting period, and exclusion methods appear to be successful at preventing entrapment and drowning of marten and other species. Water tank inspections will continue in 2022 to ensure exclusion methods continue to be effective.

## **III. Habitat Modeling**

### **A. Methods**

After two complete surveys to assess marten occupancy within the Enrolled Lands and a portion of the Potential Marten Source Area, provided that an adequate sample size exists for analysis, Green Diamond will attempt to develop a model estimating the probability of marten occupancy in association with various habitat and physiographic variables. This modelling effort shall attempt to include all available and complementary survey efforts conducted within the range of the marten on the Enrolled Land.

### **B. Results**

Surveys for both sampling periods (2018/2019 and 2019/2020) were completed during the previous reporting period, and results from the initial modeling effort will be presented in the fourth annual report due March 1, 2023.

## IV. Land Transactions

### A. Methods

The major premise of the MSHA was that the extent and quality of habitat suitable for marten on the Enrolled Lands would increase over the 40-year permit term of the agreement. As part of the agreement, the baseline habitat conditions for the Enrolled Lands were quantified and described prior to the start of the permit term. Since land transactions (acquisitions and disposals) following implementation can have an effect on the baseline conditions, this chapter summarizes the land transactions that occurred during the reporting period and any effect on the baseline conditions.

### B. Results

There were seven land disposals and one land acquisition in the Enrolled Lands during the reporting period. Approximately 48.0 acres were added, and 88.61 acres were removed from the Enrolled Lands for a net decrease of 40.61 acres (Table 1).

Table 1. Summary of land transactions during the current reporting period within the Enrolled Lands.

Transaction Name	Transaction Type	Transaction Date	Acres
Lucchesi	Acquisition	12/24/2020	48.0
4130 Fickle Hill	Disposal	02/05/2021	(20.0)
Kruger and Cookson	Disposal	02/11/2021	(0.90)
Fort Dick	Disposal	04/21/2021	(6.5)
3969 Fickle Hill	Disposal	04/26/2021	(18.45)
Highway 101	Disposal	04/28/2021	(15.2)
Fort Dick	Disposal	08/02/2021	(26.6)
Ennes LLA	Disposal	08/04/2021	(0.96)
Total Change			- 40.61

### C. Discussion

The land disposals were small parcels that did not have an effect on the baseline conditions of the Enrolled Lands. The disposals were located greater than ten miles from contemporary marten detections, and none were located within the Marten Special Management Area (MSMA). The land acquisition, although relatively small in acreage, shared similar characteristics to the surrounding and adjacent Enrolled Lands. Therefore, the acquired land did not increase or decrease the landscape baseline conditions.

## V. THP Conservation Measures

### A. Methods

As outlined in the MSHA, habitat management measures for marten include timber harvest planning, marten habitat planning, and overall environmental resource planning. Site-specific measures were identified for each timber harvest plan (THP) initiated. The following summarizes habitat management features that were identified before and after timber harvest for THPs within the MSMA and the Moore Tract that were approved after April 27, 2018. Additionally, THPs located within Planning Watersheds located outside of the MSMA or Moore Tract with new marten detections also receive site-specific habitat measures for marten. On October 10, 2019, a marten was detected during a remote camera survey within the Maple Creek Planning Watershed.

#### 1. Pre-harvest Habitat Retention Planning

The six major habitat management measures quantified were:

- habitat retention areas (HRAs) planned on the guidelines stated below (number),
- habitat retained as a result of implementation of AHCP Riparian Management Zones (RMZ) and geologically unstable areas,
- retention of green wildlife trees outside of HRAs or RMZs specifically for marten (planned number of trees to be retained per acre individually or in clumps),
- snag retention (estimated number per acre present before and after harvest),
- large woody debris (LWD) retention specifically to benefit marten (number of structures present before and after harvest), and
- retention of den structures and HRAs around den structures (number of structures retained and acreage of surrounding HRAs).

In June 2007, Green Diamond began operating under an approved Aquatic Habitat Conservation Plan (AHCP)/Candidate Conservation Agreement with Assurances (CCAA). The riparian and slope protection measures under the AHCP also contribute to the development of future marten habitat across the landscape, and the riparian and geologic retention measures defined in the AHCP are incorporated into this MSHA. For young growth THPs, the amount of acreage retained in Class I and II RMZs or other partial harvest areas guided habitat retention. For Enrolled lands outside AHCP coverage (approximately 7,777 acres), riparian and geological retention measures were implemented in accordance with the California Forest Practice Rules, with the exception that RMZ's in the Moore Tract are limited to one harvest entry within the RMZ during the life of the MSHA concurrent with the even-aged harvest of the adjacent stand. An exception is light thinning harvest conducted with the specific objective of enhancing wildlife structure.

Within the MSMA, Moore Tract, and Maple Creek Planning Watershed, THP prescriptions included retention of downed large woody debris (LWD) to enhance structural complexity, foraging, denning, resting, and escape cover benefitting marten. Harvest units retained pre-existing non-merchantable large woody debris and merchantable large woody debris with existing hollows or evidence of internal rot and hollows. Harvest units also retained all "safe

snags” including questionable merchantable snags. Pre-harvest amounts of snags per acre were assessed by ocular estimate.

Green Diamond developed the Terrestrial Retention of Ecosystem Elements (TREE) Guidelines for retaining green trees and snags in young growth stands (see MSHA attachment 5). Green Diamond implemented the TREE guidelines on all Enrolled Lands. Specific TREE measures designed as a conservation benefit to marten were applied through a marten-specific SHA scorecard on timberlands within the MSMA, Moore Tract, Maple Creek Planning Watershed, and in future planning watersheds where marten are detected. Scorecard guidelines and a comparison between the marten-specific SHA scorecard and the scorecard for Enrolled Lands outside of the MSMA and Moore Tract are described below in Section 6. General guidelines for green wildlife tree retention are outlined below.

### **General Candidate Tree Selection for all Units:**

- Prefer defective or poorly formed trees (i.e. animal damaged, forked top, broken top, etc.)
- Prefer a mix of conifers and hardwoods (approximately 50/50 mix where possible)
- Species preference: Douglas fir, hemlock, white fir, cedar, spruce, redwood, tanoak, madrone, California laurel, chinquapin
- Consider protection from wind throw and site preparation burning when designating HRA and tree clump locations
- Retain trees with the average diameter equal to or greater than average diameter of trees in the THP area
- Green wildlife tree retention is in addition to snag and RMZ retention

### **Tree Retention Guidelines within the MSMA and Moore Tract**

#### *Conifer Dominated Harvest Areas with RMZ Retention:*

- Retain all conifer scorecard trees  $\geq 7$  in non-clearcut areas and in clearcut areas retain conifer scorecard trees at a rate of two trees per clearcut acre
- Retain all hardwood scorecard trees  $\geq 7$  in non-clearcut areas and in clearcut areas retain hardwood scorecard trees at a rate of three trees per clearcut acre
- Retain other evergreen hardwoods in clearcut areas at a rate of two trees per clearcut acre where they exist

#### *Conifer Dominated Harvest Areas without RMZ retention:*

- Retain all conifer scorecard trees  $\geq 7$  in non-clearcut areas and in clearcut areas retain conifer scorecard trees at a rate of two trees per clearcut acre
- Retain other conifer at a rate of two trees per clearcut acre
- Retain all hardwood scorecard trees  $\geq 7$  in non-clearcut areas and within clearcut areas retain hardwood scorecard trees at a rate of three trees per clearcut acre
- Retain other evergreen hardwoods within clearcut areas at a rate of two trees per clearcut acre where they exist (if a unit lacks hardwoods, retain conifer up to two trees per clearcut acre within clearcut areas)

*Hardwood Dominated Harvest Areas with RMZ Retention:*

- Retain two trees per clearcut acre
- Retain all conifer scorecard trees  $\geq 7$  within non-clearcut areas and in clearcut areas retain conifer scorecard trees at a rate of two trees per clearcut acre
- Retain all hardwood scorecard trees  $\geq 7$  in non-clearcut areas and in clearcut areas retain hardwood scorecard trees at a rate of three trees per clearcut acre
- Retain other evergreen hardwoods in clearcut areas at a rate of two trees per clearcut acre where they exist

*Hardwood Dominated Harvest Areas without RMZ Retention:*

- Retain all conifer scorecard trees  $\geq 7$  in non-clearcut areas and in clearcut areas retain conifer scorecard trees at a rate of two trees per clearcut acre
- Retain all hardwood scorecard trees  $\geq 7$  in non-clearcut areas and in clearcut areas retain hardwood scorecard trees at a rate of three trees per clearcut acre
- Retain a minimum 0.5 acre HRA or clumps totaling 0.5 acres and additional scattered or clumped evergreen hardwood trees at a rate of two trees per clearcut acre.

**2. Post-harvest Habitat Retention**

Post-harvest completion data were collected for units that received company harvest plan completions (all harvest and logging activities such as falling, yarding, loading, and hauling were completed) during the reporting period. For plan completions, the number of green wildlife trees retained was estimated as the number of remaining trees  $> 12"$  dbh per acre. Post-harvest LWD and snag retention for all units within the MSMA and Moore Tract were measured by ocular estimate following the completion of the harvest unit. Slash piles to benefit marten occupancy within the MSMA and Moore Tract were created post-harvest and retained at a rate of one structure per 5-10 clearcut acres within each ground-based unit. Slash pile numbers for clearcut harvest units were measured by ocular estimate following the completion of the harvest unit. If a THP was to be burned for site preparation, the completion data was not collected until after the plan was burned. It was noted for each completion whether site preparation, burning, windthrow or some other form of forest management damaged the retained habitat features.

**3. Commercial Thinning**

Commercial thinning involves removing selected trees that may contain commercial value in order to create additional growing space for crop trees. Commercial thinning on Green Diamond's forest lands is typically an intermediate treatment applied to younger stands that allows for the release of the selected crop trees by providing more light and in cases, more nutrients and soil moisture when they are limiting factors. The log size of these younger thinned stands is inherently smaller than those of an older stand ready for the final harvest stages of even-aged management (i.e., clearcut harvest). In addition to the release of crop trees, commercial thinning allows for the release of understory vegetation through increased light exposure. The release of understory vegetation may provide additional cover and an increase in mast production that may benefit martens. The protection measures and

mitigations included in a final clearcut harvest also apply to these intermediate thinning harvests with exception of the creation of slash piles. Given the goal of thinning harvests and amount of post-harvest habitat retention associated with this type of silviculture, marten habitat is at a minimum maintained, but this type of harvest should advance the development of marten habitat. Therefore, these units meet or exceed post-harvest habitat retention standards of the MSHA and are excluded from the pre- and post-harvest retention summaries in the annual report.

#### **4. Herbicide Applications**

Herbicide applications involve treating selected areas to eliminate vegetation in order to create growing space for crop trees (site preparation). Herbicide applications on Green Diamond's forest lands are applied via backpack spraying and hack and squirt applications. These herbicide applications allow for the release of selected crop trees by increasing light and in cases, more nutrients and soil moisture when they are limiting factors. Green Diamond utilizes backpack spraying to reduce competing vegetation and allow for the release of crop tree seedlings. These applications are typically applied during the end of the second growing season after the completion of a final clearcut harvest unit. The backpack application of herbicides does not affect the retention of green wildlife trees, tree clumps or HRAs within the original final harvest unit. Therefore, all prescribed retention including green wildlife trees retained as the result of the marten-specific TREE scorecard, are unaffected by these treatments. Hack and squirt herbicide applications on Green Diamond's forest lands are prescribed in units with sprouting hardwoods or young stands with a high volume of standing hardwoods. The log size of these younger stands is inherently smaller than those of an older stand ready for the final harvest stages of even-aged management (i.e., clearcut harvest). Given the smaller log size of treated stands and the amount of post-treatment habitat retention described above, marten habitat is maintained, but hack and squirt applications could also advance the development of marten habitat. Therefore, the units treated with these herbicide applications meet or exceed the habitat retention standards of the MSHA and are excluded from the pre- and post-harvest retention summaries in the annual report. However, the number of units and total acreage treated with herbicides are provided in the results.

Hack and squirt treatments may also be utilized in older stands as a stand-replacing harvest (commercial treatment) with post-harvest results similar to clearcut silviculture. The protection measures and mitigations included in final clearcut harvest units also apply to commercial hack and squirt units. The number of units and total acreage treated with hack and squirt applications that involve the elimination of commercial age trees are provided in the results.

#### **5. Den Sites**

Natal or maternal den structures were retained on the landscape, and tree retention around the den structure was incorporated when appropriate. The standard for tree retention around a natal den structure included a no-less-than 0.5-acre no-harvest HRA. Any harvest conducted within the natal den HRA was only done in consultation with CDFW. Harvest conducted within the natal den HRA was designed to protect the

biological integrity of the site and increase/accelerate development of large trees within the HRA.

Habitat retention around maternal den structures may have included the individual den structure element (live tree, snag, log, etc.), the individual structure with tree clump retention, or the individual structure and a 0.5-acre HRA with 70 percent over story tree canopy composed of a variety of tree sizes and tree species present in the existing pre-harvest stand. The tree retention around known den structures helped to retain existing biologically important habitat elements such as large trees, snags and large down wood.

## 6. TREE Scorecard Habitat Retention Comparison

Green Diamond will use a stratified random sample to analyze 10 percent of the THP units (pre-harvest) to quantify tree retention using the marten-specific TREE scorecard applied to the MSMA and Moore Tract versus the scorecard applied to the balance of the enrolled lands (Table 2). Green Diamond will conduct and report the results of this analysis at 5-year intervals. Green Diamond and CDFW will evaluate the results at the 5-year reporting intervals and during the adaptive management review in year 25 to determine if this monitoring process should be modified.

Table 2. Comparison of live tree retention features and scores associated with the TREE retention scorecards.

<b>Marten-specific SHA Tracts (MSMA and Moore Tract)</b>		<b>Balance of Enrolled Lands</b>	
Tree Elements	Score	Tree Elements	Score
Conifer > 30", hardwood > 18"	3	Conifer > 30", hardwood > 18"	3
Large cavity, hollow, basal hollow	4	Large cavity, hollow, basal hollow	4
Small cavity, broken top, reiteration	3	Small cavity, internal rot or mistletoe broom*	2
Crevice cover (fissure, loose bark, furrowed bark)	1	Crevice cover (loose or deeply furrowed bark)	1
Complex crown (dead or forked top, lateral large limbs, epicormic branching, ledge/platform)	1	Complex crown (lateral large limbs, epicormic branching)	1
Internal decay, mistletoe broom	2		

\* In marten-specific tracts, small cavities, broken tops, and reiterations are assigned higher values as these features pose a conservation benefit to marten.

## B. Results

Forty THPs comprised of 93 clearcut harvest units and ten emergency salvage units totaling 2624.37 acres received a company approved completion during the reporting period. Eighty-seven of these units were in the MSMA, ten units were in the Moore Tract, and six units in the Maple Creek Planning Watershed. Eight commercially thinned harvest units totaling 323.5 acres and ten emergency salvage units totaling 454.89 acres received approved completions during the reporting period and are excluded from the clearcut summary tables. For more details on the clearcut harvest unit retention see Appendix II and Tables 3, 4, 5, and 6.

### 1. Pre-harvest Habitat Retention Planning

Of the 93 clearcut harvest units, 85 were conifer dominated with RMZ retention and prescribed an average of 2.12 green wildlife trees (GWT) per clearcut acre. The remaining eight units were all conifer dominated without RMZ retention and prescribed an average of 2.60 GWT per clearcut acre (Table 3). The average number of scorecard trees marked for retention was 0.56 per clearcut acre. Fifteen HRAs were prescribed across 11 units and the average number of snags pre-harvest was estimated to be 0.68 snags per acre (Table 3).

Table 3. Summary of pre-harvest THP conservation measures for completed THP units (n=93 units).

	GWT/ acre* with RMZ	GWT/ acre without RMZ	Snags/ acre	HRAs (#)	Scorecard Trees (#)	Scorecard Trees /acre
Minimum	1.00	2.00	0.00	0.00	0.00	0.00
Maximum	5.00	4.80	3.00	3.00	76.00	3.69
Average	2.12	2.60	0.68	0.16	13.00	0.56

\*All acres are clearcut acres

GWT = Green Wildlife Tree

HRA = Habitat Retention Area

THP = Timber Harvest Plan

### 2. Post-harvest Habitat Retention

The 85 units with RMZ retention retained at least one GWT per clearcut acre with an average of 2.29 per clearcut acre. The eight units without RMZ retention retained at least two GWT per clearcut acre with an average of 2.66 per clearcut acre (Table 4). The average number of scorecard trees retained was 0.56 per clearcut acre, and all 15 HRAs were retained post-harvest. Among the 87 completed units in the MSMA, the average number of snags and large woody debris pieces retained post-harvest was 0.67 and 2.32 per acre, respectively (Table 4). A total of 966.80 acres were retained within riparian and geological retention areas, which were a mix of selective and no harvest. Harvest within these riparian areas

represent the one and only entry allowed under the Aquatic Habitat Conservation Plan and MSHA permit terms.

Sixty-six of the 87 completed units in the MSMA and three emergency salvage units in the Moore tract used ground-based harvesting methods on 1605.22 acres; and therefore, required creation and retention of at least one slash pile structure for every ten acres. All units requiring slash pile structures retained at least the minimum required number of slash pile structures with an average of 3.78 structures per 10 acres (Appendix II). Additional slash pile retention acres are included in the appendix when the data was available, but slash pile retention is not typically reported for units lacking ground-based clearcut acres. Therefore, the slash pile acres reported in the appendix underestimate the structures retained.

Table 4. Summary of post-harvest THP conservation measures for completed THP units (n=93 units).

	GWT/ acre* with RMZ	GWT/acre without RMZ	Snags/ acre	HRA (#)	Scorecard trees (#)	Scorecard trees/acre	LWD (#/acre)
Minimum	1.00	2.00	0.00	0.00	0.00	0.00	0.00
Maximum	4.70	4.80	2.00	3.00	76.00	3.69	15.00
Average	2.29	2.66	0.67	0.16	12.92	0.56	2.32

\*All acres are clearcut acres

GWT = Green Wildlife Tree

HRA = Habitat Retention Area

LWD = Large Woody Debris

THP = Timber Harvest Plan

Post-harvest slash pile burning occurred in three ground-based units associated with THP 73-1702 (1-18-081DEL) that was completed in a previous reporting period. All units maintained more than the minimum number of slash piles required post-burning.

### 3. Comparison of Pre- and Post-harvest Wildlife Retention Measures

The prescribed pre-harvest and post-harvest data were compared for the 93 THP units with company approved completions during the reporting period (Table 5 and Table 6). At times, trees were left for unanticipated reasons, and as long as they satisfied the criteria for a green tree, they were counted as additional trees in the post-harvest evaluation. However, they were not counted towards the green tree tallies unless previously marked during plan layout. In some cases, additional tree clumps were retained to comply with the Forest Stewardship Council (FSC) standards, but this additional retention was not counted towards the green tree or HRA tallies unless it satisfied green tree or HRA criteria.

Average post-harvest retention of green trees was greater than pre-harvest prescriptions, and all units retained equal to or greater than the required minimum (Table 5). Average post-harvest retention of wildlife scorecard trees was less than pre-harvest prescriptions. In 2021,

four units reported a loss of wildlife scorecard trees due to a combination of operational and safety constraints and windthrow. Post-harvest estimate of retained snags was equal to pre-harvest prescriptions. Pre-harvest estimates for large woody debris were not available during the reporting period; and therefore, no comparisons were included in this section. Likewise, slash pile creation and retention only occur post-harvest, and all ground-based clearcut units retained at least the minimum number of required structures.

Table 5. Comparison of pre- and post-harvest green tree retention for completed THP units (n=93 units).

	Pre GWT/ acre* with RMZ	Post GWT/ acre with RMZ	Pre GWT/ acre without RMZ	Post GWT/ acre without RMZ
Average	2.12	2.29	2.60	2.66
Average change/unit	0.17		0.06	

\*All acres are clearcut acres

THP = Timber Harvest Plan

GWT = Green Wildlife Tree

RMZ = Riparian Management Zone

Table 6. Comparison of pre- and post-harvest snag, HRA, and wildlife scorecard tree retention for completed THP units (n = 93 units).

	Pre Snag/ acre*	Post Snag/ acre	Pre HRA (#)	Post HRA (#)	Pre Scorecard Trees/acre	Post Scorecard Trees/acre	Pre Scorecard Trees (#)	Post Scorecard Trees (#)
Avg.	0.68	0.67	0.16	0.16	0.56	0.56	13.0	12.9
Avg. change/ unit	-0.01		0.00		0.00		-0.10	

\*All acres are clearcut acres

HRA = Habitat Retention Area

THP = Timber Harvest Plan

The Moore Tract had seven THPs comprised of ten emergency salvage units (454.89 acres) that terminated logging activity during the reporting period. The emergency salvage was in response to the Slater fire, which burned approximately 4,000 acres of the tract. The intent of salvage logging is to recover the dead and dying trees, therefore no live trees were harvested. In areas where the wildfire left less than two live trees per acre, additional dead or dying trees were retained to meet a minimum of two trees per acre. Given the nature of the emergency it was not possible to collect pre-harvest data and no comparison can be made.

#### **4. Herbicide Applications**

One-hundred-nine units (2366.2 total acres) were treated with herbicide applications during the reporting period. Zero of the 109 units were treated with hack and squirt herbicide applications that involved the treatment of commercial age trees. Additionally, 59.2 acres within the Moore Tract emergency salvage areas were treated during the current reporting period.

#### **5. Den Site Retention Measures**

No marten den structures were discovered within the Enrolled Lands during the reporting period.

#### **6. TREE Scorecard Habitat Retention Comparison**

Green Diamond will conduct and report the results of this analysis at 5-year intervals. Therefore, the results of the initial analysis will not be available until the 5<sup>th</sup> annual report (due March 2024).

### **C. Discussion**

Retention measures were implemented in compliance with the MSHA, and all required habitat retention features were successfully retained. Areas of habitat retained compared to the planned level of retention were equal in acreage for all but wildlife scorecard trees, green trees, and snags. Overall green tree retention was greater than the planned retention. At times, trees were left for unanticipated reasons, and if they satisfied the criteria for green trees, they were counted as additional retention. Additional marking of trees prior to operations may also occur. These trees are counted post-harvest because they were marked, however, they were not reported on during pre-harvest because they had not been marked or recorded on the pre-harvest form. RPFs noted the additional incidental retention of scattered and clumped sub-merchantable trees as a result of Green Diamond's Forest Stewardship Council (FSC) certification, but these habitat features were not quantified in this report. In many instances, this incidental structure is likely to add another element of structural diversity to future forest stands. Four units experienced a loss in wildlife scorecard trees due to a combination of operational and safety constraints and windthrow. Post-harvest snag retention was slightly less than pre-harvest estimates. Discrepancies between estimates of pre- and post-harvest snags are common. Since snags are not marked and tallied individually, inaccurate ocular estimates are often made on the number per acre, particularly during the pre-harvest phase when they are less obvious in the unharvested stand.

The greatest amount of habitat retention occurred in riparian and geologic retention areas. Class I and II watercourses are usually given canopy retention that exceeds the standard Forest Practice Rules, therefore representing a significant amount of retention for future marten habitat. Additionally, Green Diamond did not locate any marten den sites within 0.25

miles of a timber harvesting unit. Therefore, no den site protection or habitat retention measures were implemented during the current reporting period.

Appendix I. Inspection dates for all water tanks located within the Enrolled Lands in 2021.

<b>Tank ID</b>	<b>Tank Name</b>	<b>Inspection Date</b>
1	7010	9/20/2021
2	2000 Drafting	9/9/2021
3	5000/Dry Creek	9/20/2021
4	U10 Terwar Creek Drafting	9/08/2021
5	BL1100	9/09/2021
6	BL2000	9/09/2021
7	BL3900	9/22/2021
8	C900	9/07/2021
9	Chaparrel	9/20/2021
10	CL South	10/04/2021
11	CR1300 Drafting	9/09/2021
12	CR2700 Drafting	9/09/2021
13	CR2900	9/09/2021
14	CR3000	9/09/2021
15	Crannell Well	9/22/2021
16	D1000/W1000	9/21/2021
17	D111/Ritmer Creek	9/21/2021
18	Fernwood	9/07/2021
19	Graham Creek Lower	9/27/2021
20	HC120	9/13/2021
21	HC130	9/13/2021
22	HC132	9/13/2021
23	J1100	9/28/2021
24	K&K 900	9/07/2021
25	K&K LR	9/07/2021
26	K&K North	9/28/2021
27	Little Boulder Creek	9/20/2021
28	Miller's Road	9/16/2021
29	Noisy Creek	9/13/2021
30	Old-299	9/09/2021
31	R120	10/06/2021
32	R2000	9/21/2021
33	R4	9/08/2021
34	Ravine Creek	9/21/2021
35	Ribar	9/21/2021
36	Roddiscraft	9/20/2021

<b>Tank ID</b>	<b>Tank Name</b>	<b>Inspection Date</b>
37	Snow Camp Powerline	9/27/2021
38	T100 Bridge	8/09/2021
39	Teepo Ridge	9/20/2021
40	Twin Tanks	9/27/2021
41	U100 Dandy Creek	9/20/2021
42	W2300	9/21/2021
43	Washington Gulch Drafting	9/09/2021
44	Wiregrass East	9/22/2021
45	Wiregrass West	9/13/2021
46	WM10	9/07/2021
47	WM200	9/28/2021
48	WM710	9/07/2021
49	4100	2/18/2021
50	A400 Bridge Drafting	8/09/2021
51	Arrow Mills Historic Mill	8/17/2021
52	BH1900	9/07/2021
53	BL2011	9/22/2021
54	CP2000	9/13/2021
55	D1000 Culvert Yard	9/21/2021
56	DV2400	9/09/2021
57	H400	9/28/2021
58	HC1000	11/02/2021
59	Klamath Mill	9/08/2021
60	Morgan Creek	8/25/2021
61	NF1000	9/28/2021
62	SA800	9/13/2021
63	S-Line	8/13/2021
64	Sproul East*	9/14/2021
65	Sproul West*	9/14/2021
66	T150	9/08/2021

\*Denotes tanks inspected but not located within the Enrolled Lands, and therefore not included in the report summaries.

## Appendix II. Raw data for habitat retention measures for individual clearcut harvest units summarized in Tables 3, 4, 5, and 6 (2021).

THP # <sup>1,2</sup>	Unit	Acres	Pre HRA #	Post HRA #	Pre green trees/ acre	Post green trees/ acre	Pre snags/ acre	Post snags/ acre	Pre scorecard trees/ acre	Post scorecard trees/ acre	LWD / acre	Dominance	RMZ acres	Slash piles retained # <sup>3,4</sup>
471902 <sup>1</sup>	E	20.08	0	0	1.38	1.38	0.25	0.25	0	0	0.0	Conifer	12.72	0
471902 <sup>1</sup>	F	43.40	0	0	2.65	2.65	0.50	0.50	26	26	0.0	Conifer	12.82	0
471902 <sup>1</sup>	G	35.88	1	1	1.75	1.75	0.25	0.25	7	7	0.0	Conifer	2.06	0
472003 <sup>1</sup>	C	14.50	0	0	1.6	1.20	0.10	0.10	12	12	1.0	Conifer	4.28	0
472003 <sup>1</sup>	D	11.26	0	0	2.3	3.80	0.10	0.10	1	1	1.0	Conifer	13.25	0
472003 <sup>1</sup>	E	6.66	0	0	1.19	1.50	0.10	0.10	0	0	1.0	Conifer	11.43	0
511705	B	20.92	0	0	2.00	2.00	0.50	0.50	31	31	2.0	Conifer	15.70	2
511705	C	20.31	0	0	2.00	2.00	0.50	0.50	13	13	2.0	Conifer	17.80	2
511705	I	29.69	0	0	1.00	1.00	0.50	0.50	0	0	2.0	Conifer	12.23	0
511705	J	14.90	0	0	2.50	2.50	0.50	0.50	0	0	2.0	Conifer	9.25	0
511706	E	16.62	0	0	2.00	2.00	0.50	0.50	23	23	0.2	Conifer	1.01	4
511706	F	27.67	2	2	1.00	1.00	0.50	0.50	20	23	0.2	Conifer	1.62	3
511802	A	25.95	0	0	2.20	3.00	0.10	0.50	30	30	1.0	Conifer	19.07	2 <sup>4</sup>
511802	B	28.13	0	0	2.30	3.00	0.10	0.50	43	43	1.0	Conifer	22.10	3 <sup>4</sup>
511802	C	34.40	0	0	2.00	2.00	0.10	0.10	56	56	1.0	Conifer	6.35	3 <sup>4</sup>
511802	D	26.14	0	0	2.00	2.00	0.10	0.10	5	5	1.5	Conifer	3.21	2 <sup>4</sup>
511802	E	27.33	0	0	3.30	3.30	0.20	0.20	62	62	1.0	Conifer	14.04	2
511802	F	19.71	0	0	4.80	4.80	0.10	0.20	53	53	1.0	Conifer	0.00	3
511802	G	20.57	0	0	4.00	4.00	0.10	0.10	76	76	1.0	Conifer	4.64	3
511803	A	22.75	1	1	2.00	2.00	0.50	0.50	0	0	3.0	Conifer	1.91	3
511803	C	29.53	0	0	2.00	2.00	0.50	0.50	22	22	4.0	Conifer	5.63	3
511803	D	23.99	0	0	2.00	2.00	0.50	0.50	1	1	3.0	Conifer	7.30	3
511901	A	26.23	3	3	4.00	4.00	0.10	0.10	0	0	1.0	Conifer	0.00	5
511901	B	25.00	0	0	1.60	4.00	0.10	0.20	25	25	1.0	Conifer	2.16	25

THP # <sup>1,2</sup>	Unit	Acres	Pre HRA #	Post HRA #	Pre green trees/ acre	Post green trees/ acre	Pre snags/ acre	Post snags/ acre	Pre scorecard trees/ acre	Post scorecard trees/ acre	LWD / acre	Dominance	RMZ acres	Slash piles retained # <sup>3,4</sup>
561802	A	22.66	0	0	2.00	2.00	2.00	0.50	1	1	1.0	Conifer	10.90	22
561802	B	15.98	0	0	2.00	2.00	0.50	0.50	5	5	0.5	Conifer	15.67	8 <sup>4</sup>
561802	C	31.79	0	0	1.00	1.00	0.00	0.00	0	0	1.0	Conifer	3.64	25
561803	A	23.18	0	0	1.25	1.25	0.00	0.00	2	2	0.0	Conifer	4.91	2
561803	B	28.36	0	0	1.00	1.00	0.00	0.00	1	1	0.0	Conifer	15.05	3
561803	D	25.03	0	0	1.20	1.20	0.00	0.00	1	1	0.0	Conifer	11.97	1
561803	E	26.42	0	0	2.60	2.60	0.00	0.00	3	3	0.0	Conifer	8.21	3
561805	A	17.16	0	0	2.00	2.00	0.00	0.00	6	6	0.0	Conifer	17.76	0
561805	C	26.94	0	0	3.77	3.77	0.00	0.00	39	39	0.0	Conifer	7.49	1
561806	A	22.96	0	0	2.00	2.20	0.25	0.30	53	49	2.0	Conifer	2.28	3 <sup>4</sup>
561806	B	29.77	0	0	3.50	2.50	0.25	0.80	55	49	2.0	Conifer	7.80	3 <sup>4</sup>
561806	E	25.17	0	0	4.70	4.70	0.10	0.10	75	73	1.0	Conifer	7.63	3
561901	B	15.89	0	0	2.00	2.00	0.10	0.10	50	50	0.2	Conifer	0.00	2
561901	F	28.73	0	0	2.00	2.00	0.10	0.20	3	3	0.2	Conifer	4.85	4
561901	G	22.79	0	0	2.00	2.00	0.10	0.20	8	8	0.1	Conifer	22.81	4
561901	H	37.15	0	0	2.00	2.20	0.10	0.20	24	24	0.1	Conifer	7.04	2 <sup>4</sup>
561904	A	30.14	0	0	2.00	2.00	1.00	1.00	4	4	1.0	Conifer	15.54	6
561904	B	25.35	0	0	2.00	2.50	1.00	1.00	3	3	0.5	Conifer	3.36	8
561904	D	24.23	0	0	2.00	4.00	1.00	1.00	9	9	1.0	Conifer	2.21	10
561904	F	18.49	0	0	2.00	2.00	0.00	1.00	10	10	2.0	Conifer	6.09	6
561904	G	24.79	0	0	2.00	2.00	1.00	1.00	5	5	0.5	Conifer	9.52	2
561904	I	29.30	0	0	2.00	4.00	1.00	1.00	5	5	2.0	Conifer	3.21	15
561904	J	27.11	0	0	2.00	3.00	1.00	1.00	6	6	0.5	Conifer	3.65	10
611801	D	30.40	0	0	2.00	2.00	1.00	1.00	0	0	2.0	Conifer	10.47	2
661801	A	32.41	0	0	2.78	2.78	1.00	1.00	29	29	3.0	Conifer	14.14	14
661801	B	27.41	0	0	2.00	2.00	0.50	0.50	4	4	3.0	Conifer	12.24	15

THP # <sup>1,2</sup>	Unit	Acres	Pre HRA #	Post HRA #	Pre green trees/ acre	Post green trees/ acre	Pre snags/ acre	Post snags/ acre	Pre scorecard trees/ acre	Post scorecard trees/ acre	LWD / acre	Dominance	RMZ acres	Slash piles retained # <sup>3,4</sup>
661802	G	22.41	0	0	2.40	2.40	0.50	0.40	9	9	2.0	Conifer	11.20	12
661901	A	18.82	0	0	2.00	2.00	0.50	0.50	1	1	5.0	Conifer	4.70	2
661901	B	17.22	0	0	2.00	3.00	0.50	0.50	1	1	4.0	Conifer	6.59	2
661901	C	13.90	0	0	2.00	2.00	0.50	0.50	0	0	7.0	Conifer	9.34	2 <sup>4</sup>
661901	D	22.99	0	0	2.00	2.00	0.50	0.50	2	2	6.0	Conifer	9.21	3
662001	A	22.77	0	0	2.00	2.00	0.50	0.50	8	8	0.5	Conifer	13.72	2
662002	B	21.24	1	1	2.00	2.00	0.50	0.50	2	2	6.0	Conifer	1.83	3
711702	C	13.90	0	0	2.00	2.00	3.00	2.00	6	6	2.0	Conifer	3.61	12
711801	A	30.17	1	1	2.00	2.00	0.25	0.25	13	13	5.0	Conifer	6.76	3
711801	D	20.75	0	0	2.00	2.00	0.25	0.25	6	6	4.0	Conifer	18.09	4
711801	E	30.20	0	0	2.00	2.00	0.25	0.25	14	14	5.0	Conifer	3.82	3
711801	F	33.73	0	0	2.00	2.00	0.25	0.25	3	3	7.0	Conifer	6.86	4
711802	C	26.74	0	0	2.00	2.50	0.10	0.20	27	27	0.1	Conifer	0.00	3
711802	F	27.78	0	0	2.00	2.20	0.10	0.20	11	11	0.1	Conifer	0.51	4
711803	B	28.44	1	1	2.42	3.00	1.00	1.00	4	4	2.0	Conifer	0.33	10
711803	E	21.23	0	0	2.72	3.00	1.00	1.00	8	8	2.0	Conifer	5.39	4 <sup>4</sup>
711803	F	28.15	0	0	2.10	3.00	1.00	1.00	0	0	2.0	Conifer	0.56	8
711803	G	25.17	0	0	2.68	3.00	1.00	1.00	14	14	2.0	Conifer	3.25	10
711803	I	36.11	0	0	2.46	3.00	2.00	2.00	39	39	2.0	Conifer	7.06	12
711902	C	19.74	0	0	2.00	2.00	1.00	1.00	3	3	2.0	Conifer	7.22	8
711902	D	29.23	0	0	2.00	2.00	1.00	1.00	4	4	2.0	Conifer	13.58	5 <sup>4</sup>
711903	A	13.24	0	0	2.00	2.00	0.50	0.50	2	2	10.0	Conifer	10.09	3 <sup>4</sup>
711903	B	12.54	0	0	2.00	2.00	0.50	0.50	2	2	11.0	Conifer	3.57	2 <sup>4</sup>
711904	C	29.49	0	0	2.00	2.00	1.00	1.00	3	3	2.0	Conifer	7.55	5
711904	D	20.27	0	0	2.00	2.00	1.00	1.00	21	21	2.0	Conifer	3.88	5
731802	A	4.07	0	0	2.00	2.00	1.00	0.50	0	0	0.5	Conifer	14.88	5 <sup>4</sup>

THP # <sup>1,2</sup>	Unit	Acres	Pre HRA #	Post HRA #	Pre green trees/ acre	Post green trees/ acre	Pre snags/ acre	Post snags/ acre	Pre scorecard trees/ acre	Post scorecard trees/ acre	LWD / acre	Dominance	RMZ acres	Slash piles retained # <sup>3,4</sup>
731802	B	26.75	0	0	2.00	2.00	0.00	0.50	1	1	0.5	Conifer	3.03	5
731802	E	19.84	0	0	2.00	2.00	1.00	0.50	6	6	1.0	Conifer	3.62	15
731901	B	13.19	2	2	2.00	2.00	0.50	0.50	0	0	8.0	Conifer	0.00	3 <sup>4</sup>
731901	C	13.01	1	1	2.00	2.00	0.50	0.50	1	1	9.0	Conifer	0.00	2
851602	A	16.17	0	0	2.00	3.00	2.00	2.00	2	2	2.0	Conifer	10.79	32
851602	C	18.48	0	0	2.00	2.00	2.00	1.00	19	19	2.0	Conifer	3.30	7 <sup>4</sup>
851801	B	17.69	0	0	5.00	2.00	2.00	2.00	0	0	2.0	Conifer	5.68	39
851801	C	12.59	0	0	2.00	2.00	2.00	2.00	1	1	2.0	Conifer	3.75	24
851803	C	26.97	0	0	2.00	3.00	2.00	2.00	24	22	2.0	Conifer	1.55	10
851803	D	30.78	0	0	2.00	2.00	2.00	2.00	3	3	2.0	Conifer	3.07	30
851803	G	28.51	0	0	2.00	2.00	2.00	2.00	2	2	2.0	Conifer	9.05	22
851803	H	20.16	0	0	2.00	2.00	2.00	2.00	2	2	4.0	Conifer	0.00	15
851901	C	22.69	0	0	2.00	2.00	2.00	2.00	0	0	2.0	Conifer	11.55	1 <sup>4</sup>
851901	E	11.91	0	0	2.00	3.00	2.00	2.00	0	0	3.0	Conifer	13.85	1 <sup>4</sup>
851901	F	14.06	0	0	2.00	2.00	2.00	2.00	7	7	2.0	Conifer	0.00	3
872001 <sup>2</sup>	A	108.91	0	0	NA <sup>5</sup>	0.00	NA	10.0	NA	15	0.0	Conifer	4.53	30
872003 <sup>2</sup>	B	19.83	0	0	NA	1.00	NA	0.50	NA	5	0.5	Conifer	9.47	1 <sup>4</sup>
872004 <sup>2</sup>	A	9.43	0	0	NA	1.25	NA	0.50	NA	4	0.75	Conifer	5.55	0
872005 <sup>2</sup>	A	36.85	0	0	NA	2.00	NA	10.0	NA	5	0.5	Conifer	17.91	2 <sup>4</sup>
872005 <sup>2</sup>	B	58.72	0	0	NA	2.00	NA	20.0	NA	80	0.5	Conifer	67.12	30
872101 <sup>2</sup>	A	18.40	0	0	NA	3.00	NA	2.00	NA	2	1.0	Conifer	1.63	10
872101 <sup>2</sup>	B	143.02	0	0	NA	0.50	NA	8.00	NA	16	0.5	Conifer	30.41	2 <sup>4</sup>
872102 <sup>2</sup>	A	18.40	0	0	NA	0.50	NA	5.00	NA	1	1.0	Conifer	2.96	0
872103 <sup>2</sup>	A	22.90	0	0	NA	2.00	NA	1.20	NA	1	0.5	Conifer	0.00	4 <sup>4</sup>
872103 <sup>2</sup>	F	23.68	0	0	NA	4.00	NA	3.80	NA	0	0.25	Conifer	0.00	11 <sup>4</sup>
981801	A	13.12	1	1	2.00	2.00	0.25	0.25	30	30	15.0	Conifer	0.00	5

THP # <sup>1,2</sup>	Unit	Acres	Pre HRA #	Post HRA #	Pre green trees/ acre	Post green trees/ acre	Pre snags/ acre	Post snags/ acre	Pre scorecard trees/ acre	Post scorecard trees/ acre	LWD / acre	Dominance	RMZ acres	Slash piles retained # <sup>3,4</sup>
981801	B	26.78	1	1	2.00	2.00	0.25	0.25	5	5	10.0	Conifer	0.51	4

<sup>1</sup> Units located within the Maple Creek Planning Watershed.

<sup>2</sup> Emergency salvage units.

<sup>3</sup> Units with zero slash pile retention did not require slash pile retention due to being located with the Maple Creek Planning Watershed or due to the unit not containing ground-based clearcut acres.

<sup>4</sup> Units not requiring slash pile retention due to a lack of ground-based clearcut acres but where slash piles were retained and reported post-harvest. Acres not included in chapter summaries.

<sup>5</sup> NA = Not Applicable.