

Appendix J
LAND TRANSACTIONS

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Plum Creek (North Fork Green River Trust Land Exchange)

Chapter 3 (p. ##) provides the background information concerning the importance of land transactions and DNR’s criteria (as provided in the 1998 *Asset Stewardship Plan*) for managing land transactions.

Forestland conversions are the primary indicator for some land transactions because revenues from timber sales (forest investment value) often cannot outweigh land development values in suburban and urban areas. Since the Draft EIS was published in 2008, DNR has completed the North Fork Green River Trust Land Exchange as discussed in Chapter 3 (p ##).

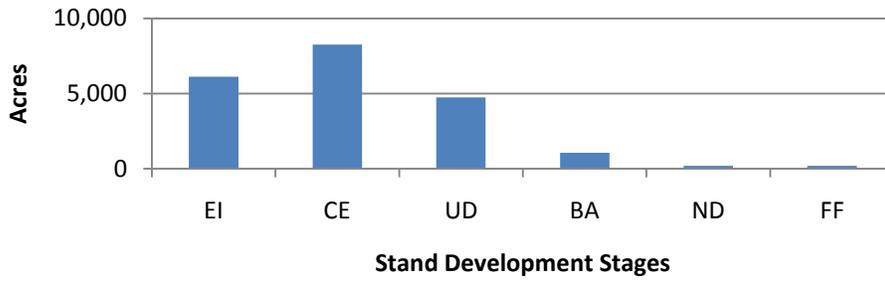
The lands gained from this exchange will increase DNR’s ownership in this planning unit by approximately 14 percent (Table J-1), while the majority of lands were gains, 560 acres were traded out of trust ownership. The acquired North Fork Green River Trust Land Exchange is located within the City of Tacoma’s Green River watershed, in east King County (Map J-1). For the approximately 20,600 acres of land acquired, DNR exchanged approximately 6,000 acres — mostly in isolated parcels in west and southwest Washington. Map J-2 shows the approximate location of lands DNR exchanged which will no longer be managed in this planning unit.

Table J-1. Watersheds and Acreages Changes with the Land Exchange

Watersheds (WAUs)	Total WAU Acres	Total Acres in Land Exchange	Current DNR-Managed Forest Acres	New Combined DNR-Managed Acres	New DNR-Managed WAU Percentage	Change From Existing Percentage
Howard Hansen	46,483	9,166	15,466	24,632	53%	+ 18%
North Fork Green	18,446	5,388	6,229	11,617	63%	+ 27%
Lester	32,809	2,370	0	2,370	7%	+ 7%
Smay Ck.	14,464	1,908	0	1,908	13%	+ 13%
Greenwater	49,586	133	106	239	> 1%	> 1%
Middle White	28,677	99	1	100	> 1%	> 1%
Chester-Morse	52,103	55	0	55	> 1%	> 1%

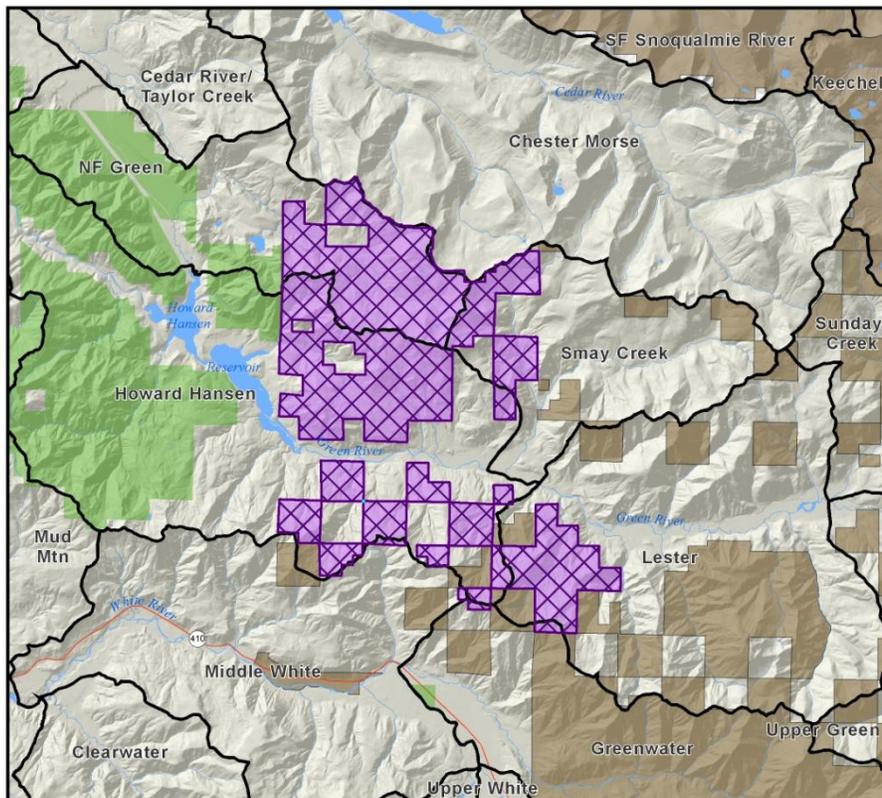
The current stand development stages for the lands within this exchange are presented in Chart J-1. The majority of stands are young forests with little in structurally complex conditions.

Chart J-1. Current Stand Development Stages

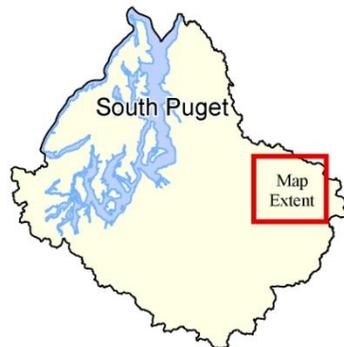


*EI= Ecosystem Initiation, CE= Competitive Exclusion, UD= Understory Development, BA= Biomass Accumulation, ND= Nitch Diversification, FF= Fully Functional

Map J-1. Location of North Fork Green River Trust Land Exchange



Draft
Map by Kara Kerkick 09/25/09



- WAU
- DNR Gains
- DNR-Managed Lands
- Federal Lands

Map J-2. Locations of Isolated Parcels Exchanged by DNR in Both the Planning Unit and Throughout the State



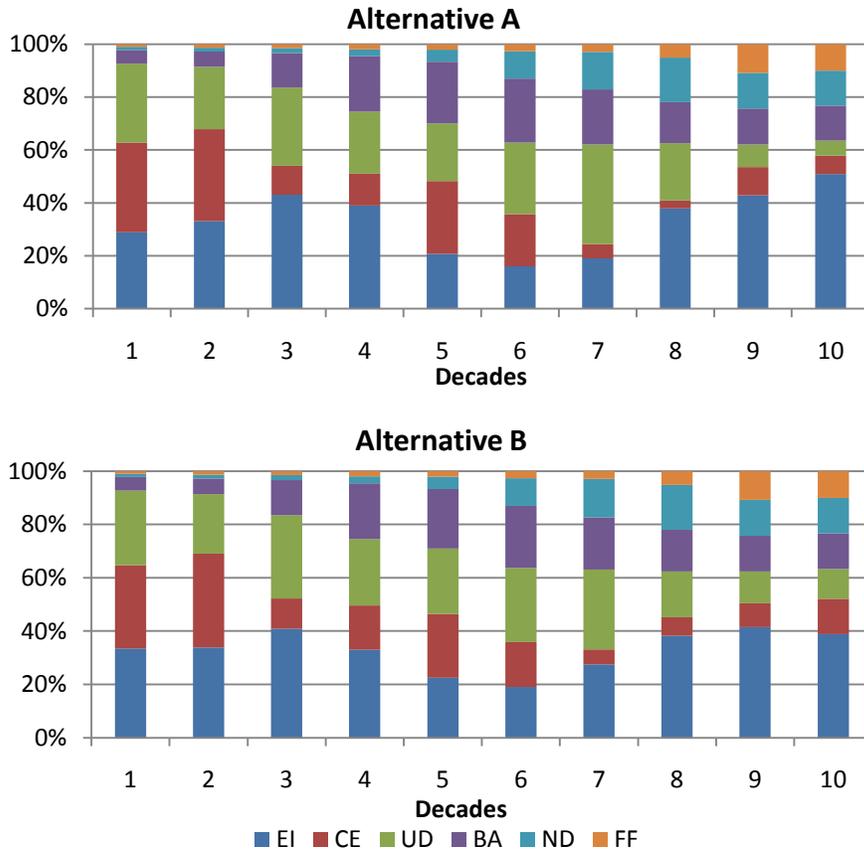
Timber harvesting methods influence forest conditions and are used in this analysis to help explain the modeling results under Alternatives A and B, Alternative C was not evaluated for this acreage. The average harvesting methods are presented in Table J-2 along with an estimate of the total exchange acres projected to be harvested over the 100-year modeling horizon.

Table J-2. Average Acres Harvested by Methods

Alternative	Thinning Acres	Variable Retention	Total Acres
A	271	2,104	23,746
B	248	2,178	24,262

The harvesting methods presented in Table J-1 result in the projected stand development stages under Alternatives A and B, which are presented in Figure J-1. This figure only represents lands within the land exchange (approximately 20,600 acres).

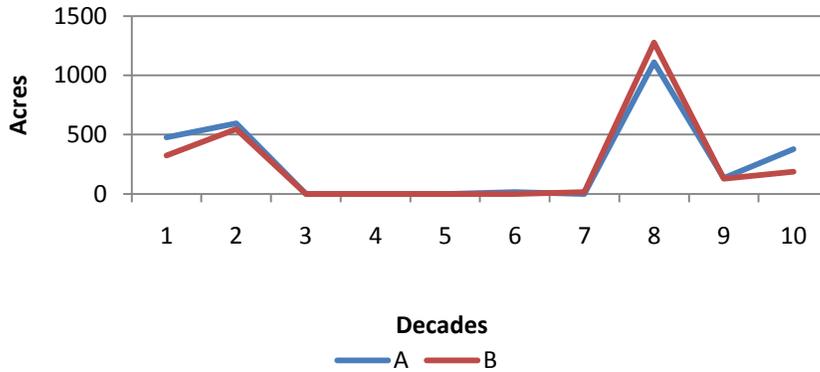
Figure J-1. Changes from Current Stand Development Stages* for North Fork Green River Trust Land Exchange over 100 Years



*EI= Ecosystem Initiation, CE= Competitive Exclusion, UD= Understory Development, BA= Biomass Accumulation, ND= Nitch Diversification, FF= Fully Functional

The acreage of thinning activities under Alternatives A and B is very similar and shown in Chart J-2. During the first and second decades about three percent of this land exchange is forecast to have thinning activities followed by four decades with no activities. This is due to the existing stand conditions (Figure J-1) and by decades six and seven there is a higher proportion of stand in the Understory Development stage which require more thinning treatments to reduce stand densities resulting in more structurally complex conditions.

Chart J-2. Thinning Activities by Decade



When looking at the level of variable retention harvests over the next 10 decades there is a noticeable difference between alternatives. Alternative A appears to have a more steady harvest level over the decades while Alternative B varies quite a bit between decades. However, the highest harvest levels are projected to occur the seventh decade affecting 30 percent of the area. In order to modify these sharp increases and declines an even flow strategy was used to moderate Alternative B which is shown in Chart J-4.

Chart J-3. Variable Retention Harvests by Decade

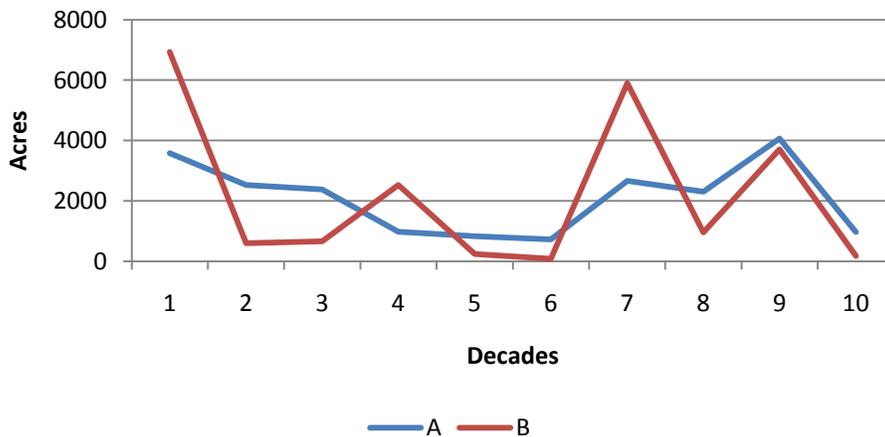
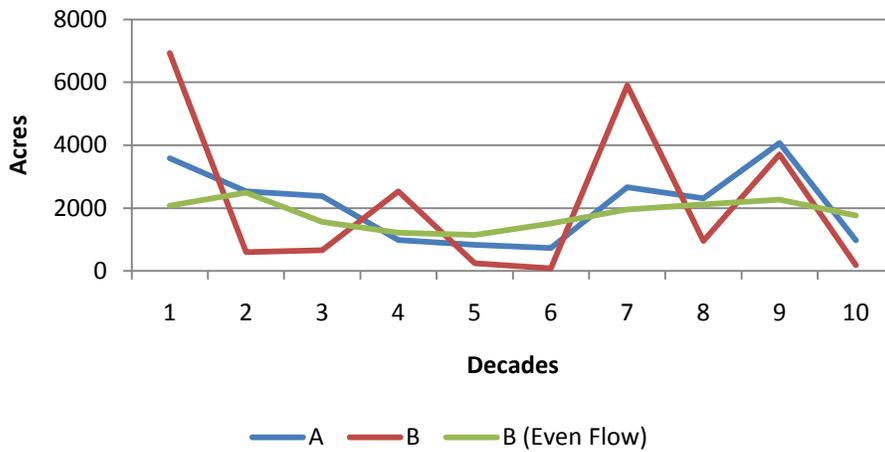
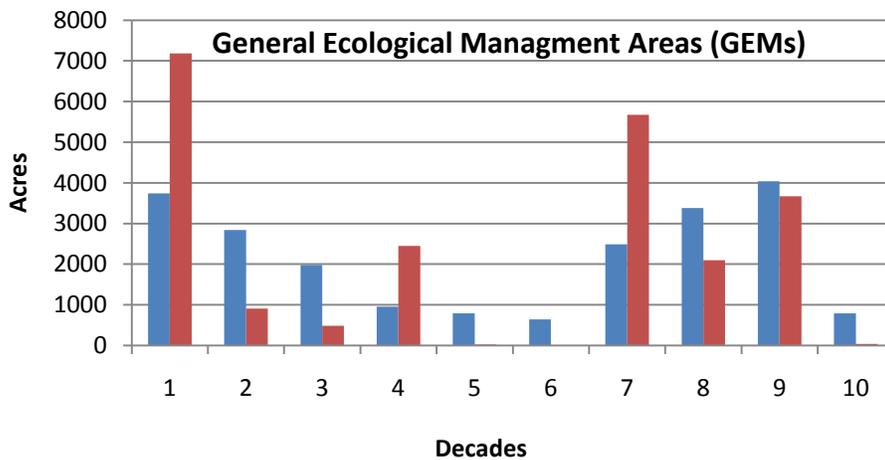


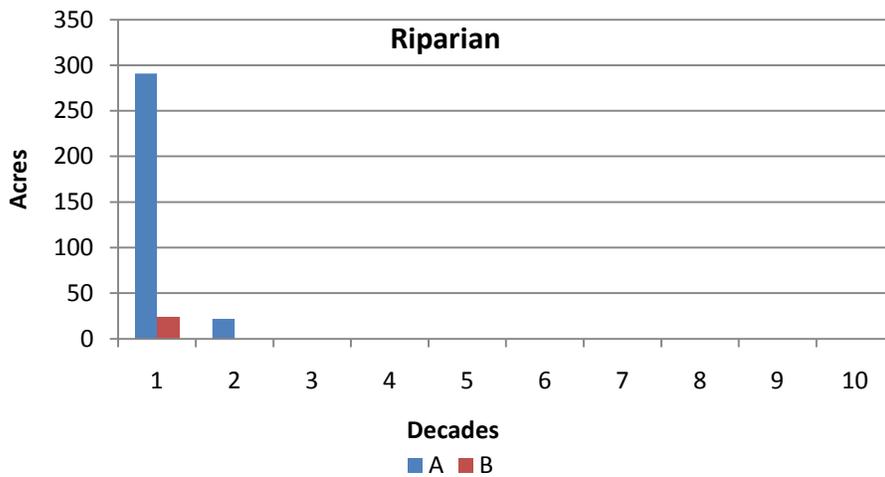
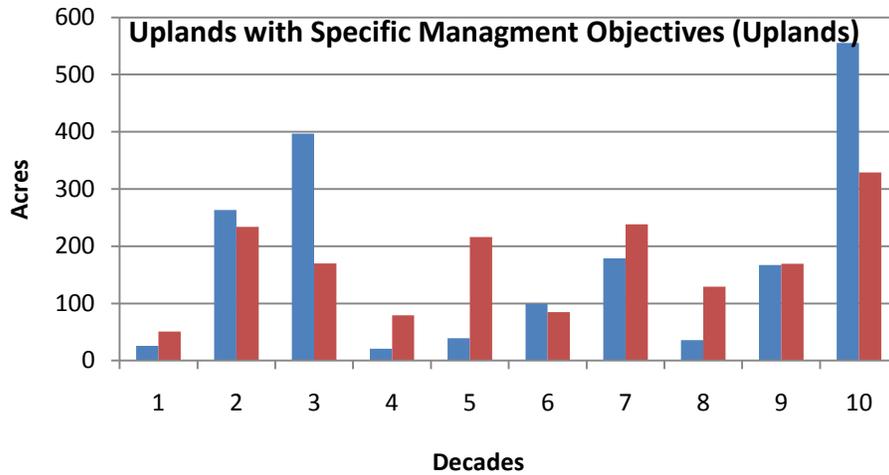
Chart J-4. Variable Retention Harvests by Decade with Even Flow



When these harvest levels are broken down by the different land classes further trends are observed (Figure J-2). It should be noted that the following figure has different scales for each land class due to the small number of activities in Uplands and Riparian areas.

Figure J-2. Total harvest Activities by Land Class, Alternative, Decade





HARVEST ACTIVITIES BY WATERSHED

Table J-1 provides the average area harvested (thinning vs. variable retention harvest) by watershed.

Land Transaction Discussion

The North Fork Green River Trust Land Exchange creates a larger block of trust lands which will potentially make long-term forest management easier (refer to Maps 4-1 and 4-2). The majority of trust lands traded in the North Fork Green River Trust Land Exchange were difficult to manage as working forestlands because they were smaller, isolated parcels located closer to the urban interface.

The current stand development stages shown in Chart J-1 are consistent with the management of a commercial forest company where the majority of the timber is harvested when it reaches its optimum revenue return on investment. Currently, few acres contains stands in the Nitch Diversification and Fully Functional (FF) stand development stage; however over time more

complex stand development stages are expected to increase as Competitive Exclusion, Understory Development decrease as show in Figure J-1.

A point of interest in Figure J-1 is the proportion of stands in the Ecosystem Initiation stage in 2109. While the acreage in the Ecosystem Initiation stage is higher at the end of the planning horizon the other stand development acres have increased as well. The stand development stages for each alternative follow similar patterns for each stand development stage.

Land Transaction Mitigation

The North Fork Green River Trust Land Exchange was previously owned by the Plum Creek Timber Company which managed these lands under the *Plum Creek Timber Company, Inc. Habitat Conservation Plan* (refer to Appendix J). However, these lands will now be managed under DNR’s 1997 *Habitat Conservation Plan* which is a multi-species plan resulting in additional protections over the long-term as outlined in Table J-3.

Table J-3. Additional Protections Provided by DNR’s 1997 Habitat Conservation Plan

Landscape Features:	
Riparian	More protection on perennial, non-fish bearing streams.
Wetland Buffers	More protection for Type A and B Wetlands.
Caves	Larger buffers for cave entrances.
Cliffs	As identified protection strategies are developed.
Old Growth	Procedure to protect 5 acres and larger of pre-1850 stands; protection of single trees ≥ 60 inches dbh.
Balds	Procedure designed to restrict disturbance.
Habitats:	
Marbled Murrelet	Developing a long-term conservation strategy; deferring suitable habitat.
Golden Eagles	Provides buffers during nesting season.

Comparison of Plum Creeks HCP vs. DNR’s 1997 HCP Appendix J