



# State Trust Land Inventory Evaluation **Report to the Legislature**

---

December 2014



WASHINGTON STATE DEPARTMENT OF  
**Natural Resources**  
Peter Goldmark - Commissioner of Public Lands

# Acknowledgements

## Steering Committee and Project Team

Jed Herman, Manager, *Conservation, Recreation and Transactions Division*

Angus Brodie, Manager, *Forest Resources Division*

Pene Speaks, Assistant Manager, *Conservation, Recreation and Transactions Division*

Dave Gordon, Assistant Manager, *Conservation, Recreation and Transactions Division*

Curt Pavola, Manager, *Natural Areas Program*

John Gamon, Manager, *Natural Heritage Program*

Bob Winslow, Manager, *Trust Land Transfer Program*

Doug McClelland, Assistant Manager, *South Puget Sound Region*

Rex Crawford, Ecologist, *Natural Heritage Program*

Chad Unland, Leasing and Rights of Way Section Manager, *Southeast Region*

Brett Walker, Natural Resources Project Section Manager, *Northeast Region*

## Project Staff

Linda Kunze, Project Manager

Mike Buffo, Project Analyst

Marshall Udo, GIS Specialist

Nancy Charbonneau, Graphic Designer

*Communications & Outreach Group*

Thanks are due to DNR regional staff who spent time consulting on and reviewing project materials, in spite of an intense fire season. Thanks are also due to staff of DNR's Natural Heritage, Natural Areas, Recreation, and Transactions Programs, and the Forest Resources and Geology Divisions. Special thanks to those who provided input from outside of the department – from the Washington State Parks and Recreation Commission's Lands Program, the Governor's Salmon Recovery Office, and Washington State Department of Fish and Wildlife's Lands and Science Divisions.

## Washington State Department of Natural Resources

**Conservation, Recreation and Transactions Division**

MS 47014

Olympia, WA 98504-7014

**Cover Photo:** Morning Star NRCA's Big Greider Lake by Paul McFarland, DNR

**[www.dnr.wa.gov](http://www.dnr.wa.gov)**



December 15, 2014

The Honorable Jim Honeyford, Chair  
Senate Ways & Means Capital Budget Committee  
PO Box 40415  
Olympia, WA 98504-0415

The Honorable Hans Dunshee, Chair  
House Capital Budget Committee  
PO Box 40600  
Olympia, WA 98504-0600

The Honorable Karen Keiser  
Ranking Minority  
Senate Ways & Means Capital Budget Committee  
PO Box 40433  
Olympia, WA 98504-0433

The Honorable Richard Debolt  
Ranking Minority  
House Capital Budget Committee  
PO Box 40600  
Olympia, WA 98504-0600

Subject: Trust Land Transfer (TLT) Report

Dear Legislators:

In 1989, the Trust Land Transfer (TLT) Program was initiated as an innovative tool for the Washington State Legislature, through the Department of Natural Resources (DNR), to address several trust land management needs of the Common School Trust:

- Transfer out of economically under-performing state trust lands;
- Acquire replacement lands with higher long-term income producing potential;
- Increase funds to the K-12 Common School Construction Account; and
- Conserve lands that have high ecological or social values.

In 2013, the legislature requested a study to “determine the acreage of Department managed trust lands... that may be eligible for the trust land transfer program over the next several decades” (ESSB 5035 Section 3231). The Department of Natural Resources is pleased to provide you with this report on the origins and intent of the TLT Program, a summary of accomplishments over the 25 years the program has been in place, projections of the potential utility of the program over the next few decades, and recommendations for the program in the future.

If you have any questions, please contact me at 360-902-1725.

Sincerely,

Kyle Blum  
Deputy Supervisor for State Uplands

c: Hunter G. Goodman, Secretary of the Senate  
Barbara Baker, Chief Clerk of the House of Representatives  
Myra Baldini, Capital Budget Assistant, Office of Financial Management  
Nona Snell, Capital Budget Assistant, Office of Financial Management



# State Trust Land Inventory Evaluation Report to the Legislature

---

December 2014

Prepared by  
**Washington State Department of Natural Resources**  
*Conservation, Recreation and Transactions Division*



WASHINGTON STATE DEPARTMENT OF  
**Natural Resources**  
Peter Goldmark - Commissioner of Public Lands



# Table of Contents

## **9. Introduction**

- 9. Background
- 11. TLT Program Outcomes

## **14. Study**

- 14. Study Limitations
- 15. Study Results

## **16. Recommendations**

### **A-1. Appendices**

- A-3. *Appendix 1: Appropriation History*
- A-4. *Appendix 2: Replacement Lands*
- A-6. *Appendix 3: Asset Classes*
- A-8. *Appendix 4: Databases and Modeling*
- A-10. *Appendix 5: Study Goals and Criteria*
- A-13. *Appendix 6: Study Limitations*
- A-14. *Appendix 7: Future Considerations*

### **A-17. References**

## **Tables and Figures**

### **Tables**

- 12. *Table 1: Percent of acres by asset class transferred and acquired during FY 2003–2013.*
- 13. *Table 2: Transferred acres and account distribution by recipient 1989-2013.*
- 15. *Table 3: Acres, by asset class, of all state-owned trust uplands estimated to meet the study criteria and those that are estimated as potentially eligible for TLT.*
- A-3. *Table A-1: Summary of appropriations by biennium for the TLT Program from 1989 through the 2011–2013 Biennium ending June 30, 2013.*
- A-5. *Table A-2: Comparison of site index class of forest lands that have been transferred out of state trust ownership with those acquired as replacement lands for FY 2003–2013.*
- A-7. *Table A-3: Asset Classes managed by the Washington State Department of Natural Resources.*

### **Figures**

- 11. *Figure 1: Trust Land Transfer Program Diagram.*
- 12. *Figure 2: Comparison of revenue generating potential of forest lands transferred out of trust ownership with that of forested replacement lands acquired for FY 2003–2013.*



---

# Introduction

In 2013 the State Trust Land Inventory Evaluation was requested and funded by the Washington State Legislature to identify the potential need for the Trust Land Transfer Program over the next few decades (ESSB 5035 sec. 3231). This final report is in response to the following legislative request:

***Trust Land Transfer.** The appropriation in this section is subject to the following conditions and limitations: \$300,000 of the appropriation in this section is provided solely for a state trust land inventory evaluation. The inventory evaluation shall determine the acreage of department managed trust lands, by asset class, that may be eligible for the trust land transfer program over the next several decades, based on currently available information. The department shall provide an interim report to the legislature by January 31, 2014, on project scope, progress to date, and recommended criteria for the trust land transfer program. The department shall provide a final report by January 1, 2015.*

## Background

The State of Washington, acting primarily through the Washington State Legislature, is the trustee of federally granted lands and resources dedicated to the production of income for a number of specified trust beneficiaries. The legislature has tasked the Washington State Department of Natural Resources (DNR) to be the trust asset manager of those state-owned trusts.

DNR manages 5.6 million acres of state-owned lands, both uplands and aquatic lands, on behalf of specified trust beneficiaries and the public while considering the interests of a broad range of stakeholders, including recreation, conservation, ranching, farming, aquaculture, forest products and other commercial interests. As a trust manager, the department is continually acting to improve income for the trust beneficiaries by evaluating assets, managing lands and resources for revenue generation, and improving the asset portfolio to increase future earnings.

Of DNR-managed lands, more than 3 million acres are state trust uplands (including forest, agricultural, range and commercial properties) that earn income to fund schools, universities, capitol buildings and other state institutions and, in many counties, local services. Some of these trust lands have important ecological and social values for natural areas, fish and wildlife habitat, recreation, open space and educational opportunities, and while DNR strives to improve revenue from state trust lands, some areas are difficult to manage for income production in part due to these other public values.

## DNR manages state lands for a variety of trusts and other stakeholders



Timber resource management provides income for trust beneficiaries



Natural areas protect lands with high conservation values, Morning Star NRCA



Photo: DNR

**Recreational opportunities are provided in many ways, Palmer Lake Campground**



Photo: Mark Bohnet

**Agricultural resource management provides income for the trust beneficiaries**

The Washington State Supreme Court in 1984 ruled that DNR’s fiduciary responsibilities to the trusts are to “act with undivided loyalty to the interest of the trust beneficiaries, and manage trust assets prudently” (County of Skamania v. State of Washington, 102 Wn.2d 127, 685 P.2d 576). This decision was further clarified through a 1996 formal opinion by the Washington State Attorney General (AGO 1996 No. 11).

The legislature also recognized the need for, and benefits of, permanently designating areas explicitly for conservation purposes by passing the Natural Area Preserves Act in 1972 (RCW 79.70): “It is, therefore, the public policy of the state of Washington to secure for the people of present and future generations the benefit of an enduring resource of natural areas by establishing a system of natural area preserves, and to provide for the protection of these natural areas.” DNR was authorized to work with federal, state and local agencies and private organizations to establish and manage a statewide system of natural areas. The Natural Heritage Program was given the responsibility of bringing an objective, scientific approach to this effort which is reflected in the biennial State of Washington Natural Heritage Plan.

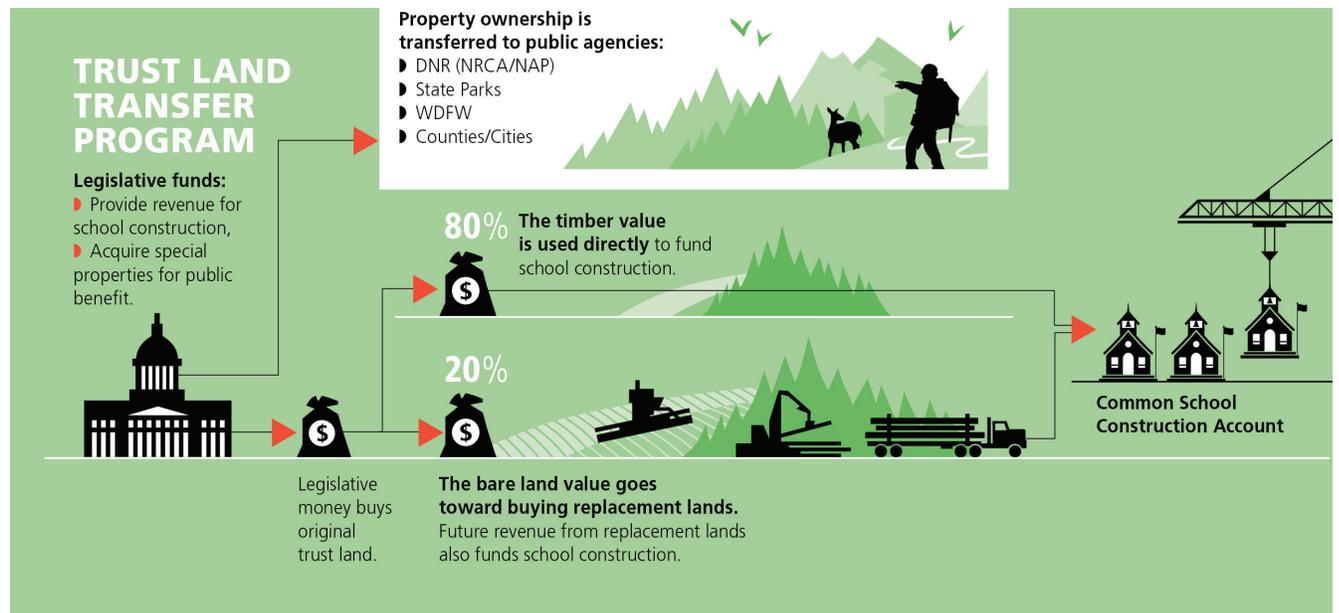
Then in 1987 the legislature passed the Natural Resources Conservation Areas Act (RCW 79.71) to address “an increasing and continuing need by the people of Washington for certain areas of the state to be conserved . . . for their outstanding scenic and ecological values and provide opportunities for low-impact public use.”

In 1989 the Trust Land Transfer (TLT) Program was initiated as an innovative tool for the legislature, through DNR, to address several trust land management needs of the Common School Trust simultaneously:

- Transfer out of economically under-performing state trust lands;
- Acquire replacement lands with higher long-term income producing potential;
- Increase funds to the K-12 Common School Construction Account;
- Conserve lands that have high ecological or social values.

Through TLT, the legislature funds the transfer of state trust lands with special ecological or social values that are difficult to manage for income production, or that have low income potential, out of state trust ownership to a local or state public agency that can manage the property for its ecological or social values. Money from the transfer of these selected properties is used to fund the Common School Construction Account, providing immediate revenue for the trust beneficiaries, and to acquire productive replacement properties that will increase future trust income (Figure 1).

**Figure 1: Trust Land Transfer Program Diagram.**



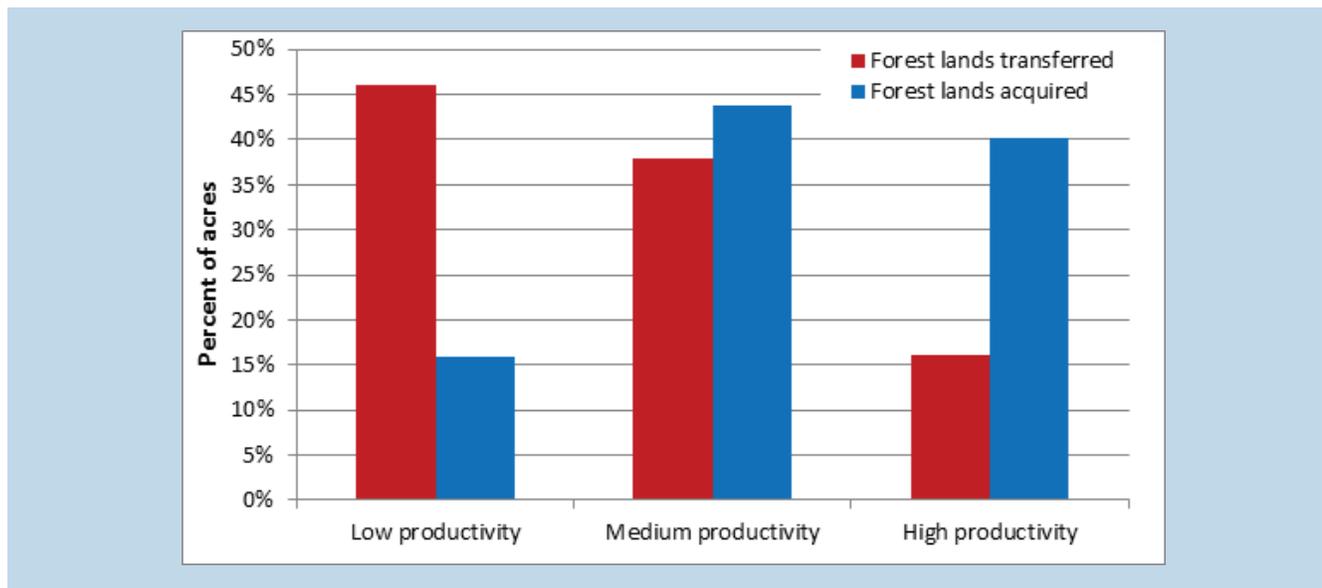
The TLT Program is exclusive to the Common School Trust, which benefits school construction for K-12 and is the largest state-owned trust land holding, at about 1,800,000 acres. Any trust lands proposed for TLT that are in a trust other than the Common School Trust must first be exchanged for Common School Trust lands of equal value (inter-grant transfer) before they can be transferred through the TLT Program.

### TLT Program Outcomes

Over the past 25 years the legislature, through the TLT Program, has provided \$798,570,000 (Appendix 1) to facilitate the transfer of nearly 117,000 acres of underperforming state trust uplands that have high values for natural area preserves, natural resources conservation areas, state and local parks or wildlife habitat to more appropriate public entities. Through this TLT mechanism, the legislature has provided about \$663,000,000 to the Common School Construction Account for school construction statewide and approximately \$120,000,000 to acquire replacement lands that have higher long-term revenue generating potential.

The TLT Program has allowed trust land managers to reposition lands with low revenue generating potential while acquiring lands with higher revenue potential (Figure 2), blocking up forest lands to increase efficiency and decrease management costs, and diversifying trust assets to improve the trust portfolio (Appendices 2 and 3). Forest lands acquired as replacement lands are prioritized to be the best available tree growing lands with access, young trees and in proximity to existing blocks of state trust lands, which maximizes the future revenue potential to the trust. Figure 2 shows the change in potential productivity between lands transferred and replacement lands over the most recent 10 year period.

**Figure 2:** Comparison of revenue generating potential of forest lands transferred out of trust ownership with that of forested replacement lands acquired for FY 2003–2013 (Appendix 2).



Non-forest asset lands have also been acquired at times, with direction from the legislature, to return higher revenue to the Common School Trust and to diversify the asset base (Table 1 and Appendix 3). DNR has not historically tracked transferred lands by their asset class. To get a sense of the proportion of acres of each asset class transferred in the past, the study estimated the asset classes of lands transferred and those acquired as replacement lands during the past 10 years. Currently DNR focuses on lands with forest assets for replacement lands and does not acquire commercial lands.

**Table 1:** Percent of acres by asset class transferred and acquired during FY 2003-2013.

Asset Class	Percent of Acres Transferred	Percent of Replacement Acres
Forest Resources	99%	64%
Agriculture — dry land	<1%	15%
Agriculture — irrigated	0%	21%
Grazing	1%	0%
Commercial	0%	0.01%

The TLT Program has transferred land to numerous public entities including DNR’s Natural Areas Program, Washington State Parks and Recreation Commission (State Parks), Washington State Department of Fish and Wildlife (WDFW), city and county governments, and local public park districts (Table 2). Parts or all of 66 local government project areas, 34 state parks, 23 natural resources conservation areas, 17 natural area preserves and 7 wildlife areas have been transferred.

**Table 2:** Transferred acres and account distribution by recipient 1989–2013 (Adapted from the “ Trust Land Transfer Program for 2013–2015 Biennium”, (DNR 2013)).

Recipients	Total Acres Transferred	Percentage of Appropriation
DNR Natural Areas	83,715	57.6%
Counties/Cities	11,890	20.8%
State Parks	15,698	18.1%
Department of Fish & Wildlife	5,414	3.5%
Other	160	<1%



Chopaka NAP transferred to DNR Natural Areas Program



Joemma Beach State Park transferred to State Parks and Recreation Commission



White-headed woodpecker — habitat transferred to WDFW in L.T. Murray Wildlife Area

# Study

This State Trust Land Inventory Evaluation (study) used computer modeling (Appendix 4) to estimate a range of acres of all state trust uplands that might be eligible for transfer through the TLT Program over approximately the next 30 years. A DNR project team considered existing management and ecological characteristics of trust assets; the regulatory environment; species and ecosystem rarity and protection needs; likely population growth dynamics; current or desired recreation use; and anticipated needs for wildlife protection. Criteria used in the model fell into three categories:

- **Conservation** – Lands of high value for conservation purposes within natural areas or wildlife areas, for plant species, ecosystems, or fish and wildlife habitat;
- **Public interest** – Lands of high value for social purposes such as state or local parks, open space, viewsheds, or archaeological, cultural and historical sites;
- **Revenue and manageability** – Lands that have low revenue potential, operational constraints, or other encumbrances to trust management.

The full study criteria are provided in Appendix 5.

The results of the model were then subject to an estimate of the percent of acres that might meet the 80:20 timber-value to land-value currently applied to TLT (Appendix 3). Under this ratio a minimum 80 percent timber-value and maximum 20 percent land-value must be met for the aggregate of sites recommended for TLT in a given biennium. The estimate of the number of acres of state trust lands that might be eligible for transfer is based on valuations of TLT parcels transferred in the past (Appendix 4).

## Study Limitations

The study is a snapshot in time, limited to current social, economic and ecological conditions, with modest projections of future conditions (Appendix 6). It used existing data that could be accessed within the time constraints of the study and were compatible with DNR’s GIS system. The extent and quality of those data, along with a reasonable assurance that there would be implementation plans and recipients for potentially transferred lands, were further limiting factors. New inventory of state trust lands, studies of conservation needs, and conservation or park plans could significantly change the number of acres identified through the model. Also, with more

time, localized databases could be identified and incorporated into the model which would allow better inclusion of local interests.

The State of Washington Office of Financial Management (OFM 2013) estimates an increase of 1.9 million people by 2040 which is about a 28 percent population increase over the next 26 years. The needs and interests of this growing population are likely to affect the use of the TLT Program in ways that cannot be modeled.

## Study Results

The study was designed to identify the total number of state trust land acres that meet the selection criteria (Appendix 5) and does not identify specific sites. Identification of sites requires on the ground inventory, assessment and verification; careful evaluation of the merits of individual potential projects; and vetting by trust land managers, potential site recipients, Department of Natural Resources Executive Management and the Board of Natural Resources before being brought to the legislature for consideration.

The model calculated a range of acres of all state trust uplands that meet the model criteria for the TLT Program over the next 30 years. The study then estimated a range of those acres that also meet the 80:20 ratio (Table 3). The total range of acres that meet the model criteria across all considered asset classes is estimated to be 209,000 to 238,000 acres. Applying the current 80:20 timber-value to land-value TLT requirement yields a range of 70,000 to 118,000 acres of timber lands and up to 2,300 acres of non-forest lands estimated to be potentially eligible for transfer in coming decades based on historical transfer data (Appendix 4).

**Table 3:** Acres, by asset class, of all state-owned trust uplands estimated to meet the study criteria and those that are estimated as potentially eligible for TLT.

Asset Class	Total Acres that meet the Model Criteria	Estimated Acres Eligible for TLT under the 80:20 Ratio
<b>Forest Resources Lands Total</b> <ul style="list-style-type: none"> <li>• West of the Cascade Crest</li> <li>• East of the Cascade Crest</li> </ul>	122,000-142,000 <ul style="list-style-type: none"> <li>• 79,000-92,000</li> <li>• 43,000-50,000</li> </ul>	70,000-118,000 <ul style="list-style-type: none"> <li>• 59,000-92,000</li> <li>• 11,000-26,000</li> </ul>
<b>Non-Forest Resources Lands Total</b> <ul style="list-style-type: none"> <li>• West of the Cascade Crest</li> <li>• East of the Cascade Crest</li> </ul>	87,000-96,000 <ul style="list-style-type: none"> <li>• 2,200-2,400</li> <li>• 85,000-93,000</li> </ul>	0-2,300

---

If applied to TLT in the future, the 80:20 timber-value to land-value ratio would likely limit the number of acres transferred of non-forest lands and forest lands with either low timber values or high land values. In the past, 99 percent of acres transferred have been forest resources lands. In essence, the 80:20 requirement would limit lands eligible for TLT in the future to high timber value forest lands which are mostly on the west side of the Cascade crest. In the past, transferred lands have been 92 percent forest lands in western Washington, 7 percent forest lands in eastern Washington and 1 percent non-forest lands distributed statewide. A similar make-up and distribution is assumed for this report for future transferred lands.

The model did not consider the future availability of lands to be acquired as replacement lands nor those that could be used for inter-grant transfer, both of which are critical to the effective use of TLT to transfer state trust uplands.

The study did not include lands that provide habitat for federally listed species for which DNR has an approved Habitat Conservation Plan (HCP) unless they contained other values and were identified through the conservation or public interest criteria (Appendix 6). Inclusion of additional trust lands currently considered manageable under the HCP (DNR 1997) could significantly increase the number of acres potentially eligible for the TLT Program.

The number of acres that might be eligible for the TLT Program over the next 30 years would likely change with further inventory and analysis of state trust lands; completion of conservation studies and plans; or with changing environmental, social, political, regulatory and economic conditions (Appendix 7).

## Recommendations

The Trust Land Transfer Program has been a useful asset management tool to improve both the near-term and long-term revenue potential of state trust lands and to reposition trust lands with conservation or public interest values. This study suggests continuing value to the trust beneficiaries from the TLT Program. The Department of Natural Resources recommends:

- The Trust Land Transfer Program should be continued as long as it serves a useful role in DNR's trust asset management.
- The TLT Program should go through periodic review to monitor and assess its continued value, utility and effectiveness.
- The program should be codified to increase its predictability and manageability. Because TLT is governed through biennial capital budget bills, program goals and criteria have changed over time, making planning difficult. Codification would facilitate more effective use of TLT as an asset management tool.

# **Appendices 1-7**



## Appendix 1: Appropriation History

Since 1989, the Washington State Legislature has appropriated \$798,570,000 to fund the Trust Land Transfer (TLT) Program with an average of \$67,000,000 per biennium. This has resulted in the transfer (and some lease) of about 116,877 acres of Common School Trust property that met other high priority state or local objectives.

About 83 percent of the appropriated funds have been deposited into the Common School Construction Account, which helps to fund school construction statewide. About 15 percent has been used or is made available to purchase replacement forest, agricultural and, in the past, commercial asset properties. With each legislative appropriation for TLT, school districts benefit immediately from an infusion of funds into the Common School Construction Account and also long-term from the acquisition of lands with higher revenue generating potential.

**Table A-1:** Summary of appropriations by biennium for the TLT Program from 1989 through the 2011-2013 Biennium ending June 30, 2013, (DNR 2013).

Biennium	Biennial Appropriation	Fee Acres Transferred	Lease Acres Transferred	1989-2013 Cumulative Appropriation
89-91	\$171,500,000	44,056	0	\$171,500,000
91-93	\$50,000,000	7,611	0	\$221,500,000
93-95	\$50,352,000	7,457	0	\$271,852,000
95-97	0	0	0	\$271,852,000
97-99	\$34,500,000	4,799	0	\$306,352,000
99-01	\$66,000,000	6,667	10	\$372,352,000
01-03	\$50,000,000	4,717	0	\$422,352,000
03-05	\$55,000,000	3,672	301	\$477,352,000
05-07	\$61,610,000	8,516	26	\$538,962,000
07-09	\$98,985,000	7,730	1,217	\$637,947,000
09-11	\$100,133,000	12,806	3,559	\$738,080,000
11-13	\$60,490,000	3,733	0	\$798,570,000
<b>Actuals 1989-2013</b>		<b>111,764</b>	<b>5,113</b>	<b>\$798,570,000</b>

---

## Appendix 2: Replacement Lands

The Department of Natural Resources (DNR) selects replacement lands for Common School Trust lands transferred through the Trust Land Transfer (TLT) Program to improve the long-term revenue potential for the trust and to diversify trust assets. Historically DNR has focused on timber lands as replacement lands but, at times, has acquired lands with other asset classes. The legislature has provided direction on a biennial basis concerning which asset classes are appropriate for replacement lands. Currently there are no restrictions on replacement lands by asset class however DNR's current asset replacement strategy focuses on timber lands and excludes commercial lands.

DNR selects forested replacement lands to improve the long-term revenue potential of the overall land base, prioritizing high forest site index class (productive) lands that are manageable and in proximity to blocks of existing DNR lands. DNR targets lands that have young trees and legal access for management. Site index class is an indication of the ability of a site to grow trees based on soils, with Class I indicating the highest potential and Class V the lowest. Included in forest resource lands are areas that do not support merchantable timber such as wetlands, scree slopes, talus slopes and rock out-crops. An analysis of the site class of transferred vs. acquired lands for the 10 year period from 2003–2013 shows an overall increase in site class of lands acquired over those transferred (Table A-2). By targeting lands for acquisition that have legal access, a site index class of either I, II or III and that have young trees, DNR maximizes the potential future income from those lands.

DNR also buys replacement lands that may not have high potential for revenue production in and of themselves but which help block-up other state trust forest lands or secure legal access hence improving the income potential of a larger trust block.

At times, non-forest asset lands have also been acquired as replacement for transferred lands, with direction from the legislature, to return higher revenue to the Common School Trust and to diversify the asset base (Table A-3 in Appendix 3: Asset Classes). These include primarily dry land and irrigated agricultural asset class lands. A small amount of commercial lands have been acquired in the past but are no longer being considered.

**Table A-2:** Comparison of site index class of forest lands (for which there are data) that have been transferred out of state trust ownership with those acquired as replacement lands for FY 2003-2013.

Site Index Classes	Percent of Forest Lands Transferred	Percent of Replacement Forest Lands Acquired
Class I	2%	3%
Class II	15%	37%
Class III	38%	44%
Class IV	13%	10%
Class V	7%	2%
Forest asset lands that do not support merchantable timber	26%	5%

---

## Appendix 3: Asset Classes

The Department of Natural Resources (DNR) manages state trust assets to provide income for a number of state trust beneficiaries. In 1996 DNR contracted with Deloitte & Touche, LLP to conduct an economic analysis of DNR-managed trust lands and assets (Deloitte & Touche LLP 1996). Ten asset classes were defined (Table A-3) of which three are germane to the Trust Land Transfer (TLT) Program. Lands transferred through the TLT Program have mostly fallen within the forest resources asset class—timber lands and standing timber. A small percentage of lands transferred in the past have also been from the grazing land asset class and dry land agriculture within the agricultural resources asset class (Report Table 1).

Timber lands historically have been the focus of the TLT Program. A cumulative minimum ratio of 80:20 of timber-value to land-value for properties transferred through the TLT Program in a single biennium is currently required by the legislature through budget provisos. This targets transfer of lands with high timber values that results in 80 percent or more of each appropriation going to the Common School Construction Account. The effect of this ratio has been to limit the transfer of low value timber lands and lands in urbanizing areas with high land values that do not meet the 80:20 ratio. It also limits inclusion of agricultural and grazing lands because their value counts only as “land value.” Properties with low or no timber asset values are included in a biennial transfer list only if high timber value parcels off set them to meet an overall timber-to-land ratio of 80:20 for the biennial appropriation.

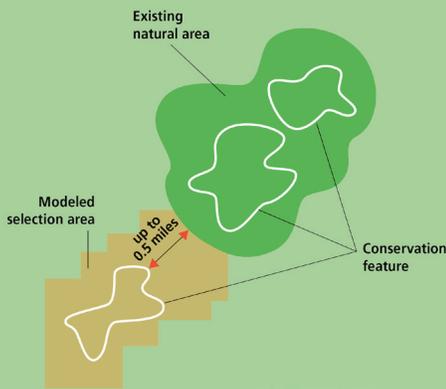
**Table A-3:** Asset Classes managed by the Washington State Department of Natural Resources (Deloitte & Touche LLP 1996).

DNR Asset Class	DNR Asset Components	TLT Asset Classes and Components
<b>Administrative Resources</b>	buildings, equipment, mapping technology	
<b>Agricultural Resources</b>	agricultural lands and leases plus irrigation systems	dry land agricultural lands
<b>Aquatic Resources</b>	tidal and navigable waters, shellfish resources, recreation sites	
<b>Commercial Real Estate</b>	industrial, commercial and residential leases and buildings	
<b>Communication Resources</b>	communication sites, towers and buildings	
<b>Forest Resources</b>	timber lands, timber sale contracts, standing timber and special forest products	timber lands, standing timber and special forest products
<b>Grazing Lands</b>	grazing lands, leases and permits	grazing lands (in the past some grazing leases went through TLT but it is not current practice)
<b>Monetary Assets</b>	trust and non-trust funds	
<b>Natural Preserves/Aquatic Reserves/ Conservation Areas</b>		
<b>Mineral Resources</b>	sand, gravel and rock sale contracts, oil and gas leases, mineral contracts, prospecting leases, mineral rights and more	

## Examples of model selections for two study criteria



The potential acres that meet the criterion “provides significant waterfront and/or water access opportunities” is modeled by selecting trust lands adjacent to large water bodies, near a road and within 10 road miles of a community.



A portion of the potential acres that meet the criterion “adjacent to a designated or proposed natural area preserve” is modeled by selecting trust lands that contain a feature of conservation value and are within one-half mile of a preserve.

## Appendix 4: Databases and Modeling

The State Trust Land Inventory Evaluation (study) used existing databases to model potential acres of trust land that might be eligible for transfer under the Trust Land Transfer (TLT) Program based on the study criteria (Appendix 5). Databases used in the study came from the Department of Natural Resources (DNR), Washington Department of Fish and Wildlife (WDFW), Washington State Department of Archaeology and Historic Preservation, Washington State Department of Transportation, Office of Financial Management, Pend Oreille Public Utility District, NOAA Fisheries, U.S. Fish and Wildlife Service, U.S. Forest Service, Bonneville Power Administration and U.S. Geological Survey. The external databases used were either available in DNR corporate data systems, downloaded from public sources, or available upon request from public agencies. All had statewide coverage or were compatible with statewide databases. All were spatial with precision appropriate for this project. Use of these databases resulted from consultation with DNR’s six regions, Conservation, Recreation and Transactions Division, Forest Resources Division and Geology Division, as well as WDFW’s Science and Lands Divisions, Washington State Parks and Recreation Commission’s (State Parks) Lands Program, and the Governor’s Salmon Recovery Office.

Asset classes are not assigned in the DNR GIS system so they were estimated using the Forest Resource Inventory System and the 2011 USGS Land Cover Database.

The study defined criteria for lands to be included in the model (Appendix 5) and then selected attributes of those criteria to query the databases. In a few cases two or more options for attributes were selected leading to a range of estimated acres. The study criteria and attributes were identified through consultation with staff from DNR’s regions, Natural Heritage Program and Natural Areas Program, as well as State Parks, WDFW and the Governor’s Salmon Recovery Office. Predicting 30 years into the future required applying model attributes that were predictive of land and resource characteristics (Appendix 6) as well as those that reflected existing data for known characteristics. Examples of model selections for two criteria are provided in the sidebar.

The model did not identify specific sites but rather estimated potential ranges of acres that met the study criteria based on available data. The results were reviewed by trust land management staff in DNR’s six regional offices, the Natural Heritage Program, the Natural Areas Program, WDFW’s Lands Division, and State Park’s Lands Program.

---

The range of modeled acres that met the 80:20 timber-value to land-value ratio currently required by the legislature (Appendix 3) was estimated based on the timber and land values of lands in areas previously transferred through the TLT Program. Two approaches were used:

The first approach identified the percent of timber land acres in past transfer areas that met or exceeded the 80:20 ratio on the east and west sides of the Cascade crest. In the past, 75 percent of transferred timber land acres in western Washington and 28 percent of transferred timber land acres in eastern Washington met or exceeded the 80:20 ratio. These percentages were then applied to the number of acres of modeled forest asset class lands that met the study criteria. This approach did not try to estimate the number of acres that did not meet the 80:20 ratio that might be transferred due to higher than 80:20 valuations for some timber lands.

The second approach used the average timber-to-land value ratio of timber lands in past transfer areas on the east and west sides of the Cascade crest. The ratios were 82:18 on the west side and 73:27 on the east side. Based on these values, all west side forest asset class lands that met the study criteria were estimated to be transferable. Estimates of transferable acres for east side forest and statewide non-forest asset classes are based on the maximum number of acres that could be transferred if west side forest asset class lands selected by the model criteria are transferred and have an average 82:18 timber-value to land-value.

---

## Appendix 5: Study Goals and Criteria

### Goals

Over the years the intent of the legislature and DNR for the Trust Land Transfer (TLT) Program has been to transfer out of trust ownership those lands with high ecological or social values and low revenue generating potential, while immediately funding the Common School Construction Account and providing funds to acquire replacement lands with higher revenue generating potential. Authorized through biennial budget bills, TLT Program goals have not always been defined *per se* and the language has shifted over time. For the study to be robust and predictive over 30 years it was necessary to clearly define program goals upon which to base study criteria. The following four goals were developed following a review of past TLT Program intent and goals:

- Transfer from trust ownership lands that are of high value for conservation or social purposes, such as the statewide system of natural areas, fish and wildlife habitat, state or local parks, open space, or recreation areas;
- Transfer from trust ownership lands with low or encumbered current or future revenue generation potential for which another type of asset management transaction is not more appropriate;
- Immediately reimburse the Common School Construction Account for the timber or contract value of transferred lands; and
- Fund the acquisition of replacement lands better suited for future revenue generation.

---

## Criteria

Criteria used to identify sites for the TLT Program have varied significantly over time. For purposes of the study it was essential to define study criteria upon which to base the study model. Criteria were developed out of the goals above, past site selection criteria and in consultation with stakeholders internal and external to the department. The study criteria are:

**Conservation Study Criteria:** The property is of high value for conservation purposes such as fish and wildlife habitat, a natural area preserve, or a natural resources conservation area.

- Approved natural area preserve (NAP) or additions to an existing NAP.
- Adjacent to an existing or proposed NAP.
- Designated natural resource conservation area (NRCA) or addition to an existing NRCA.
- Adjacent to a designated NRCA.
- Contains significant habitat for a species or ecosystem included in the State of Washington Natural Heritage Plan.
- Has high potential for a significant occurrence of a species\* or ecosystem included in the Natural Heritage Plan.
- Within a Washington Department of Fish and Wildlife (WDFW) wildlife area.
- Isolated land that expands an existing WDFW wildlife area.
- Currently under lease to WDFW and appropriate for TLT.
- Contains a significant occurrence of a WDFW species of concern or its habitat in need of protection.
- Contains a significant occurrence of a WDFW priority habitat in need of special protection.\*
- Old-growth identified as appropriate for transfer out of trust status.
- Riparian area with significant role in salmon protection or recovery and needing special protection.
- Significant groundwater recharge or discharge area needing special protection.\*
- Wetland of statewide significance: a Category I wetland in the Washington State Wetland Rating System (Hruby 2004).
- Unique geologic feature needing protection.\*

**Public Interest Study Criteria:** The property is of high value for social purposes such as recreation, open space, viewsheds, or historical, cultural or archaeological values.

- Identified by State Parks and Recreation Commission (State Parks) for a new or expanded state park.

---

\* Insufficient data are currently available to allow modeling at this time so the model results do not include acreage estimates for these criteria.

- 
- Currently under lease or managed by State Parks or local governments for parks or recreation.
  - Recreation land currently owned by DNR that might be more suitable for state or local parks.
  - Identified by local governments for a new or expanded local park.\*
  - Expands an existing state or local park.
  - Provides significant waterfront and/or water access opportunities.
  - Potentially suitable for a new state park with water related recreation options.
  - Potential as a satellite to an existing state park.
  - Potentially suitable as a campsite along a “rails to trails” trail owned or managed by State Parks.
  - Potential for recreation or open space in areas predicted for population growth.
  - Archaeological, cultural, or historical sites of national or statewide significance.
  - Significant scenic areas with regional visual impact potential for which mitigation cannot adequately address public concerns.\*

**Revenue/Manageability Study Criteria:** Property transfer provides state trust benefits by meeting fiduciary obligations and property transfer is best accomplished using the TLT process rather than another type of transaction such as auction sale, direct transfer to a public agency, exchange or lease.

- Land with operational constraints.
- Land with low revenue potential.
- Trust inholding within another government ownership that is better managed by the other agency.
- Removing the parcel from trust status does not adversely impact Habitat Conservation Plan (HCP) (DNR 1997) commitments or other land management policies or plans. Note: As a condition of transfer, properties will be retained as lands subject to the HCP if their contribution to the HCP is significant.

---

## Appendix 6: Study Limitations

The Trust Land Transfer (TLT) Program study is a snap shot in time, limited to current social, economic and ecological conditions, with minimal projections of future conditions. It used existing databases that could be accessed within the time constraints of the study and were compatible with the Department of Natural Resources' GIS system. The extent and quality of those data, along with a reasonable assurance that there would be implementation plans and recipients for potentially transferred lands, were further limiting factors. New inventory of state trust lands, studies of conservation needs, and conservation or park plans could significantly change the number of acres identified through the model. Also, with more time, localized databases could be identified and incorporated into the model which would allow better inclusion of local interests.

Plant and animal species, their habitats, and native ecosystems included in the study were limited to those which cannot be managed for within DNR's trust management obligations. Potential acres for them were limited to those appropriate for inclusion in the statewide system of natural areas or that might reasonably have a recipient agency. An exception was made for certain critical habitats for salmonids that were difficult to manage and might be appropriate for transfer.

Inventories for conservation and recreation values on trust lands are not complete so, where possible and reasonable, predictive selections were included in the model. Predictive selections were developed for ecosystems, parks, recreation sites and open space. These selections were designed to identify the potential acres with the highest probability of containing a conservation or recreation value based on available data. Funding to complete and maintain the inventory of state lands would allow more definitive analysis of acres potentially suitable for TLT.

Evolving conditions were included to a limited extent in the study model. Anticipated demand for recreation lands and open space due to population growth were modeled to a degree. However, models of changes in ecosystems or natural resources due to climate change were not sophisticated enough to allow inclusion in the study. Further development and vetting of these kinds of models could have a significant impact on potential for lands to be considered for transfer via the TLT Program.

---

## Appendix 7: Future Considerations

A number of future studies and changing conditions could better inform the Trust Land Transfer (TLT) Program study model and affect the character and outcomes of the program, such as: new or updated inventory and databases; further development of conservation and recreation plans with identified land transfer recipients; changing natural resources and their values; emerging needs for open space and recreation due to population growth; changing policies and regulations; the economic environment; and evolving interests of the public, resource managers and elected officials.

Emergent conditions could change manageability and revenue generating potential of trust lands and their potential for repositioning through the TLT Program. Predictions for increased fire and disease as well as shifts in elevations at which different tree species may grow suggest changes in the revenue and management potential of some forest lands. Identification of new resources or shifts in current resource values could also affect trust land asset values. Policy and regulatory changes could change manageability of some trust lands and their desirability for consideration for the TLT Program.

The State of Washington Office of Financial Management (OFM 2013) estimates an increase of 1.9 million people by 2040 which is about a 28 percent population increase over the next 26 years. The distribution of that increased population, the needs for open space and recreational opportunities, interest in conservation and needs for increased resources can be inferred but not well modeled for this study.

New inventory efforts on trust lands will likely change the number of acres potentially eligible for TLT—updating occurrences of species and ecosystems needing conservation, adding occurrences of newly listed species, and changing priorities for some species, ecosystems and habitats.

A number of studies are in process to address broad scale conservation needs in the state. Some address needs for corridors to allow species to move between populations or along migratory routes. Others are concerned with maintaining viable ecosystems on a landscape level—their habitats, communities, species, structures and functions. Others are in response to predicted climate change and the need for species to be able to move to adapt to changing conditions. These studies are far reaching and often predictive in nature. TLT, among other programs, could be a useful tool to help realize some of their recommendations while providing a revenue-enhancing option for the state trusts.

---

The following list includes some potential changes over the next few decades that were not possible to model for the study:

- New inventory and studies updating conservation priorities.
- New listings of federal, state or candidate species.
- New conservation and recreation plans.
- New or revised laws, policies or interagency agreements, including agreements such as Habitat Conservation Plans.
- Changes in zoning or other external land use decisions that may impact trust management and revenue potential.
- Economic health of the state, local governments and markets could drive decisions on TLT eligibility and feasibility, land and asset values, resources to fund TLT or ability of recipients to manage transferred parcels.
- Population increase or migration driving further need for conservation, open space and recreation beyond that modeled.
- Climate change driven environmental considerations including: shifting habitats, degradation of habitats and communities, species migration, and need for ecological refugia.
- Changes in natural resources needs and asset values:
  - Surface water storage and conservation.
  - Groundwater recharge and discharge protection.
  - Shifting forest/timber resource values and geographic ranges.
  - Shifting agricultural crops and geographic ranges.
  - Water quality and quantity as increased economic values.
  - Water availability affecting agriculture.
  - Carbon sequestration as an economic value.
  - Renewable energy—new sources and locations.

---

---

# References

Deloitte & Touche LLP. 1996. Economic Analysis for Washington State Department of Natural Resources.

DNR. 1997. Habitat Conservation Plan. WA State Dept. of Natural Resources

DNR. 2007. State of Washington Natural Heritage Plan 2007; 100pp. Olympia.

DNR. 2013. Trust Land Transfer Program Legislatively Authorized for 2013-2015 Biennium.

Hruby, T. 2004. Washington State Wetland Rating System for Western Washington - revised. Wash. State Dept. of Ecology Pub. #04-06-025.

Hruby, T. 2004. Washington State Wetland Rating System for Eastern Washington -revised. Wash. State Dept. of Ecology Pub. #04-06-15.

State of Washington Office of Fiscal Management. 2013. Forecast of the State Population November 2013. [www.ofm.wa.gov/POP/stfc/stfc2013/stfc\\_2013.pdf](http://www.ofm.wa.gov/POP/stfc/stfc2013/stfc_2013.pdf)

---

---

Washington State Department of Natural Resources (DNR) is an equal opportunity employer.

Persons with a disability who need this document in an alternative format may contact DNR at (360) 902-1000 or by using the Washington State Telecommunications Relay Service (TRS) by dialing 711.



WASHINGTON STATE DEPARTMENT OF  
**Natural Resources**  
Peter Goldmark - Commissioner of Public Lands

**Conservation, Recreation and Transactions Division**

MS 47014  
1111 Washington ST SE  
Olympia, WA 98504-7014  
[www.dnr.wa.gov](http://www.dnr.wa.gov)