



Source: WA STATE DNR

Chapter 11

Other Resources Asset Class

Table of Contents

Executive Summary	3
Introduction	4
Physical Description	13
Operational History	16
Property Taxes and Zoning	22
Market Analysis	23
Methodology	25
Income Approach	28
Value Conclusion	32

Executive Summary

The Other Resources Asset Class consists of state trust lands used for specialty leasing to generate green energy, as well as other miscellaneous revenue sources. Although we recognize solar and other green energy initiatives are being pursued, this analysis will primarily focus on wind energy. Other revenue streams include leases for special forest products; right-of-way access; and leases for special uses such as archery clubs, underground storage, and golf course related usage. The table below provides a brief summary of the Other Resources Asset Class and a conclusion on the Trust Values for each subgroup based on the following extraordinary assumptions.

We assume that all state trust lands containing leases for wind energy and other miscellaneous uses adhere to the proper zoning regulations outlined in local general plans. If not fully compliant, we assume that each property is legally non-conforming to the proper regulations and standards. As detailed in the introductory chapter, we assume that the ownership interest is non-transferable resulting in the land not being able to be sold. We relied upon information provided by the Trust Manager for all specific data regarding data files, leasing activities and financials, and size and ownership information. We assume the accuracy of all information provided is sufficient for purposes of this valuation.

Importantly, the value appraised is the Trust Value, which is defined earlier in this report. This value type is applicable to all asset classes and subject to specific laws, regulations, or management policies that restrict the use, marketability, or sale of these asset classes.

Other Resources Asset Class Executive Summary					
	Wind Energy	Special Forest Products	Rights of Way	Special Uses	Total
Total Contracts [1]	20	50	106	182	358
Total Acres [2]	15,109	394,925	83,531	36,637	530,202
Stabilized Gross Revenue	\$1,200,000	\$550,000	\$650,000	\$800,000	\$3,200,000
Operating Cost 30% Deduct	(\$360,000)	(\$165,000)	(\$195,000)	(\$240,000)	(\$960,000)
Trust Net Operating Income	\$840,000	\$385,000	\$455,000	\$560,000	\$2,240,000
Capitalization Rate	11.00%	11.00%	11.00%	11.00%	11.00%
Value Indication (Rounded)	\$7,600,000	\$3,500,000	\$4,100,000	\$5,100,000	\$20,300,000
Concluded Trust Value	\$7,600,000	\$3,500,000	\$4,100,000	\$5,100,000	\$20,300,000
Value per Acre	\$503	\$8.86	\$49.08	\$139.20	N/A [3]
Value per Contract [4]	\$380,000	\$70,000	\$38,679	\$28,022	N/A [3]

[1] Special Forest Products and ROW contract units represent the number of FY18 contracts with revenues reported for the subgroup type.

[2] Special Forest Products and ROW acreages represent the number of acres associated with the revenues received in FY18. These lands are mostly non-exclusive.

[3] Not applicable as it would be inappropriate to measure the Trust Value on a combined per-lease or per-acre basis given the incongruent nature of the miscellaneous subgroups of this asset class.

[4] Value per contract amount does not accurately reflect the value per agreement type as contracts can represent different numbers and types of agreements.

Introduction

The Other Resources Asset Class combines revenues received from wind energy, special forest products, rights of way and other special uses for state trust lands.

INTRODUCTION

The Other Resources Asset Class consists of state trust lands used for specialty leasing to generate green energy, as well as other miscellaneous revenue streams.

Specifically, the asset class includes the following types of revenue generators or subgroups: (1) agreements for green energy, particularly wind energy; (2) agreements for special forest products; (3) agreements for rights of way; and (4) agreements for special uses. Each of these revenue generators produce income for trust beneficiaries.

An agreement refers to any type of negotiation made between the Washington State Department of Natural resources (the "Trust Manager" or "Trust Management") and a prospective party interested in using/accessing the state lands under agreement. The term "lease" and "contract" have been generally used interchangeably and synonymous with "agreement" in previous chapters. However, due to the complexity of the types of agreements associated with the subgroups in this asset class, it is necessary to define each agreement type.

Agreement Types. There are multiple agreement types that are utilized for the different subgroups of this asset class. For the purposes of this chapter alone, the agreement types have been defined as follows.

Lease: An agreement between one party and the Trust Manager that grants a real property interest in a parcel of land, travels with the land for the term of the agreement, and guarantees exclusive use for the stated permitted use. Note that this does not guarantee exclusive use against lessees in other categories if the contract specifies that the Trust Manager can lease the land for other compatible purposes. For instance, a lease for a wind farm and a separate lease for a cattle grazing operation may spatially overlap although two wind leases could not overlap.

Easement: An agreement between one party and the Trust Manager to cross the property for a specific purpose. This is most commonly for access to adjacent parcels, railroads, and utility corridors. These agreements have the following properties: they stack on each other spatially so long as a subsequent use does not reasonably interfere with a prior use (e.g., different agreement holders will each have their own agreement, but the land is not exclusive to the holders), are almost impossible to revoke, and travel with the land when it is sold. Essentially, they are permanent encumbrances.

Permits: An agreement that is non-transferrable, revocable, and exists for a set period of time. In these ways they are like leases but are not an interest in real property. However, unlike leases, permits can “stack” spatially for the same uses and therefore guarantee no exclusivity whatsoever; neither against other permit holders nor against other compatible uses. Common sub-categories of permits are road-use permits, brush-picking permits, and land-use licenses for activities such as wildlife research.

Direct Sale: A one-time sale of material for a negotiated price.

Below is a list of the agreement types that are associated with each subgroup.

- Wind Energy:
 - Leases
- Special Forest Products:
 - Leases—use of an area by lessee for the harvesting of Special Forest Products for a set period of time
 - Individual permits—areas that are not under leases or direct sale contract that allow non-exclusive harvesting for permit purchasers
 - Direct sales—sales of material
- Rights of Way:
 - Easements—rights to use the lands but not exclusively, though others may not unreasonably interfere with easement holder’s use. Often used for utilities, roads, residential access, etc. These can be considered permanent encumbrances as they accompany the land when sold.
 - Permits—permission to enter the land. These are not exclusive uses of the land and there is no guarantee the use will not be interfered with. These are most often used with short-term temporary access such as a road-use permit.

- Special Uses:
 - Leases—these cover authorized special uses of state trust lands that are not covered by the other asset classes (i.e., Agriculture, Grazing, Commercial Real Estate, etc.)
 - Permit/Licenses—used for shorter term or intermittent requests (e.g., land use license). These may be used for recreational uses or research licenses with the Department of Agriculture or Department of Ecology. There may not be a fee associated with the land use license depending on the nature of the use.

It is important to note that the term “exclusive” as used in this chapter refers to the land referenced in an agreement. Non-exclusive land can be accessed by multiple parties for the same use or separate uses. For example, some special forest products land can be accessed by multiple parties for the same use of gathering special forest products. Some land under wind energy leases are non-exclusive as the land overlaps with a separate grazing use.

As per the Trust Manager, there are approximately 530,202 acres of state trust lands associated with this asset class as of FY 2018. Some of the land is exclusive (mostly land in the special uses subgroup), but most of the land is non-exclusive and can be accessed by multiple holders of different agreements such as permitted lands in the special forest products subgroup and most lands associated with right-of-way access and wind energy.

Other Resources

Approximately 530,000 acres of state trust lands are under specialty lease for different purposes. This asset class consists of various agreement types for green energy and other miscellaneous revenue. Green energy includes leases for wind energy. Miscellaneous agreements include special forest products, right of way access, and leases for special uses such as archery clubs, underground storage, and golf course related usage.

To produce green energy, certain parts of state trust lands located in areas with significant wind power potential are leased to wind energy companies. The typical term for wind energy leases is between 30 to 40 years.

Historically, the Trust Manager had sought after opportunities for biomass, geothermal, and oil and gas energy harvesting. However, these programs are ultimately absent as of the date of value for this analysis.

The Trust Manager is interested in pursuing solar power generation on state trust lands, but as of the date of value for this analysis, there were currently no solar installations on state trust lands. However, conversations with the Trust Manager suggest solar energy will be a large focus in coming years. The Trust Manager is in the process of identifying lands with high solar energy capacity and potential lessees.

In FY 2018, approximately 358 contracts included revenues reported for wind energy, special forest products, rights of way, and any other types of special use.

The Other Resources Asset Class in total typically generates around \$3 million combined in gross revenue every year for trust beneficiaries.

As a general note, all dollar amounts reported in this chapter are nominal and have not been adjusted for inflation. Additionally, we note that all years referenced are fiscal years—not calendar years. The fiscal year for state trust lands begins on July 1 and ends on June 30.

Subgroups. For the purposes of this portfolio valuation analysis, the Other Resources Asset Class has been divided into four subgroups. The subgroups are based on either asset management criteria, asset valuation criteria, or the availability of asset data needed for analysis. We found the segregation of the Other Resources Asset Class into relevant subgroups to be appropriate given the overall scope of services.

The four subgroups in the Other Resources Asset Class are as follows:

1. Wind Energy

- a. Revenue received from state trust lands that are leased for a set period of time for wind energy projects.
- b. State trust lands that are leased for wind energy are exclusive to the lessee, except where it is compatible with other uses such as grazing or agricultural use.

2. Special Forest Products

- a. Miscellaneous revenue earned from leases, direct sales, and permits for good-quality forest products collected from state trust lands by parties who intend to merchandise the products.
- b. Special forest products include leases and annual permits that give holders of agreements access to state trust lands on the west side of the Cascade mountain range that are located in areas managed for timber. Leased lands are exclusive to the lessee where others cannot access the lands for the specific use to gather special forest products. Lands under permits are not exclusive to any one party and can be accessed by multiple users at the same time.

- c. Examples of special forest products include salal, evergreen huckleberry, fern (floral greens), boughs, mushrooms, firewood, tailhold anchors, etc.

3. Rights of Way

- a. Miscellaneous revenue earned from easements and permits negotiated to obtain access to portions of state trust lands.
- b. The majority of right-of-way lands are located within areas managed for timber. Right-of-way lands can be exclusive or not, depending on the usage. Road easements are non-exclusive and can provide access to the same land for multiple users. Other uses such as utility easements¹ are more exclusive by nature and can include land being used exclusively by the easement holder.

4. Special Uses

- a. Miscellaneous revenue earned from fees paid for all other special uses of state trust lands. The most lucrative special use agreements in FY 2018 include uses such as wineries, recreational facilities, a prison, a forest ranger office, and school facilities.
- b. Most lands for special uses are exclusive to the applicable holder of the agreement.
- c. Other examples of special uses include correctional facilities, underground storage, an archery club, home sites, apiaries, and golf course related usage. Some correctional facilities do not pay rent due to an executive order as these are Charitable, Educational, Penal and Reformatory Institutions Trust lands with trust beneficiaries as lessees.

Contract Counts and Acreages. It was challenging to determine the number of agreements and acres for this asset class due to certain subgroups including hundreds to thousands of different agreements granting multiple parties non-exclusive access to large amounts of overlapping state trust lands. As such, we have decided for reasons of simplicity to report the contract counts for each subgroup in this chapter. Contracts are required to be used by the Trust Manager to make agreements valid and legally enforceable. Contracts are assigned a designated number and may represent only one agreement or multiple agreements. Contracts may or may not have revenue reported in a given fiscal year depending on the payment schedule negotiated for the agreement(s). In fiscal year 2018, there were reportedly 358 contracts associated with the Other Resources Asset Class. The following is a description of how the number of contracts was determined for each subgroup.

Wind energy agreements are independent leases that do not report revenues for other uses outside of wind energy. The only revenue reported on a wind energy lease will be associated with a wind energy use. There were 20 wind energy leases in FY 2018. Each lease is represented by a different contract. As such, there are 20 contracts for the wind energy subgroup.

¹ We note that there are other easements that are statutorily mandated to be granted that may or not generate revenue.

Special uses agreements include leases and permits or licenses. In FY 2018 there were 182 active contracts representing the different leases and permits negotiated for special uses. While only 173 of these contracts reported revenues in FY 2018, we are including all 182 contracts as the total more closely aligns with the acreage totaled for this subgroup.

The contracts for special uses and rights of way do not always include independent uses as revenue can be received for multiple uses across different asset classes. For example, the same contract could include miscellaneous revenue earned for a home site that is positioned on a larger piece of agricultural land that is leased for the purpose of growing an orchard. The entire land area is represented in one contract even though different revenue streams are received for the orchard use and the special use for the home site.

The Special Forest Products subgroup includes hundreds of agreements consisting of leases, permits and direct sales. The individual permits negotiated for special forest products are commonly bundled up into a single contract number. For example, one special forest products contract number with reported revenue may actually include 75 individual permits that grant the permit recipients access to the same 47,120 acres. In FY 2018, 50 contracts reported revenue for this subgroup. For simplicity, we are reporting 50 total contracts in this chapter while we acknowledge that there are many more agreements made for this subgroup that are associated with the subgroup’s acreage total.

The Trust Manager estimates that there are more than 7,600 granted easements and active permits in the Rights of Way subgroup. Although they may be active, they may not contribute revenue in a given year due to the method of payment. Some contracts may require one-time payments for indefinite access, which were paid years ago. Other contracts may require a payment once every five years. Still other contracts may require payment for each individual use, but that individual use may not occur during a given fiscal year. Additionally, multiple agreement holders can obtain access to overlapping lands. There were 106 rights of way contracts that reported revenue in FY 2018. For simplicity, we are reporting 106 total contracts in this chapter while we acknowledge that there are many more agreements made for this subgroup that are associated with the subgroup’s acreage total.

The subgroup contract count and acreage totals are summarized in the following table and chart.

Other Resources Subgroup Acreage

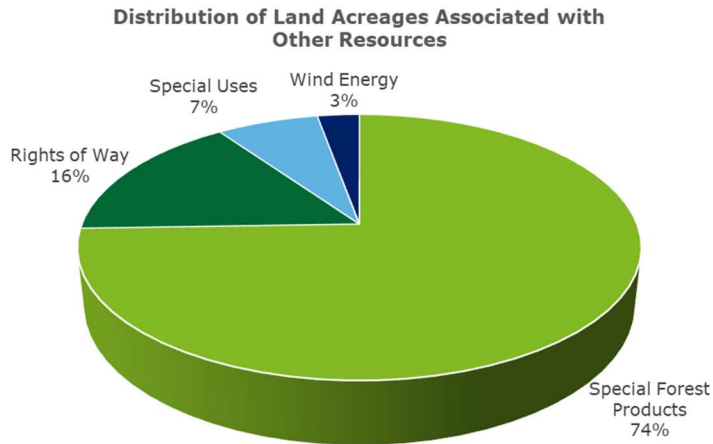
FIGURE 1

Other Resources	Contract Count [1]	Acres [2]
Special Forest Products	50	394,925
Rights of Way	106	83,531
Special Uses	182	36,637
Wind Energy	20	15,109
Totals	358	530,203

[1] Special Forest Products and ROW contract counts represent the number of contracts that reported revenue for that subgroup in FY18.

[2] Acres associated with Special Forest Products and ROW are generally non-exclusive lands found in areas managed for timber and can be accessed by holders of multiple agreements.

FIGURE 2



The majority of acreage in the above chart is associated with the Special Forest Products subgroup as wide ranges of timberlands are accessed to collect various good-quality forest products. This subgroup comprises 74 percent of the total acreage associated with revenue earned by the Other Resources Asset Class; however, the lands accessible under the Special Forest Products subgroup and the majority of lands involving right-of-way access are found in areas managed for timber.

Approximately, 7 percent of state trust lands associated with revenue earned by the Other Resources Asset Class are for the Special Uses subgroup and 3 percent are for the Wind Energy subgroup.

While the Wind Energy subgroup comprises less total acreage than state trust lands associated with revenue for other subgroups in this asset class, it provides the most revenue on an annual basis. The Wind Energy subgroup produced total gross revenue of approximately \$1.2 million

in FY 2018, which is 39 percent of the total revenue earned by the asset class in FY 2018.

The following table and chart highlight the allocation of FY 2018 gross revenue (rounded) between different subgroup types.

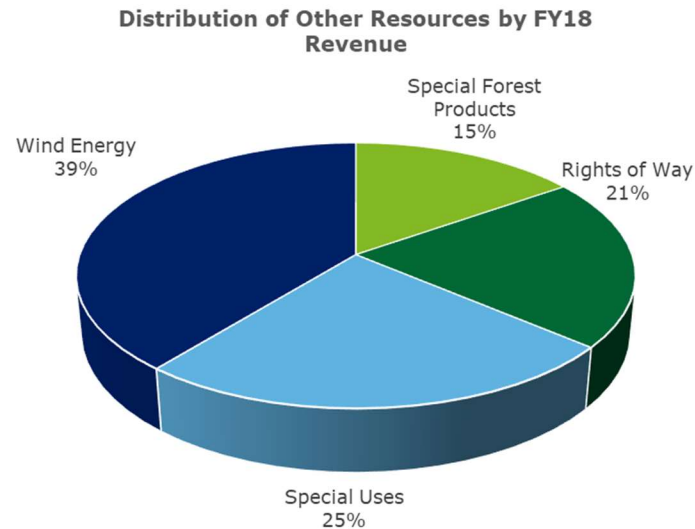
Other Resources Subgroup Revenue

FIGURE 3

Other Resources	Contract Count [1]	Gross Revenue (FY18)
Special Forest Products	50	\$470,000
Rights of Way	106	\$640,000
Special Uses	182	\$760,000
Wind Energy	20	\$1,200,000
Totals	358	\$3,070,000

[1] Special Forest Products and ROW contract counts represent the number of contracts that reported revenue for that subgroup in FY18.

FIGURE 4



Other Resources Asset Class Ownership. The Trust Manager manages and operates state trust lands owned by the State of Washington for the benefit of designated trust beneficiaries. To be concise, this report uses the term “ownership” or “ownership interests” to describe the amount or percentage of gross revenue or land managed by the Trust Manager on behalf of specific trust beneficiaries, even though the land is owned by the State of Washington and not the trust beneficiaries.

The following charts present the trust beneficiaries’ ownership interest in the Other Resources Asset Class based on acreage and gross revenue for each subgroup in FY 2018.

Wind Energy Ownership Composition

FIGURE 5

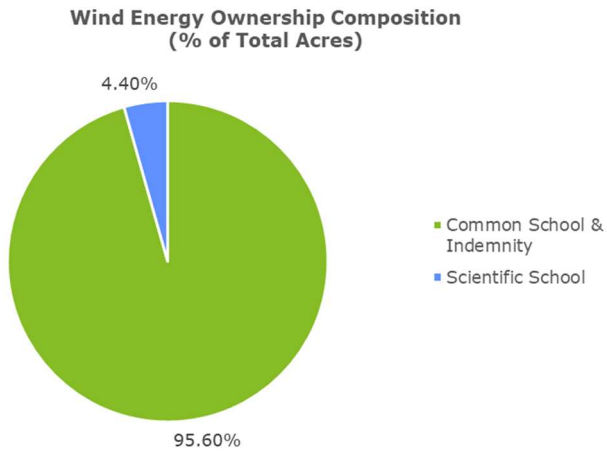
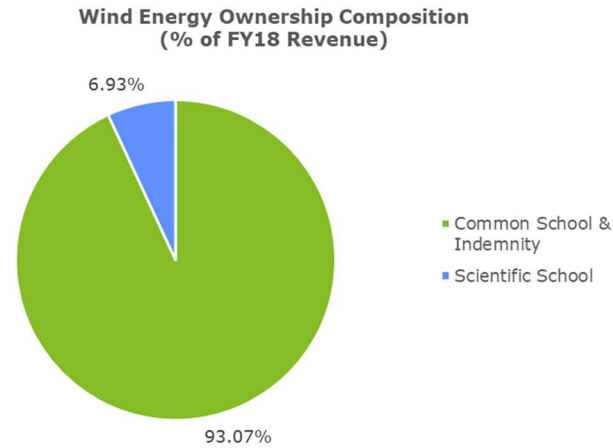


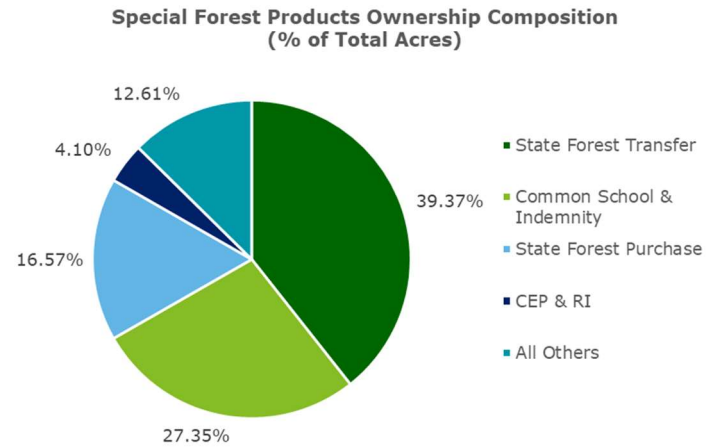
FIGURE 6



For the Wind Energy subgroup, the largest ownership interest is held by the Common School and Indemnity Trust, which supports statewide public school construction and other designated programs. The beneficiary ownership interest in these lands are the result of federal land grants to Washington at the time statehood was granted. The following charts highlight the acreage and revenue by ownership interest.

Special Forest Products Ownership Composition

FIGURE 7



For the Special Forest Products subgroup, the State Forest Transfer Trust holds the largest interest in both revenue earned and gross acreage. The Common School & Indemnity Trust owns the second largest interest in this subgroup.

Rights of Way Ownership Composition

FIGURE 9

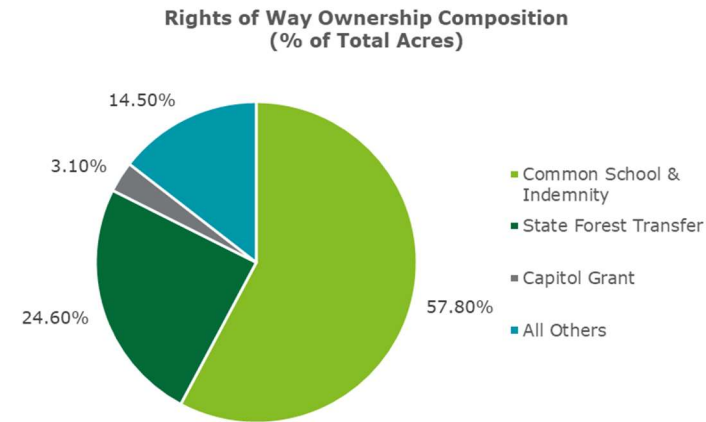


FIGURE 8

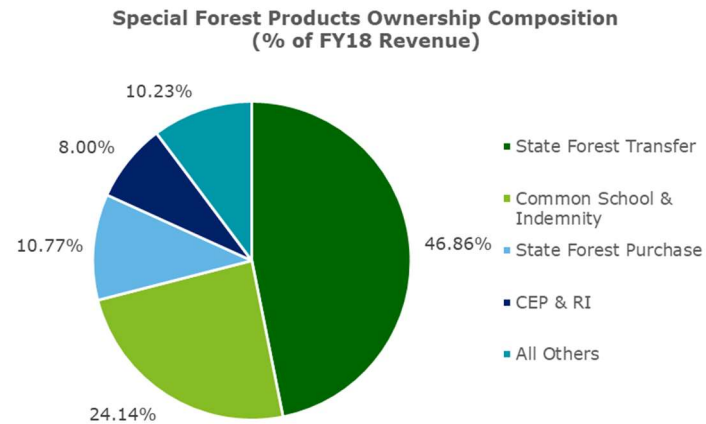
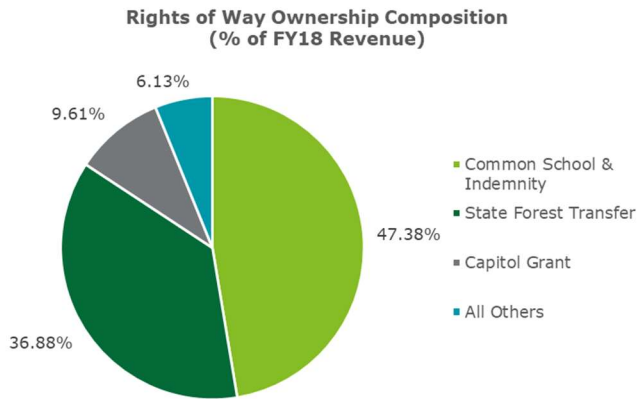


FIGURE 10



For the Rights of Way subgroup, the largest ownership interest in revenue earned is held by the Common School and Indemnity Trust, and the second largest ownership interest in revenue earned is held by the State Forest Transfer Trust.

Special Use Ownership Composition

FIGURE 11

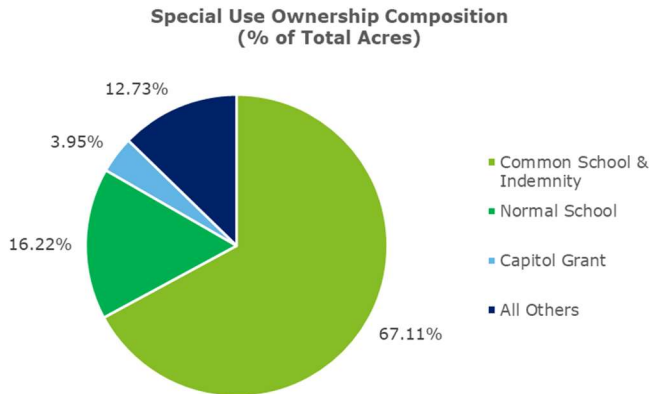
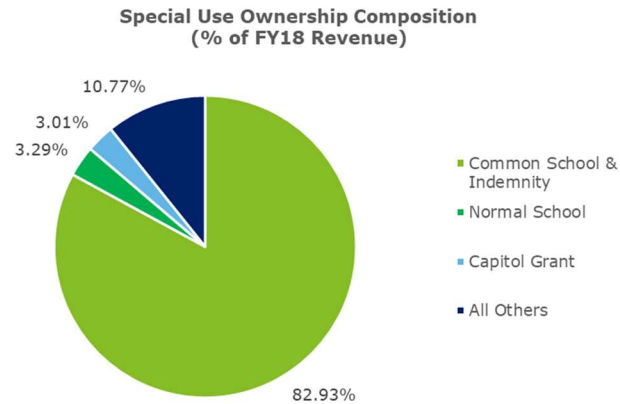


FIGURE 12



For the Special Use subgroup, the largest ownership interest in both revenue earned and gross acreage is held by the Common School and Indemnity Trust.

All other trusts not listed in the ownership compositions have minimal or no ownership interest in this asset class.

Physical Description

In FY 2018, the total gross acreage associated with the Other Resources Asset Class was approximately 530,202 acres.

FIGURE 13

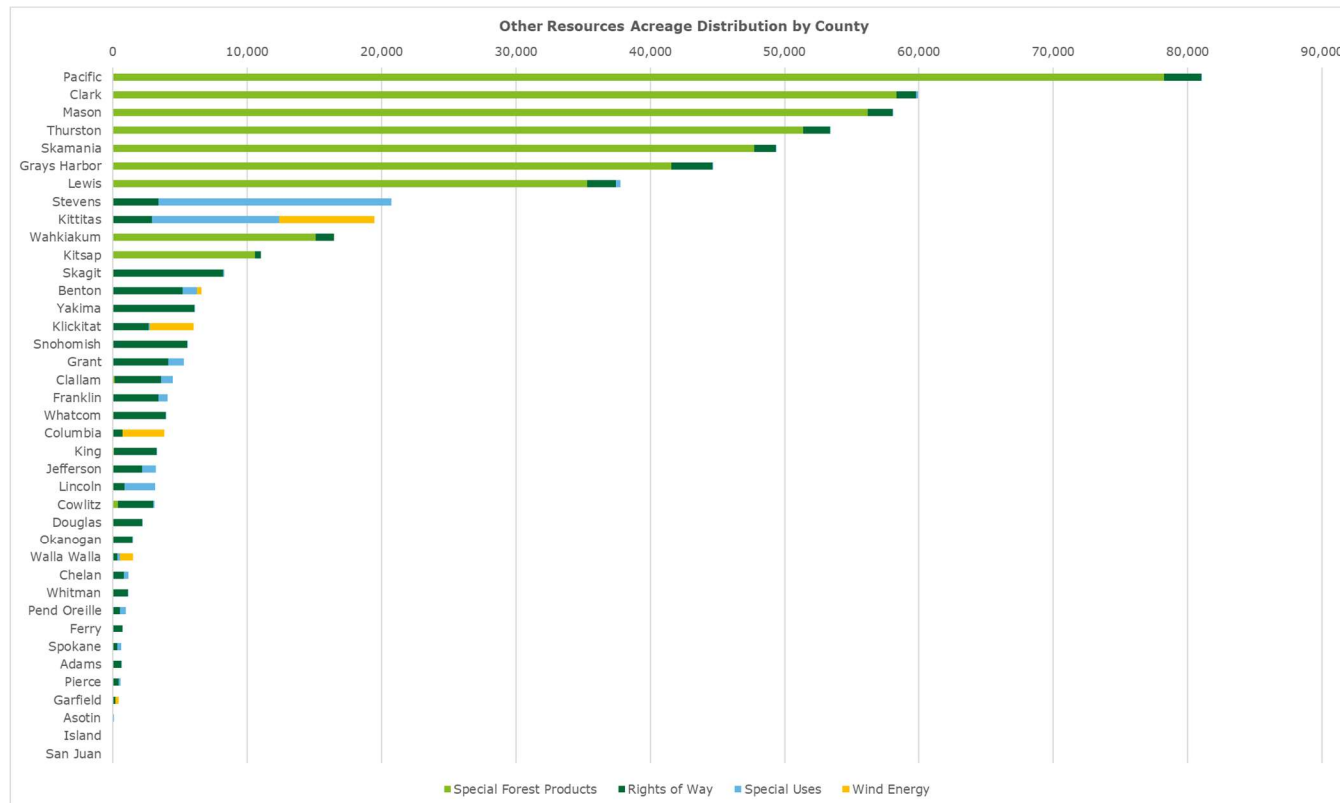


IMAGE SHOWS WIND TURBINES ON STATE-TRUST LANDS FOR PRODUCING ENERGY. SOURCE: WA STATE DNR

In FY 2018, there were approximately 530,202 acres of state trust lands associated with the Other Resources Asset Class. Note that the acres for the Special Forest Products subgroup (i.e., 394,925 acres) and the Rights of Way subgroup (i.e., 83,531 acres) largely fall into areas managed for timber and are mostly non-exclusive.

The following discussion provides more descriptions of the state trust lands associated with each subgroup in this asset class.

Wind Energy

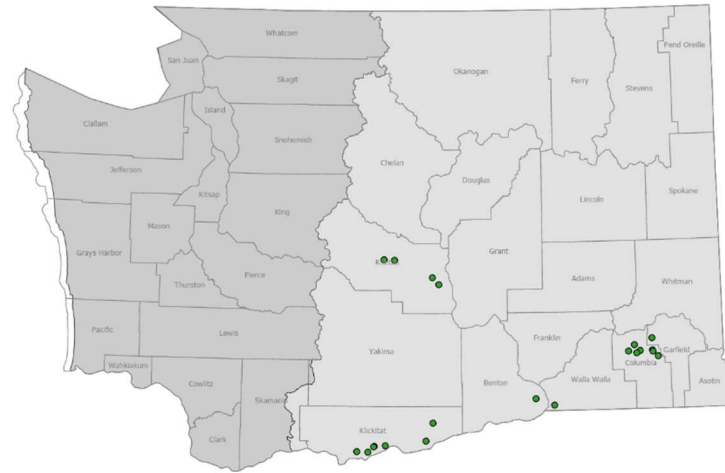
State trust lands leased for wind energy purposes totaled approximately 15,109 acres in FY 2018. Kittitas County had the most land leased for the Wind Energy subgroup. Kittitas County is located in central Washington and contains approximately 7,139 leased acres. The next two counties with the most land leased were Klickitat (i.e., 3,276 acres) and Columbia (i.e., 3,114 acres), which are located in south central and southeastern Washington, respectively.

The rest of the leased lands were located in southeastern Washington. Leased lands generally comprise vast, open, flat areas that have significant wind power potential. Some lands are located on elevated topography and are not always level.

The following map highlights the locations of wind energy leases throughout the state.

Map of Wind Energy Leases

FIGURE 14



Special Forest Products

Holders of special forest products agreements were given access to approximately 394,925 acres of state trust timberlands in FY 2018. The majority of these acres were in Pacific County and Clark County in western Washington.

As many of these acres are non-exclusive and are located in areas managed for timber, including a map of their locations was not deemed useful. Ultimately, all lands used by the Special Forest Products subgroup are located west of the Cascade mountain range where forests are thick and good-quality forest products are abundant.

Rights of Way

Right-of-way agreements granted holders access to approximately 83,531 acres of state trust lands in FY 2018. These acres are spread across the entire state, with the largest amount of acreage located in Skagit County and Yakima County.

Right-of-way lands are broadly categorized into two groups: (1) lands for road-use agreements and (2) lands for all other easements and permits.

Road-use agreements comprise the majority of usage for lands in this subgroup. Third parties pay to use state trust lands and infrastructure to access areas or adjacent properties that would otherwise be inaccessible. Road-use agreements are mostly non-exclusive and may be granted to multiple parties at a given time.

The other easement and permit uses commonly found in this subgroup are utility easements, licenses, and land access for recreational use. The nature of usage for utility easements tends to require the lands to be exclusive to the holder of the easement.

Since the majority of acres associated with fees paid for right-of-way access are for non-exclusive purposes and technically fall into areas managed for timber, including a map of these locations was not deemed useful. Ultimately, the lands associated with the Rights of Way subgroup are sprinkled throughout the entire state. There is no concentration in any given area as right-of-way agreements appear throughout the state on a case-by-case basis.

Special Uses

Special uses agreements include leases and permits for approximately 36,637 acres of state trust lands in FY 2018. Stevens County had the most land under agreement for the Special Uses subgroup.

Lands in the Special Uses subgroup generally comprise relatively smaller, individual plots located throughout the state.

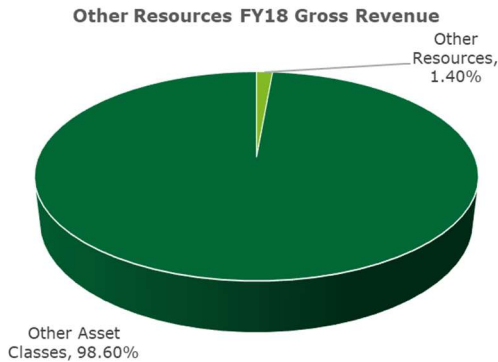
However, there are some contracts associated with large acreages for research purposes. The Department of Fish and Wildlife in particular has multiple agreements to establish large areas for study across state trust lands. The most expansive research areas are positioned in western and north central Washington.

Given that the Special Uses subgroup comprises a heterogeneous group of agreements for which spatial extent and revenue generation are often inversely proportional, presentation of a statewide map may be misleading by overinflating the relative importance of the agreements with the largest acreages. As such, a statewide map was not deemed useful.

Operational History

The Other Resources Asset Class produces approximately 1.4 percent of the total gross revenue of all asset classes.

FIGURE 15

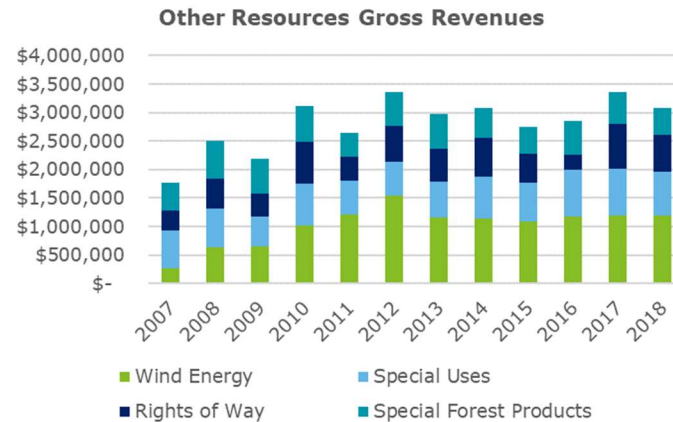


OTHER RESOURCES ASSET CLASS REVENUE FROM 2007 TO 2018

For the scope of this project, we analyzed the operational history of each asset class. Operating information has been provided to the analysts for the past 12 fiscal years.

The chart below displays the total gross revenue² (before the operating cost percentage deduction) received from payments in the Other Resources Asset Class from 2007 to 2018 by subgroup. Revenue amounts were not adjusted for inflation and are presented in this report in nominal values, not real values.

FIGURE 16



² Gross revenues exclude sub-sources 6, 3045, 4005, 5022, 5250, 6022, and 9088 as they are not included in reported operating cost percentage deduction totals.

Gross revenue for the Wind Energy subgroup grew over the past 12 fiscal years from \$259,595 to approximately \$1,198,873. This represents a compound annual growth rate of 14.92 percent. The compound annual growth rate is defined as the annual rate of growth required for the beginning balance to grow to its ending balance.

Gross revenue for the Special Forest Products, Rights of Way, and Special Uses subgroups remained mostly stable over past 12 fiscal years. The Special Uses subgroup remained stagnant, with annual revenue hovering around \$700,000 to \$800,000 each year. Revenue for the Special Forest Products subgroup was also stable and ranged from \$450,000 to \$600,000 each year. The Rights of Way subgroup was slightly less stable and fluctuated more than the other subgroups over the past 12 fiscal years from \$265,000 to \$788,000. The rolling average for this subgroup was \$500,000 and \$600,000 in annual revenue.³

Ownership Composition. The Common School and Indemnity Trust comprises the largest ownership percentage by revenue for the Wind Energy, Rights of Way, and Special Uses subgroups. The State Forest Transfer Trust comprises the largest ownership percentage by revenue for the Special Forest Products subgroup and a significant portion of the Rights of Way subgroup.

As such, we segregated the gross revenue earned by each subgroup in each fiscal year to display the portion received by the Common School and Indemnity Trust and the State Forest Transfer Trust, where applicable. The portions received by the remaining trusts have also been segregated.

FIGURE 17

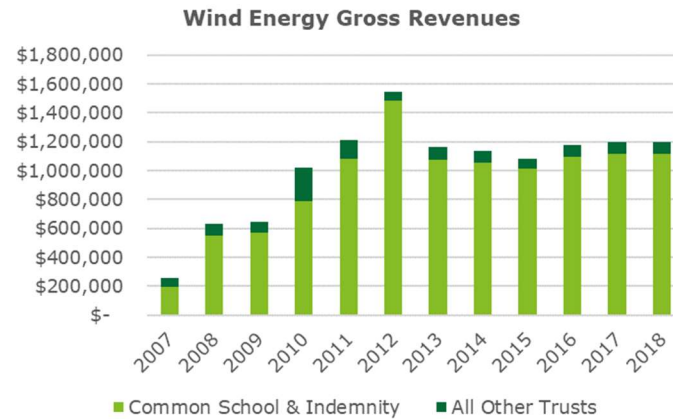
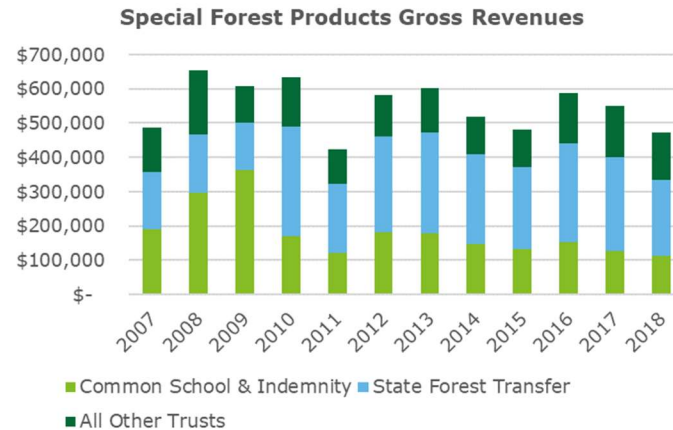


FIGURE 18



³ Note that in FY 2016 the gross revenue was under \$300,000 due to the exclusion of a one-time legal settlement fee paid related to Rights of Way Contract Number C8200092813. Conversations with the Trust Manager resulted in the removal of the one-time amount from both gross revenue and the net revenue received by the Trust Manager.

FIGURE 19

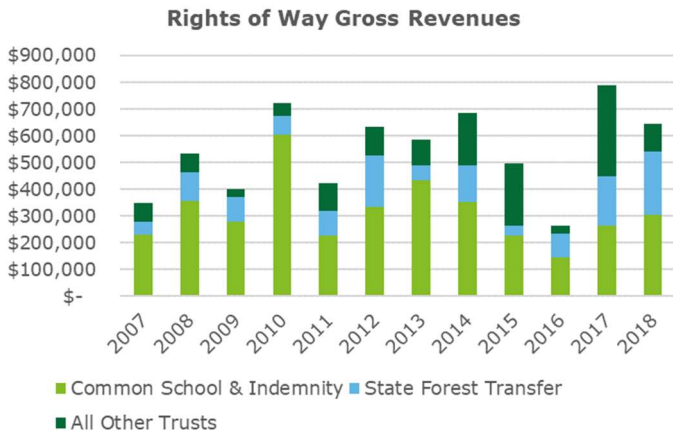
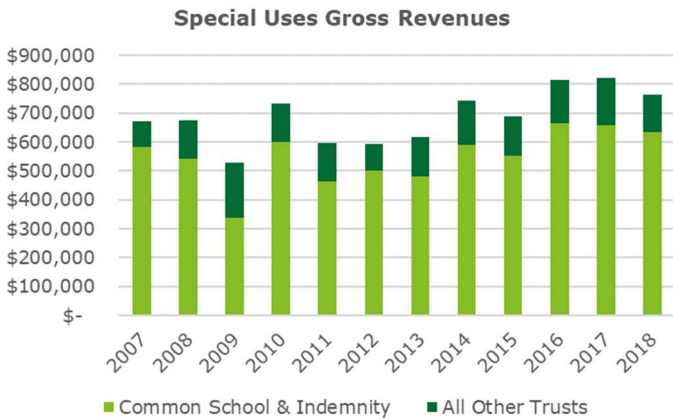


FIGURE 20



OPERATING COST PERCENTAGE DEDUCTION

As gross proceeds are received, an operating cost percentage deduction is applied and paid to the Trust Manager. From the trust beneficiary ownership position, there are no outflows of funds to operate and maintain the asset class; the Trust Manager budgets for the actual costs and capital expenditures and pays these costs directly from the operating cost percentage deduction received during the year.

The operating cost percentage deduction is legislatively set and typically ranges between 25 percent and 31 percent of total gross revenue, depending on the management account associated with each trust ownership. Historical data reported in this analysis reflects actual blended rates deducted. We have used an estimated assumption of 30 percent for the operating cost percentage deduction of this asset class which has been applied in the direct capitalization method.

Operating Cost Percentage Deduction versus Direct Operating Expenses. The operating cost percentage deduction is different than actual operating expenses and capital expenditures incurred to operate and manage the assets in the Other Resources Asset Class.

When the total operating cost percentage deduction for all asset classes exceeds actual operating costs and capital expenditures for the year, the excess is held in reserve for future years when the operating cost percentage deduction does not cover the actual costs. The reserve balances are reported by fund and held in separate accounts—the Resource Management Cost Account, the Forest Development Account, and the Agriculture College Trust Management Account.

The Resource Management Cost Account is held in the State Treasury and created and used solely to defray the costs and expenses incurred by the Trust Manager to manage and administer state trust lands, state-owned aquatic lands, as well as the making and administering of leases, sales, contracts, licenses, permits, easements, and rights of way as authorized (RCW 79.64.020).

The Forest Development Account was created by RCW 79.64.100, and it is held in the State Treasury. Primarily, the Forest Development Account is used to make interest and principal payments on bonds issued by the Trust Manager, but the state legislature may also appropriate funds from the account to enable the Trust Manager to carry out forest management activities on state forestlands or reimburse the Resource Management Cost Account for expenditures required to manage state forestlands.

The third account is the Agriculture College Trust Management Account. This account does not retain an operating cost percentage deduction, but the Trust Manager receives a direct appropriation from the legislature to conduct management work. Trust beneficiaries retain all gross revenue.

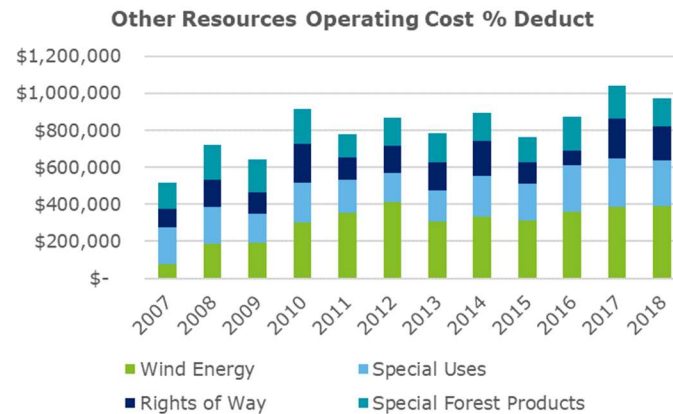
The reserve balances for all asset classes as of June 30, 2018 were approximately \$12.6 million (Resource Management Cost Account) and nearly \$4 million (Forest Development Account). Over the last 10 years, the Resource Management Cost Account reserves reached a high of more than \$17 million at the end of FY 2014 and a low of \$800,000 at the end of FY 2009. The Forest Development Account reserves reached a high of \$24 million at the end of FY 2011 and a low of just under \$4 million at the end of 2018.

However, note that these are snapshots as of the end of fiscal years. In reality, fund balances constantly change

across a much wider range throughout each year. On a few occasions, reserves have dipped down to only a couple weeks of operating expenses on a few occasions.

The following chart presents the dollar amounts of the historical operating cost percentage deduction from 2007 to 2018 for the Other Resources Asset Class. The operating cost percentage deduction is proportionate to the gross revenue produced by the asset class each year—it rises and falls along with trust earnings and may not reflect increases or decreases in the Trust Manager’s actual costs. These dollar amounts include both portions of revenue distributed to the Trust Manager from the Other Resources Asset Class and incidental revenue from trespassing fines, non-federal conservation programs, Initial Incident Report (IIR) restitutions, power charges, and other assessments. The costs have been segregated by subgroup.

FIGURE 21

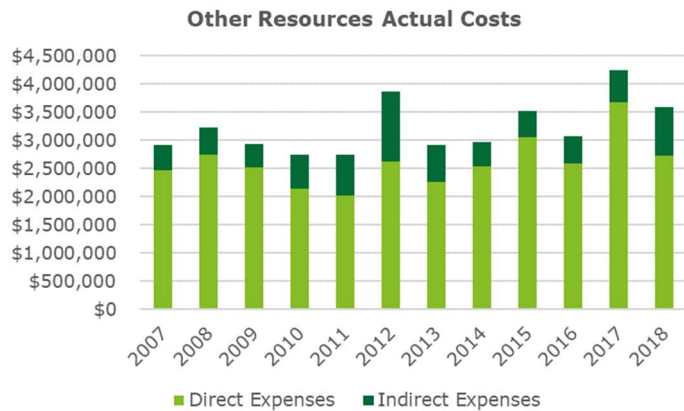


ACTUAL COSTS

The following is a discussion of the actual costs incurred by trust beneficiaries and paid by the Trust Manager from the funds received as a result of the operating cost percentage deduction.

The following chart highlights the historical actual costs incurred by the Trust Manager, which are split between direct and indirect expenses. The Trust Manager’s accounting system does not record costs at the subgroup level.

FIGURE 22



Direct Expenses. Direct expenses include all costs directly related to managing state trust lands for Wind Energy, Rights of Way, and Special Uses, as well as general costs for weed control and allocations of general costs.

Currently, direct expenses include all costs directly related to managing lands, including:

- Resource and leasing management
- Project, sales, and planning management

The allocations of general costs are related to:

- Uplands
 - Examples include environmental analysis, state lands training, and law enforcement
- Engineering and general services
 - Examples include resource mapping, surveying, and record keeping
- Infrastructure for state trust lands
 - Examples include infrastructure costs related to lands in the Rights of Way subgroup

Indirect Expenses. Indirect expenses include all overhead costs allocated to the Trust Manager for:

- Administrative and agency support
- Adjustments
- Legal services
- Strategic investments
- Other administrative payments

A full-time employee analysis was conducted that involved dividing all actual costs by the number of full-time employees for each fiscal year. The full-time employee count was obtained by combining the number of full-time employees in the “Special/Energy,” “ROW Grant,” and “ROW Acquire Split” cost accounts from financial data provided by the Trust Manager. These cost accounts cover the Wind Energy, Special Uses, and Rights of Way subgroups.

As seen in the following full-time employee analysis, the Trust Manager typically retained approximately 20 full-time employees for the Other Resources Asset Class over the last four fiscal years. The total actual costs paid by the Trust Manager have averaged approximately \$175,000 per full-time employee over that same period. These costs include all direct and indirect expenses, including salaries, as well as benefits and overhead.

FIGURE 23

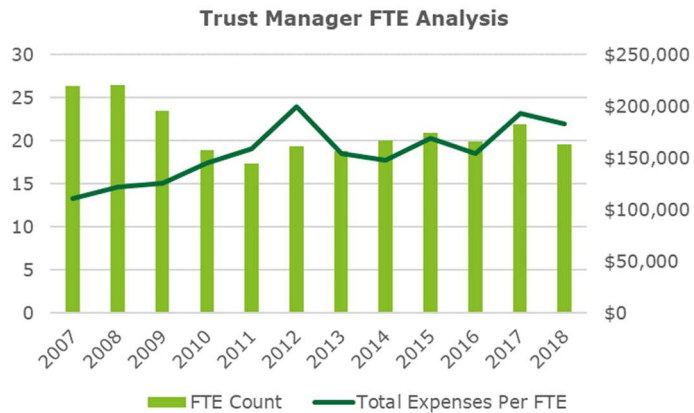


FIGURE 24

Subgroups Combined	2014	2015	2016	2017	2018
Total Annual Gross Revenue	\$3,083,150	\$2,751,371	\$2,846,992	\$3,358,410	\$3,079,134
Operating Cost % Deduct	(\$894,411)	(\$763,963)	(\$870,590)	(\$1,040,749)	(\$974,306)
% of Revenue	29.01%	27.77%	30.58%	30.99%	31.64%
Revenues Distributed to Trusts	\$2,188,739	\$1,987,408	\$1,976,401	\$2,317,661	\$2,104,829
% of Revenue	70.99%	72.23%	69.42%	69.01%	68.36%

NET CASH FLOW FROM 2014 TO 2018

Trust beneficiaries pay a portion of the gross revenue (i.e., operating cost percentage deduction) to the Trust Manager for operating expenses and capital expenditures. These costs include direct and indirect expenses. The cash flows net of the operating cost percentage deduction are then distributed to the appropriate funds by ownership.

The following table summarizes the net cash flows distributed to trust beneficiaries over the past five fiscal years for this asset class (all subgroups combined). These cash flows indicate the Other Resources Asset Class earns approximately \$3 million in gross revenue per year and provides trust beneficiaries with \$2 million in net cash flows per year.

Property Taxes and Zoning

The State of Washington is exempt from paying direct real property taxes for lands associated with the Other Resources Asset Class.

PROPERTY TAXES

Property taxes are a local government's main source of revenue. Most localities tax private homes, land, and business property based on the property's value.

Lands owned by the state are exempt from property tax obligations under the state constitution. However, because private lessees of state land receive the benefit of governmental services, the legislature imposes a leasehold excise tax on these private lessees under RCW 82.29A.

Leasehold excise tax is paid by the lessee to the Trust Manager when rent is paid, and the Trust Manager remits the payment to the Department of Revenue. Land that is not leased does not pay property taxes or leasehold excise tax. Generally, the leasehold excise tax on leased land is most often less than what property taxes would be for the same land.

ZONING

We assume that all lands leased for Wind Energy use or any other miscellaneous or special use adhere to the proper zoning regulations outlined in local general plans. If not fully compliant, we assume that each property is legally non-conforming to the proper zoning regulations and development standards.



IMAGE SHOWS WIND TURBINES ON STATE-TRUST LANDS. SOURCE: WA STATE DNR

Market Analysis

A brief market analysis of Wind Energy in the United States.

WIND ENERGY MARKET OVERVIEW

Washington state's first wind project was developed in 2001 with a continuation of wind resources being developed in the state ever since. As of 2019, there are over 1,700 wind turbines constructed throughout the state with the capacity of 3,100 megawatts. As such, wind energy is the state's second largest contributor to renewable generation after hydroelectric power.

As half of the state's land area is forested, the main source of biomass to fuel generating electricity is wood and wood waste. However, despite the large biomass resource in Washington, wind energy produces four times as much of the state's electricity generation as biomass.⁴

The remaining portion of the market analysis section is based on information and data sourced from IBISWorld, a trusted industry research firm. The industry sector discussed in the market overview is a national overview in the United States that includes the state of Washington. The industry sector relative to the Other Resources Asset Class and discussed in this section is the Wind Power Industry.

Industry Sector Performance (National Overview)

According to IBISWorld, the Wind Power industry generates revenue from owning and operating wind farms that produce energy, which is sold to downstream customers.

Growing concerns about the rising levels of greenhouse gas emissions have allowed renewable energy sources such as solar and wind power to gain more attention. The United States currently holds more than 52,000 wind turbines.

The federal production tax credit is a government incentive that pays industry operators per unit of energy sold. This incentive along with other growing support and government assistance have transformed Wind Power into a competitive energy source. As a result, the net power generation from wind turbines continues to increase, and revenue from the Wind Power industry has increased at an annual rate of 10.5 percent over the past five years.

Customer demand for electricity drives the price of electrical power. Federal tax credits can make wind power cost competitive with other energy generating technologies. As demand for wind power increases, the price for wind power will increase in tandem.

⁴<https://www.eia.gov/state/analysis.php?sid=WA#:~:text=More%20than%201%2C700%20wind%20turbines,nation's%20net%20g eneration%20from%20biomass.>

The US Department of Energy reported that year-end wind power capacity rose from 59,973 megawatts in 2013 to an anticipated 99,590 megawatts by the end of 2018, producing almost 10 percent of the nation’s energy generating capacity in 2018.⁵

Over the next five years, the Wind Power industry is expected to experience generally favorable market conditions as demand for electricity and a focus on green energy continue to grow. Many states are expected to release renewable energy targets to reach energy independence within a certain number of years.

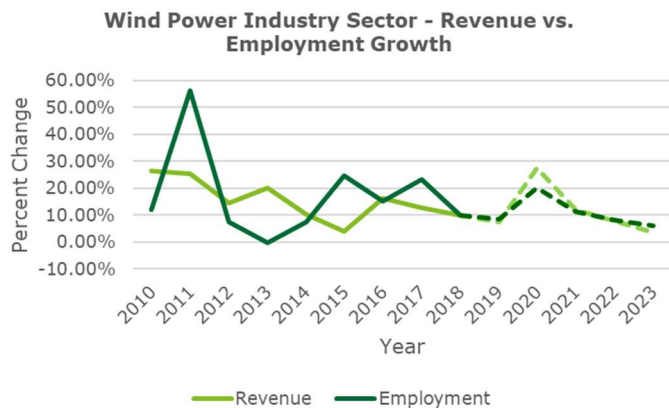
Nationwide, the sector reported revenue of \$11.6 billion across 360 businesses in 2018.

The following chart displays historical and projected revenue and employment growth in the national Wind Power Industry sector between 2010 and 2023.

The industry has historically exhibited strong growth. Between 2013 and 2018, revenue growth in the Wind Power sector increased by a compound annual growth rate of 10.5 percent and employment in the sector increased by a compound annual growth rate of 15.7 percent.

Both revenue and employment in the industry are expected to grow at strong rates over the next five years. Revenue and employment are anticipated to grow at a compound annual growth rate of more than 10 percent nationwide between 2018 to 2023. Stronger economic activity combined with a focus on energy independence and reducing greenhouse gas emissions will contribute to this growth over the next five years.⁶

FIGURE 25



⁵ Data sourced from "Wind Power in the US Sector Report," IBISWorld, September 2018.

⁶ All data sourced from "Wind Power in the US Sector Report," IBISWorld, September 2018.

Methodology

The income approach is the valuation methodology selected for this study.

Methodology

The income approach is the basis for the valuation of this asset class. The Trust Manager's data files were the principal source of market and value information (i.e., annual gross lease revenue, direct and indirect expenses, and other financial information) and include lease activity obtained in the ordinary course of the management of assets.

Due to the nature of the cash flow stream this asset class produces through its negotiated leases, the income approach is the methodology utilized. Adequate amounts of market data existed to use the income approach.

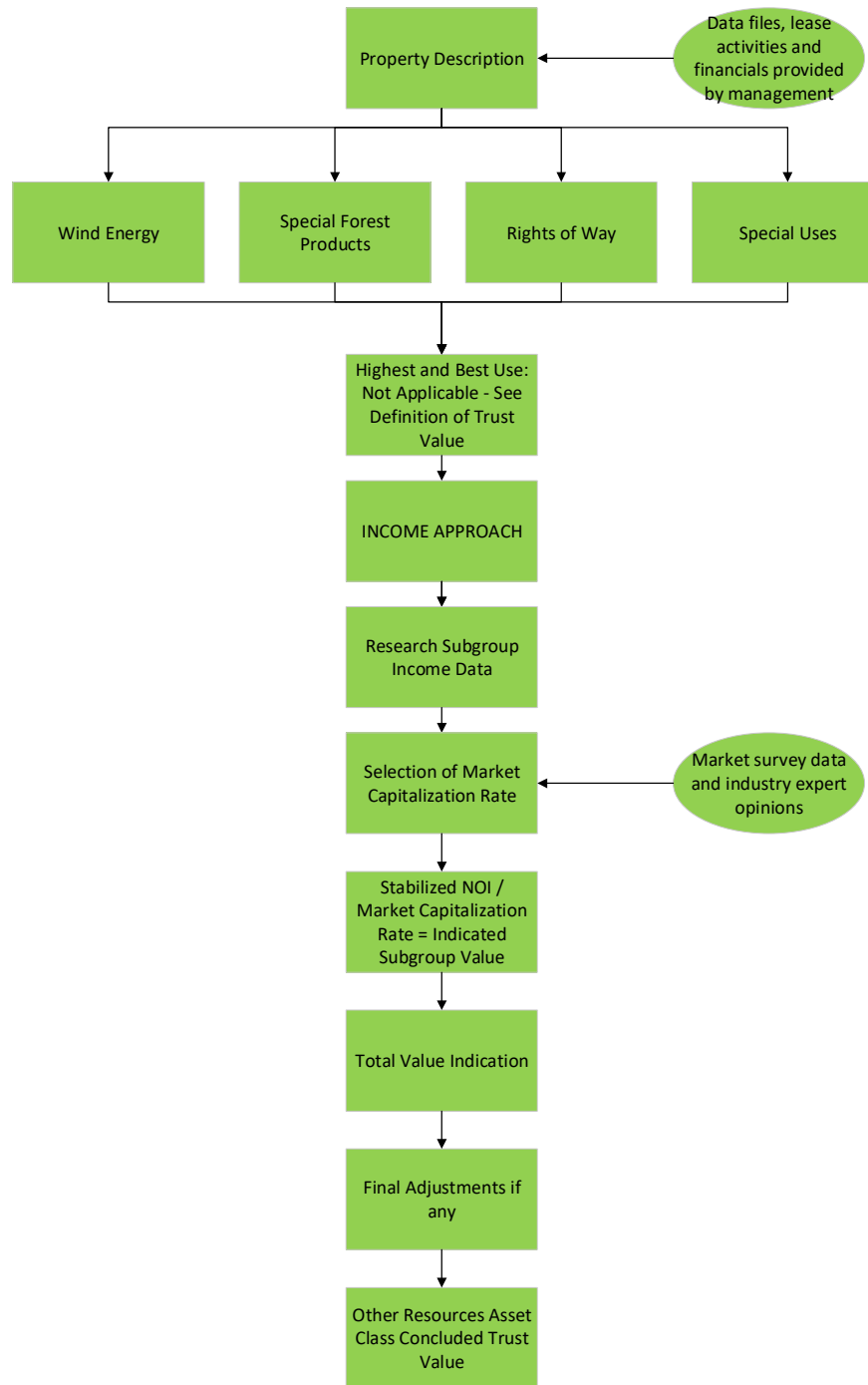
The flowchart that follows displays the steps taken in the valuation analysis for the Other Resources Asset Class.



IMAGE SHOWS STATE TRUST LAND USED FOR BOTH WIND ENERGY AND AGRICULTURE USES
SOURCE: WA STATE DNR

Other Resources Asset Class Valuation Flowchart

FIGURE 26



Trust Value Analysis

We evaluated the Trust Value of the Other Resources Asset Class by using the approach described below:

Income Approach

The income approach involves a set of procedures through which an appraiser derives a value indication for an income-producing property by converting its anticipated benefits (i.e., cash flows and reversion) into property value using one of the following methods:

- *Discounted Cash Flow Method:* The annual cash flows for the holding period and the reversion are discounted at a specified yield rate. The discounted cash flow method was not used in this analysis.
- *Direct Capitalization Method:* One year's income expectancy is capitalized at a capitalization rate that reflects a specified income pattern, return on investment, and change in the value of the investment. The direct capitalization method was used in this analysis.

An overall capitalization rate is defined as a ratio of one year's net operating income provided by an asset to the value of the asset and is used to convert income into value when using the income capitalization approach.⁷ Further discussion regarding this rate can be found in the earlier chapter that focused on rates of return.

Given the leased nature and ownership limitations of the Other Resources Asset Class, the direct capitalization method is considered to be most relevant, and thus, it has been utilized in this portfolio analysis.

Extraordinary Assumptions

We assume that all state trust lands with leases for Wind Energy use and any other miscellaneous or special use adhere to the proper zoning regulations outlined in local general plans. If not fully compliant, we assume that each property is legally non-conforming to the proper regulations and development standards.

As previously discussed in the chapter regarding restrictions and burdens, the Trust Manager's ability to sell, exchange, or transfer state trust lands is limited by statute. For the purpose of this analysis, we assume that the ownership interest is non-transferable resulting in the land not being able to be sold.

We relied upon information provided by the Trust Manager for all specific data regarding data files, leasing activities and financials, and size and ownership information. We assume that all information provided by the Trust Manager is accurate and sufficient for the purpose of this valuation.

Hypothetical Conditions

None noted.

⁷ Definition sourced from the *Sixth Edition of the Dictionary of Real Estate Appraisal*.

Income Approach

The direct capitalization method was used to estimate the Trust Value of the Other Resources Asset Class.

For the purposes of the valuation analyses in this report, the Other Resources Asset Class has been divided into four subgroups:

- Wind Energy
- Special Forest Products
- Rights of Way
- Special Uses

ESTIMATED NET CASH FLOW

As has been highlighted in the “Operational History” section of this chapter, total gross revenue received from rent and other payments for the Other Resources Asset Class typically totals around \$3 million in combined revenue for the year, and trust beneficiaries typically receive about \$2 million in net cash flows per year from this asset class. We estimated stabilized streams of revenue for each subgroup in the asset class based on analyzing historical averages and trends while acknowledging volatility and potential growth where applicable.

In the following table, we segregated the stabilized income stream for each subgroup, as well as estimated an expected stabilized operating cost percentage deduction of 30 percent based on historical deductions averaging near this blended rate.

FIGURE 27

Other Resources Asset Class - Stabilized Income Summary					
	Wind Energy	Special Forest Products	Rights of Way	Special Uses	Total
Stabilized Gross Revenue	\$1,200,000	\$550,000	\$650,000	\$800,000	\$3,200,000
Operating Cost % Deduction % of Revenues	(\$360,000) 30%	(\$165,000) 30%	(\$195,000) 30%	(\$240,000) 30%	(\$960,000) 30%
Trust Net Operating Income	\$840,000	\$385,000	\$455,000	\$560,000	\$2,240,000

CAPITALIZATION RATE SELECTION

An overall capitalization rate of 11 percent has been selected to apply to the net cash flows for each of the subgroups in the Other Resources Asset Class. For further discussion regarding the determination of this capitalization rate, please refer to the earlier chapter that discussed rates of return.

DIRECT CAPITALIZATIONS

The overall capitalization rate was applied to the relevant stabilized revenue streams estimated for each subgroup to derive a preliminary Trust Value indication for this asset class. The direct capitalization calculations are presented for each subgroup.

The relevant revenue streams include the stabilized annual gross revenue estimates for each subgroup minus an operating cost percentage deduction assumption of 30 percent. The resulting net operating income was then capitalized by the applicable overall capitalization rate conclusion.

Note that the acreage listed represents the total acreage associated with each subgroup in FY 2018, as provided by Trust Management.

Also note that contract counts for the Special Forest Products and Rights of Way subgroups represent the number of contracts that reported revenue in FY 2018.

Further, please note that the value has been measured per the contract count as it has been defined earlier in this chapter for each subgroup. We acknowledge that the value per contract does not accurately reflect the value per actual agreement amount as many agreements can be bundled into one contract. Also, the value per contract does not differentiate between the many different types of agreements that are included in each subgroup. This basis of measurement is included to show the total value of the subgroup measured per recorded contract only.

Wind Energy. The total value indication for the Wind Energy subgroup was \$7,600,000 (rounded), which equates to approximately \$380,000 per contract and \$500 per acre. The capitalization calculation for the Wind Energy subgroup is shown in the following table:

FIGURE 28

Direct Capitalization - Wind Energy		
Contract Count		20
Associated Acres		15,109
Stabilized Gross Revenues		\$1,200,000
Operating Cost % Deduction	30%	(\$360,000)
Trust Net Operating Income		\$840,000
Capitalization Rate		11.00%
Indicated Value		\$7,636,364
Value Indication (Rounded)		\$7,600,000
Value Indication per Contract		\$380,000
Value Indication per Acre		\$503

Special Forest Products. The total value indication for the Special Forest Products subgroup was \$3,500,000 (rounded), which equates to approximately \$70,000 per contract and \$8.90 per acre. The capitalization calculation for the Special Forest Products subgroup is shown in the following table:

FIGURE 29

Direct Capitalization - Special Forest Products			
Contract Count [1]			50
Associated Acres [2]			394,925
Stabilized Gross Revenues			\$550,000
Operating Cost % Deduction	30%		(\$165,000)
Trust Net Operating Income			\$385,000
Capitalization Rate			11.00%
Indicated Value			\$3,500,000
Value Indication (Rounded)			\$3,500,000
Value Indication per Contract			\$70,000
Value Indication per Acre			\$8.86

[1] Represents the number of FY18 contracts with revenues reported for the subgroup type.

[2] Represents the number of acres associated with the subgroup in FY18.

Rights of Way. The total value indication for the Rights of Way subgroup was \$4,100,000 (rounded), which equates to approximately \$38,700 per contract and \$49.10 per acre. The capitalization calculation for the Rights of Way subgroup is shown in the following table:

FIGURE 30

Direct Capitalization - Rights of Way			
Contract Count [1]			106
Associated Acres [2]			83,531
Stabilized Gross Revenues			\$650,000
Operating Cost % Deduction	30%		(\$195,000)
Trust Net Operating Income			\$455,000
Capitalization Rate			11.00%
Indicated Value			\$4,136,364
Value Indication (Rounded)			\$4,100,000
Value Indication per Contract			\$38,679
Value Indication per Acre			\$49.08

[1] Represents the number of FY18 contracts with revenues reported for the subgroup type.

[2] Represents the number of acres associated with the subgroup in FY18.

Special Uses. The total value indication for the Special Uses subgroup was \$5,100,000 (rounded), which equates to approximately \$28,000 per contract and \$139.20 per acre. The capitalization calculation for the Special Uses subgroup is shown in the following table:

FIGURE 31

Direct Capitalization - Special Uses		
Contract Count		182
Associated Acres		36,637
Stabilized Gross Revenues		\$800,000
Operating Cost % Deduction	30%	(\$240,000)
Trust Net Operating Income		\$560,000
Capitalization Rate		11.00%
Indicated Value		\$5,090,909
Value Indication (Rounded)		\$5,100,000
Value Indication per Contract		\$28,022
Value Indication per Acre		\$139.20

Income Approach Summary. The following table combines the indicated values from the direct capitalization calculations for each subgroup into a total indicated value for the asset class.

Note that the total contracts and acres are not reported at the asset class level. It would not be appropriate to measure the Trust Value indication on a combined per-contract or per-acre basis given the incongruent nature of the miscellaneous subgroups in this asset class.

FIGURE 32

Other Resources Asset Class - Value Indication	
Wind Energy	\$7,600,000
Special Forest Products	\$3,500,000
Rights of Way	\$4,100,000
Special Uses	\$5,100,000
Total Trust Value Indication	\$20,300,000

Value Conclusion

The concluded Trust Value of the Other Resources Asset Class is \$20,300,000.

OTHER RESOURCES ASSET CLASS VALUE CONCLUSION

Using the income approach, the indicated values for each subgroup—Wind Energy, Special Forest Products, Rights of Way, and Special Uses—were combined to represent the total value indication for the Other Resources Asset Class.

This resulted in a concluded Trust Value of \$20,300,000 for the asset class.

FIGURE 33

Other Resources Asset Class - Value Conclusion	
Wind Energy	\$7,600,000
Special Forest Products	\$3,500,000
Rights of Way	\$4,100,000
Special Uses	\$5,100,000
Total Trust Value Indication	\$20,300,000
Concluded Trust Value	\$20,300,000

INDIVIDUAL TRUST VALUES SUMMARY

The concluded Trust Value for state trust lands in the Other Resources Asset Class was calculated for each trust. Specifically, the concluded Trust Value was allocated based on each individual trust's percentage of gross revenue for the asset class in FY 2018. The following table reflects the concluded value for each trust by subgroup.

FIGURE 34

Other Resources Asset Class Individual Trust Values						
Trust	Wind Energy	Special Forest Products	Rights of Way	Special Uses	Trust Value	%
Common School and Indemnity	\$7,073,396	\$845,040	\$1,932,494	\$4,229,328	\$14,080,258	69.36%
State Forest Transfer	\$0	\$1,640,065	\$1,491,867	\$151,878	\$3,283,810	16.18%
Scientific School	\$526,604	\$133,875	\$162,524	\$19,737	\$842,740	4.15%
Capitol Grant	\$0	\$85,365	\$393,928	\$153,306	\$632,599	3.12%
State Forest Purchase	\$0	\$376,775	\$30,914	\$102,816	\$510,505	2.51%
CEP & RI	\$0	\$279,930	\$16,646	\$50,847	\$347,423	1.71%
Other [1]	\$0	\$0	\$40,549	\$177,582	\$218,131	1.07%
Normal School	\$0	\$20,685	\$0	\$167,892	\$188,577	0.93%
University Transferred	\$0	\$88,935	\$30,996	\$21,726	\$141,657	0.70%
Agricultural School	\$0	\$5,635	\$0	\$24,888	\$30,523	0.15%
University Original	\$0	\$16,135	\$0	\$0	\$16,135	0.08%
Escheat	\$0	\$7,560	\$82	\$0	\$7,642	0.04%
Total	\$7,600,000	\$3,500,000	\$4,100,000	\$5,100,000	\$20,300,000	100%

[1] Other includes the Department of Social and Health Services and other trusts not in scope which received minuscule amounts of revenue in FY18.