Appendix A
Restrictions upon the Sale of Trust Lands
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The sale of State Trust Lands addressed in this Trust Land Performance Assessment (TLPA) are restricted. The following is a brief summary of the legal restrictions on both federally granted trust lands and state forestlands.

Federally granted lands were established by the Washington Enabling Act, 25 Stat. 676 (1889) and the Washington Constitution, Article XVI. In particular, Article XVI, Section 2 requires that sales occur at public auction and Section 4 limits the parcel size of any sale of federally granted land to 160 acres.

The Revised Code of Washington (RCW), Chapter RCW 79.11 establishes statutory requirements for the sale of federaly granted lands, including RCW 79.11.010 which sets forth the maximum acreage for any single sale at 160 acres with no minimum acre size, and RCW 79.11.090 which states “all sales of land under this chapter shall be at public auction, to the highest bidder…”.

RCW 79.11 contains a variety of other provisions related to the sale of federally granted land, including appraisals, sale notice and auction procedures, provisions for a contract for sale, including installment sales.

State forestlands (State Forest Transfer and Purchase trusts) are forever reserved from sale under RCW 79.22.050.

In several chapters of this report, reference is made to the valuation impact of these provisions on the Trust Value conclusions of this analysis. The purpose of this discussion is to describe in greater detail why the restrictions upon sale have a valuation impact and influence the findings of value, return, and our evaluation of the management of the trust lands under analysis.

THE ABILITY TO SELL IS ONE OF THE PRIMARY ATTRIBUTES OF A REAL ESTATE INVESTMENT

Fee simple ownership of real property is often analogized to a “bundle of sticks,” in which each of the several rights in real property is a single “stick” (i.e., a specific ability to do something with the real property under review or evaluation). For example, the ability to convey use of the property by a lease or rental agreement is one of those rights held by the property owner.

The right to sell real property is one of the most basic rights in real property, held by the property owner. “Fee simple” means that the owner of the property holds all or almost all of the property rights, including the right to sell the property, without restriction. It is also appropriate to acknowledge that the rights held by the fee simple property owner are exclusive—they do not have to be shared with any third party, public or private. If that owner chooses to sell the property, the proceeds from the sale of the property are enjoyed exclusively by the former owner—subject, obviously, to the obligation to pay any fees or taxes resulting from the sale.
If real property cannot be sold, it stands to reason that the “bundle of sticks” (i.e., the rights and privileges of ownership) is fewer than if the property could be sold. It also stands to reason that the value of that property that cannot be sold is likely lower, because the owner’s ability to enjoy all of the rights of property ownership is less. How much lower? It is somewhat difficult to say—based on the use of comparable sales—because properties with such a restriction cannot be sold. We can, however, use income-based analysis of the property in order to form an opinion about the impact on the value of a restriction upon sale. As it pertains to the trust lands evaluated in this TLPA, the restrictions upon sale are relevant precisely because the TLPA analysis seeks to value the entirety of the upland trust land portfolio—at about 2.9 million acres. It is because of the parcel size restriction in the Washington State Constitution and RCW 79.11.010 (160 acres) for the federally granted lands and the reservation from sale of the state forest lands, that we must include the impact of these restrictions upon sale. Simply put, state forest lands cannot be sold and for the federally granted trust lands that can be sold, the acreage limit is so small in comparison to the size of the entire holding, that the investment in the trust land portfolio, in large part or in whole, effectively cannot be sold.

For example, with over 2.2 million acres of federally granted trust lands land across the several asset classes, it would take more than 13,750 separate transactions of 160-acre parcels in order to sell the federally granted trust land portfolio. It is not functional for a land asset or, for that matter, any type of asset, to have to execute thousands and thousands of transactions to liquidate the holding. The inability to sell the lands in a manner commensurate with the scale of the holding is, in effect, a prohibition upon the sale of the lands, and must be taken into account in any valuation analysis.

**MATERIALITY—THE SCALE OF THE PARCEL SIZE LIMITATION UPON SALE OF FEDERALLY GRANTED TRUST LANDS**

In the preceding discussion we make clear the effect of the statutory restriction of parcel size (permitted to be sold) in the context of the larger holding. It should be clear to the reader that, on its face, the size restriction makes the complexity of selling the entire holding so ineffective as to functionally be a limitation upon the sale of the property. It would take years to accomplish such a liquidation, with the time value of money devaluing the proceeds, and the incremental nature of the sales would severely limit any functional reinvestment of the proceeds of sale into any other type of asset.

A second, and equally important, impact of the parcel size restriction is that it causes the proceeds of sale to be very small (conceptually each sale representing only 0.007% of the combined trust land inventory—about $76 for every $1,000,000 of asset value, that the financial impact of any sale or group of sales to be financially immaterial. While there is no single standard for financial materiality, estimates of material amounts typically range from 1% or 2% to not more than 5%. Using the lower standard, we could say that a minimally material sale size would be at

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1 For the purposes of this assessment, trust lands are considered an investment. In actuality, the federal government transferred the federal granted lands to the state to support the named beneficiary institutions instead of cash. The state forestlands were acquired by the county at foreclosure sales for nonpayment of taxes, then transferred to the state, or acquired by the department consistent with RCW 79.22.020.

2 *There are over 600,000 acres of state forestlands in the portfolio that are reserved from sale under RCW 79.22.050*
least 22,000 acres (1% X 2,200,000 acres); we would still have to complete 137 transactions at 160 acres each to complete a sale that even the most conservative observers would consider material.

From a portfolio investment perspective, we believe that the minimum transaction size that most professional portfolio managers would regard as "sufficiently large" to constitute functional liquidity of the trust land portfolio would be about 25% of the portfolio (either in acreage or in value). Therefore, we believe that in order for a professional portfolio manager to conclude that a Trust Value adjustment was not necessary, the portfolio manager would have to be able to sell as much as 25% of the portfolio at any point in the life of the portfolio.

Notwithstanding the adverse impact on the portfolio Trust Value of the parcel size restriction under the Washington State Constitution and RCW 79.11.010, we find that the financial implications of the physical sale size restriction (i.e., the inability to transact in dollar amounts that represent a material share of the portfolio’s value) is adverse and warrants an adjustment to the Trust Value conclusion.

MEASUREMENT OF THE IMPACT UPON VALUE
Income property—also known as “investment property”—generates net income from (usually) rental operations. The net operating income remaining at the end of a month or year contributes to the return on an of investment. Usually, investment property is held for a period of years, and then is sold at a market price to a third party.

At the time of sale, the sales price (net of costs of sale) is then available (in dollars) to provide both a return of capital, and a return on capital. Therefore, we can see that the net income from property operations during the holding period, and the net sales proceeds at the time of sale of the investment property represent a return of the original investment and, potentially, a return on the original investment.

As we consider the restrictions upon sale of the Washington State Constitution, RCW 79.11.010, and RCW 79.22.050 we can also say that the inability to sell land or sell land in financially meaningful amounts limits the ability of the trust beneficiaries to enjoy the return on and the return of their investment. Simply put, if one cannot sell enough of the assets in a portfolio to have a financially material impact on return, the portfolio is worth less than a comparable portfolio without such a restriction.

We noted above that since there are no or very few sales of properties whose sale is restricted, we cannot rely upon a direct comparison of properties with and without such restrictions in order to estimate the market value or Trust Value impact. We can, however, use income-based analysis to isolate a change in value between an unrestricted and a restricted income property, and we can use that difference as a working estimate or proxy for the value impact of the restriction.

The following is a sample calculation from our earlier example of an income property with a purchase price of $1,000,000 and a year-one net operating income of $75,000. Net operating income is expected to rise at 2.5% per year over the 10-year investment holding period. At the end of the holding period, we expect that the property can be sold at an 8% capitalization rate, with 2% cost of sale. The following are the expected cash flows from net operating income and from sale of the property at the end of year 10:
In the investment cash flow statement above, we see the increase in net operating income, and the sale of the property at the end of year 10, with a sales price of $1,171,000, and 2% costs of sale ($23,420). We also see the calculated internal rate of return (also known as a discount rate) of 9.22%. Therefore, we can say that the total return from this investment is 9.22%. We also note the capitalization rate, which, at the time of purchase or investment was 7.5% ($75,000/$1,000,000) and we have assumed a capitalization rate of 8% at the time of sale.

At the total return rate of 9.22%, the net present value of cash flows in perpetuity is $813,831, suggesting that the present value of the reversion is $186,169 ($1,000,000 – 813,831). A simple view of the value of the investment with a sale restriction is that the value of the income property (that one must keep forever) is $813,831, or about 81.4% of the market value without the sale restriction. In this very simple view of the discount, we could say that the discount is 18.6% for the inability to sell this property.

The above illustrates two attributes of the restriction upon sale: 1) why the maximum adjustment might be 18.6%, and 2) that the adjustment to price or value clearly takes into account more than the simple net present values of the cash flows. In the example above—if an investor was interested only in the rate of return and did not care about the illiquid nature of the investment, the investor would pay $1,000,000 for the investment. We could also say in this scenario, that there is no discount for the restrictions upon sale. The reality is, however, that investors do care about liquidity and they require an adjustment if a sale is restricted. Insofar as real estate is concerned, it is already considered a “less liquid” investment when compared to corporate stocks or bonds. Here, we are talking about real estate as an illiquid asset—one that cannot be sold—yet we lack a firm basis for adjustment. The cost of the inability to sell cannot be measured solely by the illiquid asset; it must be measured in the context of the inability to move that value into another, presumably better-performing, asset.
Such an analysis is beyond the scope of this analysis, but we are confident that a range of adjustment wherein the adjustment lies in a range of 10% to 20%—meaning that the upper limit of the adjustment is set by the difference between the relevant capitalization rate and the total return rate (also called a discount rate or internal rate of return). For example, in our timberland valuation analysis, we have indications of a spread between capitalization rate (income return) of 4.62% and total return of 6.89%—a spread of 2.27% or 227 basis points. This spread would imply a discount for the restrictions upon sale of 32.9%. The greater the spread between capitalization rate and total return rate, the greater the discount associated with the restriction upon sale.

TREATMENT IN THIS TRUST LAND PERFORMANCE ASSESSMENT
In this TLPA, we have made an adjustment for the restrictions upon sale. The adjustment for this influence is as suggested above, based upon an income analysis, wherein we use the total return rate and use that rate in net income capitalization. The resulting indication of capital value is our Trust Value estimate, and it incorporates the adjustment for restriction upon sale.

Using the example above, our Trust Value analysis capitalizes stabilized net income at the total return rate:

$75,000/.0922 = $813,831. This is the Trust Value of the asset that cannot be sold. If the asset could be sold, we would use the market capitalization rate of 7.5% ($75,000/.075 = $1,000,000). Stated earlier, this is a discount of 18.62%.