Conservation Tools:
An Evaluation and Comparison of the Use of Certain Land Preservation Mechanisms

Final Report
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WASHINGTON STATE RECREATION AND CONSERVATION OFFICE
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EXECUTIVE SUMMARY

Pursuant to SHB 1957 (2009), this report evaluates and compares eight land preservation mechanisms based on their ability to achieve conservation goals, their cost, their ability to respond to future changes, and several other criteria selected to highlight the practical advantages and disadvantages of each mechanism.

The report provides a framework for comparing these eight mechanisms under the influences of legal, practical and economic circumstances. The construction of this framework led to several general conclusions about the benefits and risks of land preservation mechanisms. The report uses a hypothetical case study to illustrate how the report’s framework and conclusions can be used to select land preservation mechanisms under particular circumstances.

We summarize the report’s analytical framework and our conclusions below.

Framework for Comparing Land Preservation Mechanisms

This report provides a criteria-based framework for determining which land preservation mechanisms are most appropriate and cost effective in achieving the conservation goals of state natural resource agencies.

State agencies advance conservation goals not only through the direct acquisition of property interests but also through grant funding to state agencies and other preservation entities, such as land trusts, local governments, and tribes, which often use state grant funds and work to advance the same broad conservation goals as state agencies. Thus, while this report focuses on the use of land preservation mechanisms by state agencies, it also considers their use by other preservation entities.

The term “preservation entity,” as used in this report, includes state natural resource agencies, local governments, land trusts, tribes, and other public and private entities working to advance the conservation goals of state agencies.
This framework can be applied at both the programmatic level and the project level. At the programmatic level, a preservation entity can use the framework to evaluate which mechanisms generally have a greater potential for achieving a particular conservation goal – such as the goal of preserving ecological values, the goal of preserving working landscapes, or the goals of preserving recreational, open space, scenic, historical or cultural values. At the project level, a preservation entity can use the framework to identify which mechanism or combination of mechanisms should be used to achieve a particular conservation goal in the context of a particular property, landowner, and economic circumstances.

At both the programmatic and project level, this report’s criteria-based framework promotes a methodical comparison of each mechanism’s ability to achieve conservation goals in the context of initial and long-term costs, ability to respond to future changes, impact on the landowner’s continued use of the land, ability to combine different mechanisms, and funding constraints on the use of a particular mechanism.

**General Conclusions About Land Preservation Mechanisms**

This report also offers several general conclusions about land preservation mechanisms in light of the evaluation criteria. These conclusions illustrate key differences between perpetual mechanisms and temporary mechanisms, as well as differences between fee simple acquisitions and perpetual conservation easements.

**Perpetual Mechanisms Versus Temporary Mechanisms**

This report’s conclusions highlight the distinction between so-called “perpetual” land preservation mechanisms (such as fee simple acquisitions and perpetual conservation easements), which have a potentially indefinite duration, and temporary mechanisms (such as “term conservation easements” and leases), which have a fixed duration.

In particular, this report offers the following conclusions regarding the ability of perpetual and temporary mechanisms to achieve conservation goals, the costs of perpetual and temporary mechanisms over time, and the ability of perpetual and temporary mechanisms to respond to changes over time:

- **Ability to Achieve Conservation Goals.** Generally, because perpetual land preservation mechanisms have an indefinite duration and do not automatically expire, they have a greater potential than temporary mechanisms to achieve the conservation goals of state agencies.
As a legal matter, the statutory framework that defines the conservation goals of state natural resource agencies in Washington uses language that favors a perpetual approach to land conservation. Moreover, as a practical matter, perpetual mechanisms should be favored because the conversion of natural, open space, and resource lands to residential and other incompatible uses is essentially permanent. Temporary mechanisms only delay, but do not foreclose, the possibility of conversion.

Perpetual land preservation mechanisms, unlike temporary mechanisms, provide long-term “conservation equity” because they create perpetual assets with inherent financial value. This conservation equity generally can be retained or liquidated at the holder’s discretion and re-invested in other conservation lands, consistent with any funding source limitations, in order to maximize the conservation benefits of a particular investment.

While some landowners prefer temporary mechanisms because they do not permanently encumber the land and allow the landowner to retain the long-term value of the land’s appreciated development rights, this benefit to the landowner is also a disadvantage to the preservation entity. When an entity uses a temporary mechanism, it assumes the risk that the landowner will convert the property to incompatible uses after the expiration of the mechanism’s term. This risk greatly reduces the mechanism’s ability to achieve long-term conservation goals. In some cases, however, a preservation entity may be able to accommodate a landowner’s desire to retain some of the property’s “upside” price appreciation potential by using a perpetual conservation easement in which the landowner reserves the right to exercise certain limited development rights in less sensitive areas of the property.

For these reasons, as a general rule, preservation entities should consider using temporary mechanisms only under limited circumstances.

- **Costs Over Time.** Temporary mechanisms tend to require a lower initial capital investment than perpetual mechanisms because the landowner retains the long-term equity associated with the property’s full development potential. If a preservation entity’s goal is temporary, a temporary mechanism may be less costly than a perpetual mechanism. However, most conservation goals are not temporary. If the property’s conservation benefit is to be retained over time, the total cost of a temporary mechanism will eventually exceed the cost of a perpetual mechanism. This is because the preservation entity will be required to repeat its initial capital investment (as well as certain administrative costs) with each renewal of the temporary mechanism’s term.

The precise moment during the life of a conservation project when the cost of a temporary mechanism will exceed the cost of a perpetual mechanism depends on several variables, such as the duration of the mechanism’s term, the threat of conversion,
and the level of uncertainty. These variables can be used to conduct an economic analysis of a perpetual or temporary mechanism’s long-term cost under particular circumstances. Because the outcome of this analysis depends on assumptions for each variable, we have included an Excel spreadsheet model with this report that gives the reader a tool to experiment with different assumptions and view different outcomes online and bar graphs comparing the costs of the four mechanisms listed in SHB 1957.

This report concludes that the cost of perpetual mechanisms tends to be lower than the cost of temporary mechanisms when there is a high threat of conversion and when the state places a high value on conservation goals in the more distant future. Conversely, temporary mechanisms tend to be less costly when the conversion pressure is lower and when the state places a lower value on the distant future.

The statutory framework that guides the work of state natural resource agencies presumes that development pressures will remain relatively constant and generally favors a long-term approach to land preservation. Under this framework, perpetual mechanisms would be seen as less costly than temporary mechanisms. Moreover, even when an economic analysis indicates that temporary mechanisms are less costly, they do not provide long-term protection against conversion or conservation equity. In most cases, these disadvantages would outweigh the lower cost of a temporary mechanism.

- **Ability to Respond to Future Changes.** In general, perpetual mechanisms provide the most flexibility in responding to future economic, social, and environmental changes. Because they create conservation equity and are not dependent upon the continued availability of funding, perpetual mechanisms preserve more options for responding to future changes that could affect the conservation values of a particular property.

As noted above, the state statutes governing land preservation efforts by state natural resource agencies presume that the need for conservation of ecological resources, working lands, and public recreational lands will remain relatively constant. If economic or social changes reduce the need for such conservation, the equity provided by permanent mechanisms will give preservation entities flexibility in determining whether to retain or liquidate such assets.

Similarly, permanent mechanisms give the state flexibility in responding to environmental changes such as climate change because they can be used to create a portfolio of conservation equity, which the state can retain or liquidate and re-invest as part of an overall adaptive management approach. Temporary mechanisms, in contrast, generally fail to confront the reality of change and result in fewer options in the long run. For example, if a preservation entity determines that climate change has rendered a property protected through fee simple acquisition unsuitable for its original conservation purpose,
the entity can consider using the property for another conservation purpose or selling the property and re-investing the funds in other conservation lands. The decision regarding whether and how a perpetual interest should be retained or liquidated may depend on limitations associated with funding sources for the original acquisition, which could constrain the entity’s ability to sell or dedicate the property to another use. With a temporary mechanism such as a lease, however, the entity would not have this option at all because a lease does not provide long-term equity.

**Fee Simple Acquisitions Versus Perpetual Conservation Easements**

This report also identifies the following key distinctions between fee simple acquisitions and perpetual conservation easements, the two most commonly used perpetual land preservation mechanisms:

- **Ability to Achieve Conservation Goals.** Fee simple acquisitions have a greater potential to achieve conservation goals that require control over the entire parcel because a sensitive resource cannot effectively be segregated from the landowner’s conflicting uses of that parcel. Fee simple acquisition is often necessary when the conservation goal requires active restoration of the property. Perpetual conservation easements, in contrast, have a greater potential to achieve conservation goals when the property’s conservation values can be targeted and segregated from conflicting uses of the same parcel, such as when a conservation easement is used to protect a stream buffer but allows continued farming or forestry outside the buffer area.

Perpetual conservation easements are especially appropriate for working lands preservation because they allow the landowner to continue to work the land while preventing conversion to incompatible uses. Fee simple / leaseback and reserved life estate transactions may offer useful alternatives to perpetual conservation easements in preserving working landscapes. However, the use of these mechanisms may be limited by grant funding constraints.

As noted below, fee simple acquisitions also have a greater potential to respond to future changes than perpetual conservation easements, although easements can be drafted to allow some flexibility in responding to changes.

- **Costs Over Time.** Perpetual conservation easements are often seen as less costly than fee simple acquisitions because the initial capital cost of a conservation easement is generally lower than the cost of fee simple acquisition. The capital cost of a conservation easement is proportional to the development rights purchased with the easement, with
the cost typically ranging from 25 to 85 percent of the fee simple value. Conservation easements that impose limited restrictions or encumber only a small portion of the property have lower capital costs than easements that impose severe restrictions or encumber most or all of the property.

However, a comparison of the true costs of fee simple acquisitions and perpetual conservation easements over time depends on several assumptions about their long-term costs. These long-term costs include the cost of monitoring and enforcing conservation easements and the cost of owning and managing fee simple lands.

If a preservation entity assumes that these long-term costs will be roughly comparable, or that fee simple management costs will be higher than easement monitoring and enforcement costs (for example, as a result of climate change), then the total cost of a perpetual easement will generally be lower than the total cost of fee simple acquisition. On the other hand, if a preservation entity assumes that easement monitoring and enforcement costs will be higher than fee simple management costs (for example, due to repeated violations and challenges by future landowners), then the total cost of most conservation easements will be higher – but even under this conservative assumption, the long-term cost of most perpetual conservation easements is unlikely to exceed the total fee simple cost.

The Excel spreadsheet model included with this report allows the reader to explore a wide variety of alternative assumptions and outcomes about these costs.

- **Ability to Respond to Future Changes.** Because fee simple acquisitions give preservation entities greater discretion in the management and ownership of land, they generally provide more flexibility than perpetual conservation easements in responding to future economic, social and environmental changes. However, perpetual conservation easements can be drafted to include dynamic terms that provide some flexibility in responding to future changes. For example, perpetual working forest conservation easements can be drafted to respond to economic changes by allowing the landowner to repurchase certain development rights if a neutral arbitrator determines that forestry is no longer economically viable on the property. Similarly, perpetual conservation easements can be drafted to respond to environmental changes, such as the preservation entity’s potential need to terminate a particular easement and re-invest its appreciated value in other land as a result of climate change that renders the property unsuitable for conservation.

By applying this report’s analytical framework and the Excel spreadsheet model included with this report, a preservation entity can test these general conclusions under the particular circumstances of its programmatic charge and individual proposed or potential investments.
Chapter 1: INTRODUCTION

In 2009, the Washington State Legislature directed the Washington State Recreation and Conservation Office (“RCO”) to prepare a report evaluating and comparing the use of certain land preservation mechanisms. SHB 1957 (2009), Sec. 7, provides as follows:

Within existing funds, the recreation and conservation office must evaluate the use of land preservation mechanisms such as fee simple acquisitions, conservation easements, term conservation easements, and leases and the ability of each to respond to future economic, social, and environmental changes. The recreation and conservation office must compare the relative advantages and disadvantages and costs of each of these land preservation mechanisms. The recreation and conservation office must report its findings and recommendations to the appropriate committees of the legislature by January 1, 2010.

On July 17, 2009, RCO issued a Request for Proposals from contractors qualified to prepare the report mandated by SHB 1957. The law firm of GordonDerr LLP (“GordonDerr”) was selected to prepare the report, with assistance from the Economics Group of ENTRIX, Inc. (“ENTRIX”). GordonDerr and ENTRIX contracted with RCO to prepare a report evaluating and comparing the mechanisms listed in SHB 1957 and a limited number of additional mechanisms. This report is based on a review of existing literature addressing land preservation mechanisms, interviews with staff from state natural resource agencies and land trusts, and legal and economic analysis.

This report presents an analysis of the four land preservation mechanisms listed in SHB 1957 and four additional mechanisms used by preservation entities. The eight mechanisms analyzed in this report include the following:

1. Fee Simple Acquisitions
2. Perpetual Conservation Easements
3. Term Conservation Easements
4. Conservation Leases
(5) Restrictive Covenants

(6) Fee Simple / Leaseback Transactions

(7) Deferred Purchase Mechanisms

(8) Voluntary Conservation Registries

With input from RCO staff and interviewees, we selected the following criteria for analysis of each mechanism:

- Ability to Achieve Conservation Goals
- Impact on Landowner’s Continued Use
- Costs Over Time
- Ability to Respond to Future Changes
- Ability to Combine with Other Mechanisms
- Funding Constraints
Chapter 2: Analysis

The analysis in this report is organized as follows:

- **In Section 2.1**, we discuss the methodology used in developing the report;
- **In Section 2.2**, we analyze each land preservation mechanism using the selected set of criteria;
- **In Section 2.3**, we analyze how each criterion fares under the various land preservation mechanisms; and
- **In Section 2.4**, we use a hypothetical case study to demonstrate the likely method of selection by a user of land preservation mechanisms.

2.1. Methodology

As noted above, this report is based on a review of existing literature, interviews with stakeholders, and legal and economic analysis. However, before conducting our analysis, several preliminary steps were necessary.

2.1.1 Identify Land Preservation Mechanisms

First, we categorized the tools that are commonly characterized as land preservation mechanisms, including the following:

- Methods of acquisition, such as fair market value sale, bargain sale, exchange, donation\(^1\) and bequest;
- Financial incentives, such as preferential tax assessments and income tax deductions;
- Regulatory mechanisms, such as zoning ordinances, including market-based approaches like transfer of development rights (TDR) programs; and
- Property interests and/or contract rights.

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\(^1\) This report focuses on the fair market value purchase and sale of interests in land and contract rights. Thus, it does not consider the wide-ranging tax implications of donations, which are discussed in detail in existing literature.
The mechanisms listed in SHB 1957 fall into the category of property interests and/or contract rights. Based on the Legislature’s intent to evaluate that category of tools, and in consultation with RCO staff, we selected four additional mechanisms from that category for analysis: restrictive covenants, fee simple / leaseback transactions, deferred purchase mechanisms, and voluntary conservation registries.

2.1.2 Identify Land Preservation Goals

Next, we identified the conservation goals of state natural resource agencies, as defined in relevant state statutes. While this report includes information that is relevant to the needs of both public and private preservation entities, our analysis focuses on the use of land preservation mechanisms to achieve the conservation goals of state natural resource agencies through grant funding and property acquisition.

State agencies actively involved in land preservation include the Parks and Recreation Commission, the Department of Natural Resources (“DNR”), the Department of Fish and Wildlife (“DFW”), and RCO. The following statutes address the land preservation goals of these agencies:

- **Chapter 79A.05 RCW, Parks and Recreation Commission.** One of the duties of the Parks and Recreation Commission is to “select and purchase or obtain options upon, lease, or otherwise acquire for and in the name of the state such tracts of land, including shore and tide lands, for park and parkway purposes as it deems proper.”

- **Chapter 79.70 RCW, Natural Area Preserves.** In the Natural Area Preserves Act, the Legislature adopted a policy “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.” To achieve this policy, the Legislature authorized DNR to “acquire . . . the fee or any lesser right or interest in real property which shall be held and managed as a natural area.”

- **Chapter 79.71 RCW, Natural Resources Conservation Areas.** In the Natural Resources Conservation Areas Act, the Legislature identified “an increasing and continuing need by the people of Washington for certain areas of the state to be conserved, in rural as well as urban settings, for the benefit of present and future conservation.”

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2 RCW 79A.05.030(7).
3 RCW 79.70.010.
4 RCW 79.70.030(3).
generations,” and found that “such areas are worthy of conservation for their outstanding scenic and ecological values and provide opportunities for low-impact public use." To meet this need, the Legislature authorized DNR to “acquire property or less than fee interests in property, as defined by RCW 64.04.130, by all means, except eminent domain, for creating natural resources conservation areas, where acquisition is the best way to achieve the purposes of this chapter.”

- **RCW 76.13.120, Forestry Riparian Easement Program.** When the Legislature passed the Forests and Fish law in 1999 in response to the federal Endangered Species Act listing of several salmonid species, it authorized DNR to acquire 50-year term conservation easements to compensate small forest landowners for income lost as a result of larger riparian buffer requirements. This is one of only a few state programs that uses temporary land preservation mechanisms.

- **Chapter 77.04 RCW, Department of Fish and Wildlife.** DFW’s broad mandate is to “preserve, protect, perpetuate, and manage the wildlife and food fish, game fish, and shellfish in state waters and offshore waters.” Based on scientific evidence indicating that land preservation is an effective method of preserving fish and wildlife, DFW has interpreted this mandate to include land preservation, and it uses the acquisition of property rights as a tool to accomplish its mandate.

- **Chapter 79A.25 RCW, Recreation and Conservation Funding Board.** RCO is responsible for administering the programs and activities of the Recreation and Conservation Funding Board and the Salmon Recovery Funding Board, including a number of grant programs that provide funding for land preservation.

For example, the Washington Wildlife and Recreation Program (“WWRP”) is a grant program funded by the legislature in the state’s capital construction budget. The WWRP provides funds in several different accounts to protect habitat, preserve working farms, and create new local and state parks:

- The Habitat Conservation Account provides funding for “acquisition and development of critical habitat”; “acquisition and development of natural areas”; “acquisition and development of urban wildlife habitat”; and “restoration and enhancement projects on state lands.”

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5 RCW 79.71.010.
6 RCW 79.71.040.
7 RCW 77.04.012
8 RCW 79A.15.040(1).
The Outdoor Recreation Account provides funding for "acquisition and development of state parks"; "acquisition, development, and renovation of local parks"; "acquisition, renovation, or development of trails"; "acquisition, renovation, or development of water access sites"; and "development and renovation projects on state recreation lands."9

The Riparian Protection Account provides funding for "acquisition or enhancement or restoration of riparian habitat."10

The Farmlands Preservation Account provides funding for "the acquisition and preservation of farmlands in order to maintain the opportunity for agricultural activity upon these lands," including "(i) the fee simple or less than fee simple acquisition of farmlands; (ii) the enhancement or restoration of ecological functions on those properties; or (iii) both."11

Based on this statutory guidance provided by the Legislature to state agencies, in consultation with RCO staff and stakeholders, we next identified three categories of conservation goals for evaluation in this report:

- Ecological preservation;
- Preservation of working landscapes, such as farms, ranches, and timberland; and
- Preservation of lands with recreational, open space, scenic, historical or cultural values.

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9 RCW 79A.15.050(1).
10 RCW 79A.15.120(2).
11 RCW 79A.15.130(1)-(2).
2.1.3 Identify Evaluation Criteria

Next, we identified six criteria for evaluating and comparing land preservation mechanisms. SHB 1957 included the following evaluation criteria:

- **Costs.** SHB 1957 directed RCO to compare the relative costs of each mechanism. In particular, RCO requested a comparison of the relative costs of each mechanism over time. Based on our research, feedback from interviewees, and discussions with RCO, we identified the following categories of land preservation costs:
  - Capital costs (the purchase price for the property or contract right acquired);
  - Transaction costs (such as legal fees, due diligence and closing costs);
  - Third-party monitoring and enforcement costs (such as the cost to monitor and enforce perpetual and term conservation easements);
  - Ownership and management costs (costs normally associated with the ownership of property, including taxes, insurance, and property management costs); and
  - Pre-transaction administrative costs (pre-transaction costs incurred by preservation entities in administering land preservation grant funding and acquisition programs, such as the cost of staff time needed to process applications from interested landowners and to prioritize and select properties to be funded or acquired).

- **Ability to Respond to Changes.** SHB 1957 directed RCO to evaluate the ability of each mechanism “to respond to future economic, social, and environmental changes.” Such changes include, for example, changes associated with cycles of economic expansion and contraction and the effect of such cycles on the budgets of state and local government; demographic changes affecting development pressures and the demand for recreation; and climate change.

We also identified several additional criteria not listed in SHB 1957 and, in consultation with RCO staff, we selected the following criteria for evaluation:

- **Ability to Achieve Conservation Goals.** This criterion evaluates the ability of each mechanism to achieve the land preservation goals identified above.

- **Impact on Landowner's Continued Use of the Land.** This criterion evaluates the impact of each mechanism on the landowner’s continued use of the land.
• **Ability to Combine with Other Mechanisms.** This criterion evaluates the ability of each mechanism to be combined with other land preservation mechanisms.

• **Grant Funding Constraints.** This criterion evaluates the grant funding constraints associated with each mechanism.

### 2.1.4 Conduct Analysis

After completing these preliminary steps, we turned to our analysis of the eight selected land preservation mechanisms and the six selected evaluation criteria. Our analysis included a review of existing literature discussing the use of land preservation mechanisms generally, as well as literature specifically addressing several of the mechanisms and evaluation criteria listed above. We also conducted interviews with several staff members from natural resource agencies and land trusts and incorporated their comments into our analysis.

Next, we created a matrix listing the selected land preservation mechanisms in columns and the evaluation criteria in rows, and then drafted a summary discussion applying each criterion to each mechanism. Finally, we incorporated the summary analysis in the matrix, comments from stakeholders, and our research into a draft report, which was circulated to stakeholders for comments on November 25, 2009. We received comments from five reviewers and have incorporated responses to these reviewers’ comments into this final report.

Our draft report included an “analysis by mechanism” section that applied each evaluation criterion to each land preservation mechanism in turn, as well as an “analysis by criterion” section that considered each evaluation criterion broadly by comparing all mechanisms under each criterion in turn. This final report revises and adds to these sections.

This final report also adds a hypothetical case study illustrating how a preservation entity can use the report’s framework and conclusions to evaluate, compare, and select land preservation mechanisms under particular circumstances, as well as a brief conclusion.
The following table summarizes the methodology used in this report:

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>Step 1:</strong></td>
<td>Identify Land Preservation Mechanisms – four mechanisms listed in SHB 1957 (2009), Sec. 7: Fee Simple Acquisitions, Perpetual Conservation Easements, Term Conservation Easements, and Leases.</td>
</tr>
<tr>
<td><strong>Step 2:</strong></td>
<td>Identify Land Preservation Mechanisms – four additional mechanisms selected in consultation with RCO: Restrictive Covenants, Fee Simple / Leaseback Transactions, Deferred Purchase Mechanisms, and Voluntary Conservation Registries.</td>
</tr>
<tr>
<td><strong>Step 3:</strong></td>
<td>Identify Land Preservation Goals – from statutory authorities of state agencies and interviews with stakeholders: (1) Ecological preservation; (2) Preservation of working landscapes, such as farms, ranches, and timberland; and (3) Preservation of lands with recreational, open space, scenic, historical or cultural values.</td>
</tr>
<tr>
<td><strong>Step 4:</strong></td>
<td>Identify Evaluation Criteria – from SHB 1957 and additional criteria through interviews with stakeholders: (1) Ability to Achieve Conservation Goals, (2) Impact on Landowner’s Continued Use, (3) Costs Over Time, (4) Ability to Respond to Future Changes, (5) Ability to Combine with Other Mechanisms, and (6) Funding Constraints.</td>
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<td><strong>Step 5:</strong></td>
<td>Analysis by Mechanism: Conduct analysis of each land preservation mechanism by applying each evaluation criterion to each mechanism in turn.</td>
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<td><strong>Step 6:</strong></td>
<td>Analysis by Criterion: Conduct analysis of each criterion broadly by comparing all mechanisms under each criterion in turn.</td>
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<tr>
<td><strong>Step 7:</strong></td>
<td>Case Study: Demonstrate analysis through a hypothetical case study showing how a preservation entity can use this report’s framework to select land preservation mechanisms under particular circumstances.</td>
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2.2 Analysis By Mechanism

In the following sections, we analyze each of the selected land preservation mechanisms in turn. Our analysis of each mechanism begins with a description of the mechanism and a discussion of the duration of the mechanism, the rights acquired by the preservation entity, and any rights retained by the landowner. The analysis then turns to the application of each evaluation criterion.

2.2.1 MECHANISM: Fee Simple Acquisitions

When a preservation entity acquires a fee simple interest, it acquires all of the rights that make up full ownership of the land. In a typical fee simple acquisition, the seller does not reserve any rights. However, as discussed below, fee simple acquisitions can be paired with other mechanisms such as leases, allowing the landowner to retain a possessory interest in the land.

2.2.1.1 Ability of Fee Simple Acquisitions to Achieve Conservation Goals

In general, fee simple acquisitions have a high potential for achieving conservation goals. Because the preservation entity acquires all rights to ownership and possession, the entity has full control over development and management of the land. Fee simple ownership gives the entity discretion to limit new development and manage the land in a way that best achieves the conservation goal. In addition, because fee simple interests are potentially indefinite in duration, they have a high potential to achieve long-term conservation goals.

However, fee simple acquisitions are more limited in their ability to target portions of a parcel with the most conservation value, such as a trail, a riparian buffer or a migration corridor. While a conservation easement can be drafted to impose restrictions only in certain targeted areas of the property, in the case of a fee simple acquisition, a legal subdivision or boundary line adjustment may be required in order to target the parcel’s most valuable portions.
The effectiveness of fee simple acquisitions in achieving conservation goals depends, in part, on whether the preservation entity’s goal is ecological preservation, preservation of working lands, or preservation of other values such as recreational, open space, scenic, historic, and cultural values.

- **Ecological Preservation.** Fee simple acquisitions have a high potential to achieve ecological goals that require control over an entire parcel of land. Because there are no other parties who hold competing interests in the land and the preservation entity has full control over the property, the preservation entity is in the best position to prevent uses that are inconsistent with the property’s ecological values. However, as noted above, if the entity’s ecological goal can be achieved by controlling only a portion of the property, a conservation easement may be more appropriate because that portion of the property can more easily be targeted for protection.

- **Preservation of Working Lands.** Fee simple acquisitions have a high potential to achieve the goal of preserving working lands. However, there is general consensus among preservation entities that most privately owned working lands should remain in private management, even if a government agency or land trust acquires an interest in the land. For this reason, working lands are rarely protected by acquiring fee simple title alone. Instead, working lands are typically protected (i) by acquiring a fee simple interest and leasing the property back to the original owner or another party who is responsible for managing the land (“fee simple / leaseback transactions”); (ii) by acquiring a fee simple interest, placing a conservation easement on the property, and re-selling the land to another party who will manage the land, or to a “conservation buyer” who wants to own the land and lease it to another party who will manage the land; or (iii) by simply acquiring a conservation easement that allows the original landowner to continue to work the land. Conservation easements and fee simple / leaseback transactions are discussed below.

- **Preservation of Recreational, Open Space, Scenic, Historic, and Cultural Values.** Fee simple acquisitions have a high potential to achieve preservation of recreational, open space, scenic, historic, and cultural values. Fee simple acquisition is particularly appropriate when the goal is to use the land for intensive public recreation, such as a state park or a Natural Resources Conservation Area, because fee simple ownership gives the preservation entity maximum control over public access and use of the land. Fee simple acquisitions can effectively protect open space, scenic, historic, and cultural values, but in many cases, a less-than-fee acquisition such as a conservation easement can be equally effective in protecting these types of values. For example, if the sole conservation goal is to protect the scenic and open space values associated with an agricultural property, a conservation easement can be used to protect these values.
2.2.1.2 Impact of Fee Simple Acquisitions on Landowner’s Continued Use

Fee simple acquisitions preclude continued use of the property by the original landowner unless the acquisition is paired with another mechanism such as a lease.

2.2.1.3 Costs of Fee Simple Acquisitions Over Time

- **Capital Costs.** Fee simple acquisitions typically require a large initial capital investment in acquiring the property. Generally speaking, the capital cost of fee simple acquisitions is directly proportional to the development potential of the land, with increased capital costs for land with greater development potential. This is a one-time cost for fee simple acquisitions.

- **Transaction Costs.** The transaction costs associated with fee simple acquisitions are generally low because the conveyance of fee simple title is relatively simple and does not require negotiation and documentation of a complex legal instrument like a conservation easement. Instead, a typical fee simple transaction will require only a purchase agreement with the landowner and a deed to convey title. Additional transaction costs for fee simple acquisitions include appraisal costs, which are generally lower than appraisal costs for conservation easements, as well as due diligence and closing costs, which are generally comparable to the due diligence and closing costs for conservation easements, although due diligence costs can vary widely depending on the complexity of the transaction and the property’s history. Transaction costs are one-time costs for fee simple acquisitions.

- **Third-Party Monitoring and Enforcement Costs.** If the preservation entity acquires and retains a fee simple interest, there are no third-party monitoring and enforcement costs. Instead, the entity’s ownership and management costs will include the cost of any monitoring and enforcement efforts.

- **Ownership and Management Costs.** The ownership and management costs associated with fee simple acquisitions are relatively high. Depending on the management needs of the property, fee simple acquisitions can require substantial investments in the ongoing management of the property. In particular, properties acquired for restoration projects often require long-term investments in adaptive management and monitoring. In most cases, conservation lands owned by preservation entities are exempt from property tax, although for political reasons some land trusts choose to pay taxes on certain properties even when they are exempt. State and local agencies are generally self-insured, but private land preservation entities may incur additional ownership costs in obtaining property liability insurance. Management costs
for fee simple acquisitions have the potential to increase in the future, such as if climate change requires more active management of the mix of native and invasive species on the property.

According to one interviewee, fee simple acquisition often requires ownership and management costs ranging from $16 to $30 per acre per year, with higher costs for properties with higher levels of public use and more intensive management needs. This estimate is generally consistent with other estimates in existing literature. For example, based on 2006 budget figures for the National Wildlife Refuge System, one report estimated that the average management costs for fee simple ownership are about $22.10 per acre per year nationwide.12

• **Pre-Transaction Administrative Costs.** The administrative costs associated with fee simple acquisitions are relatively low. Like all land preservation programs, programs utilizing fee simple acquisitions require preservation entities to invest in the cost of staff time needed to identify and prioritize lands for preservation. However, the administrative costs associated with fee simple acquisitions are usually one-time costs. If the preservation entity retains a fee simple interest in a particular property, this is a one-time cost and few additional administrative costs will be required to administer grant programs associated with the acquisition of the property.

### 2.2.1.4 Ability of Fee Simple Acquisitions to Respond to Future Changes

Fee simple acquisitions generally have a high potential to respond to future social and environmental changes because they provide the preservation entity with maximum control of the property. For example, if future social or environmental changes require a different approach to land management, the entity can simply alter its management techniques. If changes render the property unsuitable for the desired conservation goal, the entity can attempt to sell the property and reinvest the proceeds in land that is more suitable, subject to the potential restrictions of a particular grant program. In either case, the entity can respond to future changes without the need to consult the landowner or amend the terms of restrictive instruments such as conservation easements. Fee simple acquisitions also have a relatively high potential to respond to future economic changes. Unlike acquisitions of temporary interests such as leases and term conservation easements, fee simple acquisitions do not depend on the availability of continued funding to provide continued protection.

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2.2.1.5 Ability to Combine Fee Simple Acquisitions with Other Mechanisms

Fee simple acquisitions can be combined with several other land preservation mechanisms, such as leases (e.g., in a fee simple / leaseback transaction) and conservation easements (e.g., in a transaction involving fee simple acquisition and sale of the property subject to a conservation easement). Fee simple interests can also be acquired using various deferred purchase mechanisms, such as options and rights of first refusal.

2.2.1.6 Grant Funding Constraints on Fee Simple Acquisitions

Most grant programs used by preservation entities allow the use of fee simple acquisitions. However, a preservation entity’s ability to use fee simple acquisitions is sometimes limited in practice by particular grant requirements, such as when a grant program requires that all acreage acquired must advance a single conservation goal.

For example, one interviewee noted a requirement in the Critical Habitat category of WWRP’s Habitat Conservation Account that each acre of land protected by funds from that category must serve a habitat purpose, and commented that this requirement limited the entity’s use of fee simple acquisitions and fee simple / leaseback transactions to protect ranchland that contains habitat corridors. According to this interviewee, preservation entities would have more flexibility if this requirement were modified or another grant program created to allow the acquisition of ranchland that contains both habitat corridors and non-habitat areas. In commenting on our draft report, one reviewer called this “a critical hurdle to overcome,” noting that “many good projects could be moved forward for implementation to accomplish multiple goals.”

2.2.2 MECHANISM: Perpetual Conservation Easements

Perpetual conservation easements, like fee simple acquisitions, are indefinite in duration. The respective rights acquired by the preservation entity and reserved by the landowner depend on the terms of the conservation easement, which are tailored in each transaction to meet the needs of the preservation entity, the landowner, and the land.

A “perpetual conservation easement” is an instrument that creates a real property interest restricting the uses and activities on the property “in perpetuity.”
In a typical perpetual conservation easement transaction, the preservation entity will acquire some or all of the property’s development rights (which are either held by the entity or transferred to another property) and the right to enforce certain restrictions, while the landowner will retain the right to use the land in ways that are consistent with the restrictions.

Conservation easements have been described as “statutorily authorized negative servitudes in gross.” Unlike other negative servitudes such as restrictive covenants, conservation easements are specifically authorized by state statutes (called “enabling acts”), which allow conservation easement holders to avoid several potential problems associated with negative servitudes under the common law.

### 2.2.2.1 Ability of Perpetual Conservation Easements to Achieve Conservation Goals

Perpetual conservation easements have a high potential for achieving conservation goals. Perpetual easements allow preservation entities to prevent conversion by acquiring development rights and often give entities the right to enforce use restrictions tailored to the conservation goal and the property’s characteristics without assuming full management responsibility over the property.

As discussed above, conservation easements can be used to target the most valuable portions of a property more easily than fee simple acquisitions. However, if the conservation goal requires intensive public access or management of a sensitive resource, perpetual conservation easements may be less effective in achieving the goal because the landowner’s continued use of the land may conflict with those uses.

- **Ecological Preservation.** The ability of perpetual conservation easements to achieve ecological goals depends on the extent to which the landowner’s continued use of the land may conflict with the ecological resource. In some cases, the potential for such conflict can be addressed in the terms of the conservation easement. For example, an easement might physically segregate potentially conflicting uses by defining a “conservation zone” within which uses are strictly limited and other zones within which the landowner has more flexibility to use and manage the land, such as building envelopes and management zones.

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- **Preservation of Working Lands.** Perpetual conservation easements have a high potential to achieve preservation of working lands. A perpetual easement provides permanent protection against conversion of the property and typically allows the preservation entity some management oversight to prevent activities that are inconsistent with the entity’s goals, while also allowing the owners of farms, ranches, and timberlands to continue to hold fee title and manage the land.

- **Preservation of Recreational, Open Space, Scenic, Historic, and Cultural Values.** Perpetual conservation easements have a relatively low ability to achieve purely recreational goals. As noted above, there is a high potential for conflict between public access and the landowner’s continued use of the land, and many of the conservation easements used by RCO explicitly preclude any public access. The landowner’s continued use may also conflict with the protection of historic and cultural values. However, perpetual conservation easements have a higher ability to achieve goals involving open space and scenic values because the landowner’s continued use is less likely to conflict with these values. For example, a farm may provide open space and scenic values even when the landowner is actively engaged in farming the land, and perpetual conservation easements can be used to keep the farm in open space by preventing its conversion to incompatible uses.

### 2.2.2.2 Impact of Perpetual Conservation Easements on Landowner’s Continued Use

Perpetual conservation easements typically have a low to moderate impact on the landowner’s continued use of the property. Most perpetual easements allow continued use by the landowner, but the extent of the impact depends on the easement’s terms. For example, a perpetual conservation easement on farmland could simply prohibit subdivision and conversion of the property to residential use, while a more complex easement could include restrictions on particular farming practices.

### 2.2.2.3 Costs of Perpetual Conservation Easements Over Time

- **Capital Costs.** Perpetual conservation easement transactions require a relatively high initial capital investment in acquiring the easement, although the cost is lower than the cost of a fee simple acquisition. The capital costs of perpetual conservation easements typically range from 25 to 85 percent of the fee simple value.15

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The cost of a perpetual conservation easement is typically determined by preparing a “before-and-after” appraisal that compares (1) the fee simple value of the property “before” the easement is imposed; with (2) the remaining value of the property “after” the easement is imposed. The value of the easement is the difference between these “before” and “after” values and is typically directly proportional to the development rights purchased with the easement. In other words, the cost of a conservation easement essentially “equals the fee simple value of the property times the percentage of development rights purchased.” This is a one-time cost for perpetual conservation easements.

**Transaction Costs.** The transaction costs associated with perpetual conservation easements are relatively high. In addition to the normal transaction costs associated with a fee simple acquisition, conservation easements require more time and expense to negotiate the easement and often require substantial legal fees in drafting complex easement language. The cost of an appraisal for a conservation easement is also typically higher (as much as 50% higher, according to one commenter) than an appraisal for a fee simple acquisition. Conservation easements that include land management restrictions may be particularly complex and lengthy. Transaction costs are one-time costs for perpetual conservation easements.

**Third-Party Monitoring and Enforcement Costs.** Perpetual conservation easements require an investment in monitoring and enforcement of the easement’s restrictions. These costs may include the cost of staff time to conduct annual monitoring visits, to communicate with and maintain the preservation entity’s relationship with the landowner, and to resolve any conflicts that may arise. If conflicts cannot be resolved in discussions with the landowner, enforcement costs may include the cost of seeking a court order enjoining certain uses of the property or requiring the landowner to restore the land to its former condition. Land trusts usually create a “stewardship endowment” for each conservation easement that is dedicated to these types of costs, while state agencies typically rely on existing funding for monitoring and enforcement. The Land Trust Alliance (LTA) is currently exploring a possible conservation defense insurance program that would allow land trusts to manage the risk associated with the enforcement of conservation easements more effectively than through self-insurance alone.

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17 *A Primer on Habitat Project Costs*, supra.

The normal expenses associated with monitoring the property and maintaining landowner relations are fairly easy to predict, and preservation entities can plan for these expenses by estimating and including them in a stewardship endowment or some other dedicated funding source. One interviewee estimated that the average ongoing cost associated with conservation easements is $6 per acre per year. However, this estimate does not include the potential cost of litigation to address a major violation or to defend the easement against a challenge by a landowner seeking its termination. These costs are more difficult to predict. The cost of litigation to enforce a conservation easement, and the risk that litigation will be required, can vary widely. In several examples of legal challenges compiled by LTA, the cost of a single event requiring litigation to enforce a conservation easement ranged from $35,000 to $500,000. In light of the uncertainty about the cost and likelihood of litigation, preservation entities must make assumptions about the acceptable level of risk.

For example, an entity could assume that the average cost of litigation will be $50,000 and that such an event can be expected to occur once every 30 years. Under this assumption, a preservation entity would need to create a stewardship endowment that could provide $50,000 for litigation costs every 30 years. An initial endowment of approximately $35,000 that grew at 3 percent annually would reach $85,000 in year 30. If litigation were required, $50,000 could be withdrawn to cover litigation costs, leaving a balance of $35,000, which would then reach $85,000 in year 60, and so on.

In reality, however, it is unlikely that the same conservation easement would be repeatedly challenged every 30 years in perpetuity. A more realistic assumption is that each conservation easement is likely to face a major challenge only once or twice during its existence. Under this assumption, a preservation entity could invest an initial endowment of approximately $20,000, which would reach $50,000 in 30 years with a 3 percent interest rate. The EPCAT model uses this assumption for perpetual conservation easements and allows the reader to modify the desired endowment amount and the interest rate to determine the initial investment that would be required to create a stewardship endowment covering easement defense costs.

The long-term costs of monitoring and enforcing perpetual conservation easements and managing fee simple acquisitions are variable and could increase in the future. For example, the cost of monitoring and enforcing a conservation easement may increase as a result of increased violations and challenges by future landowners who were not parties to the original transaction. Likewise, the cost of managing a fee simple acquisition may
increase as a result of climate change. On the other hand, these costs could be moderated through efficiencies gained from long-term experience with monitoring and enforcing conservation easements or with adaptive management of lands in response to climate change.

The reader can explore the outcomes of these assumptions under a variety of scenarios using the Excel spreadsheet included with this report, which allows the user to compare the relative costs of conservation easements and fee simple acquisitions (and other mechanisms) using different assumptions about the enforcement costs of conservation easements and the management costs of fee simple acquisitions.

- **Ownership and Management Costs.** Most perpetual conservation easements do not require ownership and management costs because the landowner remains responsible for taxes, insurance, and ongoing management costs. In some cases, the preservation entity may incur management costs by assuming certain management responsibilities such as implementing restoration projects or providing technical assistance to the landowner.

- **Pre-Transaction Administrative Costs.** The administrative costs associated with perpetual conservation easements are relatively low because, as in the case of fee simple acquisitions, they are one-time costs. If the preservation entity retains the conservation easement, no additional administrative costs will be required.

### 2.2.2.4 Ability of Perpetual Conservation Easements to Respond to Future Changes

Conservation easements are inherently flexible instruments that can be drafted with terms tailored to a wide variety of circumstances. However, the ability of a perpetual conservation easement to respond to future changes depends primarily on the terms of the easement instrument.

Conservation easements can be classified as either “static conservation easements” that generally do not change over time or as “dynamic conservation easements” that are designed to anticipate and respond to certain changes.\(^{20}\)

\(^{20}\) See Dynamic Conservation Easements, supra.
**Static Conservation Easements**

Perpetual conservation easements have traditionally been drafted with inflexible terms intended primarily to resist change. Such “static” conservation easements can be amended in response to future changes, but both parties must agree to any amendment and amendments may be costly to implement.

Traditional static conservation easements often include provisions stating that the easement can be terminated only if future circumstances render the easement’s purpose “impossible,” and only in court. Some state agencies have included such termination language in model conservation easement instruments for their grant or acquisition programs. However, the precise terms of static conservation easements vary widely, and other agencies have included more flexible termination clauses in their static conservation easements.

**Dynamic Conservation Easements**

Perpetual conservation easements can also be drafted as “dynamic” instruments that include mechanisms designed to respond to changes over time, without the need for an amendment.

Dynamic easements can adapt to future changes, for example, by modifying land management practices. Perpetual working forest conservation easements (“WFCEs”) are often drafted to anticipate changes in forestry practices by including a clause that provides for adaptive management of the property (rather than prescribing a specific, static set of forestry practices).

Perpetual conservation easements can also be made dynamic by including a mechanism in the easement instrument that allows the easement to be terminated under certain limited circumstances. For example, an easement could be drafted to allow termination at the discretion of the preservation entity, sometimes without the need for judicial oversight. Alternatively, the easement could allow the landowner to repurchase certain development rights if a neutral arbitrator determines that changed circumstances are imposing economic hardship on the landowner. For example, a WFCE can be drafted to anticipate potential economic or environmental changes by including a clause allowing the landowner to repurchase development rights in response to such changes.21

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Easements with such dynamic termination provisions should include language allowing the easement holder to recapture the easement’s appreciated value for reinvestment in other property. Several of the “model” conservation easement templates used by state agencies and land trusts in drafting perpetual conservation easements include language requiring the landowner to reimburse the agency for the value of the easement from the proceeds of any future sale of the property after the easement is terminated. The value of the easement is often determined in relation to the fair market value of the property at the time of termination.

For example, the model conservation easement used by RCO for the Farmland Preservation Program requires the landowner to reimburse funding agencies for the value of the conservation easement. This value is determined by multiplying:

\[(a) \text{ the then fair market value of the Protected Property unencumbered by the Easement (minus any increase in value attributable to improvements on the Protected Property), at the time of termination or extinguishment, as determined by an appraisal that meets RCO requirements for appraisals, by} \]

\[(b) \text{ the ratio of the value of the Easement at the time of this grant to the value of the Protected Property, unencumbered by the Easement, at the time of this grant.}\]

This language allows funding agencies such as RCO to capture and reinvest not only the original amount of grant funds invested in the conservation easement, but the full appreciated value of the easement.

### 2.2.2.5 Ability to Combine Perpetual Conservation Easements with Other Mechanisms

Perpetual conservation easements can be combined with fee simple acquisitions, although preservation entities generally use this combination only when the fee simple interest is sold to another landowner. If the fee simple interest is sold to a conservation buyer who does not want management responsibilities, the entity could combine a conservation easement with a lease to another party who wants to assume management responsibility. Like fee simple interests, conservation easements can be acquired using various deferred purchase mechanisms, including options and rights of first refusal.

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In addition, perpetual conservation easements can be combined with the acquisition of a remainder interest, with the landowner reserving a life estate. As discussed below, in such “reserved life estate” transactions, the landowner essentially retains all rights associated with the property until he or she dies, and the preservation entity’s remainder interest becomes a fee simple interest after the landowner dies. In such cases, the entity may also use a perpetual conservation easement to secure development rights and impose restrictions on the landowner’s use of the land.

2.2.2.6 Grant Funding Constraints on Perpetual Conservation Easements

Most grant programs used by preservation entities allow the use of perpetual conservation easements. However, a preservation entity’s ability to use conservation easements may nevertheless be limited by particular grant constraints. For example, while many grant programs allow the acquisition of less-than-fee interests such as conservation easements, most grant programs do not provide funding for monitoring and enforcement of the easement. If the proposed easement holder is a state or local agency, the agency’s ability to monitor and enforce the easement may be limited by a lack of funding in the future. If the proposed easement holder is a land trust and the land trust is unable to secure the necessary funds to create a stewardship endowment for monitoring and enforcement, it may choose not to pursue the easement transaction.

2.2.3 MECHANISM: Term Conservation Easements

With a term conservation easement, as with perpetual conservation easements, the respective rights acquired by the preservation entity and reserved by the landowner depend on the terms of the easement. A term conservation easement can be used to acquire a property’s development rights for a period of time. This type of transaction is sometimes referred to as a “lease of development rights,” even when a term conservation easement is used to implement the transaction.

The primary differences between leases of development rights and term conservation easements are that (i) leases of development rights are usually paid in rental payments over time, while term conservation easements are typically purchased in a lump-sum payment; and (ii) leases of
development rights, unlike conservation easements, generally do not include management restrictions. Given the similarity between leases of development rights and term conservation easements, this report does not separately analyze leases of development rights.

2.2.3.1 Ability of Term Conservation Easements to Achieve Conservation Goals

In general, term conservation easements have a low potential for achieving conservation goals unless the goal is temporary.

Because term conservation easements provide only temporary protection, achievement of permanent preservation would require the preservation entity either to repeat the process of acquiring a term conservation easement at the end of each easement term or to use a permanent mechanism such as a fee simple acquisition or a perpetual conservation easement. When an entity uses a term conservation easement, it assumes the risk that additional public funds may be required to secure long-term preservation and that, if additional funds are not available or the landowner is not interested in continued participation in the program, the land may be converted after the easement term expires. In such cases, the entity’s investment in the term conservation easement would be wasted.

Thus, because of their temporary nature, in most cases term conservation easements have a limited ability to achieve conservation goals. In unique cases, a preservation entity may decide that there are compelling reasons to use a term conservation easement, such as when a high-value property is at imminent risk of conversion and acquisition of a fee simple interest or a perpetual conservation easement is impossible. For example, the entity may lack sufficient funds to use a perpetual mechanism, or a landowner may not be interested in selling a fee simple interest or a perpetual conservation easement. In such cases, a term conservation easement could be used to “buy time” to allow the entity to secure additional funds or to allow the landowner time and experience with the entity before deciding whether to part with a perpetual interest in the land. As discussed below, preservation entities should consider coupling any term easements with an option to purchase a fee simple interest or a perpetual conservation easement, thus preserving the opportunity for permanent protection.

2.2.3.2 Impact of Term Conservation Easements on Landowner’s Continued Use

Term conservation easements, like perpetual conservation easements, typically have a low to moderate impact on the landowner’s continued use of the property, depending on the terms of the conservation easement. As noted above, in a lease of development rights
program, a term conservation easement may be used simply to temporarily acquire development rights, which would have a minimal impact on the landowner’s continue use. In most cases, however, a term conservation easement will include management restrictions in addition to securing the development rights to the property, and the impact on the landowner’s continued use will also depend on the terms defining the extent of the management restrictions.

2.2.3.3 Costs of Term Conservation Easements Over Time

The precise costs of term conservation easements over time depend on a wide variety of variables, which are discussed in detail in our analysis of costs in Section 2.3.3 below. In general, however, the long-term costs of most term conservation easements can be expected to exceed the costs of perpetual conservation easements within a period of 50 years.

One report discussing the possibility of leasing development rights on working forestland concluded that the total cost of lease payments for a 30-year “lease of development rights” on property with high development potential would come close to 70% of the total fee simple value of the property.23 Another report addressing wildlife habitat conservation similarly concluded that “[a]t the 40-year mark, [perpetual] easements become more efficient than land rental/leases.”24 These results are generally consistent with the Excel spreadsheet model included with this report and the detailed analysis of costs in Section 2.3.3. The reader can use the model to compare the long-term capital costs of term conservation easements with other mechanisms under a wide variety of assumptions.

- Capital Costs. The capital costs of term conservation easements depend on factors such as the length of the easement term and the reduction in value associated with the development rights purchased and other restrictions included in the easement. For term conservation easements, unlike perpetual conservation easements, capital costs are not one-time costs unless the goal is truly temporary. At the end of the easement term, if continued preservation of a property is desired by the landowner and the preservation entity, the entity will incur additional capital costs.

23 See Conserving Washington’s Working Forests, supra. By comparison, this report concluded that lease payments for a 30-year lease of development rights on land with more speculative development potential would total about 20% of the fee simple value.
• **Transaction Costs.** The transaction costs associated with term conservation easements are relatively high. Like perpetual conservation easements, term conservation easements can be time-consuming and costly to negotiate and draft. Transaction costs, like capital costs, are not one-time costs for term conservation easements unless the goal is temporary. In most cases, at the end of the easement’s term, continued protection of the land will require additional transaction costs.

• **Third-Party Monitoring and Enforcement Costs.** Term conservation easements require an investment in monitoring and enforcement of the easement’s restrictions. Such costs are generally low because they are limited by the length of the easement’s term. However, continued preservation of the property beyond the easement’s term will require additional monitoring and enforcement costs.

• **Ownership and Management Costs.** Most term conservation easements do not require ownership and management costs unless the preservation entity chooses to assume management responsibilities or provide technical assistance.

• **Pre-Transaction Administrative Costs.** The administrative costs associated with term conservation easements are not one-time costs unless the goal is temporary. If the preservation entity wants to ensure protection of the land after the easement term, it will incur additional costs in program administration, such as staff time required to prioritize and pursue actions to continue protection of the land after each easement term has expired.

2.2.3.4 Ability of Term Conservation Easements to Respond to Future Changes

Because they automatically expire after a term of years, term conservation easements have a relatively low ability to respond to future changes. The automatic expiration of term conservation easements could be viewed as a sort of “response” to future changes. Rather than a response, however, automatic expiration is more accurately seen as a decision to take a short-term approach to preservation.

If a term conservation easement results in short-term preservation but the land is later converted, certain costs may be avoided but the investment in land preservation will be lost. The only benefit gained by preservation entities from automatic expiration is the potential avoidance of certain costs that may be associated with future changes, such as the cost to amend a static perpetual easement, the cost to implement “dynamic” terms that allow a perpetual easement to adapt to changes, or the cost to terminate a perpetual easement and
reinvest proceeds in other properties. These costs can be minimized with a perpetual conservation easement that is properly drafted with broad conservation goals and with dynamic terms allowing the easement to adapt to changes. If a perpetual conservation easement includes broad conservation goals rather than targeting only the protection of a particular species, for example, the easement may provide continued conservation benefits even if a particular species is no longer present on the property. Likewise, if a perpetual conservation easement includes dynamic terms that allow the easement to adapt to future changes, the preservation entity can achieve continued protection in spite of those changes.

Finally, a properly drafted perpetual conservation easement gives the preservation entity the opportunity to capture the appreciated value of the easement upon termination. Because term conservation easements create no equity, they do not provide this opportunity.

2.2.3.5 Ability to Combine Term Conservation Easements with Other Mechanisms

Term conservation easements are not usually combined with other mechanisms. However, term easements can and should be combined with deferred purchase mechanisms when possible. For example, a term easement could include an option that gives the preservation entity the option, at the end of the easement’s term, to renew the term, to purchase a perpetual conservation easement, or to purchase fee simple title. If the landowner is reluctant to enter into a transaction involving a perpetual mechanism in the first place, however, it may be difficult to obtain an option to purchase a perpetual interest. A term conservation easement could also be combined with a reserved life estate transaction, allowing the land trust to ensure protection of a property’s conservation values during the landowner’s lifetime.

2.2.3.6 Grant Funding Constraints on Term Conservation Easements

Only a few grant programs allow the use of term conservation easements, while other programs prohibit the use of such temporary mechanisms. For example, the Farmland Preservation Program (“FPP”) allows the acquisition of less-than-fee interests, and RCO has adopted policies recognizing that funds may be used to acquire term conservation easements. However, RCO has also adopted policies that give priority to acquisition of perpetual conservation easements and require the length of term easements to be at least 25 years. To date, no term easements have been funded or proposed under the FPP. By contrast, Salmon Recovery Fund grants may not be used for term conservation easements because less-than-fee acquisitions under that program must be perpetual.
2.2.4 MECHANISM: Conservation Leases

The term “leases” can have a variety of meanings, including the following:

- “Leases” can refer to traditional lease instruments granting rights to tenants who temporarily occupy and use the land, such as an agricultural lease to a farmer. These types of leases are used by preservation entities in conjunction with land preservation mechanisms for a variety of purposes but are not separately analyzed in this report.

- “Leases” can also refer to “leases of development rights.” This term is typically used to refer to easement or lease instruments that temporarily limit development but do not restrict the landowner’s normal use of the land, such as a lease of development rights on agricultural land that prohibits new residential development but does not restrict farming practices.

- Finally, “leases” can refer to the lease and contract instruments used in certain voluntary conservation programs that pay landowners to temporarily restrict their use of the land or take land out of production (or “conservation leases”).

In this report, the term “leases” as used in SHB 1957 is treated primarily as a reference to “conservation leases” that temporarily restrict the landowner’s use of the land or take land out of production, and sometimes impose affirmative management obligations, in exchange for payments to the landowner. In most cases, such conservation leases will effectively include a “lease of development rights” because they will preclude new development on the property during the lease term in addition to imposing management restrictions.

The duration of a conservation lease and the respective rights acquired by the preservation entity and reserved by the landowner depend on the terms of the lease instrument, which are negotiated on a case-by-case basis.

2.2.4.1 Ability of Leases to Achieve Conservation Goals

The ability of conservation leases to achieve conservation goals is generally limited by the temporary nature of such leases. As with other temporary mechanisms, leases provide only short-term benefits during the lease term and require preservation entities to acquire additional rights after the term expires in order to maintain the benefits.

Some federal conservation programs, like the Conservation Reserve Program (“CRP”), use 10- and 15-year contracts that function like conservation leases. CRP provides annual rental payments to farmers in exchange for removing land from production and establishing a cover crop that protects soil and other natural resources. Congress has invested tens of billions of dollars in CRP, which has provided a number of benefits to soil, water, wildlife, and other
natural resources. However, the U.S. General Accounting Office has stated that “CRP is an expensive way to reduce the environmental problems linked to agricultural production” and that “CRP postpones rather than resolves” these problems. CRP is unique in that it also serves non-conservation objectives, such as curbing the production of surplus crops. These objectives may provide independent justification for the high cost of the program. Nevertheless, the federal government’s experience with CRP illustrates the inherent limitations of conservation leases in achieving long-term conservation goals.

2.2.4.2 Impact of Leases on Landowner’s Continued Use

The impact of conservation leases on the landowner’s continued use depends on the terms of the lease. Conservation lease programs like CRP have a high impact on the landowner’s continued use of the land because they require the land to be taken out of production. However, a lease program could be designed to provide temporary protection for certain conservation values while allowing the landowner to continue using the land.

For example, the leasing of “ecosystem services,” such as wildlife habitat or water quality benefits provided by a working forest, has been proposed as a way of compensating landowners for services provided by their properties. Conceptually, these services could be leased while allowing continued timber management and harvest. However, most funding entities would require management restrictions that provide an increase in ecosystem services above the level already required by current regulations (referred to as “additionality”), and many landowners would be reluctant to incur the cost of implementing such restrictions in exchange for the relatively modest payments associated with leasing ecosystem services.

2.2.4.3 Costs of Leases Over Time

- **Capital Costs.** The capital costs associated with conservation leases depend on several factors, such as the length of the lease term and the reduction in value associated with the development rights leased. Because most conservation leases will effectively include a lease of development rights, the analysis of the long-term costs of leases of

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development rights discussed above would apply to a typical conservation lease transaction. According to this analysis, the total cost of lease payments under a conservation lease of property with high development potential can be expected to approach 70% of the full fee simple value of the property within 30 years. Capital costs are repeatedly incurred with each lease renewal.

- **Transaction Costs.** The transaction costs associated with conservation leases are relatively high. Conservation leases are often complex legal instruments and may require as much time and cost to draft as conservation easements. Transaction costs are incurred with each lease renewal.

- **Third-Party Monitoring and Enforcement Costs.** In order to ensure management of the property in accordance with the terms of a conservation lease, the preservation entity would need to monitor the property and, if necessary, take action to enforce the lease terms. Monitoring and enforcement costs are limited by the length of the lease’s term. If the lease is renewed, however, these costs will continue to accrue.

- **Ownership and Management Costs.** A typical conservation lease would not require ownership and management costs unless the preservation entity assumed management responsibilities.

- **Pre-Transaction Administrative Costs.** The administrative costs associated with conservation leases are not one-time costs unless the goal is temporary. Some additional administrative costs will be incurred with each lease renewal or other action taken to continue protection of the land after the lease term has expired.

### 2.2.4.4 Ability of Leases to Respond to Future Changes

Conservation leases, like term conservation easements, can be seen as responsive to future changes in the sense that they automatically terminate, allowing the preservation entity to re-evaluate the need for preservation of a particular property at the end of the lease term. However, the potential benefits associated with the automatic termination of a conservation lease are outweighed by the fact that conservation leases generally do not provide any equity, thus limiting the preservation entity’s options in responding to change. A typical conservation lease instrument would not include dynamic mechanisms allowing the lease to adapt to future changes.
2.2.4.5 Ability to Combine Leases with Other Mechanisms

Conservation leases are typically not combined with other mechanisms, but they can be combined with deferred purchase mechanisms and reserved life estate transactions.

2.2.4.6 Grant Funding Constraints on Leases

As noted above, most grant programs used by state conservation agencies require that less-than-fee acquisitions be perpetual, and grant programs that do allow non-perpetual acquisitions tend to give preference to perpetual acquisitions. For example, RCO allows cities and counties to acquire leases under the Farmland Preservation Program but requires that leases must be for at least 25 years and may not be revocable at will.

2.2.5 MECHANISM: Restrictive Covenants

While restrictive covenants can be drafted to terminate after a term of years or upon the occurrence of a particular event, more often covenants are intended to “run with the land” in perpetuity and bind future owners of the property.29

Between the original parties to the covenant (the “covenantor” and “covenantee”), enforcement is a matter of contract law.30 However, between successors to the original parties, enforcement is a matter of real property law in a subject area commonly referred to as “running covenants.” Because the law of running covenants is rooted in ancient English “common law” dating back to the 14th century or earlier, it is a murky area of the law that presents many pitfalls and is difficult to predict.

Restrictive covenants will run with the land only if they meet certain technical requirements derived from the common law. In order for a covenant to run with the land, for instance, courts have held that the obligation imposed by the covenant must “touch and concern” both the land to be burdened and the land to be benefited by the covenant.31 In other words, the

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29 The courts have stated that a covenant “has an indefinite life, subject to termination by conduct of the parties or a change in circumstances which renders its purpose useless.” Thayer v. Thompson, 36 Wn. App. 794, 797, 677 P.2d 787 (1984).
31 1515-1519 Lakeview Boulevard Condominium Ass’n v. Apartment Sales Corp., 146 Wn.2d 194, 203, 43 P.3d 1233 (2002) (stating that the distinctions between real covenants and equitable servitudes “have largely vanished from our law”). See also Hollis v. Garwall, Inc., 137 Wn.2d 683, 691, 974 P.2d 836 (1999) (“Washington cases have
restriction must relate both to the conserved property owned by the covenantor and another property owned by the original covenantee, typically an adjacent or nearby parcel that derives some benefit from the restriction imposed on the burdened parcel. It is often difficult to meet each of these requirements in drafting a restrictive covenant for conservation purposes.

Moreover, restrictive covenants may be subject to common law doctrines that disfavor “negative” covenants (covenants that restrict the use of land) and covenants “in gross” (covenants that are not “appurtenant” to nearby land). In some cases, these doctrines allow courts to terminate covenants based on factors such as economic hardship. In contrast, because conservation easements are authorized by state statutes that provide protection against certain common law doctrines, there is much less uncertainty regarding their enforceability.

### 2.2.5.1 Ability of Restrictive Covenants to Achieve Conservation Goals

Because the law of running covenants is difficult to predict, restrictive covenants have a limited ability to achieve perpetual conservation goals. If the goal is permanent, a conservation easement can provide much more certainty than a restrictive covenant.

All but one of our interviewees viewed restrictive covenants unfavorably because of questions about their enforcement. One land trust staff member, however, reported that his land trust had used covenants as a tool in phased projects. For example, in transactions where the land trust has acquired a single parcel and plans to acquire other parcels with the ultimate goal of bringing the properties under a single fee simple owner or a conservation easement, the land trust might use a restrictive covenant to create interim certainty until the project is completed.

### 2.2.5.2 Impact of Restrictive Covenants on Landowner’s Continued Use

The impact of a restrictive covenant on the landowner’s continued use depends on the terms of the covenant. A covenant could theoretically be drafted to preclude all use by the landowner, but most covenants allow some continued use by the landowner and have a low to moderate impact on continued use.

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32 See Dynamic Conservation Easements, supra.
2.2.5.3 Costs of Restrictive Covenants Over Time

- **Capital Costs.** The capital costs of restrictive covenants depend on the reduction in value associated with the restrictions included in the covenant instrument. If the covenant is successfully drafted to run with the land in perpetuity, this is a one-time cost. However, if the covenant fails to run with the land, the preservation entity may be forced to invest additional funds in protection of the same property.

- **Transaction Costs.** The transaction costs of restrictive covenants are low. Covenants are relatively simple legal instruments and can be drafted with little cost. However, if the covenant fails to run with the land, the preservation entity may incur additional transaction costs.

- **Third-Party Monitoring and Enforcement Costs.** Traditional restrictive covenants do not include provisions allowing the covenantee and successors to monitor and enforce the covenant’s terms, although it may be possible to draft a covenant that includes such provisions. Most covenants are not monitored regularly and are enforced on an ad hoc basis in response to obvious violations. If the preservation entity chose to engage in regular monitoring or were required to take enforcement action, the costs of such monitoring and enforcement would be comparable to the monitoring and enforcement costs of conservation easements.

- **Ownership and Management Costs.** Restrictive covenants do not require ownership and management costs.

- **Pre-Transaction Administrative Costs.** The administrative costs associated with restrictive covenants are low because their primary use is likely to be opportunistic rather than programmatic. However, if the covenant fails to run with the land, the preservation entity may incur additional administrative costs.

2.2.5.4 Ability of Restrictive Covenants to Respond to Future Changes

Restrictive covenants have a relatively low ability to respond to future changes. It is unlikely that covenants could be drafted to include dynamic terms that effectively adapt to changes over time. Moreover, termination of a restrictive covenant in court can be costly due to the unpredictable nature of the law of running covenants and the highly fact-specific nature of the court’s inquiry.
2.2.5.5 Ability to Combine Restrictive Covenants with Other Mechanisms

As noted above, restrictive covenants can be combined with fee simple acquisitions and conservation easements in phased transactions to provide interim certainty while the preservation entity completes the project.

2.2.5.6 Grant Funding Constraints on Restrictive Covenants

Although several grant programs used by preservation entities allow less-than-fee acquisitions, most funding entities have not interpreted the relevant statutes to allow the acquisition of restrictive covenants. For example, while RCO policy for the Farmland Preservation Program allows the use of perpetual conservation easements, term conservation easements, and leases, it does not allow the use of restrictive covenants.

2.2.6 MECHANISM: Fee Simple / Leaseback Transactions

In a fee simple / leaseback transaction, the preservation entity is the landowner and landlord (or "lessor") and the former owner or another party becomes the tenant (or "lessee"). The duration of the entity’s fee simple ownership is indefinite, and the duration of the lease is negotiated by the parties. The entity retains all property rights except those conveyed to the lessee in the lease instrument, which may contain management restrictions.

Fee simple / leaseback transactions are specifically authorized by one of the statutes authorizing conservation easements, and this mechanism is listed in the Department of Commerce’s administrative guidelines for the Growth Management Act as an appropriate technique to conserve and protect agricultural lands, forest lands, and mineral resource lands. However, as discussed below, the use of fee simple / leaseback transactions for publicly-funded projects may be limited by the purpose of a particular grant program and requirements associated with tax-exempt bonds that fund the program.

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33 RCW 84.34.210 (providing that eligible entities may acquire property “for the purpose of conveying or leasing the property back to its original owner or other person under such covenants or other contractual arrangements as will limit the future use of the property”).

34 WAC 365-190-040(11).
2.2.6.1 Ability of Fee Simple / Leaseback Transactions to Achieve Conservation Goals

Fee simple / leaseback transactions are most appropriate when the preservation entity’s goal is to preserve working lands such as farms and ranches. The purpose of the “leaseback” is to allow parties with expertise and local knowledge – farmers and ranchers – to continue to manage the land. If the goal is ecological preservation, in most cases the preservation entity will have the most expertise. If the goal is to preserve recreational, cultural, or historical values, management by the entity is often necessary to prevent conflicts between those values and a potential lessee’s use of the land. There may be particular cases in which fee simple / leaseback is appropriate to protect open space and scenic values. However, the majority of fee simple / leaseback transactions involve working lands.

Interviewees offered differing opinions about the ability of fee simple / leaseback transactions to preserve working lands. One interviewee stated that fee simple / leaseback is a valuable alternative to reserved life estates, reverse mortgages and charitable remainder trusts for farmers approaching retirement, noting a large number of farmers in Eastern Washington without heirs who want to continue farming but need immediate access to the value of their land. Another interviewee indicated a desire for funding entities to allow greater use of fee simple / leaseback transactions for grazing lands. According to this interviewee, mid-sized ranches (ranging from approximately 800-3,800 acres) represent the state’s last opportunity to protect major tracts of land in private, non-timber ownership, and fee simple / leaseback transactions offer a potential balance between allowing continued livestock grazing by ranchers and continued economic opportunity on the land while also protecting habitat corridors through the terms of the lease.

In contrast to these supportive comments, however, another interviewee expressed concerns about fee simple / leaseback transactions of ranch land. This interviewee stated that state agencies lack sufficient staff to oversee ranching practices and that lessees tend not to care for the land as well as owners. The practice of livestock grazing on leased DFW lands is controversial, and its impacts were recently analyzed in an Environmental Impact Statement (“EIS”) prepared by DFW.35 The EIS outlined several measures designed to reduce the environmental impacts of livestock grazing, including monitoring and adaptive management of vegetation and riparian and wetlands areas. Such measures could be incorporated into the terms of a leaseback on grazing lands.

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2.2.6.2 Impact of Fee Simple / Leaseback Transactions on Landowner’s Continued Use

The impact of fee simple / leaseback transactions on the landowner’s continued use of the land depends on the terms of the lease. In a typical fee simple / leaseback transaction, the former owner becomes the lessee and continues to manage the land as a farm or ranch consistent with historic practices. If the preservation entity wants to achieve other conservation goals in addition to preventing conversion of the farm or ranch, the entity might try to negotiate additional management restrictions with the former owner and incorporate those restrictions into the lease.

2.2.6.3 Costs of Fee Simple / Leaseback Transactions Over Time

- **Capital Costs.** The capital costs associated with fee simple / leaseback transactions are the same as with fee simple acquisitions, except that the lease payments from the lessee allow the preservation entity to recoup some of the cost of the fee acquisition.

- **Transaction Costs.** The transaction costs associated with fee simple / leaseback transactions are moderate to high, depending on the complexity of the lease instrument. If the lease contains management restrictions similar to those found in a conservation easement, the cost to negotiate and draft the lease could be high. If the lease contains no management restrictions, the cost will be lower.

- **Third-Party Monitoring and Enforcement Costs.** Monitoring and enforcement costs for fee simple / leaseback transactions also depend on whether the lease includes management restrictions that must be monitored by the preservation entity. If so, the entity will incur monitoring costs and may incur enforcement costs. These costs could be substantial. For example, regular monitoring of grazing practices and impacts and adaptive management of grazing lands, as outlined in the EIS noted above, could be costly.

- **Ownership and Management Costs.** Most fee simple / leaseback transactions do not require ownership and management costs, although in some cases the preservation entity may choose to provide technical assistance to the lessee or pursue restoration projects on the property.

- **Pre-Transaction Administrative Costs.** The administrative costs associated with fee simple / leaseback transactions are comparable to the administrative costs associated with fee simple acquisitions. The addition of a lease does not add significant pre-transaction administrative costs.
2.2.6.4 Ability of Fee Simple / Leaseback Transactions to Respond to Future Changes

Fee simple / leaseback transactions, like fee simple acquisitions, have a high ability to respond to future changes because fee simple ownership gives the preservation entity maximum control. The entity’s ability to respond to future changes with fee simple / leaseback transactions may be subject to potential grant funding constraints and the terms of the lease itself.

2.2.6.5 Ability to Combine Fee Simple / Leaseback Transactions with Other Mechanisms

Fee simple / leaseback transactions are not usually combined with other mechanisms because the preservation entity’s fee simple ownership ensures adequate control of the property. However, a fee simple / leaseback transaction could be combined with certain deferred purchase mechanisms.

2.2.6.6 Grant Funding Constraints on Fee Simple / Leaseback Transactions

Fee simple acquisitions and lease transactions are generally allowed by most grant programs. However, as noted above, fee simple / leaseback transactions for intensive, income-producing activities like ranching could require a determination that the uses allowed and the income provided by the lease are consistent with the purpose of the grant program and the requirements associated with tax-exempt bonds that fund the program. If these features of fee simple / leaseback transactions are determined to be consistent with applicable funding constraints, this mechanism could become a useful alternative to perpetual conservation easements for preserving working landscapes.

In commenting on our draft report, one reviewer noted that the threat of lawsuits opposing grazing activity on ecologically less-valuable portions of fee simple lands acquired by DFW could increase the costs of such acquisitions. This reviewer also argued that “serving multiple purposes is desired,” and suggested that the Coordinated Resource Management (CRM) process could assist preservation entities and landowners in balancing multiple conservation goals and the needs of landowners. For example, the CRM process has been successfully used in Okanogan County to address resource issues ranging from livestock grazing management and fish passage to irrigation water management and cultural plants.36

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It may be possible to incorporate this type of process into a grant program for fee simple / leaseback transactions and/or into a lease instrument for such a program.

### 2.2.7 MECHANISM: Deferred Purchase Mechanisms

“Deferred purchase mechanisms” include mechanisms such as installment land contracts, options to purchase, rights of first refusal, rights of first negotiation, and rights of first offer. So-called “reserved life estate” transactions are also discussed in this section, although such acquisitions actually involve the immediate purchase of a remainder interest.

A brief description of each deferred purchase mechanism is provided below.

- **Installment Land Contracts / Lease Purchase Contracts.** Under a typical installment land contract, the seller provides financing for an agreed purchase price and the buyer repays the loan in installments, with the buyer taking immediate possession and the seller retaining title until the loan is repaid. Private preservation entities are free to enter into installment land contracts, but the use of traditional installment contracts by state agencies would likely run afoul of the debt limitation provision in article 8, section 1 of the state constitution, which limits the state’s ability to bind future legislatures.

  However, state law provides specific authority for agencies to use a similar mechanism, called a “lease purchase contract,” to acquire real estate, and the courts have upheld the constitutionality of this mechanism.\(^{37}\) A lease purchase contract is essentially a conditional agreement to pay principal and interest, subject to annual legislative appropriation. Payments under lease purchase contracts must be made “from currently appropriated funds or funds not constituting ‘general state revenues’” and the term of such contracts may not exceed 30 years. Lease / purchase contracts for real estate must be specifically approved by the Legislature and the State Finance Committee and require extensive legal documentation.

  Because lease purchase contracts are complex and would be unattractive to many landowners, it may be necessary for public agencies to partner with land trusts or other private entities in structuring a lease purchase transaction. This model has been used in Florida, where the Trust for Public Land acquired a property scheduled for bankruptcy sale and entered into a lease purchase agreement with the county, which had passed a tax to acquire the land but had not yet accumulated sufficient funding.

• **Option to Purchase.** In exchange for an immediate payment to the landowner, an option to purchase gives the optionee the right, but not the obligation, to purchase a fee simple or lesser interest in the future. Options set forth the purchase price, timeframe and other terms for the optionee’s exercise of the option. An option can be included in another instrument such as a lease or drafted as a stand-alone option contract. The Parks and Recreation Commission is specifically authorized to “select and purchase or obtain options upon, lease, or otherwise acquire” land for park and parkway purposes. \(^{38}\)

• **Right of First Refusal.** A right of first refusal (“ROFR”) gives the holder the right to purchase or lease property for the same price and on the same terms that the landowner is willing to accept from a third party. Some landowners may be reluctant to grant a ROFR because ROFRs are seen as having a chilling effect on the property’s marketability. Voluntary agricultural districts, which do not yet exist in Washington State, sometimes require participating landowners, in exchange for receiving certain incentives, to grant a right of first refusal to a public entity.

• **Right of First Negotiation.** A right of first negotiation (“ROFN”) gives the holder the right to receive notice if the landowner intends to sell or lease the property and the exclusive right to negotiate a mutually acceptable deal within a specified period of time. If the exclusive negotiation period expires before the parties can reach agreement, the landowner is free to pursue other deals with third parties. Because the negotiation period ends before the landowner negotiates a deal with a third party, a ROFN avoids any chilling effect that may be associated with rights of first refusal.

• **Right of First Offer.** A right of first offer (“ROFO”) gives the holder the right to make an offer before the owner can sell the property to a third party. The landowner can reject the offer but typically cannot accept a lower price.

• **Reserved Life Estate Transactions.** In a reserved life estate transaction, the landowner sells a remainder interest in the land while reserving a life estate, allowing the landowner to continue to possess and use the property for the duration of his or her life. At the time of the landowner’s death, fee simple title vests in the holder of the remainder interest. Reserved life estate transactions can be particularly appealing to owners of farm and ranch land who are approaching retirement, want to continue to live on the land, but need immediate access to the value of the property, which is often seen as the primary source of retirement income for farmers and ranchers.

\(^{38}\) RCW 79A.05.030(7) (emphasis added).
2.2.7.1 Ability of Deferred Purchase Mechanisms to Achieve Conservation Goals

Most deferred purchase mechanisms do not directly achieve conservation goals, but they can be paired with another land preservation mechanism to “buy time” when the immediate purchase of a particular property with high conservation value is not possible. For example, if a landowner needs more time to evaluate options before making a long-term commitment, the preservation entity could purchase a ROFR, ROFN, or a ROFO.

Alternatively, if the landowner is willing to sell but adequate funding is not available to purchase a fee simple interest or a conservation easement, the preservation entity could obtain an option to purchase, providing short-term certainty that the land will not be developed. This approach was used by the Lancaster Farmland Trust, which acquired an option to purchase a conservation easement on the farm where the movie “Witness” was filmed before ultimately acquiring the conservation easement.

 Lease purchase contracts have some potential to achieve conservation goals, but this potential is realized only if future legislatures continue to appropriate funding to complete the transaction. If so, the preservation entity will acquire a property interest, typically a fee simple interest. If not, the lease will terminate and the entity will have lost its investment in lease purchase payments to date. The effect of such a failed lease purchase transaction would be similar to a lease of development rights or a conservation lease that is not renewed.

In contrast, reserved life estate transactions have a high ability to achieve conservation goals, particularly on working lands. As with fee simple / leaseback transactions, reserved life estate transactions allow the preservation entity to immediately acquire an interest in the land while the landowner continues to live on and/or manage the land. However, because the entity’s remainder interest in reserved life estate transactions is a future interest, it does not give the entity any control over use of the land during the landowner’s lifetime. For this reason, as discussed below, reserved life estate transactions are often paired with other mechanisms such as conservation easements.

2.2.7.2 Impact of Deferred Purchase Mechanisms on Landowner’s Continued Use

Most deferred purchase mechanisms have no direct impact on the landowner’s continued use of the land unless they are paired with another mechanism that impacts continued use. The impact of a lease purchase agreement on the landowner’s continued use depends on the terms of the lease.
2.2.7.3 Costs of Deferred Purchase Mechanisms Over Time

- **Capital Costs.**
  - Lease Purchase Agreements. The capital costs of completed lease purchase agreements are somewhat higher than the capital costs for fee simple acquisitions because, in addition to paying for the fee simple title, the preservation entity is paying interest over time. If the parties fail to complete the lease purchase agreement, the cost is lower, but the conservation benefit is not retained.
  - Options. The capital costs of options depend on several factors, such as the value of the property and the duration of the option. For most options, capital costs are relatively low, representing a small percentage of the property’s value paid to the landowner in exchange for granting a short-term option.
  - ROFRs/ROFNs/ROFOs. The capital costs of ROFRs, ROFNs, and ROFOs are relatively low. In general, ROFRs are more costly because they are unattractive to many landowners and because they could be valuable if the property value exceeds the price set forth in the option before it is exercised by the optionee.
  - Reserved Life Estate Transactions. The capital costs of reserved life estate transactions depend primarily on the age of the landowner. As the landowner’s age increases, the value of the remainder interest purchased by the preservation entity increases and approaches 100% of the property’s fee simple value.

- **Transaction Costs.** The transaction costs of options, ROFRs, ROFNs, and ROFOs, which require relatively simple documentation, are low. In contrast, the transaction costs of lease purchase agreements are high. As noted above, lease purchase agreements must be documented with complex legal instruments and approved by the State Finance Committee. The transaction costs of reserved life estate transactions may also be high if the conservation goal requires the preservation entity to combine the acquisition of a remainder interest with another mechanism such as a lease or a conservation easement.

- **Third-Party Monitoring and Enforcement Costs.** Deferred purchase mechanisms do not require any third-party monitoring and enforcement costs except when paired with another mechanism such as a conservation easement.

- **Ownership and Management Costs.** Deferred purchase mechanisms do not require any ownership and management costs except when paired with another mechanism such as a fee simple acquisition.
- **Pre-Transaction Administrative Costs.** The administrative costs of deferred purchase mechanisms are low. In most cases, these mechanisms would be used in unique circumstances rather than on a programmatic level and would require few administrative costs. Lease purchase agreements, however, may require additional administrative costs due to their complexity.

### 2.2.7.4 Ability of Deferred Purchase Mechanisms to Respond to Future Changes

Some deferred purchase mechanisms can be used to anticipate and respond to future changes. As discussed above, such mechanisms can be used in a variety of situations to “buy time” or to provide short-term assurance that a property will not be converted to incompatible uses.

### 2.2.7.5 Ability to Combine Deferred Purchase Mechanisms with Other Mechanisms

Options, ROFRs, ROFNs, and ROFOs, if exercised successfully, would typically be combined with a subsequent fee simple acquisition or purchase of a conservation easement.

Like fee simple acquisitions, lease purchase agreements resulting in fee simple ownership may be combined with leases (such as in a fee simple / leaseback transaction) and conservation easements (such as in a transaction involving fee simple acquisition and resale of the property subject to a conservation easement).

Reserved life estate transactions can be combined with term conservation easements, leases of development rights, and conservation leases during the landowner’s lifetime. After the landowner’s death, the entity may choose to combine its fee simple title with other mechanisms.

### 2.2.7.6 Grant Funding Constraints on Deferred Purchase Mechanisms

The funding constraints on deferred purchase mechanisms are not entirely clear, but it is generally more difficult to obtain funding for deferred purchase mechanisms. Most of the grant programs used by preservation entities allow the acquisition of fee simple or lesser property interests but do not appear to allow the acquisition of contract rights such as options to purchase, ROFRs, ROFNs, or ROFOs. RCO is not aware of any grant programs that have been used to fund the purchase of an option, ROFR, ROFN, or ROFO.
There is also some uncertainty regarding whether grant programs could be used to fund lease purchase contracts or reserved life estate transactions. A lease purchase contract involves the immediate acquisition of a lease and the potential acquisition of a fee simple interest, but the fee simple acquisition is subject to continued legislative appropriation. While the lease portion of the transaction may be allowable as a “less than fee” acquisition, the use of funds for a conditional agreement to purchase a fee simple could be problematic. Finally, while a remainder interest could be considered a “less than fee” acquisition, it is unclear whether the acquisition of future interests in land (such as remainder interests) would be allowed under existing grant programs.

2.2.8 MECHANISM: Voluntary Conservation Registries

A conservation registry is a non-binding agreement that reflects a landowner’s voluntary commitment to protect a property’s conservation values and, in some cases, to provide notice to the agency of certain changes, such as planned ownership transfers or changes in land use. In exchange for this commitment, the agency provides low-cost benefits such as technical assistance, newsletter subscriptions, and yard signs and certificates stating that the property is officially enrolled in the registry. Conservation registry programs may include occasional site visits by agency representatives to conduct monitoring of the property’s condition and provide on-site advice and assistance to the landowner.

Conservation registries are potentially indefinite in duration, although the landowner is free to withdraw at any time without penalty. No rights are acquired by the preservation entity.

Conservation registries have been successfully used in Washington State to provide some degree of preservation on certain types of properties that do not merit acquisition. For example, DNR’s Natural Areas Registry program was used to assist an owner of property adjacent to a Natural Areas Preserve (“NAP”) in managing the property consistent with DNR’s management plans for the NAP. The Natural Areas Registry program included a partnership with the Nature Conservancy to conduct monitoring. At one time, nearly 100 sites were enrolled in the program. Due to budget constraints, however, this program has been relatively inactive in recent years. DFW’s “Backyard Sanctuary” program is currently active and provides information and advice to landowners, including a newsletter discussing topics ranging from invasive species management to coyotes in urban areas.39

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2.2.8.1 Ability of Voluntary Conservation Registries to Achieve Conservation Goals

Due to their non-binding nature, conservation registries have a limited ability to achieve conservation goals. When landowners are enrolled and actively participating in registry programs, certain conservation benefits are derived from the owner’s commitment to manage the property for conservation. However, because registries are not binding and landowners can withdraw at any time, preservation entities have no assurance that conservation goals will continue to be achieved.

2.2.8.2 Impact of Voluntary Conservation Registries on Landowner’s Continued Use

Conservation registries have a low impact on the landowner’s continued use of the land, and any impact is based on the owner’s voluntary choices regarding land management. Typical land management techniques encouraged by registries include implementation of a landscape plan under which the landowner will “garden for wildlife and protect habitat.”

2.2.8.3 Costs of Voluntary Conservation Registries Over Time

Because preservation entities do not incur capital or transaction costs when a landowner enrolls in a conservation registry, the costs of registry programs are relatively low. The only potential costs associated with registries are the administrative costs needed to run the registry program and the cost of any monitoring efforts or technical assistance provided to landowners.

2.2.8.4 Ability of Voluntary Conservation Registries to Respond to Future Changes

Voluntary conservation registry programs are highly responsive to future changes in the sense that landowners and preservation entities are free to terminate a property’s enrollment in the program at any time. However, this types of responsiveness is primarily a disadvantage to preservation entities because a landowner could choose to withdraw from the program even though the property is providing continued conservation benefits.

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2.2.8.5 Ability to Combine Voluntary Conservation Registries with Other Mechanisms

Conservation registries are rarely combined with other land preservation mechanisms. However, in unique circumstances, a preservation entity may decide to combine registry enrollment with the use of a deferred purchase mechanism like an option, such as when a particular property with high conservation value is currently at low risk of conversion but has a greater potential for conversion in the near future.

2.2.8.6 Grant Funding Constraints on Voluntary Conservation Registries

Because conservation registries do not provide any payments to landowners, grant programs used by state agencies in acquisition projects do not constrain the use of registry programs. However, as noted above, budget constraints have limited the use of registry programs by agencies like DNR.
2.3 Analysis By Criterion

The following analysis addresses each evaluation criterion in turn, with emphasis on the choice between perpetual and temporary mechanisms.

2.3.1 CRITERION: Ability to Achieve Conservation Goals

The primary factor affecting the ability of a land preservation mechanism to achieve conservation goals over time is the mechanism's intended duration. In general, because perpetual mechanisms have a potentially infinite duration, they have a greater potential than temporary mechanisms to achieve the conservation goals of state natural resource agencies.

There are both legal and practical reasons why preservation entities should, in most cases, favor perpetual land preservation mechanisms over temporary mechanisms.

2.3.1.1 Statutory Framework for Land Preservation

As a matter of law, the statutory framework that defines the land preservation goals of state natural resource agencies and the legislative intent of conservation grant programs uses language that favors a perpetual approach to land conservation. Several examples of such language are quoted below.

- The Parks and Recreation Commission is responsible for managing parks and parkways “acquired or set aside by the state,” and the Legislature has stated its intent to “reverse the decline in operating support to its state parks, stabilize the system's level of general fund support, and inspire system employees and park visitors to enhance these irreplaceable resources and ensure their continuing availability to current and future state citizens and visitors.”

- Under the Natural Areas Preserve Act, DNR is charged with achieving the legislatively declared “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

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41 See RCW 79A.05.030(1); see also note following RCW 79A.05.070 (“Findings -- Intent -- 1995 c 211”) (emphasis added).
areas.\textsuperscript{42} Real property interests acquired by DNR must be “held and managed as a natural area.”\textsuperscript{43}

- Similarly, under the Natural Resource Conservation Areas Act, DNR is charged with meeting the “increasing and continuing need by the people of Washington for certain areas of the state to be conserved, in rural as well as urban settings, for the benefit of present and future generations.”\textsuperscript{44}

- DFW’s statutory mandate is to “preserve, protect, perpetuate, and manage the wildlife and food fish, game fish, and shellfish in state waters and offshore waters.”\textsuperscript{45} Because the statute does not include a definition for “perpetuate,” the term is given its plain and ordinary meaning, which can be determined by reference to a dictionary. Webster’s defines “perpetuate” as “to make perpetual or cause to last indefinitely <perpetuate the species>.”\textsuperscript{46}

- RCO’s mandate is guided by legislative findings and a policy declaration that strongly favor perpetual preservation:
  
  - “[P]ublic acquisition and development programs have not kept pace with the state’s expanding population”;
  
  - “[I]f current trends continue, some wildlife species and rare ecosystems will be lost in the state forever and public recreational lands will not be adequate to meet public demands”;
  
  - “[T]here is accordingly a need for the people of the state to reserve certain areas of the state, in rural as well as urban settings, for the benefit of present and future generations”; and
  
  - “It is therefore the policy of the state to acquire as soon as possible the most significant lands for wildlife conservation and outdoor recreation purposes before they are converted to other uses, and to develop existing public recreational land and facilities to meet the needs of present and future generations.”\textsuperscript{47}

\textsuperscript{42} RCW 79.70.010 (emphasis added).
\textsuperscript{43} RCW 79.70.030(3) (emphasis added).
\textsuperscript{44} RCW 79.71.010 (emphasis added).
\textsuperscript{45} RCW 77.04.012 (emphasis added).
\textsuperscript{47} RCW 79A.15.005 (emphasis added).
Similar language is found in state statutes addressing the taxation of working landscapes such as forestland, open space, and agricultural lands:

- “It is this state’s policy to encourage forestry and restocking and reforesting of such forests so that present and future generations will enjoy the benefits which forest areas provide in enhancing water supply, in minimizing soil erosion, storm and flood damage to persons or property, in providing a habitat for wild game, in providing scenic and recreational spaces, in maintaining land areas whose forests contribute to the natural ecological equilibrium, and in providing employment and profits to its citizens and raw materials for products needed by everyone.”

- “The legislature hereby declares that it is in the best interest of the state to maintain, preserve, conserve and otherwise continue in existence adequate open space lands for the production of food, fiber and forest crops, and to assure the use and enjoyment of natural resources and scenic beauty for the economic and social well-being of the state and its citizens. The legislature further declares that assessment practices must be so designed as to permit the continued availability of open space lands for these purposes, and it is the intent of this chapter so to provide.”

### 2.3.1.2 The Permanency of Conversion to Incompatible Uses

Moreover, as a practical matter, preservation entities should favor the use of perpetual mechanisms because temporary mechanisms do not prevent the conversion of land to other uses. While temporary mechanisms can delay conversion during the term of the mechanism, they provide no assurance that conversion will not occur after the term expires.

Once a property is converted to another use, its conservation value may be lost forever. With rare exceptions, the conversion of land is essentially permanent, and the future cost of restoring a property to its natural state would almost certainly exceed the current cost of preservation. The National Academy of Sciences has called the conversion of land “the most permanent and often irreversible effect that humans can have on the natural landscape.”

As noted above, the potentially permanent nature of conversion is reflected in the Legislature’s finding that “[i]f current trends continue, some wildlife species and rare ecosystems will be lost in the state forever” and the legislatively declared policy to “acquire

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49 RCW 84.33.010(1).
49 RCW 84.34.010.
as soon as possible the most significant lands for wildlife conservation and outdoor recreation purposes before they are converted to other uses.\textsuperscript{51}

\subsection*{2.3.1.3 Conservation Equity}

In economic terms, the primary advantage of perpetual land preservation mechanisms in achieving the state’s conservation goals is that perpetual interests provide a form of “conservation equity,” which can be retained by the preservation entity as long as the property provides conservation benefits and liquidated if the entity determines that the property no longer serves a conservation purpose. For example, if future changes render a property unsuitable for conservation, the preservation entity can attempt to sell its fee simple interest or terminate its conservation easement (depending on its terms) and re-invest the appreciated value of the entity’s interest in another property.\textsuperscript{52}

The wide range of perpetual property interests held by the state, including millions of acres of fee simple lands and conservation easements, can be seen as a portfolio of conservation equity. From this perspective, the state can seek to manage the risk associated with future changes by diversifying its conservation portfolio. Diversification in this context would include acquiring interests in a diversity of property types (such as farms, forests, and open space) and using a diversity of perpetual mechanisms (including fee simple acquisitions, static and dynamic conservation easements, and acquisitions of remainder interests).

Consistent with this portfolio approach, author James Olmstead argues that best use of conservation easements for biodiversity is for preservation entities to acquire a “multiplicity of preserves”:

\begin{quote}
[N]o single acquisition, even a large one, can capture all the species or the “interspecific [sic] interactions” of a target plant or animal. As Professor Brewer explains, “[a] stand or a preserve is a sample that catches some of the traits and not others, as a dipperful of water fails to catch everything living in a pond.” Another reason for having a multiplicity of preserves of a particular biotic community is to lower the likelihood of regional extinctions. By having a multiplicity of preserves, if a small population of a species goes extinct, that preserve may nevertheless be re-populated by members of that species harbored in a nearby, protected preserve. Following this strategy, “[e]ach trust working in its own area can provide preserves in which it tries to capture the whole variety of local habitats available.” As explained by Professor Brewer, “[w]hen species are
\end{quote}

\textsuperscript{51} RCW 79A.15.005 (emphasis added).
\textsuperscript{52} A preservation entity’s ability to terminate a conservation easement and capture its appreciated value will depend on how the easement instrument is drafted.
eventually lost from its region, the land trust will have provided an array of habitats available for immigration by other native species that now find the climate to their liking."

Olmstead categorizes conservation easements as either “Park Easements” (traditional static easements without dynamic termination provisions) or “Ark Easements” (dynamic easements that are “terminable at the easement holder’s option”). Olmstead also describes how so-called “Carbon Sequestering Easements” could be drafted to recognize the potential value of conservation easements in emerging carbon markets:

If protocols, such as those developed in California, are adopted by major national and international carbon trading markets, holders of newly minted conservation easements encumbering qualifying forest lands that would have been deforested but for the conservation easement may be able to tap into these markets to achieve additional sources of funding for conservation easement acquisition and stewardship.

Thus, properly drafted “Carbon Sequestering Easements” could provide additional conservation equity and add diversity to the state’s conservation portfolio.

A preservation entity’s decision regarding whether to retain or liquidate a property interest may depend on limitations associated with funding sources for the original acquisition. For example, RCO has adopted a “Conversion Policy” for property interests acquired with RCO assistance. Under this policy, before RCO approves the conversion of a property to another use, all practical alternatives to conversion must be evaluated and rejected and another “substitute” property of equal current fair market value and “of reasonably equivalent recreation or habitat utility and location to that being converted” must be provided.

While these limitations may impose some constraints on an entity’s ability to liquidate conservation equity created by perpetual mechanisms, liquidation would simply not be an option with a temporary mechanism because they provide no equity.

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54 While Olmstead refers to such “Ark” easements as a “non-perpetual,” in this report “Ark” easements are treated as perpetual easements with dynamic termination clauses. Because Ark easements are terminable at the easement holder’s option but do not terminate automatically, they are of potentially indefinite duration and are therefore “perpetual.”

55 *Climate Surfing*, supra.

Because temporary mechanisms fail to provide conservation equity, their ability to achieve long-term preservation goals is limited. As a general rule, preservation entities should consider using temporary mechanisms only if permanent mechanisms are unavailable (due to funding constraints, landowner reluctance, or other factors), a high-value property is in imminent danger of conversion, and the entity has a reasonable expectation that the risk of conversion will pass before the mechanism’s term expires.

2.3.1.4 Ability to Achieve Particular Land Preservation Goals

Each conservation project is unique, and the particular land preservation goal for each property must be considered in selecting the appropriate mechanism.

- **Ecological Values.** Perpetual mechanisms have a high potential to achieve ecological land preservation goals because they give the preservation entity the ability to ensure that the property’s ecological values will continue to be available in the future. By contrast, temporary mechanisms have a low ability to achieve ecological preservation. Once a temporary mechanism’s term has expired, the preservation entity has no control over the continued availability of the property’s ecological benefits. In selecting a perpetual mechanism to protect ecological values, a primary consideration is the sensitivity of the ecological resource to be protected. If the resource is highly sensitive to conflicting uses on the same parcel, fee simple acquisition may be appropriate because of the control afforded by fee simple ownership. Alternatively, if the resource can be physically segregated from conflicting on-site uses, it may be possible to reduce the cost of the acquisition by using a perpetual conservation easement to restrict activities only in targeted sensitive areas while allowing more intensive uses in other areas of the property.

- **Working Landscapes.** In selecting a mechanism to protect working landscapes, a primary consideration is the mechanism’s ability to keep the land in long-term production. The central goal of working landscapes preservation is to preserve the continued opportunity for agriculture, ranching, or forestry by preventing conversion of the land to an incompatible use. For example, Farmland Preservation Program grant funds “must be distributed for the acquisition and preservation of farmlands in order to maintain the opportunity for agricultural activity upon these lands.”\(^{57}\) Perpetual mechanisms that allow working landscapes to remain in private management, such as conservation easements, fee simple / leaseback transactions, and reserved life estate transactions, are particularly effective in achieving this goal. Temporary mechanisms, on the other hand, only delay...

\(^{57}\) RCW 79A.15.130 (emphasis added).
the risk of conversion of working lands, while subsidizing the landowner’s holding costs and potentially enabling the landowner to finance development of the property after the mechanism’s term expires. Once working lands are converted, their conservation values are lost.

- **Recreational, Open Space, Scenic, Historical or Cultural Values.** In selecting a mechanism to protect recreational values or to provide access to sites with open space, scenic, historical and cultural values, a primary consideration is the potential for conflict between public access and continued use by the landowner. In most cases, fee simple ownership is the best choice when the conservation goal requires public access. When public access is not desired, a perpetual conservation easement can be used to protect open space, scenic, historic and cultural values. If the site contains especially sensitive resources, however, fee simple ownership may be needed to ensure their protection. Temporary mechanisms could be considered in special cases to provide temporary recreational access (such as access to a fishing site that may not be productive in the future), although public expectations regarding continued recreational access weigh against such an approach.

### 2.3.2 CRITERION: Impact on Landowner’s Continued Use

A preservation entity’s choice of land preservation mechanism is also related to the mechanism’s impact on the landowner’s continued use of the land. The application of this criterion typically depends on the particular conservation goal and/or the landowner’s needs.

- In some cases, the choice of mechanism will be driven primarily by the state’s need to limit the owner’s continued use in order to achieve a particular conservation goal. As noted above, if a resource is particularly sensitive or extensive public access is required, fee simple acquisition is probably most appropriate because it eliminates any potential for conflicting use by the landowner. Fee simple acquisition is often necessary for complex restoration projects, which may require removing a dike or reconnecting estuary functions.

- In other cases, the choice of mechanism will instead be driven by the landowner’s desire to continue use of the land. For example, a conservation easement or life estate is often appropriate when the landowner wants to continue living or working on the land.

- Finally, continued use of the land is essential to the preservation of working landscapes. The mechanisms best suited to this need include perpetual conservation easements, fee simple / leaseback transactions, and reserved life estate transactions.
2.3.3 CRITERION: Cost Over Time

In selecting a land preservation mechanism, preservation entities must also consider the relative costs of different land preservation mechanisms over time.

In this section, we compare the costs of the four land preservation mechanisms listed in SHB 1957 (fee simple acquisitions, perpetual conservation easements, term conservation easements, and leases) under the assumption that only a single property is under consideration. This assumption allows for a direct comparison of the relative costs of the four mechanisms and demonstrates how a preservation entity’s choice of mechanism can be influenced by other factors such as the features of each mechanism, tradeoffs between long-term and short-term priorities, and the uncertainty of future events.

This approach does not consider the many economic benefits of land preservation, including the provision of environmental goods and services, reduced infrastructure costs, and the economic value of retaining active working landscapes in the local economy, which are discussed in detail in existing literature. Similarly, our analysis does not consider the indirect costs that can result from land preservation, such as a reduced tax base, a loss of permitting fees, or a loss of economic activity that would otherwise be fostered by development. Instead, our analysis considers only the direct costs of using each land preservation mechanism.

Because the application of this criterion depends on a number of different variables, we have included as an appendix to this report an interactive Excel spreadsheet model, called the ENTRIX Preservation Cost Assessment Tool (“EPCAT”). The EPCAT model allows the reader to experiment with these variables and view different economic outcomes on line and bar graphs. The line and bar graphs shown below provide examples of snapshots taken from the EPCAT model using various assumptions. For details about how these examples were developed, please see Appendix B, EPCAT Assumptions and Description, below.

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2.3.3.1 Economic Approach

The economic approach to analyzing the cost of land preservation mechanisms over time begins with an itemization of all of the costs of each mechanism throughout a defined planning horizon. These costs can be calculated on an annual basis, beginning with the present year and progressing as far into the future as is relevant to the analysis.

The costs of land preservation include both startup costs and annual costs:

- **Startup costs** include the capital cost of purchasing property or contract rights, as well as transaction costs such as legal fees, due diligence and closing costs. In some cases, preservation entities will treat monitoring and enforcement costs for perpetual conservation easements as startup costs, such as when a land trust creates a stewardship endowment. The EPCAT model assumes that a stewardship endowment will be used for perpetual conservation easements.

- **Annual costs** include ownership and management costs and pre-transactional administrative costs such as staff time required to administer preservation programs. If a stewardship endowment is not created for a conservation easement, the costs of monitoring and enforcing the conservation easement will be incurred as annual costs.

Different mechanisms require different mixes of startup and annual costs. For example, fee simple acquisitions generally require a much higher startup capital cost than perpetual conservation easements. Other mechanisms may require repeated startup costs. For example, if a preservation entity acquires a 30-year term easement in 2010 and decides to renew the easement’s term in 2040, it will incur repeated startup costs.

Costs can be compared over a period of time or at a moment in time. The EPCAT model allows the reader to make both of these comparisons by including a line graph that compares the total cumulative costs of each mechanism over a period of time and a bar graph that compares the total cumulative costs of each mechanism at a moment in time. The figures shown below provide examples of both types of graphs.
Figure 1 demonstrates how the costs of each mechanism can be compared over time in a line graph. The horizontal axis of the graph represents time, beginning with year 1 when the transaction is closed and continuing 40 years into the future. The vertical axis represents the cumulative costs of each mechanism. The colored lines represent the four different mechanisms and show how the cumulative costs of each mechanism increase over time.

**Figure 1: Total Accumulated Costs* of Sample Land Preservation Mechanisms Over Time**

![Line graph showing total accumulated costs over time for different land preservation mechanisms. The horizontal axis represents years in the future, and the vertical axis represents cost in USD. The graph includes lines for Fee Simple, Perpetual Easement, Term Easement, and Lease, each starting at different initial costs and increasing over time.]

*Line graphs show the sum of all costs, including startup and annual costs, as these are expected to accumulate over time.*

- For **fee simple transactions** (shown in orange), the startup costs are high, but total costs do not increase much on an annual basis.

- For **perpetual conservation easements** (shown in blue), the startup costs are lower than for fee simple transactions because the capital cost of a conservation easement is a fraction of the fee simple value. Because the model treats monitoring and enforcement costs as startup costs to be included in a stewardship endowment, the costs of perpetual conservation easements do not increase over time.
• For term conservation easements (shown in purple), the startup costs are lower than for perpetual conservation easements. After the easement term expires, the costs increase as the preservation entity renews the easement and incurs additional startup costs. If land values have increased during the easement’s term, the capital cost of the easement will be higher. In Figure 1, we assume that land values will continue to increase at an annual rate of four percent, which represents a medium to high threat of conversion.

• For leases (shown in green), the startup costs are low, but the total costs increase steadily each year. After the lease term expires, the cost increases again as the preservation entity renews the lease and incurs additional startup costs.

Figures 2 and 3 demonstrate how the accumulated costs of each mechanism can also be compared at a moment in time. These bar graphs collapse the value of all costs into a single net present value. Figure 2 shows accumulated costs after 30 years, while Figure 3 shows accumulated costs after 40 years.

Figure 2: Net Present Value of Costs* of Sample Land Preservation Mechanisms After 30 Years

![Bar graph showing net present value of costs for different land preservation mechanisms after 30 years. The graph shows that the fees for fee simple and perpetual easements are higher than for term easements and leases.]

* Figures 2 and 3 demonstrate how the accumulated costs of each mechanism can also be compared at a moment in time. These bar graphs collapse the value of all costs into a single net present value. Figure 2 shows accumulated costs after 30 years, while Figure 3 shows accumulated costs after 40 years.
Figure 3: Net Present Value of Costs* of Sample Land Preservation Mechanisms After 40 Years

* Bar graphs show the sum of all costs, including startup and annual costs, at a moment in time.

These figures show future costs in present-day dollar value equivalents (the “present value”) by using a discount rate, which is described in more detail below. This approach allows decision makers to consider how decisions might change depending upon the relevant policy time frame. For example, the fee simple option appears to be the most costly over time if a 30-year net present value is considered, but once the time horizon is shifted to 40 years, the term easement might end up being more costly (as shown in Figure 3).

2.3.3.2 Land Conversion Pressures

A key variable affecting the cost of land preservation mechanisms over time is the conversion pressure on a particular property. This variable is represented by the rate at which land increases in value, or the “growth factor.”

Figures 4 and 5 demonstrate how the relative costs of mechanisms over time change with higher and lower growth factors, signifying greater and lesser threats of conversion respectively.
Figure 4: Total Accumulated Costs of Sample Land Preservation Mechanisms Over Time with a High Threat of Conversion

Figure 5: Total Accumulated Costs of Sample Land Preservation Mechanisms Over Time with a Low Threat of Conversion
Figure 4, which assumes a high risk of conversion, shows that the costs of temporary mechanisms over time could outstrip the costs of the perpetual mechanisms after 40 years. In contrast, Figure 5, which assumes a low risk of conversion, shows that the costs of perpetual mechanisms over time would likely remain higher than the costs of temporary mechanisms over a 40-year horizon. However, even when they are less costly, temporary mechanisms are diminishing assets that do not provide long-term equity.

The EPCAT model allows the reader to view the effect of different levels of conversion pressure on the long-term costs of different mechanisms by adjusting the “growth factor” cell in the assumptions section of the spreadsheet.

### 2.3.3.3 Discount Rate

Within the economic framework, future costs and benefits can be compared with present costs and benefits by using a “discount rate.” A discount rate provides an economic expression for the fact that people often view present costs and benefits as more important than future costs and benefits. For example, a gift of $1,000 today is generally preferred over the same gift next year, and a cost of $100 is generally more odious today than the same cost next year.

In each case, the discount rate represents the degree to which the present-year value must be discounted to be equal to the subsequent year value. For example, at a ten percent discount rate, a person would feel ambivalent about the choice between a gift of $1,000 this year or a gift of $1,100 next year. Similarly, the same person would feel ambivalent about paying a cost of $600 this year or $660 next year. Societal discount rates are often associated with interest rates, which can be used as indicators of the time value of money. Interest rates usually include both expected inflation and expected return on investment. Discount rates can either include or exclude an estimate of inflation. In this example, we assume dollar values denominated in 2009 dollars and therefore no estimate of inflation is included. Instead, the discount rate incorporates the concept of the expected return on investment, elements of uncertainty, and the general societal preference for the present over the future.

Discount rates can vary widely because different societies have different preferences, and within a community, different people have different personal preferences. However, a rate of three percent is often used as a general representation of uncertainty, expected return on investment (or foregone return, if the money is used for a nonmonetary investment purpose), and the social rate of time preference.
2.3.3.4 Discounting for Preservation

A discount rate can be used as a tool to explore how investment decisions might change under different circumstances. In the EPCAT model, modifying the discount rate can help readers compare how long-term preservation mechanism costs will be different depending on a preservation entity’s economic and philosophical preferences. For example, if a preservation entity wanted to place a greater value on future benefits and costs than present benefits and costs, it would use a lower discount rate.

Figure 6, which includes a 0% discount rate, shows that the relative costs of temporary mechanisms are higher when compared to scenarios using a 3% discount rate because a 0% rate essentially puts a greater emphasis on future costs. This is because future costs are treated as equivalent to present costs. A lower discount rate does not affect the cost of perpetual mechanisms as dramatically because perpetual mechanisms require high startup costs but relatively low annual (future) costs.

![Figure 6: Total Accumulated Costs of Sample Land Preservation Mechanisms Over Time with a Zero Discount Rate](image-url)
2.3.3.5 Discounting for Uncertainty

A discount rate can also be used to account for uncertainty about future events. With less certainty, society will generally want to place less emphasis on estimates of future costs and benefits.

Figure 7, which assumes a ten percent discount rate, shows that in the face of great uncertainty, temporary mechanisms may be seen as having a relatively lower cost. Under this assumption, the fact that temporary mechanisms may require future costs is relatively less important than it was with the zero discount rate (as assumed in Figure 6).

2.3.3.6 Summary of Economic Analysis

Thus, the relative costs of different land preservation mechanisms depend on a number of factors, including the degree of conversion pressure facing the land in question, views about preferences for future costs and benefits as compared with present ones, and the degree of uncertainty about the future. The EPCAT model allows preservation entities to explore different assumptions about these factors in the context of particular conservation goals, grant programs, and properties.
In general, our analysis shows that the long-term costs of perpetual mechanisms tend to be lower than the costs of temporary mechanisms when there is high conversion threat and when we assume a high value is placed on the more distant future. Temporary mechanisms may be seen as less costly when there is low conversion pressure or there is a great deal of uncertainty about the future. However, even when they are less costly, temporary mechanisms are diminishing assets that do not provide equity.

### 2.3.4 CRITERION: Ability to Respond to Future Changes

In general, permanent mechanisms provide the most flexibility in responding to such changes because, as discussed above, they create conservation equity that the preservation entity can retain or liquidate. Fee simple acquisitions provide the most flexibility because they give the entity maximum control over the property. While traditional “static” conservation easements are not well suited to respond to changes, perpetual conservation easements can be drafted to include “dynamic” provisions that provide some flexibility in responding to future changes. In some cases, a preservation entity may choose to anticipate change by using “Ark” easements that can be terminated at the entity's option in response to certain changes, or dynamic easements that allow the landowner to repurchase some development rights if certain conditions are met. Temporary mechanisms, rather than anticipating and adapting to change, are ultimately unable to respond to the reality of change and result in fewer options in the long run.

#### 2.3.4.1 Economic Changes

Economic changes affecting the use of land preservation mechanisms include cycles of economic boom and bust, which can impact real estate values and the availability of funding for land preservation. Because perpetual mechanisms provide conservation equity and are not dependent upon the continued availability of funding, they generally have a greater ability than temporary mechanisms to respond to such economic changes.

As discussed above, legislatively declared findings and policies regarding land preservation presume that development pressures will remain relatively constant and that the need for land preservation will continue into the foreseeable future regardless of economic changes. Moreover, even if this presumption proves false, the equity provided by permanent mechanisms gives the state flexibility in determining whether to retain or liquidate such assets.

Temporary mechanisms may have limited utility in targeting specific geographic areas within which data indicates development pressures will be reduced in the near future. If a decision is made to use temporary mechanisms in such circumstances, the EPCAT model discussed
above could be utilized to determine the most cost effective application of temporary mechanisms.

2.3.4.2 Social Changes

Social changes affecting land preservation efforts include demographic changes that could affect development pressures and the demand for recreation.

As outlined above, the state’s policy to acquire the most significant lands “as soon as possible” is based on a finding that population growth has outpaced the demand for recreation and is destroying ecological values, as well as a presumption that current trends may continue, resulting in a deficit of recreation lands and the loss of species and ecosystems “forever.” Thus, the current statutory framework favoring perpetual mechanisms is based in part on a legislative finding that the urgency of conversion pressures today outweighs any risks associated with the possibility that demographic changes may reduce the need for perpetual preservation in the future.

However, if population projections or other evidence indicated that development pressures would alleviate significantly or the demand for recreation would decline in the near future, the Legislature could choose to revisit its findings and policy declarations favoring permanent preservation. Under such conditions, temporary mechanisms could become useful in preventing conversion or providing recreation until such demographic changes occurred, and the EPCAT model could be used to determine whether a temporary mechanism would be cost effective. Nevertheless, there are still risks associated with such an approach. Population projections could be wrong. In addition, a preservation entity could learn, after the expiration of a temporary mechanism’s term, that other reasons supported the continued preservation of the property. The equity provided by perpetual mechanisms mitigates these risks by giving preservation entities more choices in the future.

2.3.4.3 Environmental Changes

The primary environmental change likely to affect land preservation efforts in the future is climate change. By anticipating and preparing to respond to climate change, preservation entities can prepare for other types of environmental changes.

The State’s Climate Action Team has determined that long-term adaptive management is needed to reduce Greenhouse Gas (“GHG”) emissions and adjust to climate impacts:
Reducing GHG emissions and adjusting to the impacts of climate change will be a long-term effort, and Washington needs to have an adaptive management attitude coupled with a long term commitment in order to continue learning about what still needs to be done, to increase understanding from what has previously been implemented, and to change direction or programs as necessary to achieve substantive results.\(^5^9\)

This adaptive approach supports the use of perpetual land preservation mechanisms. Fee simple acquisitions and dynamic conservation easements offer the best method of allowing long-term adaptive management of lands because they give the state a portfolio of conservation equity, which can be retained or liquidated and re-invested as part of an overall adaptive management approach.

The use of temporary mechanisms in anticipating and adapting to climate change and other environmental changes should generally be limited to unique circumstances where preservation entities have specific reasons to believe that a property’s ecological values require protection only in the short term. The EPCAT model could be used to fine-tune such an approach.

2.3.5 **CRITERION: Ability to Combine with Other Mechanisms**

The decision whether to use a combination of land preservation mechanisms must be made on a case-by-case basis, depending on the unique circumstances surrounding the transaction.

Mechanisms can be combined for a variety of reasons, such as to implement restrictions, to meet a landowner’s needs, or to buy time if immediate acquisition is not possible. The most commonly used combinations of land preservation mechanisms include: (i) fee simple acquisition and re-sale of the property subject to a conservation easement; (ii) fee simple / leaseback transactions; (iii) reserved life estate transactions followed by re-sale of the property subject to a conservation easement after the owner’s death; and (iv) combinations of deferred purchase mechanisms with perpetual or temporary acquisition mechanisms. Grant funding constraints may limit the use of these combinations.

As noted above, if a preservation entity chooses to use a temporary mechanism, it should seek to preserve the opportunity for perpetual preservation by combining the temporary mechanism with a deferred purchase mechanism such as an option.

2.3.6 CRITERION: Grant Funding Constraints

A preservation entity’s choice of land preservation mechanism is also influenced by statutory grant funding constraints and agency policies interpreting the relevant statutes.

2.3.6.1 Constraints on Particular Mechanisms

Some grant funding constraints directly limit the use of particular land preservation mechanisms. For example, while most grant programs allow the use of perpetual preservation mechanisms, few allow the use of temporary mechanisms or deferred purchase mechanisms.

Our interviewees took opposing positions on the merits of such funding constraints. Some interviewees felt that funding constraints should be loosened in order to provide preservation entities with additional flexibility in selecting land preservation mechanisms. According to this view, conservation practitioners can better achieve their goals with a wide range of conservation tools at their disposal. Other interviewees took a more conservative approach, arguing that funding constraints are valuable because they limit the risk that a conservation practitioner will make a poor choice in selecting a land preservation mechanism. According to this view, while certain tools like options to purchase may have value for privately-funded projects, public funds should not be used with such tools because of the risk that funds will be wasted. This risk could be mitigated to some extent by training negotiators how to make appropriate choices and adopting guidelines to prevent the inappropriate use of such tools.

2.3.6.2 Constraints on Activities Associated with Mechanisms

Grant funding constraints may also indirectly limit the use of certain land preservation mechanisms by limiting the types of activities that may be allowed on the land. For example, as discussed above, the use of fee simple / leaseback acquisitions may be limited by the grazing activities allowed and the income produced by such transactions, which could be inconsistent with the purposes of some grant programs or the bonds that fund them. However, it may be possible for preservation entities to resolve such potential inconsistencies by using a process like adaptive management or Coordinated Resource Management to balance multiple uses and goals over time.
2.4. Hypothetical Case Study

In this section, we present a brief hypothetical case study that illustrates how preservation entities can use this report’s analytical framework in selecting land preservation mechanisms. The people and property described in this case study are fictional but were inspired by true stories of successful efforts to preserve working landscapes.60

2.4.1 The Ford Ranch

The 800-acre Ford Ranch in Eastern Washington is comprised of approximately 600 acres of grazing lands and 200 acres of forestland in multiple parcels. The ranch supports 300 head of cattle, a variety of birdlife, a migratory route for elk, natural springs and a branch of the Little Bell Creek. A historic hiking trail cuts through one corner of the ranch. The property has easy access to highways, spectacular views of the surrounding mountains, and plenty of privacy and flat ground.

Art Ford, the owner of the ranch, was planning for his retirement. Art had spent his whole life working on the cattle ranch, which he inherited from his father. Art’s two sons worked with him on the ranch when they were younger, but both have pursued other careers and were not interested in ranching. Art was a widower and wanted to live out the rest of his years on the ranch. However, he realized that would need help with the heavy work as he approached retirement and eventually wanted to see another rancher take over management of the ranch. Because all of Art’s wealth was tied up in the ranch, he also needed immediate access to some of the property’s value for medical bills and other expenses. Art also wanted to leave a substantial inheritance to his sons.

Art had been approached by developers and was considering whether to subdivide the ranch and develop approximately 400 acres into 20 residential home sites. The developers told Art that 20-acre home sites would probably sell for around $10,000/acre, for a total value of $4,000,000.

60 Certain details in this case study, such as property values, development costs, and appraisal methods, are simplified for the sake of brevity and storytelling.
Lloyd Fletcher, the executive director of a local land trust, also contacted Art about the possibility of preserving the ranch. Art explained that he did not like the idea of developing the ranch and having that many new neighbors, but he was also wary of the idea of a perpetual conservation easement. “Forever is a long time,” Art told Lloyd, “and I don’t want to be cursed by future generations for a wrong-headed decision I may make today.” The land trust was not in a position to offer $4,000,000 and needed to develop a strategy that matched the conservation values of the land and Art’s needs with potential funding sources. After his initial meeting with Art, Lloyd returned to his office to evaluate the available options.

2.4.2 Identifying a Land Preservation Strategy for the Ford Ranch

The land trust’s preservation strategy began with its conservation goals for the land. The Ford Ranch featured several different types of conservation values, including values associated with working ranch lands, ecological values (including a migratory corridor for elk, bird habitat, and water quality benefits from the springs and creek), and recreational and open space values. While the land trust’s ultimate goal was to protect each of these values, its highest priorities were to prevent conversion of the ranch to residential development and to protect the elk corridor, which served as a critical link between the winter range and the mountains.

Based on his assessment of the property’s working ranchland, ecological, and recreational values, Lloyd considered several perpetual mechanisms that could be used to achieve the land trust’s conservation goals while also meeting Art’s needs:

- **Perpetual conservation easement over the entire ranch:** The land trust could use a perpetual conservation easement to protect the entire Ford Ranch, with easement provisions restricting uses in sensitive areas of the property (such as the migratory corridor and Little Bell Creek) while allowing continued ranching in other areas, consistent with a ranch management plan. The easement could also be drafted to allow Art to retain some of the land’s development potential by reserving the right to develop a limited number of home sites in less sensitive areas of the property.

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61 This is an actual quote from B.W. Cox, the owner of the 32,000-acre Montosa Ranch in New Mexico, who eventually decided to place 27,000 acres under a conservation easement while reserving the right to sell seven 640-acre lots. See *Preserving Critical Lands in New Mexico*, Anthony Anella and John Wright, published by the State of New Mexico Department of Finance and Administration (2008), available at: http://www.emnrd.state.nm.us/ecmd/Multimedia/documents/preservingcriticallands8_14.pdf.
• *Perpetual conservation easement over certain portions of the ranch*: Alternatively, the easement could be drafted to protect only certain portions of the ranch – such as the migratory corridor, the springs, the creek, and the trail – while allowing unrestricted use of the rest of the property for ranching and/or development. By targeting the areas of the property with the most ecological conservation value, the land trust could reduce the cost of preserving those values. However, this approach would not protect the conservation values associated with working ranchland because it would not prevent conversion of the bulk of the ranch to residential use.

• *Fee simple / leaseback transaction*: Using a fee simple / leaseback transaction, the land trust could acquire fee simple title to the entire ranch and lease it back to Art. The lease instrument could be drafted to include protections for sensitive areas and to require consistency with a ranch management plan. By leasing the land back to Art, the land trust could leave management of the ranch in Art’s hands while recovering some of the cost of fee simple acquisition over time through lease payments.

• *Reserved life estate transaction*: Alternatively, the land trust could purchase a remainder interest in the entire ranch, allowing Art to continue living on the land for the duration of his life estate. In order to protect the property’s conservation values during Art’s life, a reserved life estate transaction could be combined with another mechanism such as a perpetual conservation easement.

• *Option / Right of first offer*. If the land trust lacked sufficient funds to protect the entire ranch, it could purchase an option or a right of first offer on certain parcels to provide some assurance that the land trust would have the ability to purchase those parcels in the future.

Due to the high cost of a fee simple / leaseback transaction or a reserved life estate transaction, as well as potential grant funding constraints on the use of these mechanisms, Lloyd ruled these options out. The remaining options were: a perpetual conservation easement over the entire property, a perpetual conservation easement over certain portions of the ranch, and/or an option or a right of first offer on certain parcels.

Lloyd then approached Art again to determine whether any of these remaining options could be tailored to meet Art’s needs while also achieving the land trust’s conservation goals and matching the grant funding opportunities.
2.4.3 Balancing Conservation Values with Art Ford’s Needs

Lloyd worked with Art to educate him about his options. Art asked whether funding was available for a temporary mechanism, like a lease or a term conservation easement, which would allow him to keep his options open in the future. Lloyd explained that, while temporary options are understandably more attractive to landowners, they do not provide long-term protection for the property’s conservation values. As a result, there is little funding available for such temporary options. Due to the high transactional costs and the uncertainty of long-term conservation benefits, Lloyd explained, funding agencies are reluctant to grant funds for temporary land preservation mechanisms.

Turning to perpetual options, Art and Lloyd discussed the possibility of placing a perpetual conservation easement on only a small portion of the ranch that included the migratory corridor, the springs and the creek. However, because it would encumber a portion of the property without providing sufficient funds for Art’s immediate needs or his estate planning, this option was not attractive to Art. Lloyd also wanted to find an option that would protect not only the property’s ecological values but also its working ranchland values.

Finally, Lloyd told Art how a perpetual conservation easement could be drafted to allow him to retain some development rights so that he could pursue limited development in less sensitive areas of the property while still protecting the remainder of the ranch. This approach would provide Art with immediate funds from the sale of the conservation easement while also allowing him to pursue development in the future. Art liked the idea of delaying his development plans because he thought the housing market would recover and his property values would increase within a few years. The idea also appealed to Lloyd because Art’s reservation of development rights would reduce the cost of a perpetual conservation easement, potentially allowing the land trust to protect the bulk of the ranch rather than only a small portion.

Once Lloyd and Art agreed on this initial strategy, they began the process of designing the conservation easement and pursuing grant funding for the project. Land trust staff used a design process called “sieve mapping” to synthesize ecological, topographical, and other data to map the areas of the ranch that were appropriate for conservation and development. They identified the property’s conservation areas, designated four new 40-acre home sites in less sensitive areas with views of the mountains, designed roads, and drew lot lines for the new home sites.

62 See Preserving Critical Lands in New Mexico, supra.
The land trust also hired an appraiser, who prepared a “before-and-after” comparison of the property’s current fair market value and its likely value after a conservation easement is granted to the land trust. The appraiser determined that the current value of the ranch was $4,400,000, which included $4,000,000 for the 20-acre home sites (at $10,000/acre) and $400,000 for the remaining 400 acres, which were largely undevelopable. The appraiser then determined that the value of the ranch after the conservation easement was granted would be $3,600,000, which included $3,200,000 for the four 40-acre home sites (at $30,000/acre) and $400,000 for the remaining 400 acres. The appraiser reasoned that the per-acre value of the 40-acre home sites would be twice the per-acre value of the 20-acre home sites because the privacy and views afforded by the new design would make them more attractive to buyers. The difference between the “before” and “after” costs – $800,000 – represented the value of the conservation easement.

After determining the easement’s value, the land trust applied for state and federal grants that provided funding for protection of working ranchland, ecological, recreational and open space conservation values. Using a combination of grant funds and a private donation from an anonymous philanthropist, the land trust was able to secure $800,000 to purchase a perpetual conservation easement over the Ford Ranch.

However, the grant funds and the donation did not cover the long-term costs of the land trust’s obligation to monitor and enforce the conservation easement in perpetuity. No grant programs were available to provide funding for monitoring and enforcement, so Lloyd and Art discussed other options for covering these costs. The land trust could try to raise funds from private donors, but fundraising would take time and was especially difficult during the recession. Lloyd also described how the conservation easement could be drafted to require a small percentage of the future sale of home sites, or the future sale of the ranch, to be paid into the land trust’s stewardship endowment for the conservation easement. Ultimately, Art agreed to simply make an up-front donation to the land trust to cover its monitoring and enforcement costs rather than deferring these costs into the future.

The conservation easement protected the migratory corridor, creek, forest, and hiking trail while allowing continued ranching and development of the four home sites. The easement was drafted to include certain “dynamic” provisions, which gave Art and the land trust some flexibility in responding to future changes. For example, the easement provided that the management plan would use an adaptive management approach to monitor the activities and conservation values on the ranch in the context of environmental changes and use that information to refine management practices over time. The conservation easement also included a provision allowing the land trust to recover the appreciated value of the purchased development rights if the easement were ever terminated.
Art received an immediate payment of $800,000 and retained the ability to develop up to four home sites on the ranch, which were valued at $3,200,000 at the time the easement was granted. Art used some of the funds from the sale of the conservation easement to develop one of the home sites immediately, but decided not to develop the remaining home sites until after the housing market recovered.

In the meantime, Art hired an energetic young rancher who took over operations of the ranch and talked about buying it one day. Because the conservation easement substantially reduced the remaining value of the ranch outside of the 40-acre home sites, the young rancher's dreams could become a reality. And Art can retire with peace of mind, confident that his retirement and his sons' inheritance are secure and that the Ford Ranch will remain a ranch for future generations.
Chapter 3  CONCLUSION

This report provides a framework for evaluating and comparing land preservation mechanisms and offers general conclusions about their relative merits. The framework and our conclusions are described in detail in the Executive Summary. By applying this report’s framework and conclusions to refine their use of land preservation mechanisms, preservation entities can improve the effectiveness and efficiency of their conservation programs over time.

Our conclusions also suggest possible next steps by state agencies and other preservation entities, including the following:

- Educating conservation practitioners and landowners about the public and private benefits of perpetual land preservation mechanisms and the limitations of temporary mechanisms;

- Identifying more reliable funding sources for long-term costs, such as monitoring and enforcement of perpetual conservation easements and management of fee simple acquisitions; and

- Seeking to resolve unanswered questions about potential grant funding constraints on (i) projects designed to protect multiple conservation values; and (ii) mechanisms such as fee simple / leaseback transactions, reserved life estate transactions, and deferred purchase mechanisms.
Appendix A: EPCAT Assumptions and Description

The ENTRIX Preservation Cost Analysis Tool (“EPCAT”) allows the user to compare the costs of land preservation mechanisms over time (30- and 40-year timeframes), under a variety of assumptions and future events. The modeled mechanisms include fee simple acquisitions, perpetual conservation easements, term conservation easements, and leases. The Excel file “APPENDIX B - EPCAT.xls” is the location for the working cost model.

In the Excel file, the worksheet titled “Assumptions” contains both the adjustable assumptions that are used in the model and the graphical output of the model results. The main line graph shows the present value of accumulated costs of land preservation mechanisms over time. In other words, this graph displays what the 2009 value of the combined acquisition, transaction, and other annual costs would be for each preservation mechanism. In contrast, the two bar graphs show accumulated costs at a moment in time after 30 years and 40 years.

The first set of assumptions in the model are pertinent to all mechanisms modeled. These assumptions include property size, current land value, annual growth rate of land value, and discount rate. All of these assumptions can be changed by the user, and the results in the graph will adjust immediately according to the user’s changes. Currently, these assumptions are set at the following values:

<table>
<thead>
<tr>
<th>Assumptions</th>
<th>quantity</th>
<th>unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property Size</td>
<td>20</td>
<td>acres</td>
</tr>
<tr>
<td>Land Value</td>
<td>$50,000</td>
<td>acre</td>
</tr>
<tr>
<td>growth factor</td>
<td>1.04</td>
<td></td>
</tr>
<tr>
<td>Discount Rate Land</td>
<td>3%</td>
<td>annual %</td>
</tr>
</tbody>
</table>

Following these general assumptions are assumptions specific to each mechanism modeled. The first set refers to assumptions for fee simple acquisitions. The model includes adjustable assumptions for capital cost, transaction cost, and other annual costs. Both capital and transaction costs are defined as a percent of property value. Other annual costs are characterized by a dollar value per acre per year. Assumptions for fee simple acquisitions are currently set at the following values:
Fee Simple

<table>
<thead>
<tr>
<th></th>
<th>Capital Cost</th>
<th>100% % of Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transaction Cost</td>
<td>6%</td>
<td>% of Value</td>
</tr>
<tr>
<td>Monitoring &amp; Enforcement Cost</td>
<td>$0</td>
<td>per acre per year</td>
</tr>
<tr>
<td>Ownership &amp; Management Cost</td>
<td>$26</td>
<td>per acre per year</td>
</tr>
</tbody>
</table>

Similar cost assumptions are used for perpetual conservation easements, except that the model assumes a stewardship endowment will be established to cover monitoring and enforcement costs. The endowment represents the expected costs over 30 years and will grow at a user defined interest rate (currently set at 3 percent). The up-front endowment cost is calculated in the model as the present value that would be required to achieve the endowment cost in thirty years, at the user defined interest rate. Assumptions for perpetual conservation easements are currently set at the following values:

Perpetual Easement

<table>
<thead>
<tr>
<th></th>
<th>Capital Cost</th>
<th>70% % of Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transaction Cost</td>
<td>10%</td>
<td>% of Value</td>
</tr>
<tr>
<td>Endowment (Monitoring &amp; Enforcement)</td>
<td>$50,000</td>
<td>Total value in 30 years</td>
</tr>
<tr>
<td>Interest Rate for Endowment</td>
<td>3%</td>
<td>Annual Percentage Yield (APY)</td>
</tr>
<tr>
<td>Up-front Endowment Cost</td>
<td>$20,599</td>
<td>Costs to establish in Yr. 1</td>
</tr>
<tr>
<td>Ownership &amp; Management Cost</td>
<td>$0</td>
<td>per acre per year</td>
</tr>
</tbody>
</table>

The gray highlighted cell for up-front endowment cost is not adjustable; instead, the user adjusts the desired endowment amount after 30 years and the expected interest rate and the model calculates the up-front endowment cost.

For term conservation easements, the model uses a per-acre per-year figure rather than a stewardship endowment for monitoring and enforcement costs. An assumption for term length is also included. The model assumes that once the easement’s term has expired, the easement will be re-negotiated under the conditions at the time. Assumptions for term conservation easements are currently set at the following values:

Term Easement

<table>
<thead>
<tr>
<th></th>
<th>15 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Term Length</td>
<td>% of Value after 30 years</td>
</tr>
<tr>
<td>Capital Cost</td>
<td>20%</td>
</tr>
<tr>
<td>Transaction Cost</td>
<td>12%</td>
</tr>
<tr>
<td>Monitoring &amp; Enforcement Cost</td>
<td>$6</td>
</tr>
<tr>
<td>Ownership &amp; Management Cost</td>
<td>$0</td>
</tr>
</tbody>
</table>
Similar assumptions are used for leases, except that the model assumes the capital cost of leases will be paid on an annual basis (while the capital costs of term conservation easements are paid up front in a one-time payment). Assumptions for leases are currently set at the following values:

<table>
<thead>
<tr>
<th>Lease</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lease term</td>
<td>20 years</td>
</tr>
<tr>
<td>Capital Cost</td>
<td>70%</td>
</tr>
<tr>
<td>Annual Cost</td>
<td>$1,167</td>
</tr>
<tr>
<td>Monitoring &amp; Enforcement Cost</td>
<td>$6</td>
</tr>
<tr>
<td>Ownership &amp; Management Cost</td>
<td>$0</td>
</tr>
</tbody>
</table>

The gray highlighted cell for annual cost per acre per year is the only assumption that is not adjustable in the assumptions page.

There are also two “uncertainty” events that can be run with this model. In order for these events to function, it may be necessary for the user to select “enable macros” if prompted when opening the workbook.

The first uncertainty event, titled “Uncertainty Event A,” depicts a situation where property values increase at the modeled rate (currently at 4 percent annually) until year 16, when the property values plateau and continue unchanged from year 16 through 40.

The second uncertainty event, titled “Uncertainty Event B,” depicts a situation where property values plateau in year 16 (as in “A”), but in addition to values leveling off, the development pressure is essentially eliminated. In response to this event, the term easement and lease mechanisms are not renewed after year 16.

In order to run either of these model events, the user can simply click on the red button corresponding to the desired event. In order to return the model to the current state, where property values increase annually, the user must click on the green button titled "life as normal."
BIBLIOGRAPHY


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Table of Contents, p. ii: Alpine Lakes Wilderness Area. Photo by Duncan Greene.

Chapter 1, p. 1-2: Dockton Park, improvements funded in part by RCO. Photo by Duncan Greene.


Chapter 2, p. 2-42: Seal and Sail Rocks, Strait of Juan de Fuca. Photo by Duncan Greene.

Photo Credits, p. P-1: Fuller Mountain, Snoqualmie Tree Farm. King County, in partnership with Cascade Land Conservancy, used a perpetual conservation easement to preserve more than 90,000 acres of the Tree Farm. Photo by Duncan Greene.