



State Agency Response to JLARC Final Report: State Recreation and Habitat Lands (issued July 1, 2015)

The July 2015 [Joint Legislative Audit and Review Committee \(JLARC\) report](#), State Recreation and Habitat Lands, made the following recommendations to more clearly identify the costs of land acquisitions:

1. State Parks, Department of Natural Resources (DNR), Department of Fish and Wildlife (WDFW), Recreation and Conservation Office (RCO), and the Office of Financial Management (OFM) should develop a single, easily accessible source for information about proposed recreation and habitat land acquisitions, including detailed outcomes and future costs, including:
 - a. Details about acquisition and funding
 - b. Acquisitions linked to plans and detailed outcomes
 - c. Future costs identified to achieve and maintain detailed outcomes
2. OFM should develop guidelines that standardize cost estimates and should address:
 - a. The number of biennia that estimates must cover
 - b. The types of expenses to be included in the estimates
3. OFM should develop a process to reconcile estimated costs with actual expenditures.

JLARC also recommended that the five agencies report to the Legislature by Jan. 1, 2016, on “a proposal outlining how the recommendations will be implemented and the estimates of any associated costs.” This coordinated agency response provides the follow-up information requested.

1. Single, Easily Accessible Source of Information

Three options are presented for potential ways to develop a more integrated system for reporting information about proposed state land acquisitions. They range in cost, the ability to search information and how the data are collected.

The 2015 JLARC report on state recreation and habitat lands stated: *The Legislature would benefit from additional information about detailed outcomes and future costs of recreation and habitat lands when considering funding requests.*

JLARC’s recommendation is that the five agencies that currently report information to the Legislature about recreation and habitat land acquisitions (WDFW, DNR, RCO, State Parks, OFM) should develop a single, easily accessible source for information on proposed acquisitions. JLARC also recommends agencies establish guidelines and reporting protocols to improve the consistency of information provided to the Legislature.

Option 1. Revise the Habitat and Recreation Lands Coordinating Group (Lands Group) forecast and monitoring reports to include additional information.

As a first step in developing such a standardized information source, the five agencies identified the information on public land acquisitions now provided in the Lands Group’s Biennial State Land Acquisition Forecast Report¹ and Biennial State Land Acquisition Performance Monitoring Report².

¹ <http://www.rco.wa.gov/documents/hrlcg/2014ForecastReport.pdf>

² <http://www.rco.wa.gov/documents/hrlcg/2014StateLandAcquisitionMonitoringReport.pdf>

The Lands Group reports fill some of the acquisition information needs identified by JLARC (Table 1).

Table 1. The acquisition information needs identified by JLARC currently provided to the Legislature in Lands Group reports

Acquisition Information Need Identified by JLARC	Lands Group Forecast Report	Lands Group Monitoring Report
Location	X	X
Acreage	X	X
Current use		
Initial cost	X	X
Fund sources	X	X
Link to agency management unit plan(s)	X	
Detailed outcomes for the property and management unit		
Description of agency progress toward achieving detailed outcomes		
Anticipated costs		

The following acquisition information was identified by JLARC and is not currently provided to the Legislature through the Lands Group forecast and/or monitoring reports:

- **Current use.**
- **Link to agency management unit plan(s).** Information on the project’s ties to greater planning efforts is provided in the Lands Group forecast report, but not in such a way as to explain why the project is a strategic investment for the agency. JLARC recommends that the planning link information include additional information, such as:
 - » How the acquisition relates to the agency’s ownership and its plans for an entire management unit.
 - » The detailed outcomes for the property and entire management unit.
 - » The agency process toward achieving the detailed outcomes.
 - » How the acquisition helps achieve those outcomes.
- **Detailed outcomes for the property and management unit.** Project goals are identified in general terms (e.g., healthy fish and wildlife, sustainable outdoor experience), but not quantified or described in measurable terms. JLARC recommends that the goals of the acquisition include more details on outcomes — what they are and how the acquisition will achieve them. JLARC recommends the agencies report the following detailed outcomes:
 - » Specific development plans
 - » Service improvements
 - » Staffing levels
 - » Habitat restoration needs
- **Description of agency progress toward achieving detailed outcomes.**
- **Anticipated costs.** JLARC recommends OFM develop guidelines that include, at a minimum, the number of biennia estimates must cover and the types of expenses to be included. The following cost estimate breakdowns are recommended by JLARC:
 - » Estimate of future capital costs for the property and management unit.
 - » Estimate of future operating costs for the property and management unit.
 - » Estimate of future maintenance costs by property and management unit.
 - » Explanation of how the proposed acquisition affects estimated costs for the management unit.

As a no-cost option to incorporate the new information in the Lands Group’s forecast and monitoring reports, we propose the revised report format (forecast report version shown below) be adopted for all future reports (See Figure 1). Agencies have absorbed the staff time to prepare monitoring reports and forum presentations, which has been considerable, depending on the number of proposals. It will be difficult to expand that workload without affecting timelines for other agency priority work.

Figure 1. Revised template for the Habitat and Recreation Lands Coordinating Group Forecast Report. New information as requested by JLARC is shown in red.

Project Name and Year		5
Agency	Department of Natural Resources	NAME OF COUNTY PROPOSED ACQUISITION
Proposed Project Description and Purpose	Describe the project and what the significance is to the bigger picture.	
Current Use	Describe how the property is currently being used.	
Location	Description of location	
Legislative District	#	
Planning Link	How does the acquisition relate to the agency’s current ownership and its plans for an entire management unit? What are the outcomes for the entire management unit and how will the acquisition contribute to achieve those outcomes? Explain how the project is a strategic investment for the agency.	
Project Outcomes	Describe the anticipated outcomes of the acquisition in detail, including specific development plans, service improvements, staffing levels, habitat restoration needs, and projected accomplishments (e.g., recreational opportunities for XX community, population enhancement of XX sensitive species)	
Current Progress on Outcomes	Describe the agency’s current progress towards achieving the detailed outcomes as explained above.	
Proposed Acres		
Proposed Funding Source		
Type of Acquisition		
Proposed Acquisition Cost		
Anticipated Future Costs	Include the following estimates per OFM guidance: <ul style="list-style-type: none"> • Future capital costs for the property. • Future operating costs for the property. • Future maintenance costs for the property. • Additional costs incurred to the management unit from the addition of the property. 	
Revenue Generation	Describe any relevant method of revenue generation and estimated annual amount.	
Partnerships	List Partners and what partnerships will contribute to the long-term success of the project.	

Option 2: Modify the public lands inventory to allow for the Lands Group’s forecast and monitoring reports to be linked to individual parcels. This option would link shape files in the inventory with the corresponding information in the forecast and monitoring reports. It would include the ability to store and link to these and other relevant documents. Option 1 does not create a mechanism for state agencies to keep their information up to date as that information will still need to be gathered and synthesized in the RCO report. Option 2 would provide a “bare minimum” systems update that would enable building the linkage among forecast and monitoring reports generated by the Lands Group and minimally expand the reporting capabilities of the inventory application. (For more details, see the attached description and cost estimate from the contractor who developed the inventory.)

Option 3: Expand the public lands inventory so the state agencies directly update their ownership data and other information described above. This option provides a data entry interface so state

agencies can enter and review their forecast and monitoring reports, which ensures that the inventory framework stays relevant and useful. Option 3 also includes enhanced reporting of forecast and monitoring information and the ability to view/sort data as needed. Partnering agencies will be able to log in and update their ownership information as it changes through a “partnering agency data input portal.” Once the mechanism for updating the data has been constructed, the reporting capabilities will be expanded to allow end users to generate and print their own ownership reports by geographic boundaries and data ranges. The land information data input screens will capture the necessary information to meet the reporting needs below. Additional information requested by JLARC will be included, such as detailed outcomes from the property and entire management unit, current use and anticipated future costs. (For more information on this option, see the attached description and cost estimate from the contractor who developed the inventory.)

Note: The cost estimates provided are those associated with modifying the public lands inventory for Option 2 and 3. None of the options includes costs associated with agency collection and reporting of data, administration of the inventory, or the partnering agencies’ involvement in developing or enhancing the inventory. Those cost estimates would need to be developed following legislative direction on which option to pursue.

2. Guidelines to Standardize Land Acquisition Cost Estimates

In its recommendation that OFM develop guidelines to standardize land acquisition cost estimates, JLARC identified two elements: 1) the number of biennia that estimates must cover, and 2) the types of expenses to be included in the estimates.

For the purpose of estimating future costs, a period of 10 years will provide the basis for determining which ongoing costs may be based on the usage of an inflationary factor. Ten years should be a long enough time frame for the majority of acquisitions.

Guidelines for standard land acquisition and future cost estimates of owning land will be based on categories of varied costs that state agencies pay when acquiring land. Currently, the three agencies (Parks, DNR and WDFW) that incur ongoing operating and maintenance land acquisition costs use different methods and naming conventions when accounting for costs. OFM will standardize costs based on the following categories:

1. Capital cost of acquiring the property including transaction/closing costs/other eligible expenses (weed control, fencing, signage).
2. Operating cost of owning and maintaining land and buildings (immediate costs).
3. Capital cost of improving/restoring property for the intended use (fencing, weed control, signage).
4. Operating and maintenance cost of land and buildings (future costs).
5. Property assessments (payment in lieu of taxes, local improvement districts, stormwater).

(See Appendix A for a matrix of the categories with additional detail.)

Standardized Costs Methodology

1. To standardize costs, OFM will collect past and current cost information, using the categories listed above, on earlier land acquisitions.
2. OFM will determine ranges of costs by category based on past and future costs:
 - a. Actual costs of land acquisitions.
 - b. Actual costs of operations and maintenance on those properties.
 - c. Estimates of future costs of developing, operating and maintaining those properties.

Although 10 years is recommended as a standard for cost estimating, OFM will continue to review cost guidelines to be sure the cost ranges and categories are accurately reflected by agencies and OFM standards.

Today, agencies find it difficult to collect and report costs by the standard categories because the accounting methods they use differ from each other and from OFM's recommendation for standardized costs. Once a property has been acquired, agencies then budget ongoing operation and maintenance costs by management unit rather than by a specific acquisition. For instance, WDFW manages 33 wildlife areas, each with a management plan. Costs for new properties acquired are then budgeted as part of the entire wildlife area. Staff does not track expenditures by property, only by the wildlife area served. Depending on the level of detail collected for each property, reconfiguring systems and/or budget allotments to track expenditures to this detailed level could be expensive.

3. OFM Should Develop a Process to Reconcile Estimated Costs with Actual Expenditures

JLARC recommends that OFM develop a process to reconcile estimated operating and maintenance costs with actual expenditures. Reconciling actual operating and maintenance costs to estimated costs on a project-by-project basis is extremely difficult, given how agencies budget costs and the limitations of the state accounting system. Because agency land acquisitions and development projects are often part of an existing ownership, agencies do not track expenditures for new additions separately from the original ownership. And because agencies often manage lands on a regional or subregional basis, they do not necessarily account for costs by individual property.

The most successful way to reconcile estimated costs with actual expenditures would be for OFM and agencies to review and compare actual expenditures with estimated costs for selected projects that have strong expenditure data. This could be done on a six-year cycle and then be used by OFM to inform future operating and maintenance cost estimates as recommended in the JLARC report.

Appendix A

The table below outlines information OFM will gather from agencies that will be used as the basis for land acquisition cost ranges and estimates guidelines.

Category	Description, Uses and Caveats
1. Basic land information to be acquired	
<ul style="list-style-type: none"> ▪ Purchase and legal description ▪ Land location (nearest town or city; county) ▪ Current land-use category ▪ Desired or intended use plan after acquisition ▪ Estimated closeout date ▪ Land statistics (gross acre, land cost per acre) 	<p>Current land-use category includes critical habitats, natural areas, donations, inholding, state and trust lands, trails, water access, urban wildlife, farmland, riparian areas.</p> <p>Desired or intended use after acquisition may be similar to the current land-use category. This plan may be set in stages or phases to achieve acquisition intent.</p>
2. Land classifications or planned use intensity	
<ul style="list-style-type: none"> ▪ Low intensity <ul style="list-style-type: none"> › Natural area preserve › Natural forest area › Natural area ▪ Medium intensity <ul style="list-style-type: none"> › Resource recreation area ▪ High intensity <ul style="list-style-type: none"> › Recreation area › Heritage area (cultural/historic uses) 	<p>Agencies establish “planned use” intensity or impact of the desired purpose at time of land acquisition.</p>
3. Costs associated with land acquisition transactions	
<ul style="list-style-type: none"> ▪ Operating cost and staffing ▪ Other 	<p>Agencies employ staff to process and conduct legal transactions relevant to the land purchase. Cost for agency staff should be estimated and incorporated in total acquisition costs. Agencies must identify these staff members and their anticipated FTE and supporting expenditures.</p>
4. Capital cost of acquiring the property including transaction/closing costs	
<p>Expenditures for the acquisition of land, whether obtained by purchase, donations or by condemnation under the applicable eminent domain laws of the state of Washington, including expenses directly and necessarily related to such purchase or condemnation.</p>	<p>Land purchases must be consistent with adopted plans or other formal agency strategic direction.</p> <p>Cost of existing structures that improve the real property, such as buildings, facilities, roads, parking areas and bridges.</p>

<p>Costs may include:</p> <ul style="list-style-type: none"> ▪ Land/property ▪ Existing structures ▪ Environmental review ▪ Appraisal fees ▪ Title reports ▪ Excise fees closing costs <p>The cost to improve the property, such as fencing, weed control, signage, landscaping.</p> <p>Site improvement projects not part of a larger capital development project outlay</p> <ul style="list-style-type: none"> ▪ Demolition of buildings and structures ▪ Removal of trees and plant material <p>Clearing of land or demolition of vacant buildings.</p>	<p>Includes expenditures for the reconstruction or preservation improvement of existing buildings or structures on the land.</p> <p>Normal maintenance and costs associated with routine janitorial activities and day-to-day upkeep are not considered capital cost improvements and should be included in other relevant categories.</p> <p>Grading, rerouting of utilities and erosion control may be financed when they precede a planned capital development outlays project to be undertaken on the same site.</p>
<p>5. Operating cost of owning and maintaining land and building (immediate costs)</p>	
<p>Expenditures necessary to maintain and operate the land and other capital development outlays include:</p> <ul style="list-style-type: none"> ▪ Staffing costs ▪ Agency administrative costs ▪ Weed control ▪ Fire fuel control ▪ Forest health treatment ▪ Utilities (water, sewer, garbage) ▪ Energy (electricity, natural gas) ▪ Janitorial services ▪ Rolling stock and grounds equipment ▪ Building maintenance and repair (painting, insulating) ▪ Other (trail maintenance) 	
<p>6. Capital cost of developing land, including restoration, necessary to achieve land intended use</p>	
<p>Costs related to the construction, extension, replacement, reconstruction or upgrading to meet the intended use plan of the land:</p> <ul style="list-style-type: none"> ▪ Eligible capital expenses (architecture and engineering, environmental review, permitting, project management, construction supervision, agency indirect expenses) ▪ Treatment of historic structures and features ▪ Day-use facilities ▪ Picnic shelters ▪ Entrance road 	<p>Capital facilities and landscape restoration costs necessary to achieve the site's intended recreation and conservation purpose.</p>

<ul style="list-style-type: none"> ▪ Vehicular/pedestrian/bicycle access ▪ Day-use parking ▪ Trail developments ▪ Comfort stations/vault toilets ▪ Campground ▪ Cabins/yurts ▪ Meeting facilities ▪ Concession structures ▪ Landscaping ▪ Utility systems (water, sewer, power, communications) ▪ Administrative facilities (office, maintenance shop) ▪ Demolition ▪ Renovation ▪ Restoration ▪ Deconstruction ▪ Right-of-way purchase ▪ Boating facilities (ramps, piers, floats, buoys) ▪ Beach/water access areas 	
7. Operating and maintenance cost of land and building (future costs, after intended use development)	
<ul style="list-style-type: none"> ▪ Costs to operate and maintain the land and buildings after full development: ▪ Staffing costs ▪ Agency administrative costs ▪ Office supplies and equipment ▪ Utilities (water, sewer, garbage) ▪ Energy (electricity, natural gas) ▪ Rolling stock and grounds equipment ▪ Building maintenance and repair (painting, insulating) ▪ Telecom ▪ Drinking water system management ▪ Other: incidental (signs, access control, litter pickup) ▪ Sewer and septic systems maintenance ▪ Routine janitorial activities and day-to-day upkeep ▪ Clearing of land ▪ Repairing vandalism or cleaning ▪ Minor carpentry work and other building maintenance activities ▪ Weed control, lake management, other assessments ▪ Grounds maintenance ▪ Tools/equipment ▪ Road maintenance and abandonment 	

<ul style="list-style-type: none"> ▪ Fence maintenance ▪ Forest management (arborist work, thinning) ▪ Access management ▪ Resource management ▪ Water distribution system operation ▪ Sewer system operation ▪ Electric power distribution system operation ▪ Trail/walkway/bridge maintenance ▪ Law enforcement ▪ Natural/cultural resource interpretation and education ▪ 	
8. Other Property Assessments	
<ul style="list-style-type: none"> ▪ Payment in lieu of taxes ▪ Fire assessment ▪ Local improvement district assessments ▪ Noxious weed assessment ▪ Lake district management assessment ▪ Stormwater assessment ▪ Road association assessment 	

**Options 2 & 3:
Description & Cost Estimate**



1101 South Fawcett Avenue, Suite 200
Tacoma, Washington 98402
253.383.4940

November 25, 2015

State of Washington Recreation and Conservation Office
PO Box 40917
Olympia, WA 98504-0917

Attention: Kaleen Cottingham, Director of RCO

Subject: Public Land Inventory Framework Update Scenarios
File No. xxxx

BACKGROUND

The Recreation and Conservation Office (RCO) was required by the 2013–15 Capital Budget proviso to provide a centralized inventory of lands in Washington owned by federal, state, and local governments, and by Native American tribes. The Public Lands Inventory (PLI) makes visible the distribution, costs, and principal uses of recreation and natural resource lands.

The intent of the inventory is to provide a useful tool for Washingtonians to better understand the recreation and natural resource lands owned and managed by federal, state, and local governments. By providing information on the acquisition costs of public lands, people in the state can better understand their investments and the benefits that derive from those investments.

The proviso also stipulated that the inventory be Web-accessible and include a Geographic Information System (GIS)-based interactive map. This additional functionality allows users to find information about specific aspects of land ownership and to access summary information. This was the first GIS-based public lands inventory for the state.

The proviso required that the inventory include ownership, ownership type, location, and acreage. It also required that lands be categorized according to their principal use, including, but not limited to, developed recreation land, habitat and passive recreation land, and revenue-generation uses. The proviso further indicated that the inventory cover both the intended use at the time of acquisition and current use and that it include acquisition costs and funding sources for lands acquired by state agencies within the last ten years.

Now, in response to a Joint Legislative Audit and Review Committee (JLARC) report, the state agencies have been tasked with proposing ways to better share information related to Washington State land ownership. The Public Land Inventory Framework originally developed last year provides an excellent mechanism for sharing that information. The PLI currently holds public land ownership information in



an intuitive mapping context that allows visualization of this data for all Washington State citizens. More importantly, the PLI Website is being utilized extensively to report land ownership information. Recent analysis revealed that the PLI website has had over 10,000 visits since it was deployed with the typical site visit lasting over 2.5 minutes. Industry norm for website session duration is less than one minute. The metrics also revealed that use of the website is going up over time which also exceeds the industry norm.

EXISTING CHALLENGE

The PLI website and application that resulted from the above proviso request was successful in that it provided the first digital version of aggregated Public land ownership information in the state of Washington. This met the intent of the original proviso but further work is needed to ensure the data represented is not just a snapshot in time without an update mechanism. It also fell short in providing a mechanism for some of the more detailed information that JLARC needs. State Parks, DNR, WDFW, RCO, and OFM should develop a single, easily accessible source for information about acquisitions, detailed outcomes, and costs. In undertaking this effort, the agencies can build on work they are already doing. This work includes the Lands Group reports, budget documents, land management plans, and grant program applications. The main areas that need improvement are:

- 1) Linkage to RCO Land Acquisition Forecast Reports – Currently there are no direct links to existing land ownership monitoring and forecasting information and the report pages generated by RCO. The data from the PLI system is used in the reports but the ability to “see the bigger picture” that the presentation reports generated by RCO create is missed.
- 2) Update Mechanisms – As mentioned above, the data that exists currently within the PLI is a snapshot in time. Indeed there are likely areas of the ownership information that are already out of date. To ensure that the PLI website stays up to date an automated mechanism needs to be developed that would allow partnering agencies to log in, update their respective data, and review their forecast and monitoring inputs. There are also no mechanisms for updating the state agency geographic lands data (parcels).
- 3) Expanded Reporting – The linking of the RCO Acquisition Forecast Reports will help deepen the understanding of our Public Lands. However, expanding the reporting capability in the PLI application itself so that large portions of Acquisition Reports could be generated on the fly would greatly improve the usefulness of the application. Enhanced reporting of forecast and monitoring information within the PLI would eliminate the large portion of time that RCO spends on generating the existing PowerPoint based reports and allow any user of the PLI to generate their own reports specific to their needs. This ability would be extremely high in value to RCO, JLARC, and partnering state agencies, and the public in general.

PLI UPDATE OPTIONS

In order to meet the needs of the JLARC report, two options have been presented below.

Option 2 – Basic PLI Update links the PLI Parcels, Acquisition Information, to the updated Land Acquisition Reports currently generated by RCO. This helps present more of a complete picture for Public Land

Ownership and forecast information and includes the ability to store and link relevant documents. Option 2 falls short in creating a mechanism for state agencies to keep their information up to date as that information will still need to be gathered and synthesized in the RCO Report.

Option 3 – PLI Expansion and Sustainability provides a data entry interface for State agencies to enter and review their forecast and monitoring reports ensuring the PLI framework stays relevant and useful. Option 3 also includes enhance reporting of forecast and monitoring information and the ability to view/sort data in ad hoc fashion according to users needs thus rendering the RCO Reports obsolete/unnecessary.

The below options and Rough Order of Magnitude (ROM) costs are developed as a means of exploring potential options and their associated financial impacts. These scenarios and their ROMs are meant to be used as a guide only. The below numbers do not include resources estimates for either RCO or their partnering state agencies. In the event that a particular option is chosen, a full cost estimate will be developed to be contracted against.

OPTION 2 – BASIC PLI UPDATE (TIMELINE 4-6 MONTHS)

This option should be considered as the “bare minimum” update that would allow for the linkage to be built between existing forecast and monitoring reports generated by the Lands Group and minimally expanding the reporting capabilities of the existing PLI application. The main undertaking for this option would be to meet existing challenge number 1 and parts of number 3 from the above “Existing Challenges” section of this document. There are critical foundational aspects that need to be built to enable these functionalities. In particular, a basic document management framework will need to be developed to hold uploaded report documents and gather critical information associated with those documents to make them relevant. This will require an application architecture adjustment and an expanded data structure. Another key undertaking from this option is a limited expansion of the reporting capabilities that currently exist. It also includes adding performance enhancements that would allow the application to address the new functionality in an acceptable timeframe.

1. **REQUIREMENTS FINALIZATION** – Some time has occurred since the PLI was originally developed so it is necessary to gather the partnering agencies and their designees to understand what has changed and the new requirements to accomplish the above tasks. This task includes an Onsite Requirements workshop and the documentation associated with that workshop. The focus for the workshop will be data structure changes, reporting requirements, and any shortcomings with the existing application. It also includes the development of the required technical architecture to meet those needs. The final deliverable will be another onsite workshop with RCO and its partnering agencies to go over the documented requirements and the proposed technical architecture.
2. **PLI ARCHITECTURE MODIFICATIONS AND REPORTING ENHANCEMENTS** – This task encompasses the coding and software development aspects of the requirements agreed upon from the above task. In particular, the development of a new document management storage mechanism, developing the new linkages to those documents, addition of limited reporting expansion, and critical performance enhancements.
3. **TESTING AND ACCEPTANCE** – GeoEngineers will develop an appropriate testing plan with RCO to ensure that the application is performing as required. The testing plan will be utilized by RCO and



its partnering agencies to test the application. Any bugs discovered through this process will be addressed by GeoEngineers.

4. **ONSITE DEPLOYMENT** – Once the improved PLI application has been tested according to plan, GeoEngineers will send staff onsite to RCO to aid in the deployment of the new application in RCO’s hosting environment. This task also includes technology transfer to RCO staff and some limited ad hoc technical support post deployment.
5. **PROJECT MANAGEMENT AND COORDINATION** – There are multiple agencies involved with the PLI and the development of any new functionality. It is anticipated that a fair amount of coordination, onsite meetings, and ad hoc calls will be required to ensure the project is successful. This task encompasses the time that will be needed to accomplish this.

ROUGH ORDER OF MAGNITUDE – OPTION 2

ESTIMATED FEES (ROUGH ORDER OF MAGNITUDE) – OPTION 2

Task Number and Description	Estimated Fee
1.) Requirements Finalization	\$17,000-\$20,000
2.) PLI Architecture Modifications and Enhancements	\$55,000-\$65,000
3.) Testing and Acceptance	\$8,000-\$10,000
4.) Onsite Deployment	\$6,000-\$8,000
5.) Project Management and Coordination	\$8,000-\$10,000
Estimated Total:	\$96,000-\$113,000

OPTION 3 – PLI EXPANSION AND SUSTAINABILITY UPDATE (TIMELINE 10-12 MONTHS)

One of the critical aspects to any information system is its ability to remain current with the data it is reporting. Without that ability, the system is not sustainable and eventually becomes irrelevant. The original development of the PLI focused on gathering from several Washington state agencies, for the first time, the data required to report on Public Land ownership. The digital framework developed was sufficient to achieve this task but no update mechanisms were included with the original development.

Option 3’s main focus will be to create a framework to allow those partnering agencies to update their ownership data. Partnering agencies will be able to login and update their ownership information as it changes through a Partnering Agency Data Input Portal. Once the mechanism for updating the data has been accomplished, the reporting capabilities will be expanded to allow end users to generate and print their own ownership reports by geographic boundaries and data ranges. The Land Information data input screens will capture the necessary information to meet the reporting needs below.

Reporting needs that will be addressed were identified by JLARC and are not currently provided to the Legislature through the PLI include:

- Current Use.
- Link to agency management unit plan(s). Information on the project’s ties to greater planning efforts is provided in the Lands Group Forecast report, but not in such a way as to explain why the



project is a strategic investment for the agency. JLARC recommends that the planning link information includes additional information such as:

- How the acquisition relates to the agency's current ownership and its plans for an entire management unit.
- The detailed outcomes for the property and entire management unit.
- The agency process toward achieving the detailed outcomes.
- How the acquisition helps achieve those outcomes.
- Detailed outcomes for the property and management unit. Project goals are identified in general terms (e.g., healthy fish and wildlife, sustainable outdoor experience), but not quantified or described in measureable terms. JLARC recommends that the goals of the acquisition include more details on outcomes - what they are and how the acquisition will achieve them. JLARC's report recommends the agencies report following detailed outcomes:
 - Specific development plans
 - Service improvements
 - Staffing levels
 - Habitat restoration needs
- Description of current agency progress toward achieving detailed outcomes.
- Anticipated Future Costs. JLARC's report recommends OFM develop guidelines that include, at minimum, the number of biennia that estimates must cover and the types of expenses to be included. The following cost estimate breakdowns are recommended by JLARC:
 - Estimate of future capital costs for the property and management unit
 - Estimate of future operating costs for the property and management unit
 - Estimate of future maintenance costs for the property and management unit
 - Explanation of how the proposed acquisition affects estimated costs for the management unit

There are critical foundational aspects that need to be built to enable these functionalities. This will require an application architecture adjustment and an expanded data structure. It also includes adding performance enhancements that would allow the application to address the new functionality in an acceptable timeframe. This option requires an even greater degree of requirements gathering from the partnering agencies. More workshops and coordination will be required to ensure that the data requirements from all agencies are understood and agreed upon. It is anticipated that with the data update mechanisms in place and expanding reporting functionality the PLI System will become sustainable over the long term and create an important tool for both public communication and Legislative analysis.

1. **REQUIREMENTS FINALIZATION** – As discussed in Option 2 above, some time has occurred since the PLI was originally developed so it is necessary to gather the partnering agencies and their designees to understand what has changed and the new requirements to accomplish the above tasks. This task includes three workshops as opposed to Option 2 above: an Onsite Requirements Workshop, a Spatial Data Workshop, and an Architecture Review Workshop. The focus for the Requirements Workshop will be data structure changes, reporting requirements, and any shortcomings with the existing application. It also includes the development of the requirements for the technical architecture to meet those needs. The Spatial Data Workshop will be specifically focused on understanding how the spatial data aspects of the Public Land Inventory can be gathered and kept current. This workshop will be technical in nature with cooperating agency designees attending to discuss update mechanisms required for keeping the PLI GIS data current. The final workshop with RCO and its partnering agencies will be the Architecture Review Workshop to go over the documented requirements and the proposed technical architecture.



2. **USER INTERFACE DESIGN AND DEVELOPMENT** – Utilizing the requirements documentation and all input from the 3 workshops in Task 1, GeoEngineers will develop the design for User Interface required to meet those requirements. The two main areas that will be designed through this task include the Partnering Agency Data Input Portal and the Enhanced Reporting aspects of the existing PLI. The deliverable for this task will be wireframe documents that will be submitted to RCO and their partners for review and comment. GeoEngineers will then incorporate comments into the final design.
3. **SOFTWARE DEVELOPMENT** – GeoEngineers uses an adapted Agile Development software process that utilizes the concept of development Sprints. Development Sprints are typically 2-3 weeks depending on progress and requirements backlog. It is anticipated that three (3) Development Sprints will be required to build out the new technology framework required for partnering agency input, reporting, and spatial data updates. At the end of each Sprint, RCO will have the opportunity to assess progress and provide input on the progress. This will allow adjustments during the development cycle that helps to ensure successful delivery.
4. **TESTING AND ACCEPTANCE** – GeoEngineers will develop an appropriate testing plan with RCO to ensure that the application is performing as required. The testing plan will be utilized by RCO and its partnering agencies to test the application. Any bugs discovered through this process will be addressed by GeoEngineers.
5. **DEPLOYMENT** – Once the improved PLI application has been tested according to plan, GeoEngineers will send staff onsite to RCO to aid in the deployment of the new application in RCO’s hosting environment. This task also includes technology transfer to RCO staff and some limited ad hoc technical support post deployment.
6. **PROJECT MANAGEMENT AND COORDINATION** – There are multiple agencies involved with the PLI and the development of any new functionality. It is anticipated that a fair amount of coordination, onsite meetings, and ad hoc calls will be required to ensure the project is successful. This task encompasses the time that will be needed to accomplish this.

ROUGH ORDER OF MAGNITUDE – OPTION 3

ESTIMATED FEES (ROUGH ORDER OF MAGNITUDE) – OPTION 3

Task Number and Description	Estimated Fee
1.) Requirements Finalization	\$30,000-\$35,000
2.) User Interface Design and Development	\$35,000-\$40,000
3.) Software Development	\$85,000-\$95,000
4.) Testing and Acceptance	\$20,000-\$25,000
5.) Deployment	\$12,000-\$15,000
6.) Project Management and Coordination	\$17,000-\$20,000
Estimated Total:	\$199,000-\$230,000

Thank you for the opportunity to engage in this dialogue around the future of the Public Land Inventory. I look forward to meeting with you to discuss these scenarios.



Sincerely,
GeoEngineers, Inc.



K. Scot McQueen
Principal

Attachments:

Disclaimer: Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

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