

State of Washington
Joint Legislative Audit & Review Committee (JLARC)



**Department of Natural Resources'
Leasing of State-Owned Aquatic Lands**

Report 08-7

June 18, 2008

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alternative formats for persons with disabilities.*

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The statutory authority for JLARC, established in Chapter 44.28 RCW, requires the Legislative Auditor to ensure that JLARC studies are conducted in accordance with Generally Accepted Government Auditing Standards, as applicable to the scope of the audit. This study was conducted in accordance with those applicable standards. Those standards require auditors to plan and perform audits to obtain sufficient, appropriate evidence to provide a reasonable basis for findings and conclusions based on the audit objectives. The evidence obtained for this JLARC report provides a reasonable basis for the enclosed findings and conclusions, and any exceptions to the application of audit standards have been explicitly disclosed in the body of this report.

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Committee Approval

On June 18, 2008, this report was approved for distribution by the Joint Legislative Audit and Review Committee.

**DEPARTMENT OF
NATURAL RESOURCES'
LEASING OF STATE-
OWNED AQUATIC
LANDS
REPORT 08-7**

JUNE 18, 2008



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REPORT SUMMARY

At statehood, Washington State's Constitution declared state ownership of the 2.8 million acres of tidelands, shorelands, and bedlands within the boundaries of the state. Statute directs the Department of Natural Resources (DNR) to manage these state-owned aquatic lands. Statute also provides direction for leasing these lands.

In 2007, the Legislature directed the Joint Legislative Audit and Review Committee (JLARC) to answer a number of questions about the leasing of state-owned aquatic lands. This report answers these questions in two parts: Part 1 answers questions about current aquatic land leasing; Part 2 provides an assessment of the advantages and disadvantages of alternative approaches to setting aquatic land lease rates.

Part 1: Leasing State-Owned Aquatic Lands

Article XVII of the state's Constitution declared state ownership of aquatic lands. Until 1971, the state sold some of its aquatic lands. Of the original 2.8 million acres, 94 percent or 2.6 million is still state-owned aquatic land. (A separate JLARC report "Management of State-Owned Aquatic Lands" explores the broad issues related to state-owned aquatic lands.)

Statute establishes four main lease categories or use classifications and establishes a lease rate process for each use.

Use	How the Lease Rate is Set
Water-Dependent: A use that cannot logically exist in any location but on the water, such as a marina.	<ul style="list-style-type: none"> Statute declares this a favored use. Formula sets lease rate as 30% of the adjacent upland parcel value times a rate of return.
Nonwater-Dependent: A use that can operate in a location other than on or near water, such as a restaurant.	<ul style="list-style-type: none"> Statute declares this a low-priority use. Lease rate is fair market value determined by appraisal. Must be more than water-dependent lease rate would be for the same parcel.
Multiple Uses: Water-dependent and nonwater-dependent uses occupy portions of the same leased parcel.	<ul style="list-style-type: none"> Lease rate is pro-rated for each use.
Aquaculture: A water-dependent use that focuses on aquatic farming such as growing oysters.	<ul style="list-style-type: none"> Lease rate established through competitive bidding and negotiation.

In Fiscal Year 2007, DNR collected \$8.3 million for these various uses. The Legislature appropriates this money for the management of state-owned aquatic lands and for projects that protect, improve, or provide access to aquatic lands.

Part 2: Advantages and Disadvantages of Alternative Approaches to Setting Water-Dependent Leases

This study reviews 11 alternative approaches to setting lease rates for water-dependent uses of state-owned aquatic lands. The approaches link lease rates to:

- Upland assessed value (current approach);
- Modified upland assessed value;
- Negotiated fair market value;
- Net income;
- Gross income;
- 1990 rates;
- Matrix or flat rate;
- Averaged uplands assessed value;
- Zone;
- Averaged uplands assessed value by zone; and
- Residual model to estimate market value.

The assessment of the advantages and disadvantages of the approaches uses three criteria:

- ✓ *Payment of Market Rent*- Does the rent come close to what “the market” would charge?
- ✓ *Equitable Treatment*- Do uses of identical parcels pay the same rent?
- ✓ *Administrative Burden*- How many hours does it take to determine rent?

JLARC contracted with a firm with real estate valuation expertise to rank the 11 alternative methods against each of the three criteria.

Results

Exhibit 8 on page 15 in the body of the report provides the full results of the ranking exercise. No single approach ranked best against all three criteria. Using the first two criteria, Market Rent and Equitable Treatment, the negotiated fair market value and residual model approaches received the best rankings. The zone and upland assessed value approaches received the best ranking using the criterion of reduced Administrative Burden.

How Would the Private Sector Set a Lease Rate?

The JLARC real estate valuation expert selected the negotiated fair market value as the most likely private sector approach for setting lease rates for water-dependent leases. They noted that negotiation between informed parties is how market rents are developed, which leads to equitable treatment. This perspective assigns less importance to administrative burden. The expert also observes that, while methods based on a formula generally have less administrative burden, none of the formula-based approaches ranks well using the other two criteria of market rent and equitable treatment.

Conclusion

Statute prescribes how aquatic lands lease rates are set for various uses. Looking for alternatives, the Legislature and DNR have reviewed a number of methods different than those in statute, with the Legislature attempting a change in 2003.

With *this* analysis, the Legislature directed JLARC to review these alternative methods and describe their advantages and disadvantages. While it is ultimately up to the Legislature to choose its criteria for setting lease rates, based on the three criteria JLARC used—payment of market rent, equitable treatment, and administrative burden—the analysis in this report shows that:

- If the most important criteria is payment of market rent and equitable treatment, the Legislature would establish a negotiated fair market value approach to setting water-dependent lease rates;
- If the most important criterion is low administrative burden, then the Legislature would retain the current or some other formula-based approach;
- If the most important criterion to use is an approach that most closely resembles the private sector, the Legislature would establish a negotiated fair market value approach.

LEASING OF STATE-OWNED AQUATIC LANDS: OVERVIEW

At statehood, Washington State claimed ownership to the tidelands, shorelands, and bedlands within the state. Such lands are called state-owned aquatic lands, with ownership by the state established in the state's Constitution.

Through statute, the Legislature has directed the Department of Natural Resources (DNR) to manage state-owned aquatic lands for the citizens of the state. However, unlike the forest lands managed by DNR, state-owned aquatic lands are not established as fiduciary trusts with a guiding principle of generating sustainable revenue. Instead, statute directs DNR to provide a balance of public benefits that include:

1. Encouraging direct public use and access;
2. Fostering water-dependent uses;
3. Ensuring environmental protection; and
4. Utilizing renewable resources.

In addition, generating revenue in a manner consistent with the other four benefits is also considered a public benefit. These benefits are often referred to as the "Four Plus" benefits.

The state uses its aquatic lands for many different purposes. The focus of this study is DNR's leasing of state-owned aquatic lands. DNR administers leases for a variety of uses such as marinas, restaurants, and aquaculture. In November 2007, there were 1,585 aquatic land leases, with leases generating \$8.3 million in revenue for the state in Fiscal Year 2007.

In 2007, the Legislature directed JLARC to answer a number of questions about the leasing of state-owned aquatic lands. The responses to those questions are organized in two parts in this report:

- Part 1 describes current aquatic land leasing, including:
 - How state-owned aquatic lands are classified;
 - The extent of state-owned aquatic lands and the lease base;
 - How lease rates are set; and
 - How much money is generated from leases and the uses of that money.
- Part 2 provides an assessment of the advantages and disadvantages of alternative approaches to setting aquatic land lease rates.

(JLARC reviewed in detail broader issues regarding the management of state-owned aquatic lands in a separate May 2008 report: "Management of State-Owned Aquatic Lands.")

PART ONE: CURRENT AQUATIC LANDS LEASING

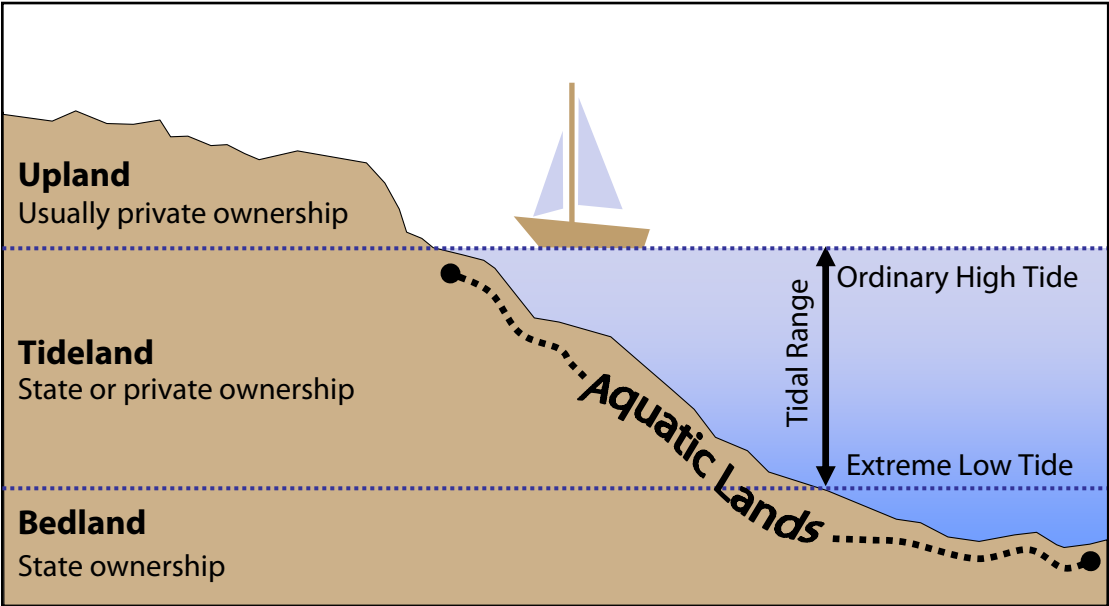
How Are State-Owned Aquatic Lands Classified?

In Article XVII, § 1 of its Constitution, Washington State claims ownership to its aquatic lands:

The state of Washington asserts its ownership to the beds and shores of all navigable waters in the state up to and including the line of ordinary high tide in waters where the tide ebbs and flows, and up to and including the line of ordinary high water within the banks of all navigable rivers and lakes.

Exhibit 1 illustrates the boundaries of this ownership in marine areas (saltwater). Here, tides are the key to ownership boundaries. The land between the extreme low tide and the ordinary high tide is called the *tideland*. The area below the extreme low tide is the *bedland*. These two areas are covered by the ownership declared at statehood. Following its initial declaration of ownership, the state subsequently sold some of the tidelands. The area above the ordinary high tide is the *upland*, which is not part of the lands claimed in Article XVII, § 1 of the state’s Constitution.

Exhibit 1 – Ownership of Aquatic Lands in Marine Areas—Tides are the Key

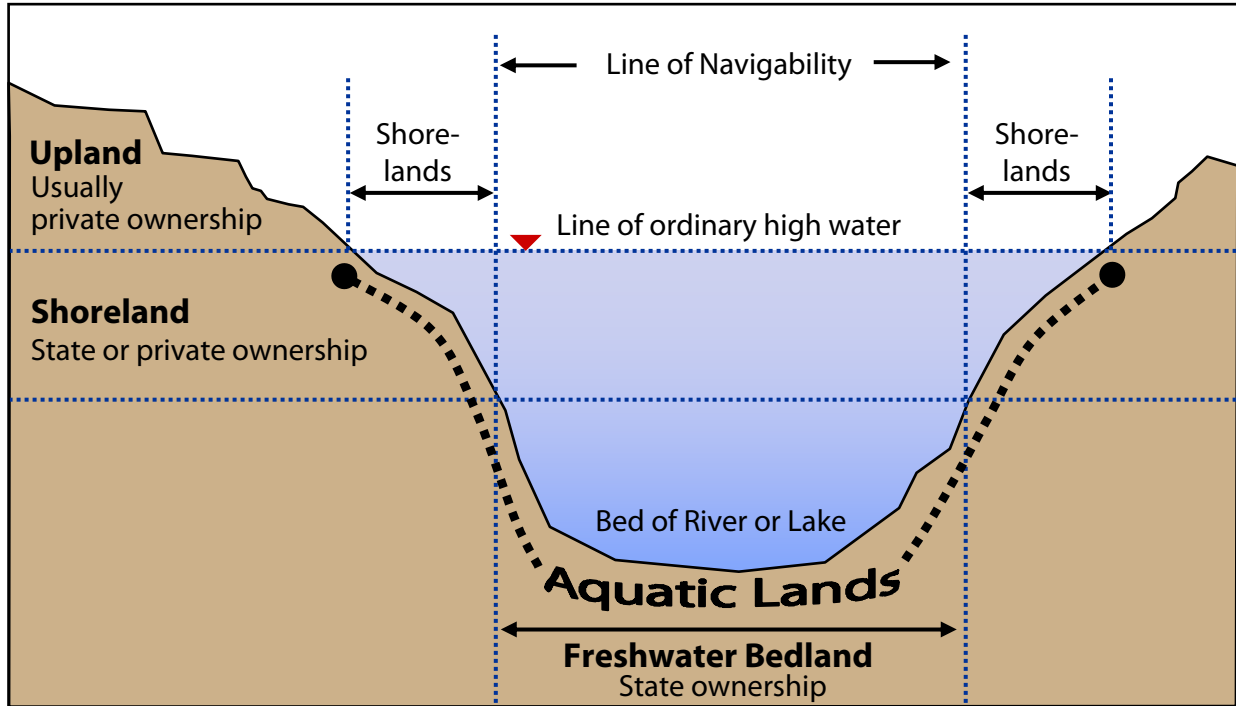


Source: Department of Natural Resources.

Exhibit 2 illustrates the boundaries determining ownership in rivers and lakes. Here, the concept of navigability is the key to defining ownership. If the river or lake is navigable, the bedlands and shorelands are covered by the ownership declared at statehood. The state subsequently sold some of the shorelands it originally owned. The upland is not part of the lands claimed in Article XVII, § 1 of the state’s Constitution.

Current Aquatic Lands Leasing

Exhibit 2 – Ownership of Aquatic Lands in Rivers and Lakes—Line of Navigability is Key



Source: Department of Natural Resources.

What is the Extent of Current State-Owned Aquatic Lands and What is the Lease Base?

Exhibits 1 and 2 also illustrate that tidelands and shorelands may or may not be in state ownership. From 1889 to 1971, the Legislature authorized the sale of tidelands and shorelands. However, in 1971, the Legislature stopped further sales.¹ To date, the state has sold 64 percent of the tidelands and 29 percent of the shorelands. Even though large parts of the state’s tidelands and shorelands were sold, the state still retains ownership of 94 percent of all aquatic lands within its boundaries, primarily bedlands. Exhibit 3 illustrates the acres of aquatic land by land type and current ownership.

Exhibit 3 – Acres of Aquatic Lands by Land Type and Current Ownership

Aquatic Land Type	State-Owned Acres	% of Total	Acres Owned by Others	% of Total	Total Acres
Marine Bedlands	2,162,531	100%	0	0%	2,162,531
Marine Tidelands	88,540	36%	156,079	64%	244,619
Freshwater Bedlands	320,002	100%	0	0%	320,002
Freshwater Shorelands	33,454	71%	13,982	29%	47,436
Other Aquatic Lands	13,691	100%	0	0%	13,691
Totals	2,618,218	94%	170,061	6%	2,788,279

Source: JLARC analysis of DNR data.

¹ State-owned aquatic lands can still be sold in limited circumstances to public entities (RCW 79.125.200) and to upland owners (RCW 79.125.450). According to DNR, only one direct sale has happened in the last ten years.

Are All State-Owned Aquatic Lands Available for Leasing?

Generally speaking, state-owned aquatic lands may be leased for approved uses. However, DNR has restricted or withdrawn small portions of state-owned aquatic lands from the lease base. Examples of these areas are the four aquatic reserves — Cherry Point, Cypress Island, Fidalgo Bay, and Maury Island — totaling 14,932 acres of state-owned aquatic lands.

According to DNR, these areas are restricted or withdrawn for reasons that include: the lands contain sensitive ecological habitat; they are contaminated; or they have been restored and require continued protection. Additionally, DNR has made some lands only available for lease for certain uses, such as conservation.

How Are Lease Rates Set?

Statute identifies four main use categories, each with a different lease rate-setting process described in Exhibit 4. Appendix 3 provides detail on the statutes related to setting leases.

Exhibit 4 – Categories and Rate-Setting Processes for Leasing State-Owned Aquatic Lands

Use	Legislative Intent	How the Lease Rate is Set
Water-Dependent Use: A use that cannot logically exist in any location but on the water, such as a marina.	Preserve and enhance water-dependent uses (RCW 79.105.210).	<ul style="list-style-type: none"> ▪ Statute declares this a favored use. ▪ Formula sets lease rate as 30% of the adjacent upland parcel value times a rate of return (the real capitalization rate).
Nonwater-Dependent Use: A use that can operate in a location other than on the waterfront. (Example: restaurant)	Limit expansion of nonwater-dependent use (RCW 79.105.210, 270).	<ul style="list-style-type: none"> ▪ Statute declares this a low priority use. ▪ Lease rate is fair market value determined by appraisal. ▪ Must be more than water-dependent lease rate would be for the same parcel.
Multiple Uses: Water-dependent and nonwater-dependent uses occupy portions of the same leased parcel.	Not specified in statute.	<ul style="list-style-type: none"> ▪ Lease rate is prorated depending on the parcel that each use occupies.
Aquaculture: A water-dependent use focused on aquatic farming such as growing oysters.	Foster use of aquatic environment (RCW 79.105.050).	<ul style="list-style-type: none"> ▪ Lease rate established through competitive bidding and negotiation.

Source: JLARC analysis of statute.

Additional Statutory Guidance About Lease Rates for Water-Dependent Uses

No Fee Water-Dependent Uses

An abutting residential owner to state-owned aquatic lands is allowed to install and maintain a dock and a mooring buoy without charge if used exclusively for private purposes (RCW 79.105.430). *(For an in-depth discussion of recreational docks and buoys, please see the May 2008 JLARC report: “Management of State-Owned Aquatic Lands.”)*

Additionally, the 2008 Legislature passed Engrossed Substitute Senate Bill 6532 (C 132 L 08), which authorized the City of Oak Harbor to lease state-owned aquatic lands to operate a marina. Under this lease, no rent would be due for the first ten years; rent is restricted during the second ten years of the lease. The lease is not renewable and may be for a term of no more than 20 years.

Change in Marina Rate Setting Process

In 2003, the Legislature directed a major change in how leases for marinas were to be calculated. With the change, lease payments were to be based on a percentage of marinas’ income. However, the bill directing the change (House Bill 1250, codified in RCW 79.90.480) also included provisions requiring that DNR collect income reporting forms from at least 75 percent of the marinas representing 90 percent of annual marina revenue, and that the new method should maintain state revenues. DNR did not obtain the required information. As a result, the existing formula (30 percent of the upland parcel value multiplied by real capitalization rate) remains in place today. The Legislature repealed the 2003 changes in 2005.

Water-Oriented Uses

Uses such as wood and fish processing plants have been historically dependent on a waterfront location, but with current technology could be located on the uplands. Generally, if the use was water-dependent in a lease prior to 1984, the water-dependent lease rate formula is used to determine the rental rate. (RCW 79.105.260)

Public Access

Statute provides general guidance that the management of state-owned aquatic lands should encourage public use and access (RCW 79.105.030). Statute also provides specific direction on calculating water-dependent rents. This calculation does not include DNR’s practice of discounting water-dependent uses that encourage public access. For example, DNR provides a discount for a portion of a marina that is available daily to the public on a first-come, first-served basis. The marina would have to prominently advertise the public use and access area.

How Much Money is Generated from Leases and What is This Money Used For?

In Fiscal Year 2007, leases of state-owned aquatic lands generated \$8.3 million. Exhibit 5 illustrates the number of leases and revenues for each use category for Fiscal Year 2007.

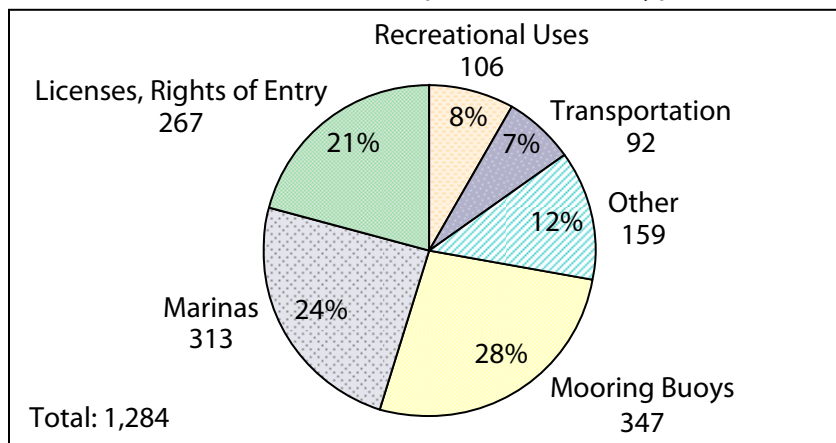
Exhibit 5 – Aquatic Land Leases and Revenues, Fiscal Year 2007

Lease Type	Number of Leases	Total Revenue
Water-Dependent	1,284	\$5,525,280
Nonwater-Dependent	159	\$2,319,825
Aquaculture	142	\$490,107
Total	1,585	\$8,335,212

Source: JLARC analysis of DNR data. The number of leases reflects data as of November 2007. Some leases may include multiple uses on the same parcel.

Water-dependent uses comprise 81 percent of the leases on state-owned aquatic lands. Fifty-two percent of these leases are for marinas and mooring buoys. Exhibit 6 details the various water-dependent leases.

Exhibit 6 – Water-Dependent Lease Types



Source: JLARC analysis of DNR data. The number of leases reflects data as of November 2007.

Statute directs that these revenues be used to manage and enhance aquatic lands within the state. The Legislature accomplishes this in two ways: through appropriations to DNR for management of state-owned aquatic lands, and through appropriations for aquatic lands enhancement projects to DNR and other entities.

For the management of state-owned aquatic lands, statute directs a percentage of revenues be deposited into the Resource Management Cost Account (RMCA). All other revenues are to be used for aquatic lands enhancement projects and deposited into the Aquatic Lands Enhancement Account (ALEA). Revenues generated from state-owned aquatic lands are the sole source of ALEA funds.

In Fiscal Year 2007, 35 percent of lease revenues went to the RMCA for management costs, while 65 percent went to ALEA for aquatic lands enhancement projects. *(Please see JLARC's 2008 report "Management of State-Owned Aquatic Lands" for additional detail on revenues from aquatic lands.)*

PART TWO: ADVANTAGES AND DISADVANTAGES OF ALTERNATIVE APPROACHES TO SETTING AQUATIC LAND LEASE RATES

This section of the report explores the advantages and disadvantages of alternative approaches to setting lease rates for state-owned aquatic lands. The analysis focuses on alternative methods to set rates for water-dependent uses such as marinas. Water-dependent leases generated \$5.5 million or 66 percent of total Fiscal Year 2007 lease revenues of \$8.3 million.

Recognizing that over the years a number of policy studies about lease rates have been completed, JLARC took a different approach than these studies. We sought expert advice from the real estate valuation profession of how the private sector might set a lease rate, instructing them not to be restricted by current methods or require that their preferred option generate the same amount of revenue as the current method. The expert supported their preferred approach by developing and applying criteria that would allow us to compare and rank their approach to previously studied approaches.

The assessment of advantages and disadvantages was then conducted in three steps:

- **Step 1:** Identify alternative approaches to setting lease rates;
- **Step 2:** Develop criteria for assessing advantages and disadvantages of various approaches; and
- **Step 3:** Rank alternatives using the assessment criteria.

Step 1: Identifying Alternative Approaches

Exhibit 7 briefly describes 11 alternative approaches to setting lease rates for water-dependent uses of state-owned aquatic lands. With assistance from the real estate valuation expert, JLARC derived this list from two primary sources: previous lease rate studies conducted about Washington's state-owned aquatic lands, and a review of methods used in other states and British Columbia.

Additional information on previous Washington lease rate studies and the approaches used in other states and British Columbia may be found in Appendix 4.

Advantages and Disadvantages of Alternative Approaches to Setting Lease Rates

Exhibit 7 – Eleven Approaches to Water-Dependent Lease Rates

Method	Description
Current Approach: Link to Upland Assessed Value	<ul style="list-style-type: none"> Based on 30% of assessed upland value multiplied by a real rate of return (the real capitalization rate).
Modified Upland Assessed Value: Change Percentage Link to Upland	<ul style="list-style-type: none"> Change the current 30% to another number. Number may be adjusted up or down and may be adjusted depending on the type of lease.
Negotiated Fair Market Value	<ul style="list-style-type: none"> Negotiation and appraisal completed each time rent is set or re-set. Negotiation process requires DNR and lessee to understand various factors impacting the value of the aquatic lands to the business.
Net Income Approach	<ul style="list-style-type: none"> A percentage of the net income of the operation is collected as rent. Net income can be actual income or a calculated estimate using various methods.
Gross Income Approach	<ul style="list-style-type: none"> Similar to net income, but rent is based on gross income without deducting business expenses.
1990 Rollback	<ul style="list-style-type: none"> Rents rolled back to 1990 level and then adjusted upwards using an inflation factor.
Matrix or Flat Rate	<ul style="list-style-type: none"> Develop and set land values by county and then multiply by a use class factor (factor was not identified in report).
Averaged Uplands Assessed Value Model	<ul style="list-style-type: none"> Base rent on upland value. Upland value determined by weighted average value per square foot of five closest upland parcels used in conjunction with water-dependent uses within one mile along waterfront.
Zone Model	<ul style="list-style-type: none"> Aggregate total current rent being paid in a geographic zone, then divide total to develop a per square foot rate. Rent increases based on changes in Consumer Price Index or other factor.
Average Uplands Assessed Value by Zone	<ul style="list-style-type: none"> Similar to Averaged Uplands Assessed Value. Set zones for averaging upland values, with zones sized to reduce complexity in determining average values.
Residual Model to Estimate Market Value	<ul style="list-style-type: none"> Use market gross income and expense estimate to value entire operation. Compare estimate to depreciated value of improvements and development profit to estimate residual value of aquatic land.

Source: JLARC analysis of previous studies. Methods with shading were developed by the JLARC consultant.

Step 2: Developing Criteria for Assessing Advantages and Disadvantages of Various Approaches

An analysis of advantages and disadvantages requires establishing criteria for contrasting one method against another. The report uses three criteria, developed with advice from the real estate valuation expert. They are:

- Payment of Market Rent: The extent to which the rent is a fair compensation for the value of aquatic land. For this criterion fairness means the rent determined by a method that comes close to what “the market” would charge.
- Equitable Treatment: The extent to which two identical pieces of aquatic lands, in identical locations, would pay the same rent. While recognizing that no two pieces are actually identical, this theoretical exercise assists with comparisons between methods. It also recognizes that the processes underlying a method impact the eventual rent. For instance, if a method relies on the assessed valuation of an upland parcel, how often is that parcel reassessed by a county?
- Administrative Burden: From the perspective of the lease administrator (DNR), how many hours it would take to determine rent for a lease?

Step 3: Ranking the Alternatives

In order to apply the criteria and create a ranking, the expert developed a means of estimating how close the methods approximate market rent. They did this by using confidential data the firm had from its work in valuing properties, using five marina case studies, and estimating the value of the aquatic land for the case studies. The expert identified how closely the alternative methods approximated their estimate of market rent for these case studies.

The real estate valuation expert then ranked the 11 alternatives separately for each criterion. A ranking of 1 meant it was the best at meeting the criterion, and 11 was the worst.

Results

Exhibit 8 on the following page illustrates each method’s ranking against the criteria. The result of the ranking exercise shows that no single approach ranked best for all three criteria.

We also learned from the case studies that methods can both over-estimate and under-estimate the market rent, depending on the property. Results varied tremendously both between methods and within methods. One case study marina varied between methods from a low of 77 percent of market rent under the Average Upland Assessed Value by Zone Method to 615 percent of market rent under the Net Income Approach. Within the Upland Assessed Value Approach and depending on the case study marina, the percent of market rent ranged from 83 percent to 344 percent.

While this information on market rent provided useful case study information, it is also quite limited since it was only possible to apply it to five locations. Because of its limitation, this information is an indicator of how close a method approximates market rent rather than a direct measure. Appendix 5 provides additional detail on estimating market rent for the case studies.

Exhibit 8 – Ranking of Alternative Aquatic Lands Leasing Method by Criteria

		METHOD (Ranking: 1=Best at Meeting Criteria, 11= Worst at Meeting Criteria)										
		Upland Assessed Value - Current Approach	Change in Formula Rent %	Negotiated Fair Market Value	Net Income Approach	Gross Income Approach	1990 Rollback	Matrix (Flat Rate) Method	Averaged Upland Assessed Value	Zone Model	Appraisal by Zone	Residual Model
CRITERIA	Payment of Market Rent	6	3	1	4	4	11	10	6	8	9	2
	Equitable Treatment	7	7	1	6	5	11	10	4	3	9	2
	Administrative Burden	2	2	10	9	6	6	5	4	1	8	11

Source: JLARC consultant, McKee & Schalka, Inc.

These rankings illustrate each method’s rank against each criterion. Results of the ranking exercise include:

- No approach ranks best against each criterion.
- Primarily because it is based on a **formula**, the current method, Upland Assessed Value, ranks well (a score of 2) for Administrative Burden, but ranks in the middle for Payment of Market Rent and Equitable Treatment.
- In contrast, because it is based on **negotiation**, the Fair Market Value method ranks best for meeting the criteria of Payment of Market Rent and Equitable Treatment, but next to last in Administrative Burden.
- Primarily because it further simplifies a **formula**, the Zone Model ranks best for low Administrative Burden, but third for Equitable Treatment and eighth for Payment of Market Rent.

How Would the Private Sector Set a Lease Rate?

After ranking the approaches, we then asked the real estate valuation expert to select what might be the most likely private sector approach, which is the Negotiated Fair Market Value approach.

The Negotiated Fair Market Value Approach ranks highest in two important criteria: Payment of Market Rent and Equitable Treatment. Negotiation between informed parties is how market rents are developed, which leads to equitable treatment. However, the Administrative Burden is high with this approach.²

While methods based on a formula generally have lower administrative burdens, no formula-based approach would score well using the other two criteria of Market Rent and Equitable Treatment.

² Statute directs that fair market value be the basis for charging nonwater-dependent uses, to be determined with appraisal techniques. While similar, we distinguish the fair market value approach suggested here as being based on *negotiation* and appraisal, taking into account a number of factors such as upland values and the income generating capability of a business located on the site.

CONCLUSION

Statute prescribes how aquatic lands lease rates are set for various uses. Looking for alternatives, the Legislature and DNR have reviewed a number of methods different than those in statute, with the Legislature attempting a change in 2003.

With *this* analysis, the Legislature directed JLARC to review these alternative methods and describe their advantages and disadvantages. While it is ultimately up to the Legislature to choose its criteria for setting lease rates, based on the three criteria JLARC used—payment of market rent, equitable treatment, and administrative burden—the analysis in this report shows that:

- If the most important criteria is payment of market rent and equitable treatment, the Legislature would establish a negotiated fair market value approach to setting water-dependent lease rates.
- If the most important criterion is low administrative burden, then the Legislature would retain the current or some other formula-based approach.
- If the most important criterion to use is an approach that most closely resembles the private sector, the Legislature would establish a negotiated fair market value approach.

APPENDIX 1: SCOPE AND OBJECTIVES

REVIEW OF AQUATIC LANDS LEASE RATES

SCOPE AND OBJECTIVES

SEPTEMBER 26, 2007



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Why a JLARC Analysis of Aquatic Lands Lease Rates?

The 2007-09 Biennial Operating Budget directs JLARC to review how lease rates are set for state-owned aquatic lands.

Background

In its Constitution, Washington State claims ownership to its aquatic lands:

“The state of Washington asserts its ownership to the beds and shores of all navigable waters in the state up to and including the line of ordinary high tide, in waters where the tide ebbs and flows, and up to and including the line of ordinary high water within the banks of all navigable rivers and lakes...” (Article XVII, §1).

While the state has disposed of a number of these lands, it retains ownership of portions of the original tidelands and shorelands, and all marine bedlands and the bedlands of navigable lakes and rivers.

Statute directs the Department of Natural Resources (DNR) to manage the majority of state-owned aquatic lands (approximately 2.4 million acres). DNR is to balance the following public benefits:

- Encourage direct public use and access;
- Foster water-dependent uses;
- Ensure environmental protection; and
- Utilize renewable resources.

When consistent with the above public benefits, revenue generation is also considered a public benefit.

The Department of Natural Resources generates revenue from aquatic lands by leasing the aquatic lands for private and commercial uses, including: docks and marinas; shellfish and other aquaculture activities; geoduck fishing; and mining of materials such as gravel. These revenues fund DNR aquatic land management activities as well as other local and state programs to enhance aquatic lands and improve public access to these lands.

In addition to statute, federal laws, court decisions, and tribal agreements guide how aquatic lands are to be managed. Other entities, such as the state Department of Fish and Wildlife and the Department of Ecology, have responsibilities to regulate certain activities on both private and publicly owned aquatic lands.

Scope

The proviso directs JLARC to conduct a review of the method used to determine lease rates for state-owned aquatic lands. The review is to include (1) classification of the current lease base and rates by category of use, such as marinas; (2) a review of studies previously completed regarding lease rate formulas; and (3) identification of alternative approaches to calculating aquatic lands lease rates.

Study Objectives

In response to the legislative directive, the study will focus on the following questions:

- 1) What direction does statute give the Department regarding lease rates for state-owned aquatic lands?
- 2) How are state-owned aquatic lands classified? What is the current lease base and lease rates for state-owned aquatic lands?
- 3) How do lease rates differ between categories of use? What are the reasons for these differences?
- 4) What have previous studies of lease rates found, and what did they recommend? Have any of these recommendations been implemented by the Department?
- 5) What are the advantages and disadvantages of various approaches to determining aquatic lands lease rates?

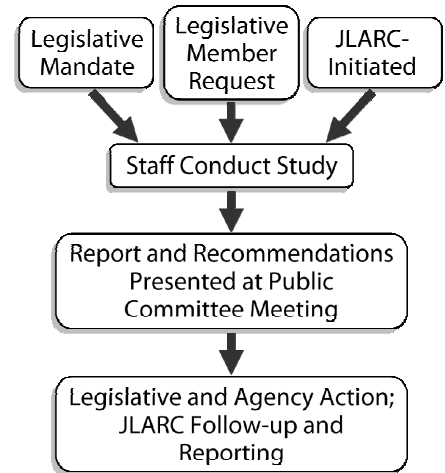
Timeframe for the Study

Staff will present proposed preliminary and final reports at the JLARC meetings in May and June 2008.

JLARC Staff Contact for the Study

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JLARC Study Process



Criteria for Establishing JLARC Work Program Priorities

- Is study consistent with JLARC mission? Is it mandated?
- Is this an area of significant fiscal or program impact, a major policy issue facing the state, or otherwise of compelling public interest?
- Will there likely be substantive findings and recommendations?
- Is this the best use of JLARC resources? For example:
 - Is JLARC the most appropriate agency to perform the work?
 - Would the study be nonduplicating?
 - Would this study be cost-effective compared to other projects (e.g., larger, more substantive studies take longer and cost more, but might also yield more useful results)?
- Is funding available to carry out the project?

APPENDIX 2: AGENCY RESPONSES

Since this report does not include recommendations, agency responses were not submitted.

APPENDIX 3: SPECIFIC STATUTORY DIRECTIVES

Statute provides specific instructions to DNR on how to lease state-owned aquatic lands. This includes directives on how to lease land for water-dependent use, nonwater-dependent use, multiple uses, and aquaculture. Exhibit 9 illustrates specific directives related to leases.

Exhibit 9 – Statute Related to State-Owned Aquatic Land Leases

Statutory Directives
Legislative Intent
RCW 79.105.050: DNR shall foster the commercial and recreational use of state-owned aquatic lands for production of food, fibre, income, and public enjoyment.
RCW 79.105.210: <ul style="list-style-type: none"> • <i>Water-Dependent Uses:</i> The management of state-owned aquatic lands shall preserve and enhance water-dependent uses. Water-dependent uses shall be favored over other uses and priority shall be given to uses which enhance renewable resources, water-borne commerce, and the navigational and biological capacity of the waters. • <i>Nonwater-Dependent Use:</i> Nonwater-dependent use of state-owned aquatic lands is a low-priority use providing minimal public benefits and shall not be permitted to expand or be established in new areas except in exceptional circumstances where it is compatible with water-dependent uses occurring in or planned for the area. • <i>Withhold from Leasing:</i> The department shall consider the natural values of state-owned aquatic lands as wildlife habitat, natural area preserve, representative ecosystem, or spawning area prior to issuing any initial lease or authorizing any change in use. The department may withhold from leasing lands which it finds to have significant natural values, or may provide within any lease for the protection of such values.
All Leases
RCW 79.105.310: Rent shall not be charged for improvements.
RCW 79.125.400: In cases where the tidelands and shorelands are adjacent to private lands, leasing preference is given to private upland owners who must be notified that the adjacent tidelands and shorelands are available for lease.
Water-Dependent Use
RCW 79.105.240: Rent for water-dependent use is 30% of the assessed value of the nearest upland tax parcel (without improvements i.e. a dock) multiplied by the real capitalization rate.
RCW 79.105.240: The nearest comparable upland parcel used for similar purposes may be substituted if the assessed value of the nearest parcel is inconsistent with the purpose of the lease.
RCW 79.105.060: "Water-oriented use" means a use that historically has been dependent on a waterfront location, but with existing technology could be located away from the waterfront. For the purposes of determining rent, water-oriented uses shall be classified as water-dependent uses if the activity is conducted on state-owned aquatic land leased on or prior to October 1, 1984.
RCW 79.105.430: The abutting residential owner to state-owned aquatic lands may install and maintain a dock or a mooring buoy without charge if used exclusively for private purposes.

Statutory Directives
Nonwater-Dependent Use
RCW 79.105.270: Rent for nonwater-dependent use is the fair market value of the leased lands, determined in accordance with appraisal techniques specified in rule. Rents for nonwater-dependent uses shall always be more than the amount that would be charged as rent for a water-dependent use of the same parcel.
Multiple Use
RCW 79.105.290: If there are both water-dependent and nonwater-dependent uses of the state-owned aquatic lands, DNR must prorate the rental rate depending on the whole parcel that each use occupies.
Aquaculture
RCW 79.135.110: The beds of all navigable waters lying below extreme low tide are subject to lease for the purposes of planting and cultivating aquaculture.
RCW 79.135.100: Rules and fees for aquaculture production and harvesting are established through competitive bidding and negotiation.
RCW 79.135.100: DNR may lease an initial 23 acres for geoduck aquaculture, but is prohibited from offering leases that would permit the intertidal commercial aquaculture of geoducks on more than 15 acres of state-owned aquatic lands a year until December 1, 2014. DNR must condition the leases so that it can engage in monitoring and study of the environmental impacts of the lease's execution, without unreasonably diminishing the economic viability of the lease. DNR must notify all abutting landowners and any landowner within three hundred feet of the lands to be leased of the intent of DNR to lease any intertidal lands for the purposes of geoduck aquaculture.

Source: JLARC analysis of statute.

APPENDIX 4: PREVIOUS WASHINGTON LEASE RATE STUDIES AND LEASE RATE METHODS IN OTHER STATES

JLARC reviewed previous Washington lease rate studies and lease rate methods in other states to determine whether there was a recommended or best practice approach for setting lease rates on aquatic lands.

Previous Washington Lease Rate Studies

There are a variety of approaches to setting lease rates for aquatic lands. Previous lease rate studies in Washington have explored a number approaches (Exhibit 10). One theme that is often revisited is basing the lease rate on some percentage of the income. None of the reviewed studies recommended using a method other than the existing formula – 30 percent of the upland parcel value multiplied by the real capitalization rate, which remains in place today.

Exhibit 10 – Previous Washington Lease Rate Studies

Lease Rate Study	Focus	Recommendation/Finding Issued by Study Author
1992 Lease Rate Study of Aquatic Land Leases (DNR)	Examined methods that include: <ul style="list-style-type: none"> • Fair market value • Net income approach • Lineal feet approach for marinas • Net income for wharf type businesses • Base rent plus percent of gross income 	No recommendations.
1998 Rent Study (DNR)	Examined methods in other states including: <ul style="list-style-type: none"> • Income-based • Area-based • Market rate/appraised value 	DNR recommended retaining the current method of lease rate calculation.
2003 whitepaper titled: Trends in the Marina Industry (DNR)	Compared lease rates to slip rates.	DNR found no direct correlation between increases in lease rates and slip rates.
2004 Report on Marina Income and Rent Analysis (Miller & Miller, P.S.)	Examined data collected by DNR for HB 1250 to determine if an income based approach could be computed.	No reliable estimate of gross business income could be made.

Source: JLARC Analysis of Lease Rate Studies and JLARC consultant, McKee & Schalka, Inc.

Lease Rates in Other States

JLARC also reviewed lease rate approaches used in other states and British Columbia. Exhibit 11 illustrates the multitude of methods being utilized in other jurisdictions. The review found no benchmark or best practice approach for setting lease rates. Seven of the eight jurisdictions had an income-based approach as a lease rate setting option.

Exhibit 11 – How Are Lease Rates Determined in Other Jurisdictions?

State	Approach
British Columbia	Multiple approaches: <ul style="list-style-type: none"> • Gross income • Percent of assessed land value • Fixed amount plus a rate for the lease area
California	Gross income approach or percent assessed land value
Florida	Annual income approach or a rate for square footage of the lease area
Maine	Gross income approach or percent of assessed land value
Michigan	Gross income approach
New York	Annual income approach
Oregon	Lease applicants choose one of three methods: <ul style="list-style-type: none"> • Flat rate • Annual income approach • Riparian land value method
Texas	Rate for square footage of the lease area

Source: JLARC consultant, McKee & Schalka, Inc.

APPENDIX 5: CASE STUDIES FOR ESTIMATING MARKET RENT

JLARC contracted with a firm with expertise in land valuation (McKee & Schalka, Inc.) to assist us in understanding options for establishing the value of aquatic lands. Determining the amount to charge for a lease is in part based on some estimate of the value of those aquatic lands. Information on the value of aquatic lands is then helpful for evaluating different approaches to charge for the use of state-owned aquatic lands.

Our experts first note that aquatic lands have value, as do dry lands. However, the difficulty in establishing the value of aquatic lands is the absence of comparative market transactions. Absent those comparative transactions, a method for estimating a market rent was needed. The method used by JLARC's expert is called the residual method.

Based on confidential appraisal information owned by our expert, they compared estimated construction costs (including things such as profit) of five case study marinas to the estimated market value of the marinas. This was used to derive the residual value of the land associated with the marinas.

While informative, the real estate valuation expert notes that the residual method has limitations. Ideally an inspection of each property and a detailed cost analysis of each marina business would provide a more accurate estimate. Thus, while our expert did not actually appraise the market rent for the case studies, the residual value determined by our expert becomes a good proxy for what that appraised market rent might be.

Using this case study residual information to estimate market rent, the real estate valuation expert then compared this market rent to the rent determined by alternative approaches for each of the five case studies. Then this information was used to rank each approach against the Payment of Market Rent criterion. Exhibit 12 presents the results of this analysis.

Appendix 5: Case Studies for Estimating Market Rent

Exhibit 12 – Estimates of Percent of Market Rent for Alternative Methods

Method	Case Studies: Percent of Estimated Market Rent Collected Under Approaches				
	Large Urban Marina	Small Urban Marina	Medium Rural Marina (San Juan Islands)	Medium Urban Marina	Large Urban Marina
Current Approach: Link to Upland Assessed Value	118%	83%	344%	102%	188%
Modified Upland Assessed Value: Change Percentage Link to Upland	98%	69%	286%	85%	157%
Negotiated Fair Market Value	100%	100%	100%	100%	100%
Net Income Approach	83%	99%	615%	135%	89%
Gross Income Approach	83%	96%	501%	141%	66%
1990 Rollback*	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate
Matrix or Flat Rate*	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate
Averaged Uplands Assessed Value Model*	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate
Zone Model	118%	83%	344%	102%	108%
Average Uplands Assessed Value by Zone	115%	66%	77%	23%	73%
Residual Model to Estimate Market Value	100%	100%	100%	100%	100%
*There is not enough specific information in the studies discussing these three methods to apply the residual model estimate.					

Source: JLARC consultant, McKee & Schalka, Inc.

