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DRAFT REPORTS

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## **Department of State Lands 2004-2005 Grazing Fee Advisory Committee Draft/Final Report October 18, 2005**

### **Project Overview/Purpose**

The Department of State Lands (DSL) manages about 632,000 acres of rangeland in Southeastern Oregon primarily in Lake, Harney and Malheur Counties. The lands are considered to be assets of the Common School Fund, a fund established at statehood to provide financial support for Oregon's public K-12 schools. The State Land Board (Board), consisting of the Governor, the Secretary of State and the State Treasurer, are the trustees of the Fund and direct the policies of the Department. Much of the land is leased for grazing. There are 143 lessees each operating under contract with the Department and annually paying fees based upon the carrying capacity of the leasehold and a formula adopted by the Board and implemented by the Department. The last fee formula change was in 1995; the fee itself is adjusted annually in accordance with the provisions of the formula.

In 2004 the Secretary of State's Audits Division released an audit of the Department's rangeland management program(see attachment) and observed that the grazing fee had not been periodically reviewed as required by the Board's rules. In addition, the Audits Division recommended that the fee be increased to the approximate rates reported by the USDA paid by lessees for the use of private non-irrigated grazing lands.

### **The Committee and its Task**

The Director of the DSL determined that the fee formula was in need of review. An advisory committee, representing various interests (the DSL, lessees, rangeland economist, rangeland scientist, local government official, public interests and school beneficiary) was appointed and convened by the Director.

The Committee consisted of the following members:

- John Tanaka, Oregon State University, Cove, range economist
- Larry Larson, Oregon State University, La Grande, range ecologist
- Tom Clemens, Bend, citizen
- Martine Andre, Arock, lessee
- Joe Flynn, Plush, lessee
- Dan Nichols, Harney County Commissioner, Diamond
- George Grier, citizen, Springfield
- Diana Oberbarnscheidt, Bend, representing school beneficiaries
- John Lilly, Assistant Director, Department of State Lands

John Lilly also served as Chair of the Committee and facilitated much of the Committee's discussions.

The Director sought recommendations from the advisory committee regarding the existing grazing fee formula. The Director plans to review the recommendations and report them to the Land Board along with the Department's recommendations for action. No new formula or fee for forage use of rangelands is to be imposed until the Land Board has approved a change in current formula.

The Grazing Fee Advisory Committee was asked to:

1. Review the audit report findings as to the grazing fee;
2. Analyze whether the current rate reflects at least a fair market value rental rate; and
3. Make recommendations to the Director concerning the fee formula.

### **Guiding Principles of the Committee**

The Grazing Fee Advisory Committee, in deliberating over its tasks, was asked by the Director to adhere to the following principles with its recommendations:

1. The Land Board and Department of State Lands must obtain fair market value from the use of Common School Fund trust lands in order to meet fiduciary responsibilities; and
2. The Common School Fund trust lands must be managed to conserve the productivity and sustainability of the lands for the Common School Fund over the long term.

### **Committee Operations/Decisionmaking**

1. The Chair ensured that:
  - Meetings were orderly, meaningful and stayed on schedule;
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3. The Committee allowed for public comment at each meeting. Often the public freely participated in Committee discussions.
4. The advisory committee was supported in its work by the staff of the DSL; and frequently sought the advice of staff.
5. If a member was unable to attend a meeting, the member was allowed to send an alternate to monitor the discussion and report meeting results to the absent member. Alternates were not permitted to participate in consensus discussions.

6. The Committee made its decisions by consensus. For this project, consensus meant that a member could "live with" the recommendation or decision and that the decision was, at a minimum, not inconsistent with the member's interests. When consensus was reached, it usually meant that the members would not work to block the recommendation or decision.

### **Description of Committee Work**

The Committee held 6 meetings in two locations (Bend and Hines) over the term of its work (see schedule below).

September 17, 2004	Bend
December 1, 2004	Bend
January 21, 2005	Hines
February 25, 2005	Bend
April 1, 2005	Bend
May 6, 2005	Bend

The Committee specifically invited public comment at its meeting on January 21, 2005 in Hines.

### **Discussion**

The Committee discussed the factors that influence "fair market value".

### **Findings of the Committee**

1. "Fair market value rental rate" means the rental income that a property owner would most probably command in the open market; indicated by the current rents paid and asked for comparable space. The pool or population of people that form the market must have the operational capacity to utilize and meet the criteria of the lease agreement. It is their ability and willingness to pay different prices for the lease that defines fair market value. Federal grazing permits are not representative of a true open market. The open marketplace for grazing leases tends towards negotiated grazing fees for private non-irrigated grazing. Setting fees via competitive bidding for DSL leases is only possible for new leases, as existing active lessees have rights of renewal provisions.
2. Oregon is the only state that uses a formula based on calf prices derived from sale data. Some states base the fee on beef prices. All state formulas use some form of economic index. The basis for the current Oregon formula was set in 1994.
3. Oregon's current (2005) grazing fee of \$5.03 per AUM ranks as the fifth highest among nine western states (not including California). Arizona, New Mexico, Utah, Wyoming, Idaho, Montana, Washington and Colorado were surveyed. Colorado is the highest at \$8.04; Arizona the lowest, \$2.23. Since 2000 the current fee formula has been increasing the annual fee at a rate that is faster than most Western states. In 2000 only Arizona and Utah had lower grazing fee rates than Oregon. This increase yielded an 18% rise in revenue generated by the fee over the last 5 years.

Prior to 1994, fees were \$2.50 per AUM for "wet" pasture; \$1.25 for "dry" pasture. "Wet" pastures are the lake bed lands as found in the Warner Basin. Lessees paid additional fees to "pay off" the capital costs of improvements financed by DSL. No interest was charged for this money.

4. Of all the fee formulas used by the other states, USDA-NASS data (beef cattle pricing) is used by four states to establish the grazing fee. Grazing lease contracts are similar from state to state. Three states, Colorado, Washington and Wyoming) use NASS data on private non-irrigated grazing land leases to establish the annual grazing fee. States using the NASS private lease information typically discount the fee to account for differences between private and state leases and the services provided by each. Colorado discounts 35%. Colorado contracts with NASS to conduct a survey of private land non-irrigated grazing fees every 4 to 5 years. Over 2800 surveys are sent out. A review of the data collection strategy used by USDA, revealed that the Oregon data would not be statistically valid for Southeastern Oregon, where DSL lands are concentrated, and that acquiring a valid data set could be costly. NASS's Oregon representative offered to conduct an in-depth, reliable survey of SE Oregon ranchers if paid for by DSL.
  
5. Oregon rangelands have a carrying capacity of about 70,000 AUM's. Oregon has 143 leases; 31 lessees pay the minimum rate because their leasehold is small and they run so few stock. The existing population of DSL leases and leaseholders (Table 1) provides a basis for defining some of the common characteristics shared by that portion of the ranch population that meet DSL lease requirements and separates those ranches from ranch operations that form other markets.

**Table 1. DSL Lease Characteristics <sup>1</sup>**

	<b>Acreage</b>	<b>AUM's Pastures</b>	<b>Acres/AUM</b>	<b>AUM/Pasture</b>
<b>Total</b>	540,459	56,379	151	9.6
<b>Average</b>	12,569	1,311	3.5	375

Average grazing use period in a given year is 4.5 months.

<sup>1</sup> Data provided by DSL staff

A typical DSL blocked lands lessee has 290 cow/calf units, or their equivalent, available to utilize an average large block leasehold offered by the state.

The DSL data summarized in Table 1 indicate that the average leaseholder needs to have a herd capacity capable of utilizing a lease for 4.5 months that contains 1311 AUMs spread over 3.5 pastures (375 AUMs / pasture).

6. Oregon has five lessees that have subleased their leasehold to someone else. Subleases must be approved by DSL. 50% of any increased rent from the sublessee is due DSL; only one lessee reports additional fees.

7. The Department's rangeland grazing management program costs are about balanced to revenues (03-04 budget year: Costs \$240,573 and Grazing Fees \$310,648; 04-05: Costs \$363,525 and Fees \$315,563). Costs are expected to increase at a rate faster than revenues due to increased emphasis on rangeland management surveys and weed control. Some costs as in weed and fire control are for land protection and are a typical cost associated with land management. DSL invested about \$50,000 this past year on noxious weed control on rangelands. Since the mid 1990's the Department has invested 12% of the annual revenue from grazing into improvements such as fencing and water.
8. It is difficult to uniformly characterize the operations of current grazing lessees. Each operates their leasehold in accordance with their particular needs. Many lessees use their leaseholds during early spring months when the nutrient value of the forage is the lowest. Most lessees are selling calves as the current fee formula contemplates.
9. AUM's are priced by the current formula as though a cow calf unit grazing from May to September consumed it. AUMs consumed by cows in gestation during late fall and winter are charged at the same rate as though the grazing had occurred between May and September by a cow calf unit.
10. There are no current studies or data specific to DSL lessees that can validate the calf weight gain and marketable calf crop factors of the current formula. However, there is some data from past studies and professional observations (see Appendix A) that are helpful. Lessees have varied rates of weight gain and survival; none report these factors to DSL. DSL has made no attempt to track this information for each lessee. Lessees on the Committee had difficulty establishing the weight gain of their calves while on state leased land. The Eastern Oregon Experiment Station's studies come the closest to corroborating the current fee formula factors for weight gain and survival.
11. There are a number of private non-irrigated grazing leases in the vicinity of the DSL leaseholds that are being leased at a greater value than the DSL land. Private fees appear to be in the range of \$10 to \$12 per AUM with the average being \$11.18. No data exists to show what services, beyond forage and water, private land lessors are providing to their lessees. The private lease data obtained from the open market was from Harney, Lake, Crook, Klamath and Jefferson Counties. There was limited data available from Lake, Crook, Klamath and Jefferson Counties. The data from Harney County contained information that defined some of their market characteristics. An equivalent comparison requires that these leases share similar characteristics with DSL lands. Their productivity should be approximately 9.6 acres per AUM with an average lease length should be 4.5 months. These assumptions yield the following information (Table 2).

**Table 2**  
**Summary of Harney County private lease data**

	Lease Size		
	< 200 acres	400-800 acres	1200-1500 acres
<b># of leases</b>	8	9	3
<b>Average Acreage</b>	132 acres	607 acres	1350 acres
<b>AUMs in lease</b>	13.7	63	140
<b>CC pairs supported for 4.5 months</b>	3	14	31
<b>Average lease fee</b>	\$10.43	\$10.95	\$13.80

The largest private lease category listed in Table 2 contains only 10% (140 AUMs vs. 1311 AUMs) of the carry capacity represented in an average DSL lease. Three private leases in Klamath County range in size from 40,000 acres to 90,000 acres and charge \$10/AUM. Most private land leases are for much smaller acreage leaseholds than DSL's. The marketplace tends towards negotiated grazing fees for private non-irrigated grazing rather than a percent of crop as the DSL formula does currently. There is no comprehensive public database or clearinghouse to readily find actual information about the price being paid for private non-irrigated grazing leases in the area of DSL leaseholds.

12. Southeast Oregon's calves tend to sell for less than those raised and sold in the other western states (e.g. Colorado) because Oregon's crop is farther from the Mid-West feedlots.

13. DSL's lands are more similar to Idaho and Nevada in terms of climate and range productivity.

14. Lessees say that costs associated with maintaining a DSL leasehold are greater than those associated with private leased grazing lands. However, there is little quantitative data on this point. There are studies concerning costs associated with grazing on federal (USFS and BLM) lands. A review of federal leasing indicates that federal lease fees take into account the operational costs absorbed by the rancher while grazing primitive or otherwise undeveloped rangelands. A 1997 study by Van Tassel et al. (Van Tassel, L., A. Torell, N. Rimby and E. Bartlett. 1997. Comparison of forage value on private and public grazing leases. *J. Range Manage.* 50:300-306.) utilized data (Idaho, N. Mexico and Wyoming) from 141 ranches with BLM and 60 ranches with USFS leases to estimate rancher costs. Rancher costs on BLM leases ranged from \$12.15 to \$17.80 per AUM (range contains 90% of ranches; Average AUM cost = \$14.98). Rancher costs on USFS leases ranged from \$16.34 to \$23.84 per AUM (range includes 90% of ranch population; Average AUM cost = \$20.09). DSL leases are not impacted directly by federal mandates that elevate rancher operational costs but do share many commonalities with the hardships of operating an extensive BLM lease on sagebrush steppe.

## **Conclusions**

The Committee spent considerable time discussing the merits of the current fee formula, its ease of understanding, applicability to DSL's leases and the validity of the factors. It also spent a lot of time discussing the lease rates charged by private grazing landowners.

A majority of the members agreed that the current grazing fee formula reflects fair market rental value. However, no one supporting the current formula felt it was adequate as is. Although no one identified the Calf Price as a factor in need of review, each identified other factors that needed attention and additional research. Other factors in need of review include: the State Share (20%); the Weight Gain factor; and considerations for location, access and water.

The best argument that the current fee formula reflects fair market rental value is: (a) it is an amount the buyer (the lessee) is willing to pay; and (b) it represents the relative value of what is being produced (i.e. calves) on the land being leased. All parties agreed that if the Department were to continue to use the current fee formula then the factors need to be reviewed, updated and validated. A well thought out methodology including a disclosure on how the data will be used is considered essential.

Some members (4) disagreed that the current fee formula represents fair market rental value. As their reasons for their conclusions they cited: the lack of recent data to verify the factors, particularly Weight Gain; the private grazing land lease values of about \$11/AUM on comparable lands; the dissimilarity between private land lease ratemaking and DSL (i.e. DSL is not 'acting' like the market); the ease of understanding a fee based on comparables.

There was agreement that *if* private land grazing lease rates were used to establish the DSL grazing fee, they (private lease rates) would likely need to be discounted to reflect differences, if any, in services provided. Ideas for making the adjustment included:

- Adjustment factors could include presence of water and services provided by the landlord or lessee
- Adjustments could be made based on 1991 Colorado study
- Use expanded USDA survey with follow up to increase response
- DSL compile by independently researching private land lease rates for lands in vicinity of state leases.
- Offer 'vacant' state leases through competitive bid to establish market price.
- Compile information about value of current state grazing lease subleases.

The Committee discussed several other points that influence the DSL rangeland program and management by lessees. Among the issues is open public access and obtaining additional revenue from other land users. The public testimony in Hines raised the later point. According to the public testimony and the members of the Committee, open public access to state-owned leased land negatively affects lessees by increasing their costs of operation/management and their risk and liability. For example, lessees have to chase cattle let out through open gates/ broken fences. It was said that recreationists introduce weed seeds into leaseholds through the use of stock or OHV's.

## Recommendations/Discussion

- ***The Committee recommends*** that the current fee formula remain in place and that the Department conduct research necessary to update the formula factors prior to the next scheduled review that shall be no later than 2008. Strong support for this recommendation came from members (4) aligned with grazing interests. Other members (4) supported the recommendations but with less enthusiasm.

One said he would not oppose the recommendation. Among the concerns were: the need for DSL to set a time for the next fee review and not waiver from it; the need to set a 'floor' to the fee; and the need for more data concerning the variables in the formula (e.g. weight gain, survival rate, and state share) that are in need of validation. One member (the range ecologist) recommended that a study be done of the weight gain of calves while on state lease land. He stressed that any research method to validate the formula variables be efficient, accurate and cost effective. The Committee agreed that the current method of using the annual USDA Oregon (statewide) sales data for calves is acceptable. All members agree lessees need to participate in data gathering.

Four of the members strongly opposed replacing the current formula with a fee schedule based on comparable private land lease rates discounted to reflect the services provided by the DSL. This new schedule would need to be adjusted to reflect the relative value of leaseholds by taking into account access, location, fencing, forage value and availability of water. Two members, including the Chair, gave qualified support to this approach. They raised the following concerns: the need to compile and research comparable private land lease rates in order to make the formula reliable and reproducible. Two members opposed this approach because they felt the data needed was lacking; however they endorsed continuing efforts to compile comparable private land lease data prior to next fee review.

- ***The Committee recommends*** that the Department compile private land lease data (including data about services provided and their costs) for the SE Oregon counties for grazing lease lands comparable to DSL leaseholds. Comparable properties will be those of similar size, productivity, forage quality, improvements, access etc. Adjustments may be needed to make sites/rates comparable.

The Committee considered a recommendation that the Department explore closing certain lands to public access and/or providing for controlled or regulated hunts to lessen the management costs of lessees. Several members (4) endorsed this idea; three of those were concerned with the implementation (enforcement) and one with there being insufficient documentation to justify the action. The Chair and two other members did not support this recommendation. The recommendation was revised to gain support of all members.

All but one member of the Committee endorsed a recommendation that the Department investigate the possibility of charging for recreational access to certain rangelands including a fee (pass) for OHV use. As in the previous recommendation, one member is concerned about the implementation of a fee system.

- ***The Committee recommends*** that if the Department is to meet its Trust mandate in the management of rangelands then it must explore and implement, where feasible, other alternatives for revenue production including but not limited to:
  - Charging for public outdoor recreation opportunities such as guided hunting or controlled hunts; and
  - Leasing for alternative energy exploration/production.
 These alternative uses should be pursued while maintaining the grazing uses of the lands and not jeopardizing or violating the current lease agreements.
- ***The Committee recommends*** that the Department amend the grazing fee formula rule to limit the annual AUM fee to no less than \$4.25 per AUM.
- ***The Committee recommends*** that the Department amend the rangeland management rules to set the minimum grazing fee at the amount necessary to recover the Department's cost of lease administration of those small leases.
- ***The Committee recommends*** that the current Range Manager position be established as a permanent position in the DSL budget and that there be added to the budget such seasonal positions as are necessary to continue the range inventory and improvements work.
- ***The Committee recommends*** that a new committee be formed for the next review (2008) of the fee formula and include balanced representation from the public, users and beneficiaries. In addition, the services of a third party facilitator are recommended in order to allow the Department to more freely participate in discussions.

## **Appendices**

Appendix A.....Calf Weight Gain and Marketable Calf Crop Discussion, Larry Larson, range ecologist and member of the Grazing Fee Advisory Committee

Appendix B.....Statements of John Tanaka, range economist and member of the Grazing Fee Advisory Committee

2004 Rangeland Audit

Grazing Fee Advisory Committee Charter

Meeting Summaries

Memoranda

Reports

## **Appendix A**

### **Calf Weight Gain and Marketable Calf Crop Discussion**

Larry Larson, Range Ecologist and member, Grazing Fee Advisory Committee  
May 2005

#### **Calf Weight Gain**

The first index is an estimate of monthly calf weight gain. The estimate assumes that the cow/calf pair is grazing the range for a typical annual lease period, which is 4.5 months.

Calves gaining weight on rangeland require a diet (forage and milk) containing at least 5% digestible protein (Ensminger , NRC 1984). The dominant forage species on DSL rangeland has a digestible protein content near 10% during early spring growth, which will decline to about 4% during seed development (mid June) and fall below 3% during dormancy (after June) (Turner and DelCurto 1991, Cook et al. 1977). In addition to forage consumption, calf weight gains are strongly related to milk production (quality and quantity). The dietary requirements for a lactating cow are typically partitioned into two periods. During the 1st 8 weeks of lactation, milk production requires a diet containing at least 5.4% digestible protein. Milk production during the last 12 weeks requires a diet of 4.5% digestible protein. Given the pattern of forage nutrient content on DSL rangelands, calf weight gains from forage and milk is being impacted by the growth cycle of the rangeland forage. Turner and DelCurto (1991) describe the nutritional and managerial realities of raising cattle on the sagebrush steppe of the High Desert Province in Oregon. Their article (based on 15 years of data from the Eastern Oregon Agricultural Research Center, Burns) indicates that calves gain at a rate of 48 lbs/mo in the first half of May with a steady decline to 6 lbs/mo in the later part of September (Table 1).

**Table 1. Weight gain on lower elevation (4600 ft) sagebrush-bunchgrass and crested wheatgrass range near Burns, Oregon. The numbers represent average weight gain on straight-bred Hereford calves over a 15 year period at the Eastern Oregon Agricultural Research Center, Burns.**

Month	15-day period	lbs/day	calf	
			lbs/mo	
May	1st	1.6		48
	2nd	1.75		52
June	1st	1.6		48
	2nd	1.5		45
July	1st	1.3		39
	2nd	0.75	22	
August	1st	0.7		21
	2nd	0.4		12
September	1st	0.35		10
	2nd	0.2		6
October	1st	0.2		6
May – Sept Average				30

Based on these data the current weight gain estimate (equation) of 30 lbs/mo for a 4.5 month lease period would appear to be representative of DSL rangeland conditions.

### **Marketable Calf Crop**

The second index used in the grazing fee formula is an estimate of the marketable calf crop. Taylor (1994) defines calf crop as the proportion of cows exposed to breeding the previous year that produce a weaned calf. In the United States the average calf crop percentage is estimated to be between 70 and 80%. In addition to reproduction issues these numbers include the influence of drought, severe storms and major disease problems. In 1990, a standardized performance analysis was conducted on 55 beef cattle herds involving 60,000 exposed cows in 12 states yielded an average calf crop percentage of 80% (Taylor 1994). Beef cattle herds utilized in standardized performance analyses are among the best-managed herds in the United States.

Data relating directly to the calf crop percentage observed on sagebrush steppe range was obtained from the Eastern Oregon Agriculture Experiment Station, Burns. A summary of 38 years of station data yielded an average calf crop percentage of 77%, which ranged between a low of 62% to a high of 91%. Given the national and Experiment Station data, the current equation estimate of an 80% calf crop would appear to be representative of rangeland conditions.

## **Appendix B**

Comments of John Tanaka, range economist and member of the Grazing Fee Advisory Committee

Dr. Tanaka's comments originally were submitted via email and respond to a draft of the Grazing Fee Advisory Committee report that offered various options for the Committee's consideration. He was not able to attend the May, 2005 where the options were discussed in detail.

Dr Tanaka's comments are as follows:

Option 1 (Maintain current formula) - This one really comes down to whether the fee that is derived from this reflects true market value (FMV) and helps in the conservation and sustainability of the land (the guiding principles of the committee). I think there are several points in here that are worth discussing. (1) Just as defining FMV is difficult when there is no market, defining sustainability is even harder. It is generally thought to include economic, social, and ecological dimensions. So with that in mind, the fee that is eventually settled upon must meet all 3 tests - economic in the sense meeting fiduciary responsibilities to the trust, social in the sense of the people and communities dependent upon the land, and ecological in the land and its resources. (2) We have been focusing on the factors in the current formula with one of those being weight gains of the animals while on state lands. There is another way to look at that factor. If a ranch is an integrated system where the number of cattle is balanced with the amount of forage available during each season, it could be thought of that the pounds of beef produced is just some % of the total based on the number of months of forage produced on state lands. For example, if the herd is on the state lands for 3.5 months, that is  $3.5/12$  or 29% of the year. If the calf weighs 500 lb at sale, then the amount of weight gain attributable to the state lands is about 145 pounds or 41 lb/month. This assumes that the state lands are critical to produce a calf and without it, either the calf would not be produced or it would weigh, on average, less. There are several issues with this kind of approach, and I am not necessarily advocating it, but it should be on the table. It does get away from discussions of forage quality on state lands, but rather looks at the whole year as being important to produce the product for sale. (3) There are modeling approaches to determining the value of state lands, but that could be part of the research conducted over the next few years if this option were recommended.

Option 2 (Replace current formula with fee schedule based on discounted private land lease rates)- I believe you would also have to conduct research on this alternative if you wanted to be fair. The adjustment factor needs to be determined for southeast Oregon. I believe appraisers would also adjust the value based on the size of the lease, which should also be a subject of research or maybe there is a standard factor that is used.

The last kind of research that may be required is the comparability of the private leases with the public leases in terms of forage value (quantity, quality, season of use, etc.).

Option 3 (Closures for controlled or regulated hunts) - I don't think this is feasible as it would require significant enforcement costs to close areas with any chance of being successful. I think the option should read more like Option 4 if it is to be retained. Also, the extra management costs are part of the adjustment factor in Option 2.

Option 4 (Investigate fee for recreation) - I think this fee would just be an add-on to OHV registration costs and dedicated to the CSF. It should be high enough to cover damages from OHV use and state costs of enforcement.

Again, I apologize for not making the meeting. Use or ignore my comments as you see fit.

**DEPARTMENT OF STATE LANDS**  
**2004-2005 GRAZING FEE ADVISORY COMMITTEE**  
**PROPOSED FINAL REPORT**  
**December 15, 2005**



**Department of State Lands**  
**2004-2005 Grazing Fee Advisory Committee**  
**Final (almost) Report**  
**December 20, 2005**

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January 21, 2005	Hines
February 25, 2005	Bend
April 1, 2005	Bend
May 6, 2005	Bend

The Committee specifically invited public comment at its meeting on January 21, 2005 in Hines.

## **A. Findings of the Committee**

1. "Fair market value rental rate" means the rental income that a property owner would most probably command in the open market; indicated by the current rent paid and asked for comparable space. The pool or population of people that form the market must have the operational capacity to utilize and meet the criteria of the lease agreement. It is their ability and willingness to pay different prices for the lease that defines fair market value. Federal grazing permits are not representative of a true open market. The open marketplace for grazing leases tends towards negotiated grazing fees for private non-irrigated grazing. Setting fees via competitive bidding for DSL leases is only possible for new leases, as existing active lessees have rights of renewal provisions.
2. Oregon is the only state that uses a formula based on calf prices derived from sale data. Some states base the fee on composite beef prices. All state formulas use some form of economic index. The basis for the current Oregon formula was set in 1994.
3. Oregon's current (2005) grazing fee of \$5.03 per AUM ranks as the fifth highest among nine Western states (not including California). Arizona, New Mexico, Utah, Wyoming, Idaho, Montana, Washington and Colorado were surveyed. Colorado is the highest at \$8.04; Arizona the lowest, \$2.23. Since 2000, the current fee formula has been increasing the annual fee at a rate that is faster than most Western states. In 2000, only Arizona and Utah had lower grazing fee rates than Oregon. This increase yielded an 18% rise in revenue generated by the fee over the last five years. The fee for 2006 will be \$X.XX.

Prior to 1994, fees were \$2.50 per AUM for "wet" pasture; \$1.25 for "dry" pasture. "Wet" pastures are the lakebed lands as found in the Warner Basin. Lessees paid additional fees to "pay off" the capital costs of improvements financed by DSL. No interest was charged for this money.

4. Of all the fee formulas used by the other states, USDA-NASS data (beef cattle pricing) is used by four states to establish the grazing fee. Grazing lease contracts are similar from state to state. Three states (Colorado, Washington and Wyoming) use NASS data on private non-irrigated grazing land leases to establish the annual grazing fee. States using the NASS private

lease information typically discount the fee to account for differences between private and state leases and the services provided by each. Colorado discounts 35%. Colorado contracts with NASS to conduct a survey of private land non-irrigated grazing fees every four to five years. Over 2,800 surveys are sent out. A review of the data collection strategy used by USDA, revealed that the Oregon data would not be statistically valid for Southeastern Oregon, where DSL lands are concentrated, and that acquiring a valid data set could be costly. NASS's Oregon representative offered to conduct an in-depth, reliable survey of SE Oregon ranchers if paid for by DSL.

5. Two recent studies of state land grazing in Idaho and Washington revealed the following:
  - a. The 2001 report entitled *Endowment Fund Reform and Idaho's State Lands: Evaluating Financial Performance of Forest and Rangeland Assets* states: "Analysis of the results of studies that have been done in Idaho, and in other states, clearly seems to indicate that the state endowment rangelands are not producing 'maximum long-term financial return' to the beneficiaries, primarily as a result of pricing grazing leases at below-market rates for forage. The reasons seem to be social and political, rather than environmental."
  - b. Washington's 2005 Grazing Program Audit examined representative budgets for lessees. The crop inputs and overhead expenses indicate that the levels of state grazing fees are not a limiting factor for profitability and that there is the opportunity to raise grazing fees without significant economic impacts to either the lessee or surrounding communities.
  
6. Oregon rangelands have a carrying capacity of about 70,000 AUMs. Oregon has 143 leases; 31 lessees pay the minimum rate because their leasehold is small and they run so few stock. The existing population of DSL leases and leaseholders (Table 1) provides a basis for defining some of the common characteristics shared by that portion of the ranch population that meet DSL lease requirements and separates those ranches from ranch operations that form other markets.

**Table 1. DSL Lease Characteristics <sup>1</sup>**

	<b>Acreage</b>	<b>AUM's Pastures</b>	<b>Acres/AUM</b>	<b>AUM/Pasture</b>
<b>Total</b>	540,459	56,379	151	9.6
<b>Average</b>	12,569	1,311	3.5	375

Average grazing use period in a given year is 4.5 months.

<sup>1</sup> Data provided by DSL staff.

A typical DSL blocked lands lessee has 290 cow/calf units, or their equivalent, available to utilize an average large block leasehold offered by the state. The DSL data summarized in Table 1 indicate that the average leaseholder needs to have a herd capacity capable of utilizing a lease for 4.5 months that contains 1311 AUM's spread over 3.5 pastures (375 AUM's/pasture).

7. Oregon has five lessees that have subleased their leasehold to someone else. Subleases must be approved by DSL. Fifty percent of any increased rent from the sublessee is due DSL, only one lessee reports additional fees.
8. The Department's rangeland grazing management operating program costs are about balanced to revenues (03-04 budget year: Costs \$240,573 and Grazing Fees \$310,648; 04-05: Costs \$363,525 and Fees \$315,563). Overall costs are expected to increase at a rate faster than revenues due to increased emphasis on rangeland management surveys and weed control. Some costs as in weed and fire control are considered under the state's accounting system to be 'capital costs' and are not included in the calculation of annual operating costs. These capital costs are added to the value of the land. DSL invested about \$50,000 this past year on noxious weed control on rangelands. Since the mid 1990's the Department has invested 12% of the annual revenue from grazing into improvements such as fencing and water.
9. It is difficult to uniformly characterize the operations of current grazing lessees. Each operates their leasehold in accordance with their particular needs. Many lessees use their leaseholds during early spring months when the nutrient value of the forage is the lowest. Most lessees are selling calves as the current fee formula contemplates.
10. AUM's are priced by the current formula as though a cow/calf unit grazing from May to September consumed it. AUMs consumed by cows in gestation during late fall and winter are charged at the same rate as though the grazing had occurred between May and September by a cow/calf unit.
11. There are no current studies or data specific to DSL lessees that can validate the calf weight gain and marketable calf crop factors of the current formula. However, there is some data from past studies and professional observations (see Appendix A) that are helpful. Lessees have varied rates of weight gain and survival; none report these factors to DSL. DSL has made no attempt to track this information for each lessee. Lessees on the Committee had difficulty establishing the weight gain of their calves while on state leased land. The studies from OSU's Eastern Oregon Experiment Station (38 year data base) come the closest to corroborating the current fee formula factors for weight gain and survival. However, these results may not be representative of the practices of DSL lessees or replicated under current livestock management practices.
12. There are a number of private non-irrigated grazing leases in the vicinity of the DSL leaseholds that are being leased at a greater value than the DSL land. Private fees appear to be in the range of \$10 to \$12 per AUM with the average being \$11.18. No data exists to show what services, beyond forage and water, private land lessors are providing to their lessees. The private lease data obtained from the open market was from Harney, Lake, Crook, Klamath and Jefferson Counties. There was limited data available from Lake, Crook, Klamath and Jefferson Counties. The data from Harney County contained information that defined some of their market characteristics. An equivalent comparison requires that these leases share similar characteristics with DSL lands. Their productivity should be approximately 9.6 acres per AUM with an average use period of 4.5 months. These assumptions yield the following information (Table 2).

**Table 2**  
**Summary of Harney County private lease data**

	<b>Lease Size</b>		
	<b>&lt; 200 acres</b>	<b>400-800 acres</b>	<b>1200-1500 acres</b>
<b>No. of Leases</b>	8	9	3
<b>Average Acreage</b>	132 acres	607 acres	1350 acres
<b>AUMs in Lease</b>	13.7	63	140
<b>CC pairs supported for 4.5 months</b>	3	14	31
<b>Average Lease Fee</b>	\$10.43	\$10.95	\$13.80

The largest private lease category listed in Table 2 contains only 10% (140 AUMs vs. 1,311 AUMs) of the carry capacity represented in an average DSL lease. Three private leases in Klamath County range in size from 40,000 acres to 90,000 acres and charge \$10/AUM. Most private land leases are for much smaller acreage leaseholds than DSL's. The marketplace tends towards negotiated grazing fees for private non-irrigated grazing rather than a percent of crop as the DSL formula does currently. There is no comprehensive public database or clearinghouse to readily locate actual information about the price being paid for private non-irrigated grazing leases in the area of DSL leaseholds.

13. During public testimony, one ranch manager of a 25,000 acre Central Oregon operation and holding a 2500 AUM DSL lease, told the Committee that he leases forage for \$10.13 per AUM for 12 months.
14. Some lessees claim that SE Oregon's calves tend to sell for less than those raised and sold in the other western states (e.g. Colorado) because Oregon's crop is farther from the Mid-West feedlots. Some lessees said they do not always sell their calves in the Eastern Oregon market.
15. While some of the sub areas of Colorado's state rangelands resemble DSL lands in regards to carrying capacity, on average, DSL's lands are more similar to Idaho and Nevada in terms of climate and range productivity.
16. The Committee did not hear any testimony that the forage value of DSL leaseholds was any different than similarly situated and maintained adjacent private grazing lands.
17. Lessees say that costs associated with maintaining a DSL leasehold are greater than those associated with private leased grazing lands. However, there is little quantitative data (DSL) on this point. There are studies concerning costs associated with grazing on federal (USFS and BLM) lands. A review of federal leasing indicates that federal lease fees take into account the operational costs absorbed by the rancher while grazing primitive or otherwise undeveloped rangelands. A 1997 study by Van Tassel et al. (Van Tassel, L., A. Torell, N. Rimby and E. Bartlett. 1997. Comparison of forage value on private and public grazing leases. J. Range Manage. 50:300-306.) Utilized data (Idaho, N. Mexico and Wyoming) from 141 ranches with BLM and 60 ranches with USFS leases to estimate rancher costs. Rancher costs on BLM leases ranged from \$12.15 to \$17.80 per AUM (range contains 90% of ranches; Average AUM cost = \$14.98). Rancher costs on USFS leases ranged from \$16.34 to \$23.84

per AUM (range includes 90% of ranch population; Average AUM cost = \$20.09). DSL leases are not impacted directly by federal mandates that elevate rancher operational costs, but do share many commonalities with the hardships of operating an extensive BLM lease on sagebrush steppe.

18. The Committee briefly discussed the possibilities of obtaining revenue from the DSL rangelands from other uses. The practices of other states such as Colorado and Washington were discussed.
19. A Bend-La Pine School District Board member (Nathan Hovkamp) reminded the Committee that many of Oregon's school districts are in a severe funding crisis and look to the Common School Fund lands to produce revenue for the schools based on what is fair and reasonable to the users.

## **B. Conclusions**

The Committee spent considerable time discussing the merits of the current fee formula, its ease of understanding, applicability to DSL's leases and the validity of the factors. It also spent a lot of time discussing the lease rates charged by private grazing landowners.

A majority of the members (Tanaka, Larson, Andre, Flynn and Nichols) agreed that the current grazing fee formula reflects fair market rental value. However, no one supporting the current formula felt it was adequate as is. Although no one identified the Calf Price as a factor in need of review, each identified other factors that needed attention and additional research. Other factors in need of review include: the State Share (20%); the Weight Gain factor; and considerations for location, access and water.

Those members supporting the current formula felt that the best argument that the current fee formula reflects fair market rental value is: (a) it is an amount the buyer (the lessee) is willing to pay; and (b) it represents the relative value of what is being produced (i.e. calves) on the land being leased. All parties agreed that if the Department were to continue to use the current fee formula, then the factors need to be reviewed, updated and validated. A well thought out methodology including a disclosure on how the data will be used is considered essential.

Some members (Oberbarnscheidt, Grier, Clemens and Lilly) disagreed that the current fee formula represents fair market rental value. As their reasons for their conclusions they cited: the lack of recent data to verify the factors, particularly Weight Gain; the private grazing land lease values of about \$11/AUM on comparable lands; the dissimilarity between private land lease ratemaking and DSL (i.e. DSL is not 'acting' like the market); the ease of understanding a fee based on comparables.

There was agreement that *if* private land grazing lease rates were used to establish the DSL grazing fee, they (private lease rates) would likely need to be discounted to reflect differences, if any, in services provided. Ideas for making the adjustment included:

- Adjustment factors could include presence of water and services provided by the landlord or lessee.
- Adjustments could be made on a basis similar to a 1991 Colorado study.
- Use of an expanded USDA survey with follow up to increase response.

- DSL compile by independently researching private land lease rates for lands in vicinity of state leases.
- Offer 'vacant' state leases through competitive bid to establish market price.
- Compile information about value of current state grazing lease subleases.

The Committee discussed several other points that influence the DSL rangeland program and management by lessees. Among the issues is open public access and obtaining additional revenue from other land users. The public testimony in Hines raised the later point. According to the public testimony and the members of the Committee, open public access to state-owned leased land negatively affects lessees by increasing their costs of operation/management and their risk and liability. For example, lessees have to chase cattle let out through open gates/ broken fences. It was said that recreationists introduce weed seeds into leaseholds through the use of stock or RV's.

### **C. Recommendations/Discussion**

- **Recommendation 1. *The Committee recommends*** that the current fee formula remain in place (with the exception of inclusion of Recommendations 4 and 5) and that the Department conduct research necessary to update the formula factors prior to the next scheduled review that shall be no later than 2008.

#### *Discussion*

Strong support for this recommendation came from members (Nichols, Larson, Flynn and Andre) aligned with grazing interests. Other members (Oberbarnscheidt, Clemens, Lilly and Grier) supported the recommendations but with less enthusiasm. Among the concerns were: the need for DSL to set a time for the next fee review and not waiver from it; the need to set a 'floor' to the fee; and the need for more data concerning the variables in the formula (e.g. weight gain, survival rate, and state share) that are in need of validation. One member (Larson) recommended that, to be accurate, a study be done of the weight gain of calves while on state lease land. He stressed that any research method to validate the formula variables be efficient, accurate and cost effective. The Committee agreed that the current method of using the annual USDA Oregon (statewide) sales data for calves is acceptable. All members agree lessees, where feasible, need to participate in data gathering.

Members (Andre, Larson, Flynn and Nichols) strongly opposed replacing the current formula with a fee schedule based on comparable private land lease rates discounted to reflect the services provided by the DSL. This new schedule would need to be adjusted to reflect the relative value of leaseholds by taking into account access, location, fencing, forage value and availability of water. Two (Grier and Lilly) gave qualified support to this approach. They raised the following concerns: the need to compile and research comparable private land lease rates in order to make the formula reliable and reproducible. Two (Clemens and Oberbarnscheidt) opposed this approach because they felt the data needed was lacking; however, they endorsed continuing efforts to compile comparable private land lease data prior to next fee review.

- **Recommendation 2. *The Committee recommends*** that the Department compile private land lease data (including data about services provided and their costs) for the SE Oregon

counties for grazing lease lands comparable to DSL leaseholds. Comparable properties will be those of similar size, productivity, forage quality, improvements, access etc. Adjustments may be needed to make sites/rates comparable.

- **Recommendation 3. *The Committee recommends*** that if the Department is to meet its Trust mandate in the management of rangelands, then it must explore and implement, where feasible, other alternatives for revenue production including but not limited to:
  - Charging for public outdoor recreation opportunities including but not limited to, guided hunting or controlled hunts; and
  - Leasing for alternative energy exploration/production.

These alternative uses should be pursued while maintaining the grazing uses of the lands and not jeopardizing or violating the current lease agreements.

#### Discussion

The Committee considered a recommendation that the Department explore closing certain lands to public access and/or providing for controlled or regulated hunts to lessen the management costs of lessees. Several members (Grier, Oberbarnscheidt, Larson and Andre) endorsed this idea; two (Larson, Andre) of those were concerned with the implementation (enforcement) and one (Grier) with there being insufficient documentation to justify the action. Lilly, Nichols and Clemens did not support this recommendation. All but Nichols endorsed a recommendation that the Department investigate the possibility of charging for recreational access to certain rangelands including a fee (pass) for RV use. As in the previous recommendation, Larson had concerns for the implementation of a fee system. The recommendation was revised to gain support of all members.

- **Recommendation 4. *The Committee recommends*** that the Department amend the grazing fee formula rule to limit the annual AUM fee to no less than \$4.25 per AUM.
- **Recommendation 5. *The Committee recommends*** that the Department amend the rangeland management rules to set the minimum grazing fee at the amount necessary to recover the Department's cost of lease administration of those small leases.
- **Recommendation 6. *The Committee recommends*** that the current Range Manager position be established as a permanent position in the DSL budget and that there be added to the budget such seasonal positions as are necessary to continue the range inventory and improvements work. (*Note: The 2005 Legislature authorized the Range Manager as a permanent position.*)
- **Recommendation 7. *The Committee recommends*** that a new committee be formed for the next review (2008) of the fee formula with representation from the public, lessees and beneficiaries. The composition of the Committee should be such that there is equal and balanced representation from among the interests. In addition, the services of a third party facilitator are recommended in order to allow the Department to more freely participate in discussions.

## **Appendices**

Appendix A - Calf Weight Gain and Marketable Calf Crop Discussion, Larry Larson, Range Ecologist and member of the Grazing Fee Advisory Committee.

Appendix B - Statements of John Tanaka, Range Economist and member of the Grazing Fee Advisory Committee.

2004 Rangeland Audit

Grazing Fee Advisory Committee Charter

## **Appendix A**

### **Calf Weight Gain and Marketable Calf Crop Discussion**

Larry Larson, Range Ecologist and member, Grazing Fee Advisory Committee May 2005

#### **Calf Weight Gain**

The first index is an estimate of monthly calf weight gain. The estimate assumes that the cow/calf pair is grazing the range for a typical annual lease period, which is 4.5 months.

Calves gaining weight on rangeland require a diet (forage and milk) containing at least 5% digestible protein (Ensminger , NRC 1984). The dominant forage species on DSL rangeland has a digestible protein content near 10% during early spring growth, which will decline to about 4% during seed development (mid June) and fall below 3% during dormancy (after June) (Turner and DelCurto 1991, Cook et al. 1977). In addition to forage consumption, calf weight gains are strongly related to milk production (quality and quantity). The dietary requirements for a lactating cow are typically partitioned into two periods. During the 1st eight weeks of lactation, milk production requires a diet containing at least 5.4% digestible protein. Milk production during the last 12 weeks requires a diet of 4.5% digestible protein. Given the pattern of forage nutrient content on DSL rangelands, calf weight gains from forage and milk is being impacted by the growth cycle of the rangeland forage. Turner and DelCurto (1991) describe the nutritional and managerial realities of raising cattle on the sagebrush steppe of the High Desert Province in Oregon. Their article (based on 15 years of data from the Eastern Oregon Agricultural Research Center, Burns) indicates that calves gain at a rate of 48 lbs/mo in the first half of May with a steady decline to 6 lbs/mo in the later part of September (Table 1).

**Table 1. Weight gain on lower elevation (4,600 ft) sagebrush-bunchgrass and crested wheatgrass range near Burns, Oregon. The numbers represent average weight gain on straight-bred Hereford calves over a 15-year period at the Eastern Oregon Agricultural Research Center, Burns.**

Month 15-day period	Calf	
	lbs/day	lbs/mo
May	1st	48
	2nd	52
June	1st	48
	2nd	45
July	1st	39
	2nd	22
August	1st	21
	2nd	12
September	1st	10
	2nd	6

October	1st	0.2	6
May – Sept Average			30

Based on these data the current weight gain estimate (equation) of 30 lbs/mo for a 4.5 month lease period would appear to be representative of DSL rangeland conditions.

### **Marketable Calf Crop**

The second index used in the grazing fee formula is an estimate of the marketable calf crop. Taylor (1994) defines calf crop as the proportion of cows exposed to breeding the previous year that produce a weaned calf. In the United States the average calf crop percentage is estimated to be between 70 and 80%. In addition to reproduction issues these numbers include the influence of drought, severe storms and major disease problems. In 1990, a standardized performance analysis was conducted on 55 beef cattle herds involving 60,000 exposed cows in 12 states yielded an average calf crop percentage of 80% (Taylor 1994). Beef cattle herds utilized in standardized performance analyses are among the best-managed herds in the United States.

Data relating directly to the calf crop percentage observed on sagebrush steppe range was obtained from the Eastern Oregon Agriculture Experiment Station, Burns. A summary of 38 years of station data yielded an average calf crop percentage of 77%, which ranged between a low of 62% to a high of 91%. Given the national and Experiment Station data, the current equation estimate of an 80% calf crop would appear to be is representative of rangeland conditions.

## **Appendix B**

Comments of John Tanaka, range economist and member of the Grazing Fee Advisory Committee.

Dr. Tanaka's comments originally were submitted via e-mail and respond to a draft of the Grazing Fee Advisory Committee report that offered various options for the Committee's consideration. He was not able to attend the May 2005 where the options were discussed in detail.

Dr Tanaka's comments are as follows:

Option 1 (Maintain current formula) - This one really comes down to whether the fee that is derived from this reflects true market value (FMV) and helps in the conservation and sustainability of the land (the guiding principles of the committee). I think there are several points in here that are worth discussing. (1) Just as defining FMV is difficult when there is no market, defining sustainability is even harder. It is generally thought to include economic, social, and ecological dimensions. So with that in mind, the fee that is eventually settled upon must meet all 3 tests - economic in the sense meeting fiduciary responsibilities to the trust, social in the sense of the people and communities dependent upon the land, and ecological in the land and its resources. (2) We have been focusing on the factors in the current formula with one of those being weight gains of the animals while on state lands. There is another way to look at that factor. If a ranch is an integrated system where the number of cattle is balanced with the amount of forage available during each season, it could be thought of that the pounds of beef produced is just some percent of the total based on the number of months of forage produced on state lands. For example, if the herd is on the state lands for 3.5 months that is 3.5/12 or 29% of the year. If the calf weighs 500 lb at sale, then the amount of weight gain attributable to the state lands is about 145 pounds or 41 lb/month. This assumes that the state lands are critical to produce a calf and without it, either the calf would not be produced or it would weigh, on average, less. There are several issues with this kind of approach, and I am not necessarily advocating it, but it should be on the table. It does get away from discussions of forage

quality on state lands, but rather looks at the whole year as being important to produce the product for sale. (3) There are modeling approaches to determining the value of state lands, but that could be part of the research conducted over the next few years if this option were recommended.

Option 2 (Replace current formula with fee schedule based on discounted private land lease rates)- I believe you would also have to conduct research on this alternative if you wanted to be fair. The adjustment factor needs to be determined for southeast Oregon. I believe appraisers would also adjust the value based on the size of the lease, which should also be a subject of research or maybe there is a standard factor that is used.

The last kind of research that may be required is the comparability of the private leases with the public leases in terms of forage value (quantity, quality, season of use, etc.).

Option 3 (Closures for controlled or regulated hunts) - I don't think this is feasible as it would require significant enforcement costs to close areas with any chance of being successful. I think the option should read more like Option 4 if it is to be retained. Also, the extra management costs are part of the adjustment factor in Option 2.

Option 4 (Investigate fee for recreation) - I think this fee would just be an add-on to OHV registration costs and dedicated to the CSF. It should be high enough to cover damages from OHV use and state costs of enforcement.

Again, I apologize for not making the meeting. Use or ignore my comments as you see fit.

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**DRAFT DRAFT DRAFT DRAFT**  
**Department of State Lands**  
**2004-2005 Grazing Fee Advisory Committee**  
**Draft Final Report**  
**March 3, 2006**

**Project Overview/Purpose**

The Department of State Lands (DSL) manages about 632,000 acres of rangeland in Southeastern Oregon primarily in Lake, Harney and Malheur Counties. The lands are considered to be assets of the Common School Fund, a fund established at statehood to provide financial support for Oregon's public K-12 schools. The State Land Board (Board), consisting of the Governor, the Secretary of State and the State Treasurer, are the trustees of the Fund and direct the policies of the Department. Much of the land is leased for grazing. There are 143 lessees each operating under contract with the Department and annually paying fees based upon the carrying capacity of the leasehold and a formula adopted by the Board and implemented by the Department. The last fee formula change was in 1995; the fee itself is adjusted annually in accordance with the provisions of the formula.

In 2004 the Secretary of State's Audits Division released an audit of the Department's rangeland management program (see attachment). The scope of the audit was to determine if DSL was maximizing long-term income generated from rangeland assets. The report did not explore rangeland characteristics that limit potential revenue or required costs of administration. The Audits Division found that the grazing fee had not been periodically reviewed as required by the Board's rules, was not maximizing revenue and recommended that the fee be increased to approximate lease rates reported by the USDA National Agriculture Statistics Service (NASS) for private non-irrigated grazing lands.

**The Committee and its Task**

The Director of the DSL determined that the fee formula was in need of review. An advisory committee, representing various interests (the DSL, lessees, rangeland economist, rangeland scientist, local government official, public interests and school beneficiary) was appointed and convened by the Director.

The Committee consisted of the following members:

- John Tanaka, Oregon State University, Cove, range economist
- Larry Larson, Oregon State University, La Grande, range ecologist
- Tom Clemens, Bend, citizen
- Martine Andre, Arock, lessee
- Joe Flynn, Plush, lessee
- Dan Nichols, Harney County Commissioner, Diamond
- George Grier, citizen, Springfield
- Diana Oberbarnscheidt, Bend, representing school beneficiaries
- John Lilly, Assistant Director, Department of State Lands

John Lilly also served as Chair of the Committee and facilitated much of the Committee's discussions.

The Director sought recommendations from the advisory committee regarding the existing grazing fee formula. The Director plans to review the recommendations and report them to the Land Board along with the Department's recommendations for action. No new formula or fee for forage use of rangelands is to be imposed until the Land Board has approved a change in current formula.

The Grazing Fee Advisory Committee was asked to:

1. Review the audit report findings as to the grazing fee;
2. Analyze whether the current rate reflects at least a fair market value rental rate; and
3. Make recommendations to the Director concerning the fee formula.

### **Guiding Principles of the Committee**

The Grazing Fee Advisory Committee, in deliberating over its tasks, was asked by the Director to adhere to the following principles with its recommendations:

1. The Land Board and Department of State Lands must obtain fair market value from the use of Common School Fund trust lands in order to meet fiduciary responsibilities; and
2. The Common School Fund trust lands must be managed to conserve the productivity and sustainability of the lands for the Common School Fund over the long term.

### **Committee Operations/Decisionmaking**

1. The Chair ensured that:
  - Meetings were orderly, meaningful and stayed on schedule;
  - All members had an equal opportunity to participate in discussions and deliberations;
  - Meetings were scheduled to meet the time commitments of as many members as possible; and
  - The committee discussed work assignments and future agendas.

The Chair was expected to lead as well as participate in all discussions.

2. All committee meetings were conducted as public meetings. Advance press notices were sent out prior to each meeting. Notices were sent prior to each meeting to lessees and interested parties. Recordings of the meetings were kept and a summary of each meeting compiled and approved by the Committee. All work products are treated as public records.
3. The Committee allowed for public comment at each meeting. Often the public freely participated in Committee discussions.
4. The advisory committee was supported in its work by the staff of the DSL; and frequently sought the advice of staff.
5. If a member was unable to attend a meeting, the member was allowed to send an alternate to monitor the discussion and report meeting results to the absent member. Alternates were not permitted to participate in consensus discussions.

6. The Committee made its decisions by consensus. For this project, consensus meant that a member could "live with" the recommendation or decision and that the decision was, at a minimum, not inconsistent with the member's interests. When consensus was reached, it usually meant that the members would not work to block the recommendation or decision.

### **Description of Committee Work**

The Committee held 6 meetings in two locations (Bend and Hines) over the term of its work (see schedule below).

✓September 17, 2004	Bend
✓December 1, 2004	Bend
January 21, 2005	Hines
February 25, 2005	Bend
April 1, 2005	Bend
May 6, 2005	Bend

The Committee specifically invited public comment at its meeting on January 21, 2005 in Hines.

### **Findings of the Committee**

1. State land grazing studies/audits were recently conducted in Idaho (2001) and Washington (2005). Washington's study done by the Joint Legislative Audit and Review Committee answered the question: "Does the DNR-managed grazing program make money for trust beneficiaries?" The University of Idaho conducted the Idaho study "Evaluating Financial Performance of Forest and Rangeland Assets". Both studies were similar to the Oregon audit in that they looked at the question of maximization of state revenue. Both studies noted that public grazing fees are not established in an open market and that the grazing fee formula is generally arrived at through either cattle price share or discounted private lease sales comparison. Both studies found insufficient lease data within each state to establish fair market value and relied upon range economics literature for guidance in their analysis. The Washington study did not include a thorough examination of all methods to increase revenues on grazing lands. Both studies conclude that revenue maximization was not being achieved under the current grazing fee formulas. However, Washington concludes that, according to its Benefit Cost Assessment methodology, the "status quo provides the greatest net benefit, and second highest beneficiary income" of the alternatives evaluated. The Idaho report says: "It would be difficult to argue that the current income from rangelands is 'maximum long term financial return' as the Idaho Constitution requires. There is undeniably a social value based on tradition in maintaining large areas of rangelands in Idaho, especially when the alternative is land parcelization into smaller units for a variety of land uses...".

2. "Fair market value rental rate" means the rental income that a property owner would most probably command in the open market; indicated by the current rent paid and asked for comparable space. The pool or population of people that form the market must have the operational capacity to utilize and meet the criteria of the lease agreement. It is their ability and willingness to pay different

prices for the lease that defines fair market value. Federal grazing permits are not representative of a true open market. The open marketplace for grazing leases tends towards negotiated grazing fees for private non-irrigated grazing. Setting fees via competitive bidding (true open market) for DSL leases is only possible for new leases, as existing active lessees "in good standing" have rights of renewal provisions.

3. Grazing lease contracts are similar from state to state. However, each state has individualized their grazing fee formula and use a variety of economic indexes. Oregon uses a formula based on calf prices (cattle price share approach) derived from Oregon sale data. The current Oregon formula was implemented by administrative rule by the Land Board in 1995.

$$\text{AUM Grazing Fee} = G \times \text{CC} \times S \times P$$

Where:

G = 30 lb/mo weight gain on the calf in the AUM unit

CC = 80% marketable calf crop from the cow herd

S = State share of 20%

P = Average per lb sales price in Oregon

Prior to 1994, fees were \$2.50 per AUM for "wet" pasture; \$1.25 for "dry" pasture. "Wet" pastures are the lakebed lands as found in the Warner Basin. Lessees paid additional fees to "pay off" the capital costs of improvements financed by DSL. No interest was charged for this money.

4. Oregon rangelands have a carrying capacity of about 70,000 AUM's. Oregon has 143 leases; 31 lessees pay the minimum rate because their leasehold is small and they run so few stock. Subleases must be approved by DSL. Fifty percent of any increased rent from the sublessee is due DSL. There are two subleases with only reporting additional fees. The remaining population of DSL leases and leaseholders (Table 1) provides a basis for defining operational characteristics shared by the ranch population that form the DSL lease market and separates them from ranch operations that form other markets.

**Table 1. DSL Lease Characteristics <sup>1</sup>**

	<b>Acreage</b>	<b>AUM's</b>	<b>Pastures</b>	<b>Grazing Units</b>
<b>Total</b>	540,459	56,379	151	9.6 acres/AUM
<b>Average</b>	12,569	1,311	3.5	375 AUMs/Pasture

Average grazing use period in a given year is 4.5 months.

<sup>1</sup> Data provided by DSL staff

A typical lessee has 290 cow/calf units, or their equivalent, available within their operation to utilize an average block leasehold offered by the state. The DSL data summarized in Table 1 indicate that an average leaseholder utilizes their lease for 4.5 months with 1311 AUMs of forage being consumed over 3.5 pastures (375 AUMs / pasture).

5. Oregon's 2005 grazing fee of \$5.03 per AUM ranked fifth highest among nine western states (Arizona, New Mexico, Utah, Wyoming, Idaho, Montana, Washington, Oregon and Colorado). Colorado is the highest at \$8.04; Arizona the lowest, \$2.23. Since 2000 Oregon's fee formula has been increasing the annual grazing fee at a rate faster than most Western states. In 2000 only Arizona and Utah had lower grazing fee rates than Oregon. The current formula increased grazing fee revenue 35% over the last 7 years (2000-2006). The fee for 2006 is \$5.60, a fee increase of 11.3% over 2005. Calf prices during the period of 2002 to 2006 rose 19.2% and 10.1% between 2005 and 2006.

6. The cost of DSL's rangeland grazing management program is roughly in balance with revenues (03-04 budget year: Costs \$240,573 and Grazing Fees \$310,648; 04-05: Costs \$363,525 and Fees \$315,563). Costs may increase at a rate faster than revenues due to increased emphasis on rangeland condition surveys and weed control. Some costs as in weed and fire control are for land protection and are influenced by non-grazing land use (e.g. public recreation use). Also costs for land improvement and protection are considered under the state's accounting system to be 'capital costs' and are not included in the calculation of annual operating costs and are added to the value of the land. These costs are typical of costs associated with arid land management in the western U.S. DSL invested about \$50,000 this past year on noxious weed control on rangelands. Since the mid 1990's the Department has invested 12% of the annual revenue from grazing into improvements such as fencing and water.

7. The annual operation of current grazing lessees cannot be uniformly characterized. Each leaseholder operates their lease in accordance with their particular needs. Some leaseholders utilize state lands during periods of plant dormancy while others utilize them during the spring and summer months. Almost all lessees sell calves as the current fee formula contemplates.

8. AUM's are priced by the current formula assuming a cow calf unit is grazing on state land between May to September. This assumption maximizes the weight gain on which the fee is calculated. Leaseholders that utilize AUMs during late fall and winter are charged at the May through September rate even though feed value is considerably lower.

9. DSL, like Idaho and Washington, has not been directed to collect data specific to their leases that would validate the current grazing fee formula. This same statement can be made for most if not all the western states that have a rangeland grazing program. This task is expensive and requires replication through time.

10. In the absence of a leaseholder database, the committee turned to research data and literature to evaluate the current formula. Appendix A summarizes information from several studies that relate to the validity of the calf weight gain and marketable calf crop assumptions contained in the current formula. The summary includes an article (1991) that evaluated 15 years of data from the Eastern Oregon Agricultural Research Center (Burns, OR). The data indicates that the weight gain estimates used in the current formula are representative of DSL rangeland conditions (block lands). The marketable calf crop assumption is supported by a 1990 national study of 55 beef cattle herds and 38 years (1966-2004) of research herd management data from the Eastern Oregon Agricultural Research Center (Burns, OR).

11. Given the recommendation of the state audit to utilize NASS statistics, the committee reviewed the use of NASS data in grazing fee formula. USDA-NASS data (beef cattle pricing) is used in the grazing fee formulas of four states. Three states (Colorado, Washington and Wyoming) use NASS

data on private non-irrigated grazing land leases to establish the annual grazing fee. States using the NASS private lease information discount their state grazing fee to account for differences between private and state leases and the services provided by each. The process of defining a discount rate was reviewed and is not straightforward. Criteria, rates and procedures used by the states that have developed a discount rate are variable. For example, Colorado discounts the fee by 35%, but the selection of the discount is not well documented. Colorado contracts with NASS to conduct a survey of private land non-irrigated grazing fees every 4 to 5 years. Over 2800 surveys are sent out. Our review of the data collection strategy used by USDA, revealed that the Oregon data would not be statistically valid for Southeastern Oregon, where DSL block lands are concentrated, and that acquiring a valid data set could be costly and would require replication before each mandated review. NASS's Oregon representative offered to conduct an in-depth, reliable survey of SE Oregon ranchers if paid for by DSL.

12. Given the absence of a public data base or clearinghouse for private non-irrigated grazing lease information, the committee attempted to develop data on private non-irrigated grazing leases that would relate to DSL block lands. Private lease data was obtained from the open market in Harney, Lake, Crook, Klamath and Jefferson Counties. There was limited data available from Lake, Crook, Klamath and Jefferson Counties. Private fees appear to be in the range of \$10 to \$12 per AUM with the average being \$11.18. No data exists to show what services, beyond forage and water, private land lessors are providing to their lessees. The lease data from Harney County contained information that defined their market characteristics. An equivalent comparison to state leases requires that the private leases share similar characteristics with DSL lands. Their productivity should be approximately 9.6 acres per AUM with an average lease length of 4.5 months. The lease data contained the following information (Table 2).

**Table 2**  
**Summary of Harney County private lease data**

	<b>Lease Size</b>		
	<b>&lt; 200 acres</b>	<b>400-800 acres</b>	<b>1200-1500 acres</b>
<b># of leases</b>	8	9	3
<b>Average Acreage</b>	132	607	1350
<b>AUMs in lease</b>	13.7	63	140
<b>CC pairs supported for 4.5 months</b>	3	14	31
<b>Average lease fee</b>	\$10.43	\$10.95	\$13.80

The largest private lease category listed in Table 2 contains only 10% (140 AUMs vs. 1311 AUMs) of the carry capacity represented in an average DSL lease. Three private leases in Klamath County range in size from 40,000 acres to 90,000 acres and charge \$10/AUM. Most private land leases are for much smaller acreage leaseholds than DSL's. These facts indicated that the private lease data presented to the committee came from livestock operations that have a different operational capacity than those of an average state leaseholder (Table 1).

13. DSL block lands have limited potential for generating calf revenue given their average carrying capacity of 9.6 acres per AUM. DSL lands are similar to SW Idaho and NE Nevada in terms of climate and range productivity when compared to the 9 western states that lease grazing land. Some of the subarea's of Colorado's state rangelands resemble DSL lands in regard to carrying capacity.

14. There is little quantitative data that documents the costs associated with maintaining a DSL leasehold. A review of research literature indicates that fee differences between public and private leases are the result of fee discounts that take into account the operational costs absorbed by the rancher while grazing primitive or otherwise undeveloped rangelands. The state share factor in the current fee formula adjusts the grazing fee to reflect the operational costs absorbed by the rancher. A 1997 study by Van Tassel et al. (Van Tassel, L., A. Torell, N. Rimby and E. Bartlett. 1997. Comparison of forage value on private and public grazing leases. J. Range Manage. 50:300-306.) compared costs (Idaho, N. Mexico and Wyoming) from 141 ranches with BLM, 60 ranches with USFS and 134 ranches with private leases to estimate costs being absorbed by ranchers on federal and private leases. The following table is a summary of their findings.

**Table 3**  
**Summary of Rancher Costs (\$/AUM)**

<b>Source</b>	<b>BLM</b>	<b>USFS</b>	<b>Private</b>
Vet & Animal Loss	3.17	4.61	2.22
Moving Livestock	2.61	4.49	1.93
Herding	3.63	5.00	2.94
Salt & Feeding	1.41	1.12	1.80
Water	0.47	0.24	0.11
Maintenance	2.86	3.41	1.84
Other	1.26	3.02	0.49
Permit/Lease Cost	1.92	1.92	7.71
<b>Total</b>	<b>17.33</b>	<b>23.81</b>	<b>19.04</b>

DSL leases are not impacted directly by federal mandates that elevate rancher operational costs but do share many commonalities with the hardships of operating an extensive BLM lease on sagebrush steppe. In 1997 the sale yard price for calves in Oregon was \$0.67 per pound, generating an average AUM gross revenue from state land of \$16.07. All of these data suggest that the cost bore by individuals holding state leases is significant.

### **Conclusions**

The Committee spent considerable time discussing the merits of the current fee formula, its ease of understanding, applicability to DSL's leases and the validity of the factors. It also spent a lot of time discussing the lease rates charged by private grazing landowners.

A majority of the members (Tanaka, Larson, Andre, Flynn and Nichols) agreed that the current grazing fee formula reflects fair market rental value. However, no one supporting the current formula felt that sufficient leasehold data was available to validate the formula. Although no one identified the Calf Price as a factor in need of review, each identified other factors that needed attention and additional research. Other factors in need of review include: the State Share (20%); the Weight Gain factor; and considerations for location, access and water.

Those members supporting the current formula felt that the best argument that the current fee formula reflects fair market rental value is: (a) it is an amount the buyer (the lessee) is willing to pay; and (b) it represents the relative value of what is being produced (i.e. calves) on the land being leased. All parties agreed that if the Department were to continue to use the current fee formula then the factors need to be reviewed, updated and validated. A well thought out methodology including a disclosure on how the data will be used is considered essential.

Some members (Oberbarnscheidt, Grier, Clemens and Lilly) disagreed that the current fee formula represents fair market rental value. As their reasons for their conclusions they cited: the lack of recent data to verify the factors, particularly Weight Gain; the private grazing land lease values of about \$11/AUM on smaller-sized leases (number of cattle/acres); the dissimilarity between private land lease ratemaking and DSL (i.e. DSL is not 'acting' like the market); and the ease of understanding a fee based on comparables.

There was agreement that *if* private land grazing lease rates were used to establish the DSL grazing fee, they (private lease rates) would likely need to be discounted to reflect differences in services provided. Ideas for making the adjustment included:

- Adjustment factors could include presence of water and services provided by the landlord or lessee
- Adjustments could be made on a basis similar to a 1991 Colorado study
- Use of an expanded USDA survey with follow up to increase response
- DSL compile by independently researching private land lease rates for lands in vicinity of state leases.
- Offer 'vacant' state leases through competitive bid to establish market price.
- Compile information about value of current state grazing lease subleases.

The Committee discussed several other points that influence the DSL rangeland program and management by lessees. Among the issues is open public access and obtaining additional revenue from other land users. The public testimony in Hines raised the later point. According to the public testimony and the members of the Committee, open public access to state-owned leased land negatively affects both the landlord and lessee by increasing their costs of operation/management and their risk of liability. For example, lessees have to gather cattle let out through open gates/broken fences and the landlord has additional cost associated with vandalism, weed and erosion control.

### **C. Recommendations/Discussion**

- **Recommendation 1.** *The Committee recommends* that the current fee formula remain in place (with the exception of inclusion of Recommendations 4 and 5) and that the Department collect supplemental data about the leases sufficient to evaluate the formula factors prior to the next scheduled review that shall be no later than 2008.

#### Discussion

Strong support for this recommendation came from members (Nichols, Larson, Flynn and Andre). Other members (Oberbarnscheidt, Clemens, Lilly and Grier) supported the recommendations but with less enthusiasm. Among the concerns were: the need for DSL to set a time for the next fee review and not waiver from it; the need to set a 'floor' to the fee; and the need for more data concerning the variables in the formula (e.g. weight gain, survival rate, and state share) that are in need of validation. One member (Larson) recommended

that, to be accurate, a study be done of the weight gain of calves while on state lease land. The Committee agreed that the current method of using the annual USDA Oregon (statewide) sales data for calves is acceptable. All members agree lessees, where feasible, need to participate in data gathering.

Members (Andre, Larson, Flynn and Nichols) strongly opposed replacing the current formula with a fee schedule based on comparable private land lease rates discounted to reflect the services provided by the DSL. This new schedule would need to be adjusted to reflect the relative value of leaseholds by taking into account access, location, fencing, forage value and availability of water. Two (Grier and Lilly) gave qualified support to this approach. Concerns were raised about the ability of DSL to compile and research comparable private land lease rates in order to make the formula reliable and reproducible. Two (Clemens and Oberbarnscheidt) opposed this approach because they felt the data needed was lacking; however, they endorsed continuing efforts to compile comparable private land lease data prior to next fee review.

- **Recommendation 2. *The Committee recommends*** that the Department compile private land lease data (including data about services provided and their costs) for the SE Oregon counties for grazing lease lands comparable to DSL leaseholds. Comparable properties will be those of similar size, productivity, forage quality, improvements, access etc. Adjustments may be needed to make sites/rates comparable.
- **Recommendation 3. *The Committee recommends*** that if the Department is to meet its Trust mandate in the management of rangelands, then it must explore and implement, where feasible, other alternatives for revenue production including but not limited to:
  - Charging for public outdoor recreation opportunities including but not limited to, guided hunting or controlled hunts; and
  - Leasing for alternative energy exploration/production.

These alternative uses should be pursued while maintaining the grazing uses of the lands and not jeopardizing or violating the current lease agreements.

## **Discussion**

The Committee considered a recommendation that the Department explore closing certain lands to public access and/or providing for controlled or regulated hunts to lessen the management costs of lessees. Several members (Grier, Oberbarnscheidt, Larson and Andre) endorsed this idea; two (Larson, Andre) of those were concerned with the implementation (enforcement) and one (Grier) with there being insufficient documentation to justify the action. Lilly, Nichols and Clemens did not support this recommendation. All but Nichols endorsed a recommendation that the Department investigate the possibility of charging for recreational access to certain rangelands including a fee (pass) for ATV/ORV use. The recommendation was revised to gain support of all members.

- **Recommendation 4. *The Committee recommends*** that the Department amend the grazing fee formula rule to limit the annual AUM fee to no less than \$4.25 per AUM.

- **Recommendation 5. *The Committee recommends*** that the Department amend the rangeland management rules to set the minimum grazing fee at the amount necessary to recover the Department's cost of lease administration of those small leases.
- **Recommendation 6. *The Committee recommends*** that the current Range Manager position be established as a permanent position in the DSL budget and that there be added to the budget such seasonal positions as are necessary to continue the range inventory and improvements work. (*Note: The 2005 Legislature authorized the Range Manager as a permanent position.*)
- **Recommendation 7. *The Committee recommends*** that a new committee be formed for the next review (2008) of the fee formula with representation from the public, lessees and beneficiaries. The composition of the Committee should be such that there is equal and balanced representation from among the interests. In addition, the services of a third party facilitator, with an understanding of grazing permit/lease issues, are recommended in order to allow the Department to more freely participate in discussions.

### **Appendices**

Appendix A - Calf Weight Gain and Marketable Calf Crop Discussion, Larry Larson, range ecologist and member of the Grazing Fee Advisory Committee

Appendix B - Statements of John Tanaka, range economist and member of the Grazing Fee Advisory Committee

2004 Rangeland Audit

Grazing Fee Advisory Committee Charter

(Meeting Summaries, Memoranda & Reports)

## Appendix A

### Calf Weight Gain and Marketable Calf Crop Discussion

Larry Larson, Range Ecologist and member, Grazing Fee Advisory Committee  
May 2005

#### Calf Weight Gain

The first index is an estimate of monthly calf weight gain. The estimate assumes that the cow/calf pair is grazing the range for a typical annual lease period, which is 4.5 months.

Calves gaining weight on rangeland require a diet (forage and milk) containing at least 5% digestible protein (Ensminger, NRC 1984). The dominant forage species on DSL rangeland has a digestible protein content near 10% during early spring growth, which will decline to about 4% during seed development (mid June) and fall below 3% during dormancy (after June) (Turner and DelCurto 1991, Cook et al. 1977). In addition to forage consumption, calf weight gains are strongly related to milk production (quality and quantity). The dietary requirements for a lactating cow are typically partitioned into two periods. During the 1st 8 weeks of lactation, milk production requires a diet containing at least 5.4% digestible protein. Milk production during the last 12 weeks requires a diet of 4.5% digestible protein. Given the pattern of forage nutrient content on DSL rangelands, calf weight gains from forage and milk is being impacted by the growth cycle of the rangeland forage. Turner and DelCurto (1991) describe the nutritional and managerial realities of raising cattle on the sagebrush steppe of the High Desert Province in Oregon. Their article (based on 15 years of data from the Eastern Oregon Agricultural Research Center, Burns) indicates that calves gain at a rate of 48 lbs/mo in the first half of May with a steady decline to 6 lbs/mo in the later part of September (Table 1).

**Table 1. Weight gain on lower elevation (4600 ft) sagebrush-bunchgrass and crested wheatgrass range near Burns, Oregon. The numbers represent average weight gain on straight-bred Hereford calves over a 15 year period at the Eastern Oregon Agricultural Research Center, Burns.**

Month	15-day period	calf	
		lbs/day	lbs/mo
May	1st	1.6	48
	2nd	1.75	52
June	1st	1.6	48
	2nd	1.5	45
July	1st	1.3	39
	2nd	0.75	22
August	1st	0.7	21
	2nd	0.4	12

September	1st	0.35	10
	2nd	0.2	6
October	1st	0.2	6
May – Sept Average			30

Based on these data the current weight gain estimate (equation) of 30 lbs/mo for a 4.5 month lease period would appear to be representative of DSL rangeland conditions.

### **Marketable Calf Crop**

The second index used in the grazing fee formula is an estimate of the marketable calf crop. Taylor (1994) defines calf crop as the proportion of cows exposed to breeding the previous year that produce a weaned calf. In the United States the average calf crop percentage is estimated to be between 70 and 80%. In addition to reproduction issues these numbers include the influence of drought, severe storms and major disease problems. In 1990, a standardized performance analysis was conducted on 55 beef cattle herds involving 60,000 exposed cows in 12 states yielded an average calf crop percentage of 80% (Taylor 1994). Beef cattle herds utilized in standardized performance analyses are among the best-managed herds in the United States.

Data relating directly to the calf crop percentage observed on sagebrush steppe range was obtained from the Eastern Oregon Agriculture Experiment Station, Burns. A summary of 38 years of station data yielded an average calf crop percentage of 77%, which ranged between a low of 62% to a high of 91%. Given the national and Experiment Station data, the current equation estimate of an 80% calf crop would appear to be representative of DSL rangeland conditions.

## **Appendix B**

Comments of John Tanaka, range economist and member of the Grazing Fee Advisory Committee

Dr. Tanaka's comments originally were submitted via email and respond to a draft of the Grazing Fee Advisory Committee report that offered various options for the Committee's consideration. He was not able to attend the May, 2005 where the options were discussed in detail.

Dr Tanaka's comments are as follows:

Option 1 (Maintain current formula) - This one really comes down to whether the fee that is derived from this reflects true market value (FMV) and helps in the conservation and sustainability of the land (the guiding principles of the committee). I think there are several points in here that are worth discussing. (1) Just as defining FMV is difficult when there is no market, defining sustainability is even harder. It is generally thought to include economic, social, and ecological dimensions. So with that in mind, the fee that is eventually settled upon must meet all 3 tests - economic in the sense meeting fiduciary responsibilities to the trust, social in the sense of the people and communities dependent upon the land, and ecological in the land and its resources. (2) We have been focusing on the factors in the current formula with one of those being weight gains of the animals while on state lands. There is another way to look at that factor. If a ranch is an integrated system where the number of cattle is balanced with the amount of forage available during each season, it could be thought of that the pounds of beef produced is just some % of the total based on the number of months of forage produced on state lands. For example, if the herd is on the state lands for 3.5 months, that is  $3.5/12$  or 29% of the year. If the calf weighs 500 lb at sale, then the amount of weight gain attributable to the state lands is about 145 pounds or 41 lb/month. This assumes that the state lands are critical to produce a calf and without it, either the calf would not be produced or it would weigh, on average, less. There are several issues with this kind of approach, and I am not necessarily advocating it, but it should be on the table. It does get away from discussions of forage quality on state lands, but rather looks at the whole year as being important to produce the product for sale. (3) There are modeling approaches to determining the value of state lands, but that could be part of the research conducted over the next few years if this option were recommended.

Option 2 (Replace current formula with fee schedule based on discounted private land lease rates)- I believe you would also have to conduct research on this alternative if you wanted to be fair. The adjustment factor needs to be determined for southeast Oregon. I believe appraisers would also adjust the value based on the size of the lease, which should also be a subject of research or maybe there is a standard factor that is used.

The last kind of research that may be required is the comparability of the private leases with the public leases in terms of forage value (quantity, quality, season of use, etc.).

Option 3 (Closures for controlled or regulated hunts) - I don't think this is feasible as it would require significant enforcement costs to close areas with any chance of being successful. I think the option should read more like Option 4 if it is to be retained. Also, the extra management costs are part of the adjustment factor in Option 2.

Option 4 (Investigate fee for recreation) - I think this fee would just be an add-on to ORV registration costs and dedicated to the CSF. It should be high enough to cover damages from ORV use and state costs of enforcement.

Again, I apologize for not making the meeting. Use or ignore my comments as you see fit.