Exhibit No. 6
Date 1-20-09
Bill No.

# Agricultural Land Productivity Valuation Formula

V=I/R

| | | |
|---|---|---|
| V | = | productivity value of ag use |
| I | = | net income of agricultural use[1] |
| R | = | capitalization rate. The rate converts an on-going income stream into value; by law the rate is 6.4% |

## Non Irrigated Summer Fallow Farmland

| | |
|---|---|
| 2009 Olympic Avg. price for spring wheat | = $4.58/bu. |
| Estimated Productivity | = 20 bu/ac |
| Gross Income/ac. = 20 bu/ac. * $4.58 | = $91.60/ac |
| Net Income per acre = $91.60 *0.125 | = $11.45/ac |

**$11.45/.064 = $178.91 Productive Value/Acre**

| | |
|---|---|
| 2008 Class 3 Tax Rate | = 3.01% |
| Taxable Value (TV) | = $5.39/ac ($178.91 X 0.0301 = $5.39TV) |
| 2008 Effective Mill Levy | = 494.93 |
| Estimated Tax/Acre | = $2.67/ac ($5.39TV X 0.49493 = $2.67) |
| Effective Tax Rate | = 1.49% ($2.67 ÷ $178.91 = 0.01492) |

## Non Irrigated Continuously Cropped Farmland

| | |
|---|---|
| 2009 Olympic Avg. price for spring wheat | = $4.58/bu |
| Productivity | = 20 bu/ac. |
| Income/ac. = 20 bu/ac. * $4.58 | = $91.60/ac. |
| Net Income per acre = $91.60 * .25 | = $22.90/ac |

**$22.90/.064 = $357.81 Productive Value/Acre**

| | |
|---|---|
| 2008 Class 3 Tax Rate | = 3.01% |
| Taxable Value | = $10.77/ac ($357.81 X 0.0301 = $10.77) |
| 2008 Effective Mill Levy | = 494.93 |
| Estimated Tax/Acre | = $5.33/ac ($10.77 X 0.49493 = $5.33) |
| Effective Tax Rate | = 1.49% ($5.33 ÷ $357.81 = 0.01489) |

[1] A crop share approach is used to determine the net income attributable to agricultural production. In a crop share approach, a percentage of the income from production (the share) is attributed to the landlord (owner) of the land. The remaining percentage is considered the tenant's share and includes expenses of production.

## Non Irrigated Cont. Cropped Hay land

| | |
|---|---|
| 2009 Olympic Avg. price for alfalfa | = $63.04/ton |
| Productivity | = 1.25 tons/ac |
| Gross Income/ac. = $63.04 * 1.5 tons | = $94.56/acre |
| Net Income per acre = $94.56 * .25 | = $23.64/acre |

**$23.64/.064 = $369.38 Productivity Value/Acre**

| | |
|---|---|
| 2008 Class 3 Tax Rate | = 3.01% |
| Taxable Value (TV) | = $11.12/ac ($369.38 X 0.0301 = $11.12 TV) |
| 2008 Effective Mill Levy | = 474.45 |
| Estimated Tax/Acre | = $5.28/ac ($11.12 X 0.47445 = $5.28) |
| Effective Tax Rate | = 1.43% ($5.28 ÷ $369.38 = 0.01429) |

## Non Irrigated Cont. Cropped Hay land

**(Minimum Value of irrigated land calculation)**

| | |
|---|---|
| 2009 Olympic Avg. price for alfalfa | = $63.04/ton |
| Productivity | = 1.25 tons/ac |
| Gross Income/ac. = $63.04 * 0.9 tons | = $56.74/acre |
| Net Income per acre = $56.74 * .25 | = $14.19/acre |

**$14.19/.064 = $221.72 Productivity Value/Acre**

| | |
|---|---|
| 2008 Class 3 Tax Rate | = 3.01% |
| Taxable Value (TV) | = $6.67/ac ($221.72 X 0.0301 = $6.67 TV) |
| 2008 Effective Mill Levy | = 474.45 |
| Estimated Tax/Acre | = $3.16/ac ($6.67 X 0.47445 = $3.16) |
| Effective Tax Rate | = 1.43% ($3.16 ÷ $221.72 = 0.01425) |

## Irrigated Land

| | |
|---|---|
| 2009 Olympic Avg. price for alfalfa | = $63.04/ton |
| Productivity | = 3.0 tons/ac |
| Gross Income/ac. = 3.0 tons/ac.* $63.04 | = $189.12/ac |
| Net Income = $189.12 * .25 | = $47.28/acre |
| Water Cost 1 (less than $20.00 allowance) | = ($17.50) |
| Income per acre After Water Cost Deduction | = $29.78 |

**$29.78/.064 = $465.31 Productivity Value/Acre**

| | |
|---|---|
| 2008 Class 3 Tax Rate | = 3.01% |
| Taxable Value (TV) | = $14.01/ac ($465.31 X 0.0301 = $14.01 TV) |
| 2008 Effective Mill Levy | = 472.56 |
| Estimated Tax/Acre | = $6.62/ac ($14.01 X 0.47256 = $6.62) |
| Effective Tax Rate | = 1.42% ($6.62 ÷ $465.31 = 0.01422) |

# Irrigated Land
## Example of Minimum Value

| | |
|---|---|
| 2009 Olympic Avg. price for alfalfa | = $63.04/ton |
| Productivity | = 3.0 tons/ac |
| Gross Income/ac. = 3.0 tons/ac.* $63.04 | = $189.12/ac |
| Net Income = $189.12 * .25 | = $47.28/acre |
| Water Cost 5 (Maximum allowance) | = ($37.50) |
| Income per acre After Water Cost Deduction | = $9.78 |

**$9.78/.064 = $152.81 Productivity Value/Acre; Default value = $221.72**

**15-7-201(f) MCA states "<u>With respect to irrigated land, the recommended value of irrigated land may not be below the value that the land would have if it were not irrigated</u>."**
*When the valuation formula used to calculate the value of irrigated land results in the per-acre value falling below a certain amount, a minimum value equivalent to the value associated with non-irrigated hay land at .9 tons/acre production is assigned to the irrigated acres meeting the "minimum value" criteria.*

| | |
|---|---|
| 2008 Class 3 Tax Rate | = 3.01% |
| Taxable Value (TV) | = $6.67/ac ($221.72 X 0.0301 = $6.67 TV) |
| 2008 Effective Mill Levy | = 472.56 |
| Estimated Tax/Acre | = $3.15/ac ($6.67 X 0.47256 = $3.15) |
| Effective Tax Rate | = 1.42% ($3.15 ÷ $221.72 = 0.01420) |

## Grazing Land

| | |
|---|---|
| 2009 Olympic Avg. private grazing lease | = $15.72/AUM |
| Operating Expense = $15.72 * .25 | = $3.93/AUM |
| Net Operating Income = $15.72 - $3.93 | = $11.79/AUM |
| Productivity | = .30 AUM/Ac |
| Income per acre = $11.79/AUM * .30 AUM/Ac | = $3.54/ac. |

**$3.54/.064 = $55.31 Productivity Value/Acre**

| | |
|---|---|
| 2008 Class 3 Tax Rate | = 3.01% |
| Taxable Value (TV) | = $1.66/ac ($55.31 X 0.0301 = $1.66 TV) |
| 2008 Effective Mill Levy | = 467.88 |
| Estimated Tax/Acre | = $0.78/ac ($1.66 X 0.46788 = $0.78) |
| Effective Tax Rate | = 1.41% ($0.78 ÷ $55.31 = 0.01410) |

# Agricultural Land Reappraisal Impacts
# Before and After Mitigation Impacts

## 2003 Agricultural Land Reappraisal Impacts
**(For the reappraisal cycle beginning on January 1, 2003 and ending on December 31, 2008)**

| 7 Year Olympic Average Commodity Prices | Unit of Measure | 1997 | 2003 | Percent Change |
|---|---|---|---|---|
| Wheat | per bushel | $3.91 | $4.50 | 15.09% |
| Alfalfa | per ton | $54.46 | $62.08 | 13.99% |
| Grazing Fee | per AUM | $11.05 | $12.82 | 16.02% |

| | 1997 | | | | | | |
|---|---|---|---|---|---|---|---|
| Land Classification | Average Productive Value/Acre | Average Taxable Value/Acre @ 3.46% | Average Productive Value/Acre | Average Taxable Value/Acre @ 3.46% | Percent Change Prior to Mitigation | Average Taxable Value/Acre @ 3.01% | Percent Change After Mitigation |
| Grazing Land | $36.57 | $1.27 | $42.43 | $1.47 | 15.75% | $1.28 | 0.56% |
| Summer Fallow Farmland | $151.71 | $5.25 | $174.60 | $6.04 | 15.05% | $5.26 | 0.10% |
| Cont. Cropped Farmland | $449.53 | $15.55 | $517.36 | $17.90 | 15.11% | $15.57 | 0.14% |
| Irrigated Land | $301.35 | $10.43 | $344.51 | $11.92 | 14.29% | $10.37 | -0.58% |
| Non irrigated Cont. Cropped Hayland | $227.42 | $7.87 | $259.27 | $8.97 | 13.98% | $7.80 | -0.84% |
| **Statewide Impact** | **$77.43** | **$2.68** | **$89.23** | **$3.09** | **15.30%** | **$2.69** | **0.37%** |

## 1997 Agricultural Land Reappraisal Impacts
**(For the reappraisal cycle beginning on January 1, 1997 and ending on December 31, 2002)**

| 7 Year Olympic Average Commodity Prices | Unit of Measure | 1993 | 1997 | Percent Change |
|---|---|---|---|---|
| Wheat | per bushel | $3.89 | $3.91 | 0.51% |
| Alfalfa | per ton | $55.52 | $54.46 | -1.91% |
| Grazing Fee | per AUM | $9.14 | $11.05 | 20.90% |

| | 1993 | | | | | | |
|---|---|---|---|---|---|---|---|
| Land Classification | Average Productive Value/Acre | Average Taxable Value/Acre (3.86% Rate) | Average Productive Value/Acre | AverageTaxable Value/Acre @ 3.86% | Percent Change Prior to Mitigation | Average Taxable Value/Acre @ 3.46% | Percent Change After Mitigation |
| Grazing Land | $29.49 | $1.14 | $36.50 | $1.41 | 23.75% | $1.26 | 10.93% |
| Summer Fallow Farmland | $157.70 | $6.09 | $151.93 | $5.86 | -3.66% | $5.26 | -13.64% |
| Cont. Cropped Farmland | $453.27 | $17.50 | $448.59 | $17.32 | -1.03% | $15.52 | -11.29% |
| Irrigated Land | $272.35 | $10.51 | $298.91 | $11.54 | 9.75% | $10.34 | -1.62% |
| Non irrigated Cont. Cropped Hayland | $204.12 | $7.88 | $223.02 | $8.61 | 9.26% | $7.72 | -2.06% |
| **Statewide Impact** | **$72.86** | **$2.81** | **$77.59** | **$3.00** | **6.49%** | **$2.68** | **-4.54%** |

## 1993 Reappraisal Impacts
**(For the reappraisal cycle beginning on January 1, 1994 and ending on December 31, 1996)**

| | 1963 | | | | |
|---|---|---|---|---|---|
| Land Classification | Average Productive Value/Acre | Average Taxable Value/Acre (30% Rate) | Average Productive Value/Acre | Average Taxable Value/Acre (3.86% Rate) | Percent Change/Acre |
| Grazing Land | $3.53 | $1.06 | $28.76 | $1.11 | 4.90% |
| Summer Fallow Farmland | $22.77 | $6.83 | $163.99 | $6.33 | -7.40% |
| Cont. Cropped Farmland | $55.57 | $16.67 | $425.13 | $16.41 | -1.60% |
| Irrigated Land | $30.37 | $9.11 | $291.45 | $11.25 | 23.50% |
| Non-Irrigated Cont. Cropped Hayland | $17.40 | $5.22 | $183.42 | $7.08 | 35.70% |
| **Statewide Impact** | **$9.30** | **$2.79** | **$72.80** | **$2.81** | **0.70%** |

## January 20, 2009

# I. Class Three Property – Agricultural Land

a. *Continued Discussion of Class 3 Data – (Department)*

   i. Brief refresher of data

   ii. Committee Questions

b. Review the five types of agricultural land – (Department)

   i. How they are valued

   ii. Historical trends

c. Review 2003 data the legislature considered for Class 3 and review the mitigation strategy the legislature approved – (Department)

# II. Class Four Property – Residential: Introduction and Overview

a. Specific class four residential statutory requirements (Department)

b. Review reappraisal process that determines values of residential property (Department)

c. Presentation of Class Four Residential Data (Department)

   i. Introduction

   ii. Detailed review

d. Montana Home Sales Analysis and Study (Scott Rickard)