Land Valuation is the process that determines the fair market value of tracts where the Department of the Interior (DOI) will offer to buy fractional interests.
Land Valuation

- LBBP’s need for a high volume of appraisals, within an accelerated timeframe and across various geographical regions of the country, required OAS make a strategic decision to incorporate the Mass Appraisal methodology and other streamlined valuation methods into its appraisal process.

- The OAS completes an appraisal of a fractionated tract by appraising the tract as if it were a single-owner fee status tract, and compares it to similar tracts that have recently sold in the area. Adjustments, based upon market conditions and physical characteristics, are made to account for differences between the tract being appraised and recent land sales.
## Land Valuation Planning

**Sample:** Reservations with 1000s of tracts

<table>
<thead>
<tr>
<th>Agency Name</th>
<th>Parcel Count</th>
<th>Land Use</th>
<th>% of Total Acreage</th>
<th>TOTAL Parcel Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ROCKY MOUNTAIN</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blackfeet (201)</td>
<td></td>
<td>Native Range</td>
<td>0.8600</td>
<td>752,869.03</td>
</tr>
<tr>
<td>S Parcels:</td>
<td>8,478</td>
<td>Dry Crop</td>
<td>0.0986</td>
<td>86,317.31</td>
</tr>
<tr>
<td>B Parcels:</td>
<td>1,639</td>
<td>Irrigated</td>
<td>0.0414</td>
<td>36,242.77</td>
</tr>
<tr>
<td><strong>Total Parcel Count:</strong></td>
<td>10,117</td>
<td></td>
<td>100%</td>
<td>875,429.11</td>
</tr>
<tr>
<td>Crow (202)</td>
<td></td>
<td>Native Range</td>
<td>0.7600</td>
<td>695,655.63</td>
</tr>
<tr>
<td>S Parcels:</td>
<td>8,804</td>
<td>Dry Crop</td>
<td>0.2134</td>
<td>195,332.78</td>
</tr>
<tr>
<td>B Parcels:</td>
<td>3,122</td>
<td>Irrigated Crop</td>
<td>0.0266</td>
<td>24,347.95</td>
</tr>
<tr>
<td><strong>Total Parcel Count:</strong></td>
<td>11,926</td>
<td></td>
<td>100%</td>
<td>915,336.36</td>
</tr>
<tr>
<td><strong>GREAT PLAINS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standing Rock (302)</td>
<td></td>
<td>Native Range</td>
<td>0.9223</td>
<td>651,547.55</td>
</tr>
<tr>
<td>S Parcels:</td>
<td>1,528</td>
<td>Crop</td>
<td>0.0777</td>
<td>54,890.21</td>
</tr>
<tr>
<td>B Parcels:</td>
<td>3,456</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Parcel Count:</strong></td>
<td>4,984</td>
<td></td>
<td>100%</td>
<td>706,437.76</td>
</tr>
<tr>
<td>Pine Ridge (344)</td>
<td></td>
<td>Native Range</td>
<td>0.9766</td>
<td>1,053,542.34</td>
</tr>
<tr>
<td>S Parcels:</td>
<td>1,530</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B Parcels:</td>
<td>6,365</td>
<td>Crop</td>
<td>0.0234</td>
<td>25,243.59</td>
</tr>
<tr>
<td><strong>Total Parcel Count:</strong></td>
<td>7,895</td>
<td></td>
<td>100%</td>
<td>1,078,785.93</td>
</tr>
</tbody>
</table>
Real Estate Appraisal Methodologies
August 5, 2013

- Mass Appraisal- similar and non-complex property type and a sufficient volume of land sales

- Project Appraisal- similar highest and best use of tracts and a similar sale data set can be analyzed

- Individual, Site Specific Appraisal- tract is complex, has unique physical characteristics and there is limited comparable sales data
Land Valuation Planning

Additional Considerations

- Developing and Implementing Information Systems
- Personnel – hiring qualified real estate appraisers and appraisal support staff
- Training
- Contracting
- Tribes and Federal Partners whose decisions and support affect the valuation process, i.e., BLM Cadastral Surveys, OVS-DME and BIA Forestry
# Land Valuation Planning

<table>
<thead>
<tr>
<th>RESERVATIONS</th>
<th>Region</th>
<th>Fractionated Tracts w/ Purchasable Interests</th>
<th>Purchase Estimate</th>
<th>OAS Report Type</th>
<th>OAS/Contract Tribe Completion Date</th>
<th>Mapping Completion Date</th>
<th>DME Completion Date</th>
<th>Offer Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Umatilla, Confederated Tribes of Reservation, Oregon (143)</td>
<td>Northwest</td>
<td>1,015</td>
<td>$12,113,252</td>
<td>Individual</td>
<td>10/23/2015</td>
<td>9/18/15</td>
<td>11/23 to 1/7/16</td>
<td></td>
</tr>
<tr>
<td>Cabazon Band of Mission Indians, California (568)</td>
<td>Pacific</td>
<td>9</td>
<td>$80,742</td>
<td>Individual</td>
<td>12/15/2015</td>
<td>8/19/15</td>
<td>12/28/15 to 2/15/16</td>
<td></td>
</tr>
<tr>
<td>Makah Indian Tribe of the Makah Indian Reservation, Washington (108)</td>
<td>Northwest</td>
<td>257</td>
<td>$2,524,111</td>
<td>Individual</td>
<td>1/30/2016</td>
<td>12/17/15</td>
<td>2/22 to 4/71/16</td>
<td></td>
</tr>
<tr>
<td>Fond du Lac Band - Minnesota Chippewa</td>
<td>Midwest</td>
<td>351</td>
<td>$7,837,753</td>
<td>Project</td>
<td>2/15/2016</td>
<td>12/21/15</td>
<td>3/7 to 4/25/16</td>
<td></td>
</tr>
<tr>
<td>Round Valley Indian Tribes of the Round Valley Reservation, California (540)</td>
<td>Pacific</td>
<td>185</td>
<td>$2,456,371</td>
<td>Project or Individual</td>
<td>3/5/2016</td>
<td>1/30/16</td>
<td>3/28 to 5/23</td>
<td></td>
</tr>
<tr>
<td>Quinault Tribe of the Quinault Reservation, Washington (117)</td>
<td>Northwest</td>
<td>1,422</td>
<td>$19,263,655</td>
<td>MA</td>
<td>3/14/2016</td>
<td></td>
<td>6/27 to 8/15/16</td>
<td></td>
</tr>
</tbody>
</table>
Valuation Phase
Types of Appraisals

1. Mass Appraisal

Definition:
The process of valuing a universe of properties as of a given date using standard methodology, employing common data, and allowing for statistical testing.

Advantages:
- Speed
- Low Unit Cost
- Testable results
Critical Components of Mass Appraisals

- GIS – Geographic Information System
- Robust Database Management Capabilities
- Effective Valuation Models meeting national standards
- OASIS – Appraisal request generation and Information System for OAS
Steps in Mass Appraisal Modeling

- Data Assembly
- Exploratory Data Analysis
- Base Mass Appraisal Model Development
- Full Model is completed
- Sales Ratio Testing
- Model Refinement
- Final Mass Appraisal Model
GIS for Mass Appraisal- Osage and Ponca
GIS for Mass Appraisal - Blackfeet

Red = Appraised Tracts
Yellow = Comparable Sales
Valuation Phase
Types of Appraisals

2. Project Appraisal

- A multi-parcel appraisal that include the appraisal analysis of more than one tract that is documented in a single report.
- The most relevant Approach to Value (Cost, Income or Sales Comparison) is applied to all parcels and the report format follows the requirements under the Uniform Appraisal Standards for Federal Land Acquisitions (UASFLA), Section 17-D.
GIS for Project Report- Bad River
GIS for Project Report- Prairie Band Potawatomi Nation
3. Individual, Site Specific Appraisals

- Individual Appraisals are for a single tract
  - Individual or site-specific appraisals may be used on tracts that are difficult to value simultaneously with tracts amenable to mass appraisal without diminishing the efficiency and cost-effectiveness of the appraisal process.

- Benefits:
  - Tracts with potential economic value in minerals or timber can be left out of the mass appraisal and appraised individually
  - Certain tracts may not be amenable to mass appraisal valuation techniques, such as those located in commercial areas or urbanized zones where greater variation and value may exist
GIS – Individual Site Specific - Squaxin Island
Individual Site Specific- Cabazon
# Appraisal Types and Cost Efficiency

<table>
<thead>
<tr>
<th><strong>Mass appraisal</strong></th>
<th><strong>Individual appraisal</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Many Properties</td>
<td>One property</td>
</tr>
<tr>
<td>Analyze 3-5 years of sales</td>
<td>Analyze 3-5 years of sales; however, the analysis may be limited to most current sales (3-6 months)</td>
</tr>
<tr>
<td>Virtual inspection- thousands</td>
<td>On-site inspection of the one property</td>
</tr>
<tr>
<td>5 to 7 months to be complete a model</td>
<td>2-3 days turnaround*</td>
</tr>
<tr>
<td>Statistical testing of results required</td>
<td>Typically qualitative analysis. May use statistical testing</td>
</tr>
<tr>
<td>Low cost per appraisal report (non-complex/homogeneous)</td>
<td>Higher cost per appraisal report (unique and/or complex)</td>
</tr>
</tbody>
</table>
Different Appraisal Approaches Used to Determine Value?

- The SALES COMPARISON APPROACH is based on similar properties in the vicinity that have sold recently.

- The COST APPROACH is based on the cost to replace or reproduce an existing improvement(s) on the property (i.e. rebuild) after deducting for accrued depreciation and adding land value.

- The INCOME APPROACH is based on the net income the property generates, which converted to market value by a market derived capitalization rate or the Net Present Value estimate of the income stream.
How Property is Appraised

The COST APPROACH is based on the cost to replace or reproduce the existing improvement (i.e., rebuild) after deducting for accrued depreciation and adding land value.
How Property is Appraised

The INCOME APPROACH is based on the income the property generates, capitalized or NPV estimate to determine its market value.
How Property is Appraised

The SALES COMPARISON APPROACH is based on a direct comparison of similar properties in the vicinity that have sold recently.
Use of Appraisals

- Purpose of the Appraisal-
  - For land purchase transaction by USDOI
    - Only valuing surface rights
  - Not applicable for other types of transactions
    - Trespass Damage Estimates
    - Rights of Way
    - Leasing
    - Partitions
    - Loans/mortgages
Thank You.

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Director, OAS

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Deputy Director, OAS/LBBPV
505.816.1127

Mr. Thomas Young
Project Manager
605.390.6158