Vacant Buildable Lands Model

VBLM Presentation to BOCC Work Session
October 9, 2013
Topics

- Model Overview and definition of terms
- History of the VBLM
- Additional Resources
What does the model do?

• Measures acres of developable land
• Based on a formula agreed upon by the Cities, County, and the Community
• Based on the best available data
  • GIS map layers
  • Assessor/Treasurer records
VBLM is actually 3 models

- Residential
- Commercial
- Industrial

Source: Comprehensive Plan map
50 designations grouped into the 3 models
Comprehensive Plan Grouped into VBLM Classifications
What is Vacant?

Residential
  Building Value < $13000

Commercial
  Building Value < $67,000

Industrial
  Building Value < $67,000

Source: Assessor
Battle Ground Vacant Land
Underutilized Property

Larger parcels with a structure that could subdivide.

Building Value per Acre (BVA) = Building Value / Number of Acres

Residential
  Minimum lot size 1 acre
  Bottom 20th percentile of BVA

Commercial /Industrial
  BVA less than $50,000

Source: Assessor
Battle Ground Vacant Lands Inventory
Not Vacant or Underutilized

Built Classifications
- Built (undifferentiated)
- Easements and Right of Way
- Parks
- Private Open space
- Public Facilities
- Exempt Properties
- Court Yards
- Mansions
- Condos
- Mobil Home Parks
Rates of Development

- Vacant land will develop faster than Underutilized
- Some land will never develop
  - A larger portion of Underutilized will not develop
- Environmental Constraints will further limit development potential
Environmental Constraints

Limit development on vacant or underutilized land

Steep Slopes
Landslide Areas
Riparian Areas
Flood plains
Wetlands
Habitat and Species

Source: GIS Layers
Viewing the model through time.

1996 - 2013
Model Runs

Model parameters:
- Year: Selects Assessment Year, Parcel Layer
- UGA Boundary: Sets the extent for each city
- Comprehensive Plan:

A Letter is assigned to each UGA alternative. Adopted plan keeps the letter.

Adopted Model Names.
1994: P
2004: J
2007: V
Battle Ground Residential Gross Acres
Battle Ground
Commercial Gross Acres

![Graph showing data for Battle Ground commercial gross acres with categories: Removal, Underutilized Constrained, Underutilized, Vacant Constrained, and Vacant.](image-url)
Battle Ground
Commercial Gross Acres
Battle Ground
Industrial Gross Acres
Countywide Time Series
County wide Residential Gross Acres
County wide Commercial Gross Acres
County wide
All Vacant Buildable Land

[Bar chart showing data for various years with categories: Removals, Industrial, Commercial, Residential]
Gross acres to Net acres

1. **Never to convert (residual)**
   0% - 50% depending on VBLM class

2. **Environmental Constraints**
   0% - 50% depending on VBLM class

3. **Infrastructure (right of way, storm water facilities)**
   25% - 27.7% depending on VBLM class

4. **Mixed Use split**
   - Gross acres split into commercial and residential
   - Depending on Comprehensive Plan designation
     Mixed Use: 60% Residential - 40% Commercial
     MU – Residential: 85% Residential - 15% Commercial
     MU – Employment: 25% Residential - 75% Commercial
Gross Acres to Net Acres

Residential

MU-E Underutilized Constrained
MU-E Underutilized
MU-E Vacant Constrained
MU-E Vacant
MU-R Underutilized Constrained
MU-R Underutilized
MU-R Vacant Constrained
MU-R Vacant
Mixed Use Underutilized Constrained
Mixed Use Underutilized
Mixed Use Vacant Constrained
Mixed Use Vacant
Underutilized Constrained - High
Underutilized Constrained - Low
Underutilized - High
Underutilized - Low
Vacant Constrained - High
Vacant Constrained - Low
Vacant - High
Vacant - Low

- Will Not Convert Acres
- Infrastructure Acres
- Developable Net Acres
# Yield Report

Gross to Net GIS Acres Report for Vancouver

**Model Name:** Annual Update  
**Model Year:** 2013  
**Model Plan:** v

### *** Residential ***

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<thead>
<tr>
<th></th>
<th>VBLM Gross Acres</th>
<th>Will Not Convert Acres</th>
<th>Infrastructure Acres</th>
<th>Developable Net Acres</th>
<th>Housing Units</th>
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Yield Report

Gross to Net GIS Acres Report for Vancouver
Model Name: Annual Update
Model Year: 2013

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Commercial (40%) - Residential Split (60%)
Origins

1992-1994

- County GIS 2 years old
- Translate VBLM concept into GIS model
- Discover best available computer databases
- No Aerial Photos for QA/QC
- A single model result consumed 20% of GIS disk space. Each model overwrote the last
- Model run time 3 days
1995-1999

- Annual Model Run
- Gradual improvement of Assessor data for VBLM purpose
- 1996 GIS data archive on CDROM begins.
- 1998 Google is founded
2000

- Plan Monitoring Technical Advisory Committee (TAC) evaluates model
  - Responsible Growth Forum
  - Friends of Clark County
2000 Plan Monitoring TAC Model Review

- Model results field checked
- Model revised
  - Mobile Home Parks classified as built
  - Building Values Increased for Inflation
  - Common Areas and Courtyards added to easements category
- Residential Underutilized criteria revised.
2002

- Historical Models Added (compare apples to apples)
- Scenarios are added (CREDC, Home Builders, Cities)
- Model takes 8 hours to run
2003-2005

- 2003 Parcel Layer Accuracy improved
- 2004 New County wetlands inventory

- 2004 First UGA expansion
  - New Comprehensive Plan
Parcels Layer Adjustment
New Slope Layer

- 2002 Lidar Flight
  - 2 foot contours county wide
  - New slope layer based on contours
  - Old Slope layer based on soil types

FEMA uses contours information to update floodplain maps
Contours also used to improve wetlands
Clark County Wetlands Inventory
2005

• 2005 Model Review
  • Evaluation of model over time
    • Actual development patterns vs. 1994 predictions

• Model revisions
  • Residential
    • Underutilized value criteria switched to Building Value per Acre (BVA)
  • Commercial and Industrial models combined
    • Underutilized changed to Building Value per Acre
  • Environmental Constraints independent of parcel configuration
Environmental Constraints

Parcels with Environment Constraints do develop
Environmental Constraints should be independent from the parcel configuration
Ridgefield
Annotated
Building Value by Acre

All Residential Property (inside UGA)

20% Revised Model

Underutilized Range
74,000 – 325,000
(Old Model)
Results of VBLM Study

Underutilized
- Simplified (single building value per acre)
- Allows for inflation adjustment
- Compensates for platted acreage subdivisions
- Added to industrial underutilized
- Works in expansion areas. (Farms with houses or barns)

Easements and infrastructure
- Based on development patterns on vacant land
- Considers existing infrastructure

Environmental Constraints
- Compensates for mapping limitations
- Based on development patterns
2007

- New UGA Boundary and Comprehensive Plan Adopted
2013

- Remaining Issues?
  - Fixed values
    - Residential Vacant Building Value < $13,000
    - Commercial Vacant Building Value < $67,500
    - Commercial Underutilized BVA Value < $50,000 dollars per acre.
2013

- **Comprehensive Plan Web Site**
  - Better/faster access to information

- Model runs in under an hour
  - Reran all 17 historic models for this presentation