San Juan County Draft Methodology Land Capacity Analysis (LCA)

County Council

October 16, 2017

Purpose – End Result

- Determine how much capacity for development remains in the County in each land use designation and each island
- Capacity reported in building square feet for non-residential development and dwelling units for residential development by land use designation and island.
- This presentation is a limited summary of the methodology outlined in the accompanying report.

Overall Process

- **Categorize all parcels** as fully developed or developable and create Gross Developable Land Inventory
- **Deduct critical areas and buffers** from Gross Developable Land Inventory to create Net Developable Land Inventory
- **Analyze past development trends**
- **Calculate gross housing and development capacity** on parcel basis
- **Calculate final capacity calculations** by deducting market factors, seasonal home factors, occupancy rates from Gross capacity.

Step 1. Prepare LCA County Land Base and Gross Developable Land Inventory

LCA Land Base - Parcel base with all parcels categorized as:

- Fully developed,
- Public/conservation,
- Vacant,
- Partially-used, or
- Re-developable

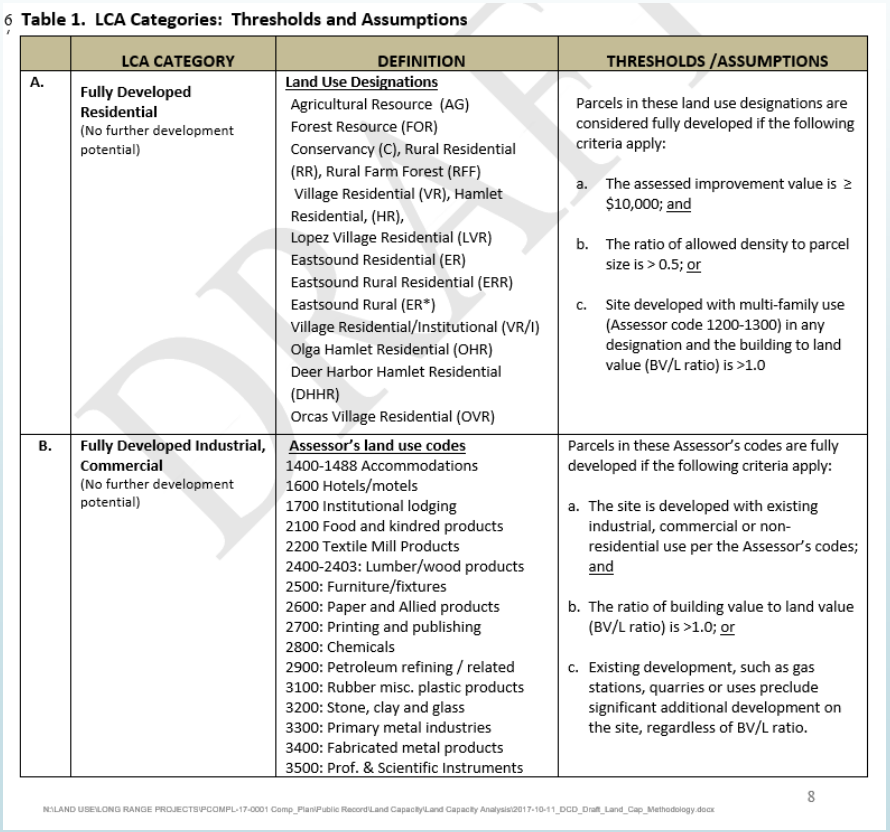
Gross Developable Land Inventory

LCA Parcel Base

-Fully developed parcels

-Public, utility and conservation parcels

= Gross Developable Land Inventory



6 **Table 1. LCA Categories: Thresholds and Assumptions**

	LCA CATEGORY	DEFINITION	THRESHOLDS /ASSUMPTIONS
A.	**Fully Developed Residential** (No further development potential)	**Land Use Designations** Agricultural Resource (AG) Forest Resource (FOR) Conservancy (C), Rural Residential (RR), Rural Farm Forest (RFF) Village Residential (VR), Hamlet Residential, (HR), Lopez Village Residential (LVR) Eastsound Residential (ER) Eastsound Rural Residential (ERR) Eastsound Rural (ER*) Village Residential/Institutional (VR/I) Olga Hamlet Residential (OHR) Deer Harbor Hamlet Residential (DHHR) Orcas Village Residential (OVR)	Parcels in these land use designations are considered fully developed if the following criteria apply: a. The assessed improvement value is ≥ $10,000; and b. The ratio of allowed density to parcel size is > 0.5; or c. Site developed with multi-family use (Assessor code 1200-1300) in any designation and the building to land value (BV/L ratio) is >1.0
B.	**Fully Developed Industrial, Commercial** (No further development potential)	**Assessor's land use codes** 1400-1488 Accommodations 1600 Hotels/motels 1700 Institutional lodging 2100 Food and kindred products 2200 Textile Mill Products 2400-2403: Lumber/wood products 2500: Furniture/fixtures 2600: Paper and Allied products 2700: Printing and publishing 2800: Chemicals 2900: Petroleum refining / related 3100: Rubber misc. plastic products 3200: Stone, clay and glass 3300: Primary metal industries 3400: Fabricated metal products 3500: Prof. & Scientific Instruments	Parcels in these Assessor's codes are fully developed if the following criteria apply: a. The site is developed with existing industrial, commercial or non-residential use per the Assessor's codes; and b. The ratio of building value to land value (BV/L ratio) is >1.0; or c. Existing development, such as gas stations, quarries or uses preclude significant additional development on the site, regardless of BV/L ratio.

LCA Land Base Assumptions

Fully developed

- Assessed improvement value ≥$10,000 and ratio of allowed density to parcel size > 0.5
- Site developed with an existing multi-family or non-residential use and the building to land value > 1.0

Public, Utility and Conservation – Uses considered to have no further development potential

Vacant

- Assessed improvement value < $10,000

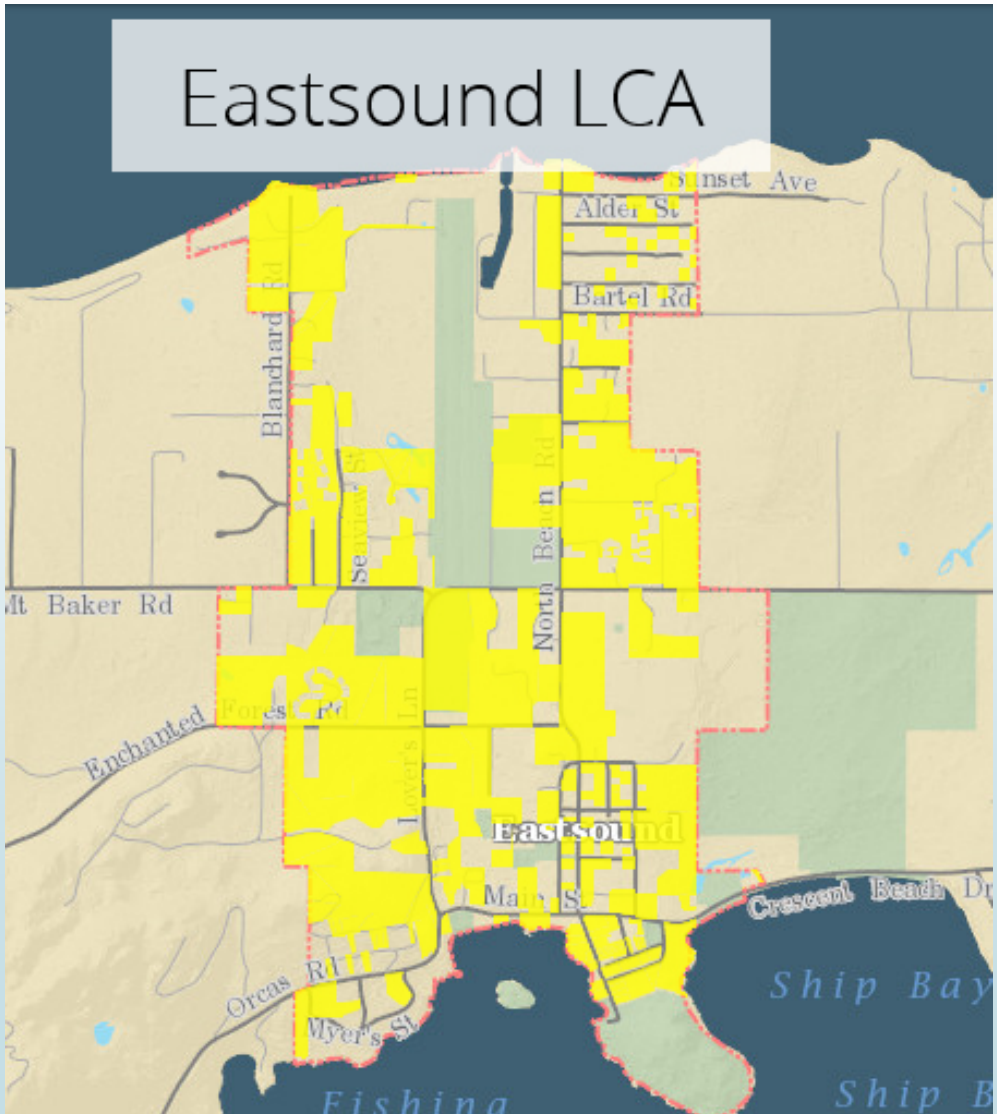
Redevelopable (Commercial, Industrial, mixed use)

- Ratio of building value to land value < 1.0 or
- Developed with a single family residence

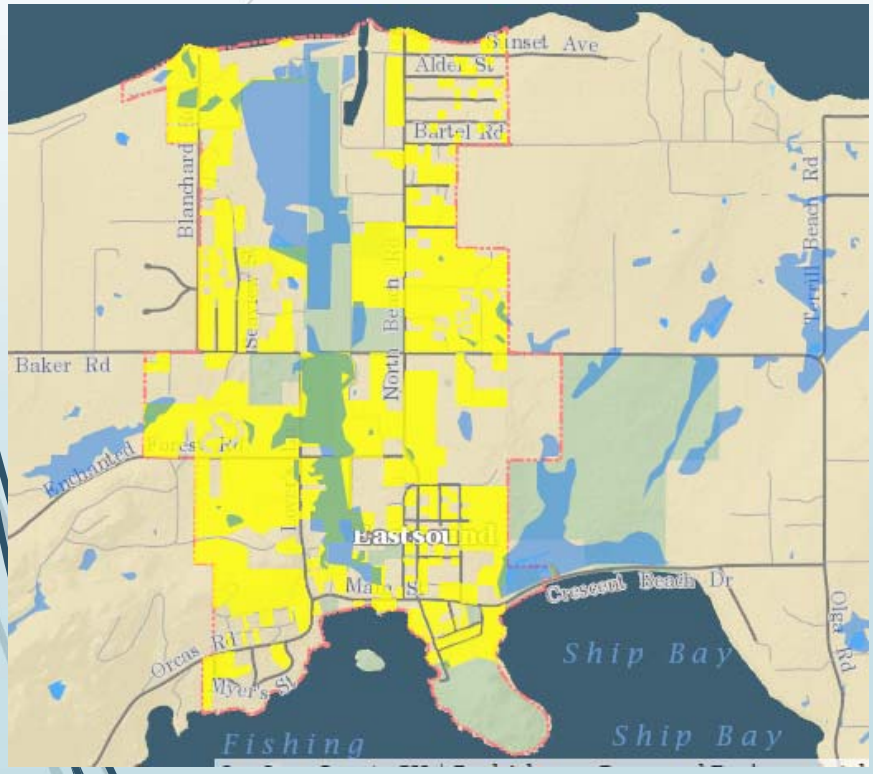
Partially Used (Residential)

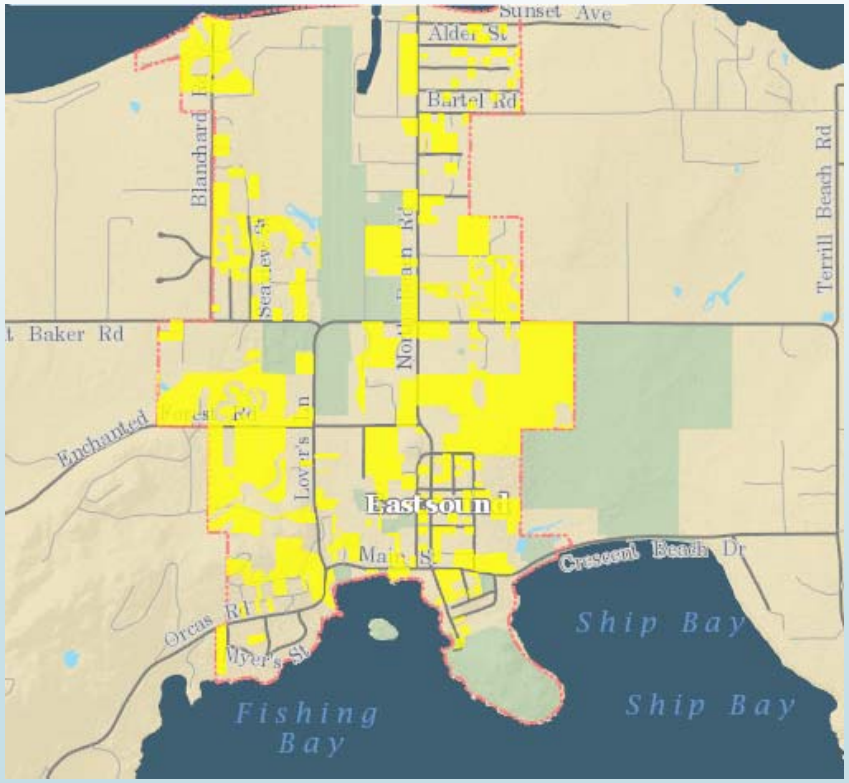
- Assessed value ≥ $10,000 and ratio of allowed density to parcel size is ≤0.5

Gross Developable Land Inventory

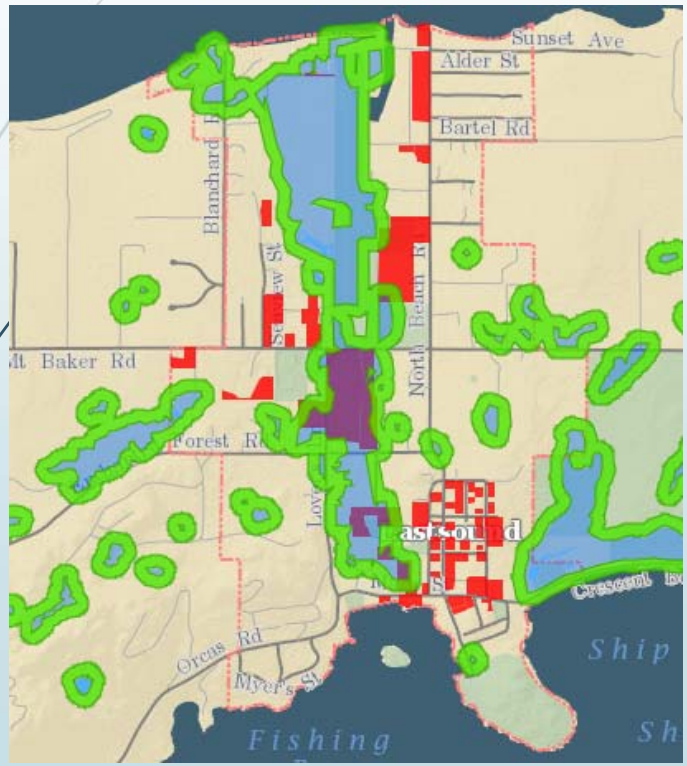


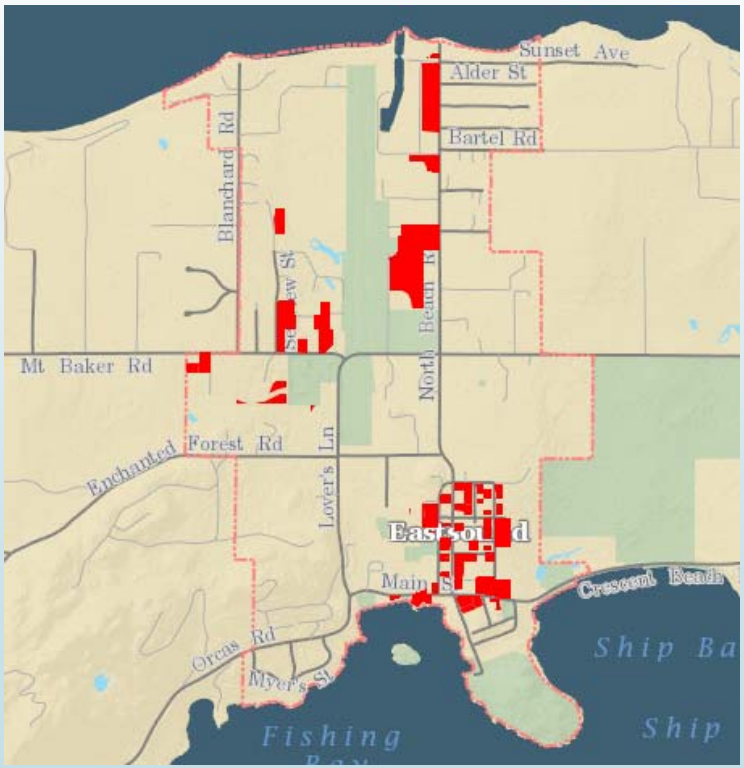
Step 2. Prepare Inventory of Net Developable Land for Residential and Commercial, Industrial and Mixed-Use lands





Deduct critical area buffers from commercial, industrial and mixed-use lands





Critical Area Assumptions

Critical Area Deductions

- Wetlands: The County's possible wetland inventory.
- Streams: The County's base stream dataset with stream centerlines and an assumed 35 feet of non-buildable area on either side of the centerline.
- Steep Slopes: Areas with slopes greater than 50 percent which are considered Category 1 geo-hazards.
- Flood Plain: Land located within 100-year floodplains as shown on the FEMA maps.
- Other Undevelopable Areas: Mitigation and old dump sites that are not available or suited for development.

Critical Area Buffers (commercial, industrial and mixed-use deductions)

- A 150 foot wetland buffer because most of the County's wetlands are Class III or Class IV
- 110 feet from the centerline for Type F (Type 2 or 3) streams and ponds (assuming an 8 foot wide stream);
- 110 feet from the Ordinary High Water Mark (OHWM) for marine shorelines containing FWHCAs and ponds, excluding Eastsound Waterfront Access Plan and master planned resorts;
- 50 feet from the bank full width for Type Np (Type 4) streams;
- 30 feet from the bank full width for Type Ns (Type 5) streams; and
- 30 feet from the bank full width for un-typed streams.

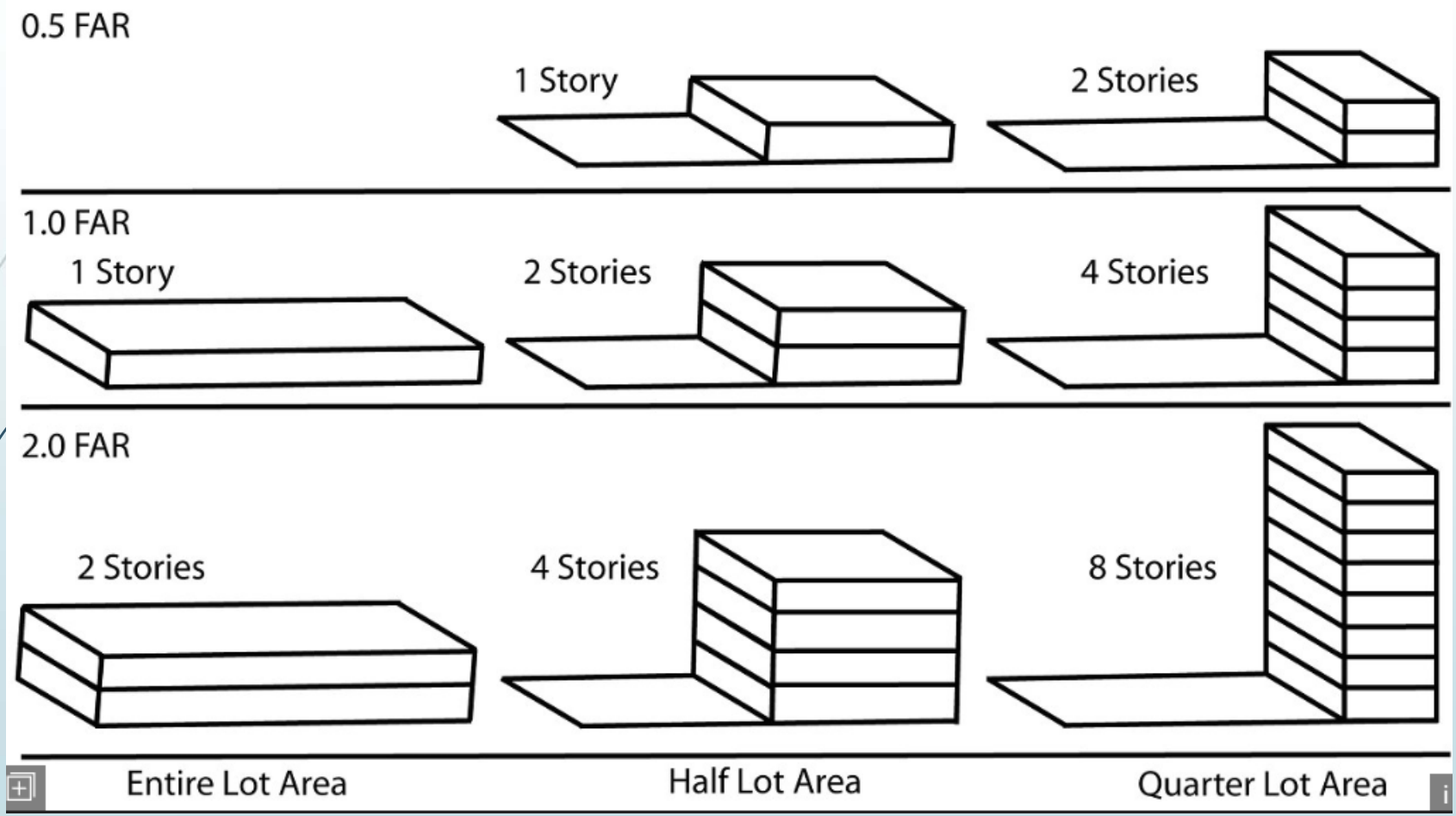
Step 3. Calculate Existing Floor Area Ratios (FAR), Summarize Development Trends and Pending Development

- A method to forecast future capacity on developable land – converting gross land area to building square feet or dwelling units.
- Existing Floor Area Ratios – provides a metric for forecasting future development capacity.
- Development Trends – information about achieved densities and floor area ratios over the last 10 years.
- Pending Development – Permitted but not yet completed is more accurate in most cases than calculated capacity.

Landuse	Island	totalBldgFAR
ER1	Orcas	0.0637
ER1P	Orcas	0.0475
ER2	Orcas	0.491
ER2P	Orcas	0.2191
ER412	Orcas	0.4794
ER4P	Orcas	0.2363
M	Orcas	0.038
SLI	Orcas	0.1673
VC	Orcas	0.3583
VCL	Orcas	0.3321
VR	Orcas	0.5902
W	Orcas	0.0098

½ acre Village Commercial X .3583 =
(43560 sf/2) x.3583 = 7,803.77 sf building

Floor Area Ratio



Step 4. Calculate and Map Gross Housing and Development Capacity

- Convert Net Developable Land from Step 2 into capacity measured in housing units and square feet of building.
- For residential capacity, conversion from acres to housing units is based on Comprehensive Plan density designation (for example ERP4-12)
- For commercial and industrial capacity, conversion from acres to building square feet based on existing Floor Area Ratio calculated in Step 3.
- Achieved densities and floor area ratios from 10 year development history may modify the conversion factors.
- For mixed-use capacity, land will be converted to building square feet of non-residential development and dwelling units per acre. Conversion based on development history in Village Commercial.
- Three capacity maps created: Residential, Commercial and Industrial and Mixed-use.

Step 5. Calculate Final Capacity

- Final capacity includes deductions from Gross Capacity to account for market factors, seasonal/second home factors, and vacancy rates.
- Housing units are converted to population using 2.04 persons per household.
- Calculated in excel tables by island and land use designation and not mapped.

Final Capacity Deduction Assumptions:

- Public Use Factor: -5% (all designations)
- Market Factor: -25% (all designations)
- Seasonal/Recreational Home Factor: -25% (residential designations only)
- Master Plan Resort Market Factor: TBD based on Step 3.