SAN JUAN COUNTY DEPARTMENT OF COMMUNITY DEVELOPMENT

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MEMO

MEMO DATE:	September 9, 2019
TO:	San Juan County Council San Juan County Planning Commission
CC:	Mike Thomas, County Manager Erika Shook, AICP, DCD Director Linda Kuller, AICP, DCD Deputy Director Daniel Root, GIS Program Coordinator
FROM:	Adam Zack, Planner III
SUBJECT:	2036 Comprehensive Plan Update Briefing: Land Capacity Analysis Report
FOR MEETING OF:	County Council September 16, 2019 Planning Commission September 20, 2019
ATTACHMENTS:	Draft Land Capacity Analysis Report, September 6, 2019 draft

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Purpose: To present the draft Land Capacity Analysis Report and discuss the capacity results.

Background: The WA State Growth Management Act (GMA) requires counties with urban growth areas (UGA) to conduct a land capacity analysis (LCA) during their comprehensive plan periodic update. The LCA is a study of existing development and current regulations to determine if UGAs have enough capacity for development to serve the projected population. Capacity is expressed as potential dwelling units (residential) and possible building square footage (commercial/industrial). GMA only requires the County to conduct a LCA for established UGAs. San Juan County has elected to conduct the LCA countywide.

The LCA methodology and the Gross Developable Lands Inventory (GDLI), the first major LCA task, were made available for public review and comment. The first draft of the GDLI was made available for public comment during June 2019. Public comments received were incorporated into the draft GDLI and the remaining LCA tasks discussed in the attached report. All previous LCA documents and staff reports are posted on the Comprehensive Plan update project site: https://www.sanjuanco.com/1306/Comprehensive-Plan-Elements

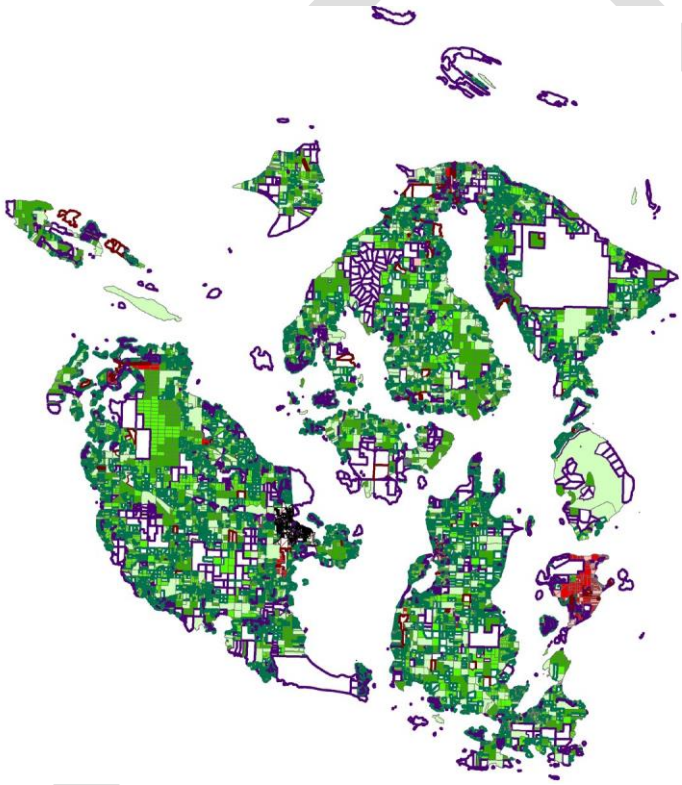
Land Capacity Analysis Report: The attached Land Capacity Analysis Report is the first draft of this document for your review. In addition to incorporating your comments, the report section summarizing recent development trends (Section C) and the conclusions on page 64 will require additional staff review and analysis to be included with the next draft, expected in October or November 2019.

How to Comment: Public comments are requested on the September 6, 2019, draft LCA Report and LCA Methodology. After reviewing this report, the public is invited to provide comments with reference to the page and line numbers from the report to compplancomments@sanjuanco.com subject line: RE: Land Capacity Analysis. Please submit comments by October 25, 2019.

San Juan County
Comprehensive Plan

Land Capacity Analysis

September 6, 2019



San Juan County Department of Community Development

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First Draft Report Prepared September 6, 2019

San Juan County Department of Community Development Staff:
Erika Shook, AICP, Director; Linda Kuller, AICP, Planning Manager; and Adam Zack, Planner III

San Juan County Information Services Staff:
Daniel Root, GIS Program Coordinator

The maps and analysis in this report are for planning purposes only. The information contained herein cannot be used for permitting or evaluation of site-specific proposals.

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Executive Summary

The Land Capacity Analysis (LCA) is a planning tool, which establishes a baseline understanding of how much development is possible in San Juan County and where that development might take place. It helps the County determine the existing capacity for housing, commercial, industrial and mixed-use development under development regulations and Comprehensive Plan land use designations.

The Washington State Growth Management Act (GMA) requires counties with urban growth areas (UGAs) to conduct a LCA. GMA requirements allow counties to exercise local discretion in how to conduct a LCA. The LCA is required for counties to demonstrate how they will meet the GMA statewide planning goals and local comprehensive plan goals. The purpose of the LCA is to determine if the County has enough developable lands to accommodate the expected growth during the planning period of the Comprehensive Plan. The GMA only requires a LCA to be conducted for UGAs; the San Juan County LCA addresses all lands in the County.

This report documents the analysis and results of the LCA. The entire process for LCA is provided in the *Land Capacity Analysis Methodology* (LCA Methodology) in Attachment A. The LCA Methodology defines the thresholds and assumptions used in every step of the LCA.

The maps and analysis in the LCA are for planning purposes only. The information contained in this report cannot be used for permitting or evaluation of site-specific proposals.

Six Major LCA Tasks

A. Gross Developable Lands Inventory (pg. 6) – parcels are determined to be fully developed, re-developable, partially developed, or vacant based on existing development and current regulations.

B. Net Developable Lands Inventory (pg. 13) – critical areas and other areas with development constraints are removed from the Gross Developable Lands Inventory.

C. Summarize Development Trends (pg. 21) – information from the County's permit records is compiled to summarize recent development. This task provides additional context, showing how development has occurred in the recent past.

D. Calculate and Map Gross Capacity (pg. 24) – The Net Developable Lands Inventory is compared with allowed density and achieved floor area ratios. The result is gross capacity in possible dwelling units and commercial building square footage.

E. Calculate and Map Maximum Capacity (pg. 36) – The Net Developable Lands Inventory is compared with maximum allowed development under San Juan County Code. The result is a maximum building square footage for commercial, industrial and mixed-use developments.

F. Calculate Final Capacity (pg. 45) – Public use, market, and seasonal home factors are deducted from the gross capacity to arrive at a final total of possible dwelling units and building square footages per land use designation.

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Capacity Summary

Table 1. Final Housing Capacity Summary.

Urban Growth Areas	
UGA	**Possible Dwelling Units**
Eastsound	474
Lopez Village	217
UGA Subtotal	691
Activity Centers	
Land Use Designation	**Possible Dwelling Units**
Residential Activity Center	29
2 Base Density District	7
Deer Harbor Hamlet Residential	17
Orcas Village Residential	4
Olga Hamlet	5
Eastsound Rural Residential	6
Eastsound Rural	104
Eastsound Rural Residential 2P	8
Activity Center Subtotal	180
Rural Areas	
Land Use Designation	**Possible Dwelling Units**
Rural Farm Forest	1,131
Rural Residential	150
Conservancy	48
Lopez Village Growth Reserve Area	1
Forest Resource	135
Agricultural Resource	125
Rural Subtotal	1,590
Countywide Total	**2,461**

Table 2. Final Commercial/Industrial Capacity Summary.

Urban Growth Areas	
UGA	**Possible Building Sq. Ft.**
Eastsound	594,362
Lopez Village	1,617,219.77
UGA Subtotal	2,211,581.77
Activity Centers	
Land Use Designation	**Possible Building Sq. Ft.**
Island Center	158,147.19
Marine Center	46,921.96
Deer Harbor Hamlet Commercial	19,706.41
Deer Harbor Hamlet Industrial	31,840.00
Orcas Village Commercial	34,049.90
Master Planned Resort	360,332.10
Service Park	90,368.50
Country Corner Commercial	482.82
Activity Center Subtotal	741,848.88
Rural Areas	
Land Use Designation	**Possible Building Sq. Ft.**
Rural Industrial	27,081.92
Rural General Use	4,123,102.44
Rural Subtotal	4,150,184.36
Countywide Total	**7,103,615.01**

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1.0 Land Capacity Analysis

Introduction

The LCA is a planning tool that provides a high-level view of what development may be possible given existing development, current regulations, and comprehensive plan land use designations. It is a planning tool only and will not be used in consideration of permit applications.

This report provides the results of San Juan County's (SJC) Land Capacity Analysis (LCA) based on the County's LCA Methodology (Attachment A). The LCA Methodology establishes the tasks used to conduct the LCA for all land use designations of the SJC Comprehensive Plan (Plan).

Residential capacity is expressed as potential dwelling units. Commercial, industrial and mixed-use capacity is expressed as possible building square footage. The final capacity is calculated two ways:

- Capacity based on achieved floor area ratio (FAR), the most likely scenario, and
- Capacity based on the maximum FAR, a total possible buildout allowed by current development regulations and land use designations.

How will the Land Capacity Analysis be used?

The Land Capacity Analysis will be used throughout the Comprehensive Plan periodic update process to inform the County decision makers when considering possible amendments to goals and policies. The results of this analysis will help the County understand how and what growth can be accommodated through the year 2036 based on existing development, current regulations, and Plan designations. The Washington State Department of Commerce indicates that a Land Capacity Analysis is used to determine:

- The amount of vacant, partially-used, under-utilized lands, and redevelopment potential of built properties needed to accommodate growth, and
- If the existing or potential Urban Growth Areas (UGAs) can accommodate twenty years of urban growth.

The Growth Management Act (GMA) allows counties to exercise discretion in their comprehensive plans and to make choices on how they plan to accommodate growth over the twenty-year planning horizon. The LCA helps determine if the County's land supply aligns with the 2036 population projection of 19,423 total residents. The primary purpose of the LCA is to identify the capacity in Urban Growth Areas to accommodate urban development and to plan for the provision of adequate and cost-efficient urban services. Because the majority of development in San Juan County occurs outside of the Urban Growth Areas, the LCA will also help the County evaluate the development potential on rural and natural resource designated lands.

In addition, the LCA will be used to determine whether the County will have sufficient developable land to meet the Growth Management Act housing goal. This goal encourages the availability of affordable housing to all economic segments of the population, promotes a variety of residential densities and housing types, and encourages preservation of existing housing stock (RCW 36.70A.020(4)).

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Report Overview

This report contains the deliverables (GIS maps and data tables) for each of the six major LCA tasks. The results are presented in residential (dwelling units) and non-residential (building square footage) capacity. The six major LCA tasks are:

A. **Develop a Gross Developable Lands Inventory (GDLI)** – Geographic information system (GIS) and Assessor's data are used to assign a type such as residential or commercial and category such as vacant or fully developed to parcels based on existing development. For example, a parcel that cannot be subdivided, is designated for residential use, and already developed with a single-family home is typed and categorized as fully developed residential.

B. **Prepare a Net Developable Lands Inventory (NDLI)** – Development capacity on some lands may be limited by critical areas and their buffers or other regulatory factors. Such areas are subtracted from the GDLI to account for these kinds of development constraints.

Gross Developable Land Inventory
- Critical areas, buffers and other undevelopable areas
= Net Developable Land

C. **Calculate existing development intensity and summarize development trends** – Existing floor area ratios for commercial development, achieved densities for residential development, pending development and other aspects of existing development are provided in data tables.

D. **Calculate and map gross development capacity** – Once the area of land available for development is identified, development constraints such as critical areas have been removed, and existing development intensity is quantified, the gross development capacity is calculated. Gross development capacity is expressed as total potential housing units for residential lands and building square feet for commercial lands.

E. **Calculate and map maximum buildout capacity** –The maximum buildout capacity is calculated based on what is allowed under current development regulations for commercial, industrial and mixed-use land use designations. Capacity is measured in building square feet. The result is a map that shows the maximum buildout capacity of each commercial, industrial and mixed-use parcel.

F. **Calculate final capacity** – Public use, market, and seasonal home factors are deducted from the gross development capacity using GIS software and calculations in Excel. After these deductions, the resulting capacity for future housing and commercial/industrial development is calculated as total possible dwelling units by land use designation, total population capacity, and employment capacity (expressed as building square footage).

Land Capacity Analysis Methodology

The LCA Methodology defines the process used for each LCA major task. It is included with this report as Attachment A. Because the LCA is a planning tool that requires generalization about future development, there are key thresholds and assumptions used throughout the analysis. These thresholds and assumptions are detailed in the attached LCA Methodology. The thresholds and assumptions were applied by County staff during each step of the analysis to arrive at the results contained in this report.

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Community Input

The public engaged with the LCA throughout the process and provided substantial comments during the drafting of the LCA Methodology and results in this report. The Eastsound Planning and Review Committee (EPRC) and Lopez Village Planning and Review Committee (LVPRC) volunteered their time and local knowledge in refining the LCA results for their respective UGAs. The comments provided by the public, EPRC, and LVPRC were a valuable resource during the entire LCA process.

The initial draft of the LCA Methodology was made available for public comment on October 11, 2017. Comments regarding the thresholds and assumptions in the initial draft of the LCA Methodology were provided to the San Juan County Planning Commission and Council. County decision makers then refined the LCA Methodology in response to the public comments by amending key assumptions and adding additional analysis of the maximum allowed building capacity in Section E of this report.

The second draft of the LCA Methodology and first draft of the gross developable lands inventory (GDLI) were made available for public comment on June 4, 2019. The EPRC held additional meetings to provide in-depth review of the GDLI in the Eastsound UGA. They provided detailed comments on the GDLI in and around the Eastsound UGA. Individual members of the public provided numerous comments on individual parcels throughout the County. The Planning Commission and County Council were briefed on the public comments received during the comment period. Ultimately they decided to further refine the draft LCA Methodology and the GDLI based on the comments received.

On September 6, 2019, the first draft of this report was made available for public comment on the draft NDLI, draft development trends, draft gross capacity, draft maximum allowed capacity, and draft final capacity. (Insert summary of public comments received during the next comment period and staff response here).

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A. Gross Developable Lands Inventory (GDLI)

The first LCA task, categorization of parcels into types and categories, was completed, mapped and checked for accuracy. Public comments on the draft GDLI were incorporated into the GDLI prior to completing the remaining LCA tasks.

Types that relate to whether the parcel is residential, commercial, industrial, public, or mixed-use were assigned to all parcels. The assigned categories refer to the development status of a parcel, such as vacant or fully developed. The GDLI maps show parcels by type and category based on their existing development and land use designation. The criteria and assumptions for assigning type and category are provided in the LCA Methodology (Attachment A).

Tables 3 and 4 below identify the parcel types and categories assigned in the GDLI. A pairing of type and category identifies whether a parcel is developable and what kind of development is possible. Pairings of type and category are symbolized by different colors on Maps 1 through 4 below. These pairings constitute the GDLI.

Table 3. Gross Developable Land Inventory Types.

Type	Description
R	**Residential.**
CI	**Commercial and Industrial.**
MU	**Mixed Use.** The land use designation allows for a mix of commercial and residential uses.
P	**Public, Utility, and Conservation.** Parcels with this type have existing uses that preclude additional development (i.e. public parks, platted open space, parcels with electrical sub-stations, etc.).
, ,	**N/A. Not Applicable.** These parcels are located in the County. The County does not have jurisdiction over them (i.e. Town of Friday Harbor).

Table 4. Gross Developable Land Inventory Categories.

Category	Description
0	**Fully Developed.** Parcels that are assumed to have no further development capacity.
1	**Partially Used.** Residential parcels occupied by a use allowed by its land use designation which contains enough land to be further subdivided or developed.
2	**Vacant.** Property with minimal or no building improvements.
3	**Vacant and Sub-dividable.** Vacant parcels that could be further divided into smaller lots.
4	**Re-developable.** A parcel that has a land use designation that allows uses that would be more intensive than an existing use (i.e. a parcel with a single-family home in a commercial designation).
5	**N/A.** Parcels in this category are located in the County but the County does not have jurisdiction over (i.e. Town of Friday Harbor)

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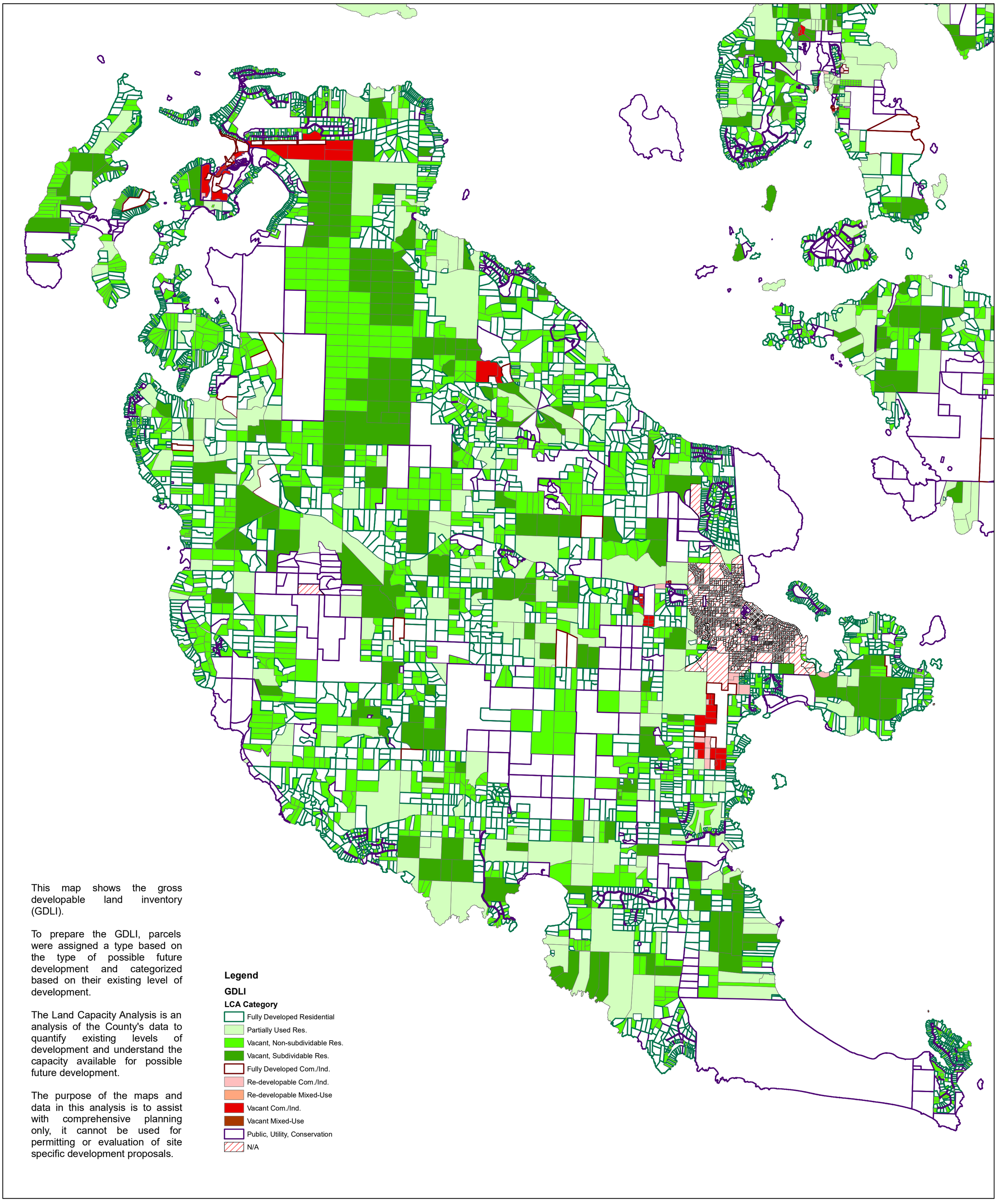
Map 1. Gross Developable Land Inventory (GDLI): San Juan Island.



This map shows the gross developable land inventory (GDLI).

To prepare the GDLI, parcels were assigned a type based on the type of possible future development and categorized based on their existing level of development.

The Land Capacity Analysis is an analysis of the County's data to quantify existing levels of development and understand the capacity available for possible future development.

The purpose of the maps and data in this analysis is to assist with comprehensive planning only, it cannot be used for permitting or evaluation of site specific development proposals.

0 0.5 1 2 3 4 5 Miles

1 in = 1 miles

N

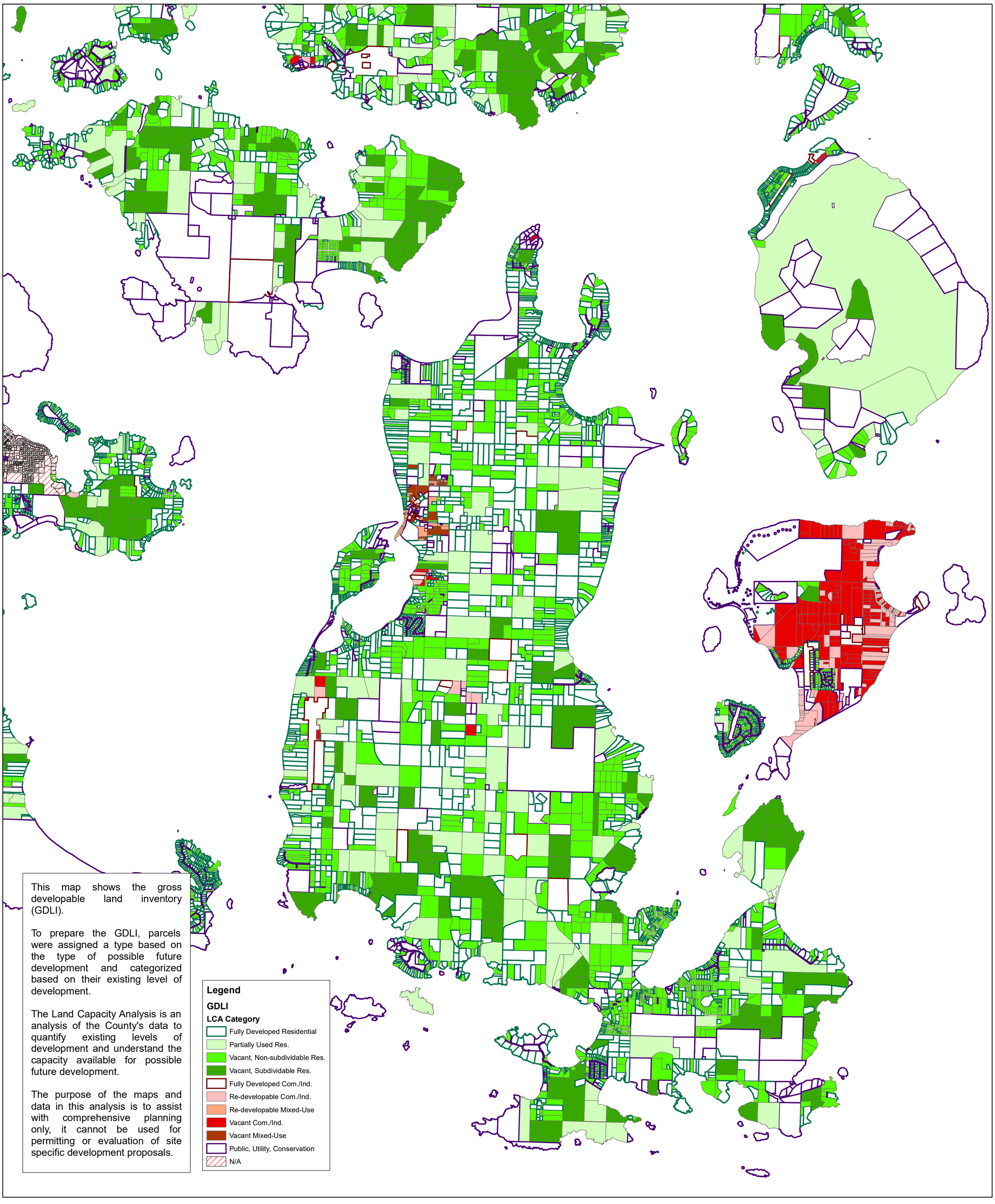
Document Path: O:\Projects\Comprehensive Plan\2018\LCA Validation\Maps for June staff report\GDLI_SJI_1-2.mxd

Draft GDLI San Juan Island Version 1.1

Map Drawn: August 20, 2019

Drawn By: Adam Zack, Planner III

Map 2. Gross Developable Land Inventory (GDLI): Lopez and Shaw.



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0 0.5 1 2 3 4 5 Miles

1 in = 1 miles

N

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GDLI Lopez and Shaw Version 1.1

Map Drawn: August 20, 2019

Drawn By: Adam Zack, Planner III

Map 2.A. Gross Developable Land Inventory (GDLI): Lopez Village.

This map shows the gross developable land inventory (GDLI).

To prepare the GDLI, parcels were assigned a type based on the type of possible future development and categorized based on their existing level of development.

The Land Capacity Analysis is an analysis of the County's data to quantify existing levels of development and understand the capacity available for possible future development.

The purpose of the maps and data in this analysis is to assist with comprehensive planning only, it cannot be used for permitting or evaluation of site specific development proposals.

Legend

Lopez Village UGA

GDLI

LCA Category

- Fully Developed Residential
- Partially Used Res.
- Vacant, Non-subdividable Res.
- Vacant, Subdividable Res.
- Fully Developed Com./Ind.
- Re-developable Com./Ind.
- Re-developable Mixed-Use
- Vacant Com./Ind.
- Vacant Mixed-Use
- Public, Utility, Conservation
- N/A

0 255 510 1,020 1,530 2,040 2,550 Feet

1 in = 320 feet

N

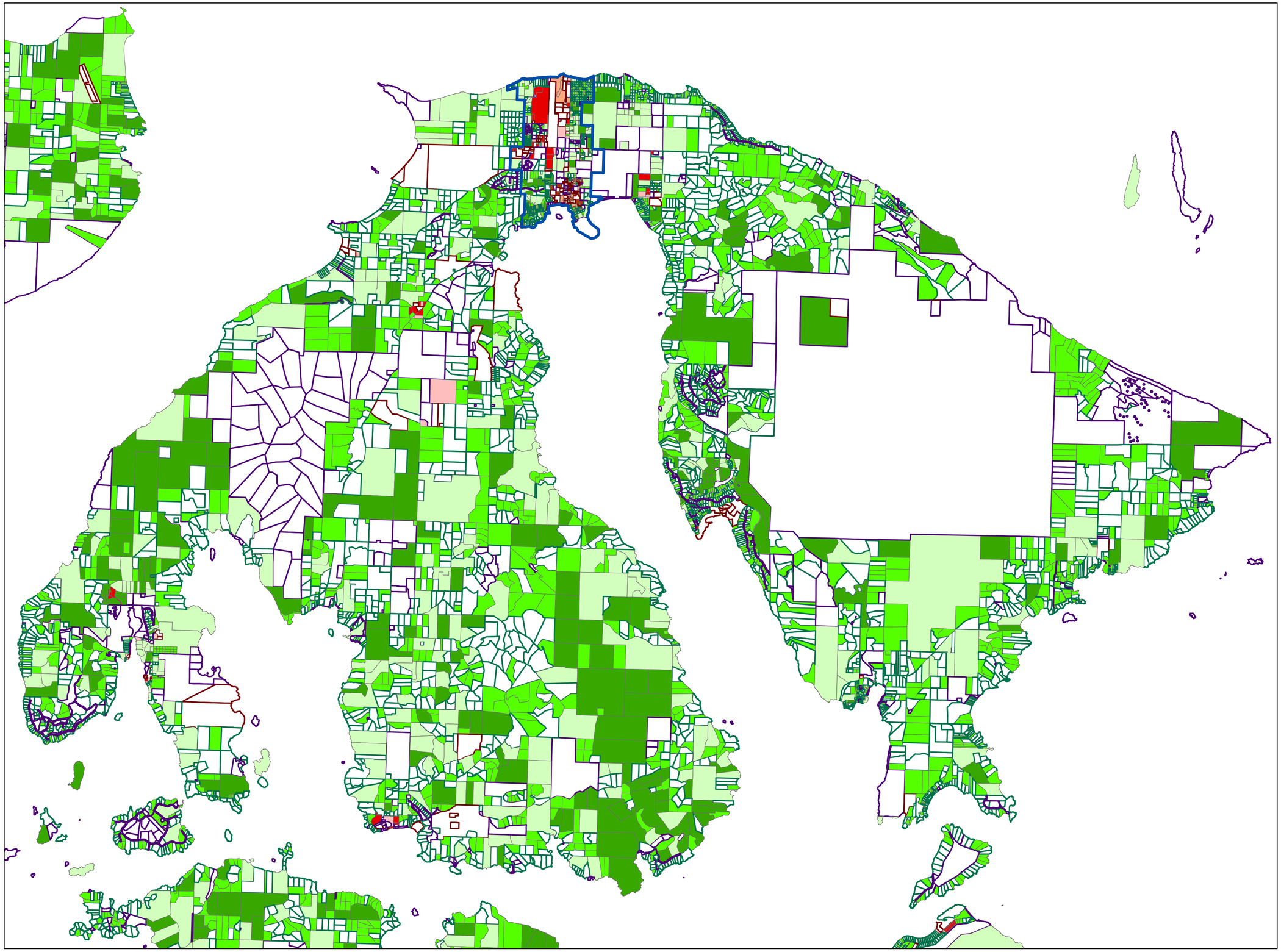
Document Path: O:\Projects\Comprehensive Plan\2018\LCA Validation\Maps for June staff report\Map2-A_GDLI_Lopez_Village_1.mxd

GDLI Lopez Village Version 1.0

Map Drawn: August 26, 2019

Drawn By: Adam Zack, Planner III

Map3. Gross Developable Land Inventory (GDLI): Orcas Island.



Legend

- Eastsound UGA

GDLI

LCA Category

- Fully Developed Residential
- Partially Used Res.
- Vacant, Non-subdividable Res.
- Vacant, Subdividable Res.
- Fully Developed Com./Ind.
- Re-developable Com./Ind.
- Re-developable Mixed-Use
- Vacant Com./Ind.
- Vacant Mixed-Use
- Public, Utility, Conservation
- N/A

This map shows the gross developable land inventory (GDLI).

To prepare the GDLI, parcels were assigned a type based on the type of possible future development and categorized based on their existing level of development.

The Land Capacity Analysis is an analysis of the County's data to quantify existing levels of development and understand the capacity available for possible future development.

The purpose of the maps and data in this analysis is to assist with comprehensive planning only, it cannot be used for permitting or evaluation of site specific development proposals.

0 1 2 4 6 8 10 Miles

1 in = 1 miles

N

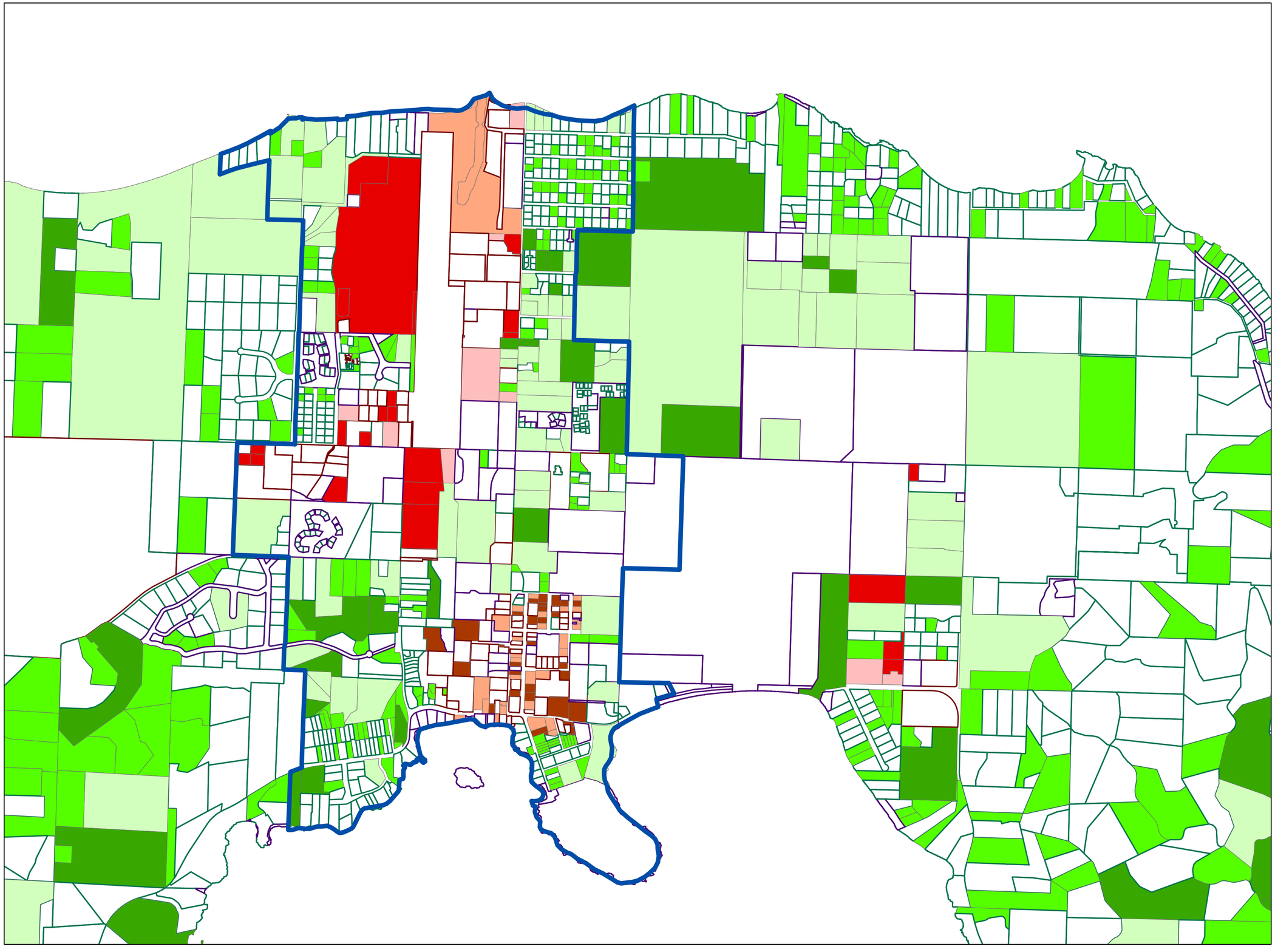
Draft GDLI Orcas Island Version 1.1

Map Drawn: August 20, 2019

Drawn By: Adam Zack, Planner III

Document Path: O:\Projects\Comprehensive Plan\2018\LCA Validation\Maps for June staff report\GDLI_Orcas_1-2.mxd

Map 3.A Gross Developable Land Inventory (GDLI): Eastsound.



Legend

Eastsound UGA

GDLI

LCA Category

- Fully Developed Residential
- Partially Used Res.
- Vacant, Non-subdividable Res.
- Vacant, Subdividable Res.
- Fully Developed Com./Ind.
- Re-developable Com./Ind.
- Re-developable Mixed-Use
- Vacant Com./Ind.
- Vacant Mixed-Use
- Public, Utility, Conservation
- N/A

This map shows the gross developable land inventory (GDLI).

To prepare the GDLI, parcels were assigned a type based on the type of possible future development and categorized based on their existing level of development.

The Land Capacity Analysis is an analysis of the County's data to quantify existing levels of development and understand the capacity available for possible future development.

The purpose of the maps and data in this analysis is to assist with comprehensive planning only, it cannot be used for permitting or evaluation of site specific development proposals.

0 0.2 0.4 0.8 1.2 1.6 2 Miles

1 in = 764 feet

N

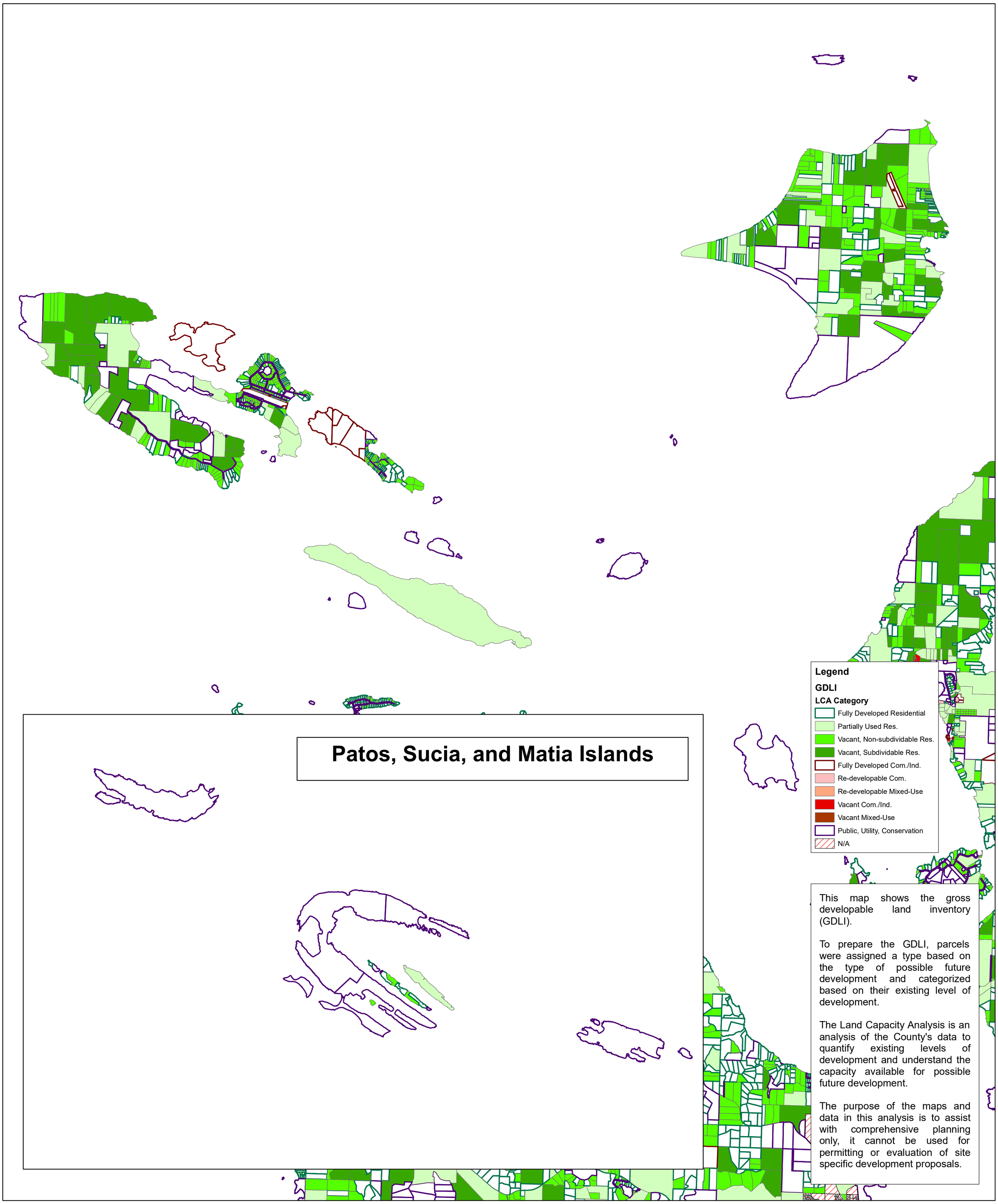
GDLI Eastsound Version 1.0

Map Drawn: August 26, 2019

Drawn By: Adam Zack, Planner III

Document Path: O:\Projects\Comprehensive Plan\2018\LCA Validation\Maps for June staff report\Map3-A_GDLI_Eastsound_1.mxd

Map 4. Gross Developable Land Inventory (GDLI): Outer Islands.



This map shows the gross developable land inventory (GDLI).

To prepare the GDLI, parcels were assigned a type based on the type of possible future development and categorized based on their existing level of development.

The Land Capacity Analysis is an analysis of the County's data to quantify existing levels of development and understand the capacity available for possible future development.

The purpose of the maps and data in this analysis is to assist with comprehensive planning only, it cannot be used for permitting or evaluation of site specific development proposals.

0 0.5 1 2 3 4 5 Miles

1 in = 1 miles

N

Document Path: O:\Projects\Comprehensive Plan\2018\LCA Validation\Maps for June staff report\GDLI_Outer_Islands_2-2.mxd

Draft GDLI Outer Islands Version 1.1

Map Drawn: August 20, 2019

Drawn By: Adam Zack, Planner III

B. Net Developable Lands Inventory (NDLI)

Areas with limited development potential such as critical areas were deducted from the GDLI to produce the Net Developable Lands Inventory (NDLI). The NDLI maps show the deduction of critical areas, buffers, and other areas with reduced development potential derived from the Gross Developable Land Inventory (GDLI).

Maps 5 through 8 below depict:

- The net developable residential lands, and
- The net developable commercial, industrial and mixed-use lands.

In deducting the critical areas, it is assumed that:

- Critical area buffers will not affect future capacity on residential parcels. This assumption is used because the development regulations allow a residential reasonable use exception and flexible development standards.
- Critical areas and their buffers are not considered developable on commercial, industrial and mixed-use parcels. There is no reasonable use provision for these types of uses.

Table 5 shows which critical areas were removed during the drafting of the NDLI. Section B.4 of the LCA Methodology (Attachment A) establishes the critical area deductions and assumptions.

Table 5. NDLI Critical Area Type and Description.

Critical Area Type	Description
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, corresponding with Tree Protection Zone 1 (TPZ 1) per SJCC Table 18.35.130-2.
Steep Slopes	Areas with slopes greater than 50 percent which are considered Category 1 geo-hazards. Development in these areas is limited per SJCC 18.35.065.
Special Flood Hazard Areas	Land located within 100-year floodplains as shown on the Federal Emergency Management Agency (FEMA), April 2017, Flood Insurance Rate Maps (FIRMS.
Other Undevelopable Area	Mitigation and old dump sites that are not available or suited for development.

In addition to the critical areas in Table 5, buffers were deducted using the following assumptions:

1. A 150 foot wetland buffer because most of the County's wetlands are Class III or Class IV and industrial and commercial uses are designated high intensity uses (SJCC 18.35.095 and Tables 18.35.100-2 and 18.35.100-2), and

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2. The following Tree Protection Zone buffers on parcels with a fish and wildlife habitat conservation area (FWHCA) (SJCC Tables 18.35.100-2 18.35.130-2):

    a. 110 feet from the centerline for Type F (Type 2 or 3) streams and ponds designated as FWHCAs (assuming an 8 foot wide stream);

    b. 110 feet from the Ordinary High Water Mark (OHWM) for marine shorelines containing FWHCAs and ponds, excluding parcels subject to the Eastsound Waterfront Access Plan or parcels within approved master planned resorts;

    c. 50 feet from the bank full width for Type Np (Type 4) streams;

    d. 30 feet from the bank full width for Type Ns (Type 5) streams; and

    e. 30 feet from the bank full width for un-typed streams.

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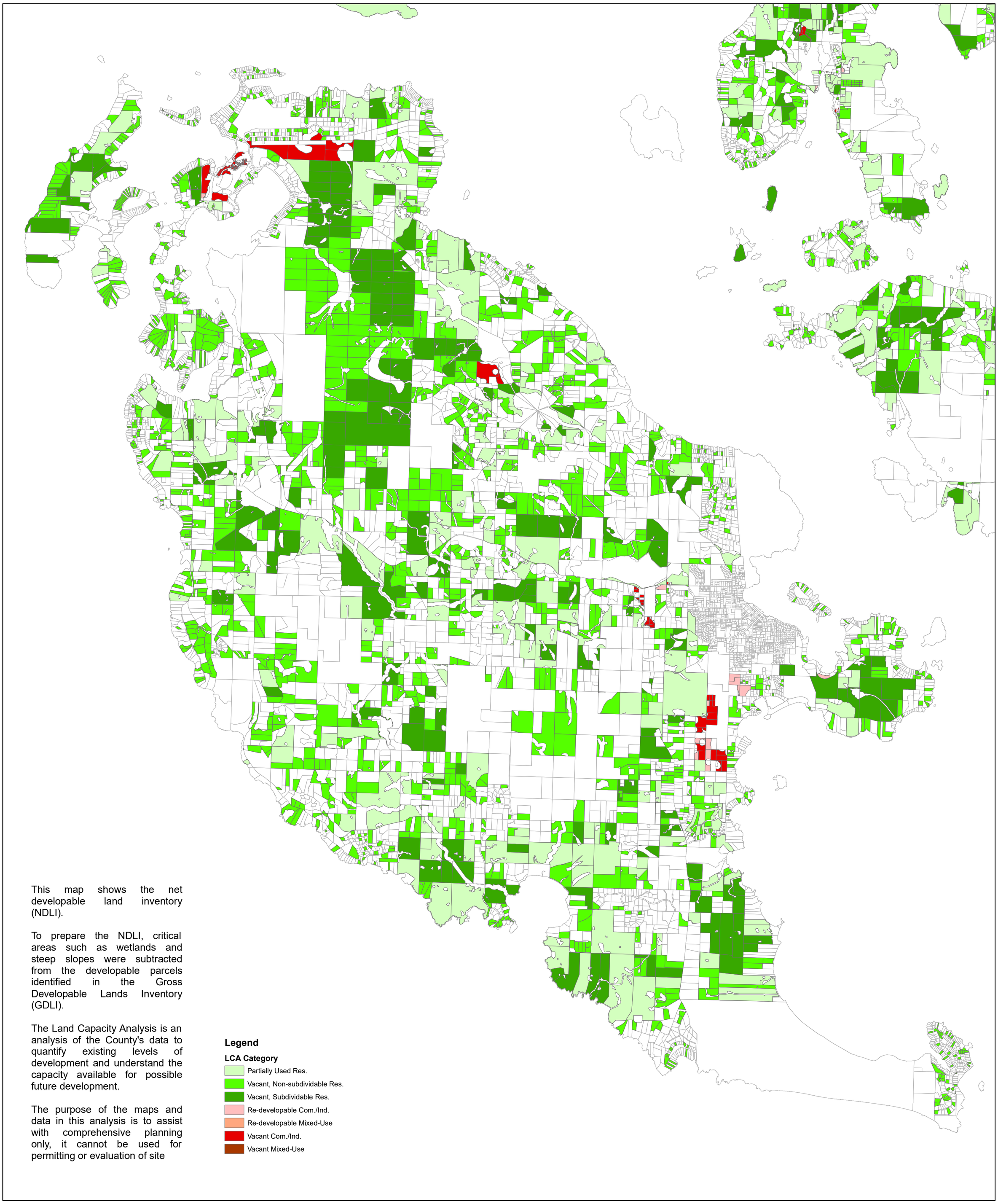
Map 5. Net Developable Land Inventory (NDLI): San Juan Island.



This map shows the net developable land inventory (NDLI).

To prepare the NDLI, critical areas such as wetlands and steep slopes were subtracted from the developable parcels identified in the Gross Developable Lands Inventory (GDLI).

The Land Capacity Analysis is an analysis of the County's data to quantify existing levels of development and understand the capacity available for possible future development.

The purpose of the maps and data in this analysis is to assist with comprehensive planning only, it cannot be used for permitting or evaluation of site

Legend

LCA Category

- Partially Used Res.
- Vacant, Non-subdividable Res.
- Vacant, Subdividable Res.
- Re-developable Com./Ind.
- Re-developable Mixed-Use
- Vacant Com./Ind.
- Vacant Mixed-Use

0 0.5 1 2 3 4 5 Miles

1 in = 1 miles

N

Document Path: O:\Projects\Comprehensive Plan\2018\LCA Validation\Maps for June staff report\NDLI\NDLI_SJI_1.mxd

NDLI San Juan Island Version 1.1

Map Drawn: August 23, 2019

Drawn By: Adam Zack, Planner III

Map 6. Net Developable Land Inventory (NDLI): Lopez and Shaw.

This map shows the net developable land inventory (NDLI).

To prepare the NDLI, critical areas such as wetlands and steep slopes were subtracted from the developable parcels identified in the Gross Developable Lands Inventory (GDLI).

The Land Capacity Analysis is an analysis of the County's data to quantify existing levels of development and understand the capacity available for possible future development.

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Legend

NDLI

LCA Category

- Partially Used Res.
- Vacant, Non-subdividable Res.
- Vacant, Subdividable Res.
- Re-developable Com./Ind.
- Re-developable Mixed-Use
- Vacant Com./Ind.
- Vacant Mixed-Use

0 0.5 1 2 3 4 5 Miles

1 in = 1 miles

N

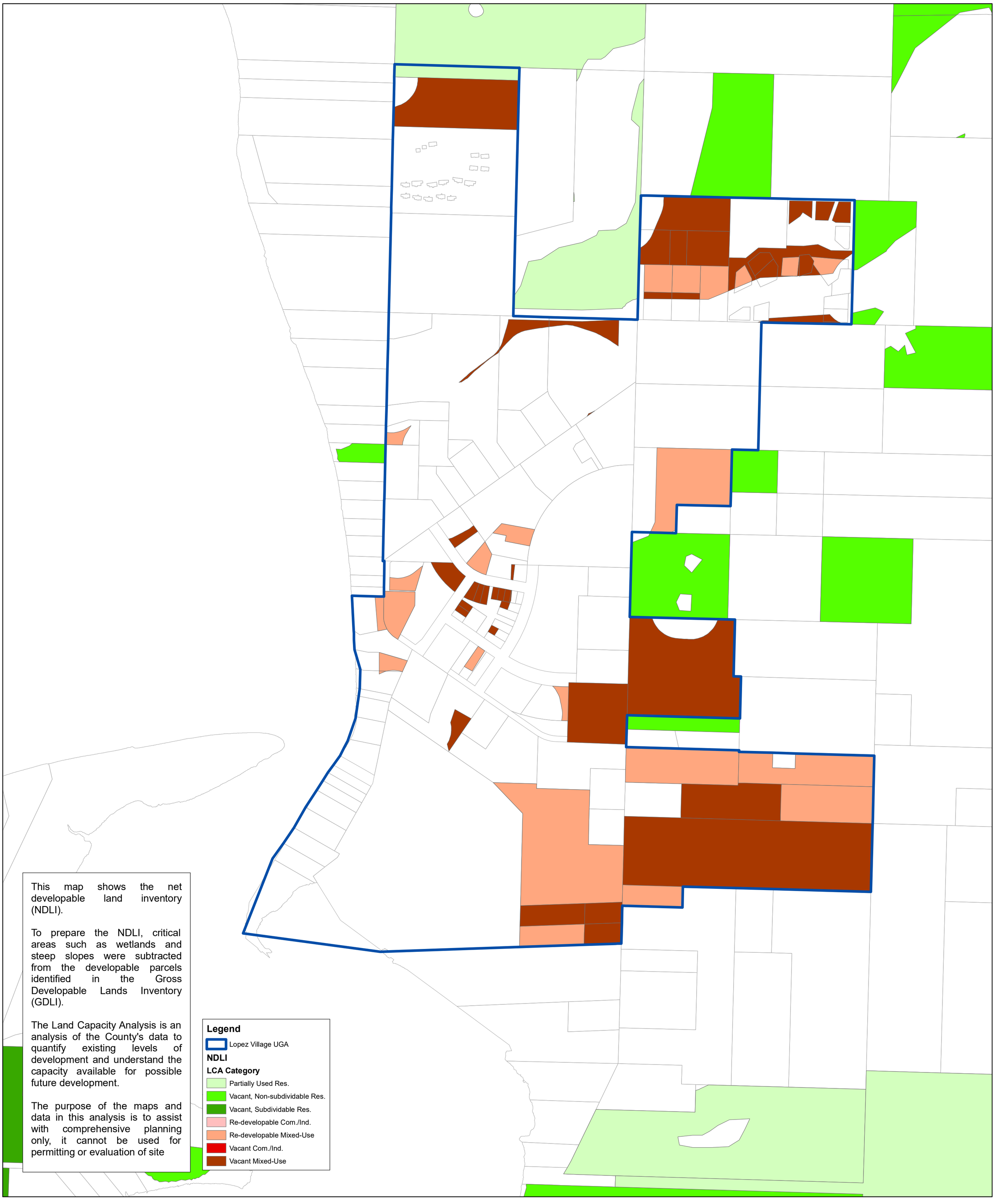
Document Path: O:\Projects\Comprehensive Plan\2018\LCA Validation\Maps for June staff report\NDLI\NDLI_Lopez_1.mxd

NDLI Lopez and Shaw Version 1.1

Map Drawn: August 23, 2019

Drawn By: Adam Zack, Planner III

Map 6.A. Net Developable Land Inventory (NDLI): Lopez Village.



This map shows the net developable land inventory (NDLI).

To prepare the NDLI, critical areas such as wetlands and steep slopes were subtracted from the developable parcels identified in the Gross Developable Lands Inventory (GDLI).

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0 255 510 1,020 1,530 2,040 2,550 Feet

1 in = 320 feet

N

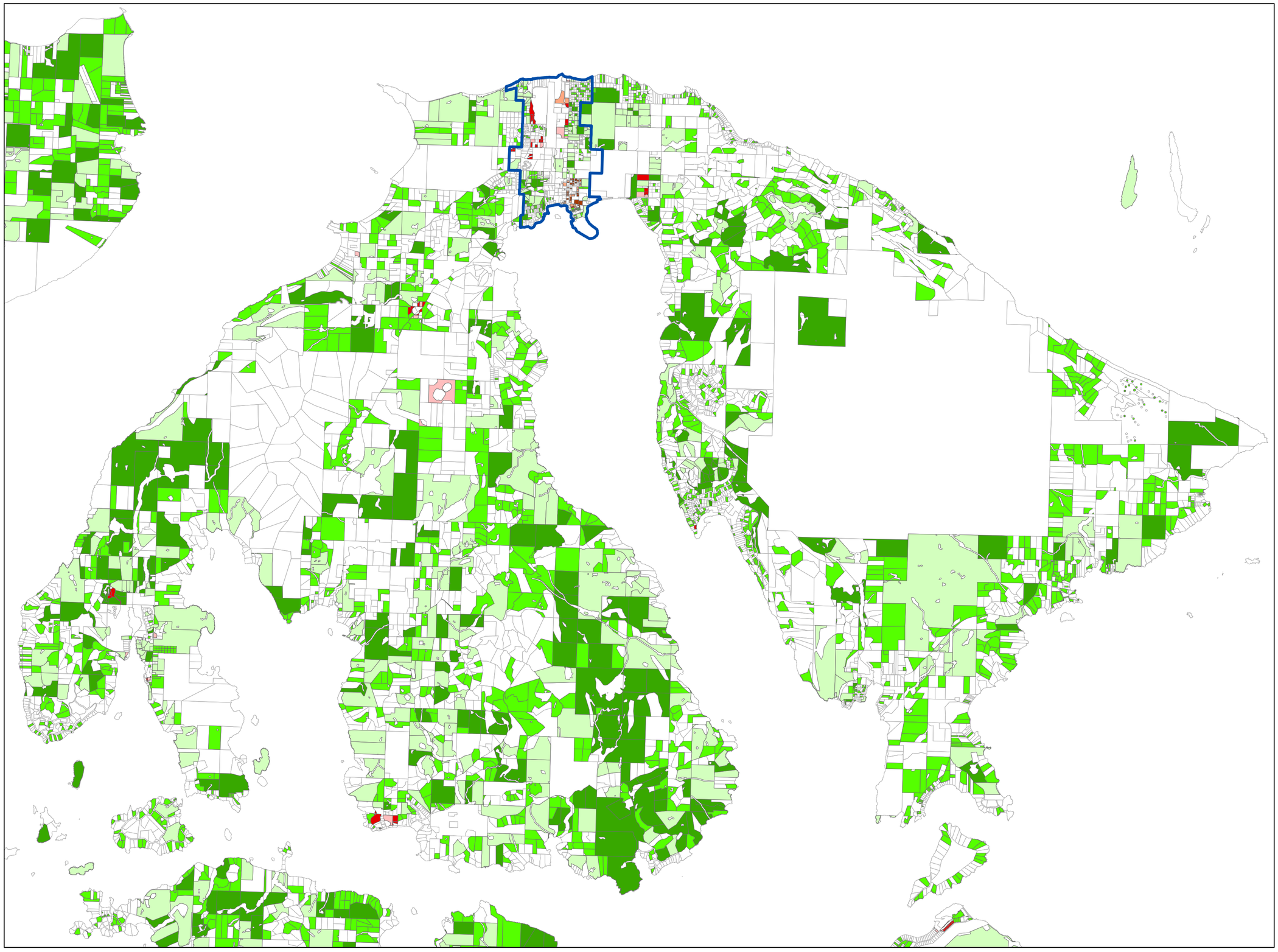
NDLI Lopez Village Version 1.1

Map Drawn: August 23, 2019

Drawn By: Adam Zack, Planner III

Document Path: O:\Projects\Comprehensive Plan\2018\LCA Validation\Maps for June staff report\NDLI\NDLI_Lopez_Village_1.mxd

Map 7. Net Developable Land Inventory (NDLI): Orcas Island.



Legend

Eastsound UGA

NDLI

LCA Category

- Partially Used Res.
- Vacant, Non-subdividable Res.
- Vacant, Subdividable Res.
- Re-developable Com./Ind.
- Re-developable Mixed-Use
- Vacant Com./Ind.
- Vacant Mixed-Use

This map shows the net developable land inventory (NDLI).

To prepare the NDLI, critical areas such as wetlands and steep slopes were subtracted from the developable parcels identified in the Gross Developable Lands Inventory (GDLI).

The Land Capacity Analysis is an analysis of the County's data to quantify existing levels of development and understand the capacity available for possible future development.

The purpose of the maps and data in this analysis is to assist with comprehensive planning only, it cannot be used for permitting or evaluation of site specific development proposals.

0 1 2 4 6 8 10 Miles

1 in = 1 miles

N

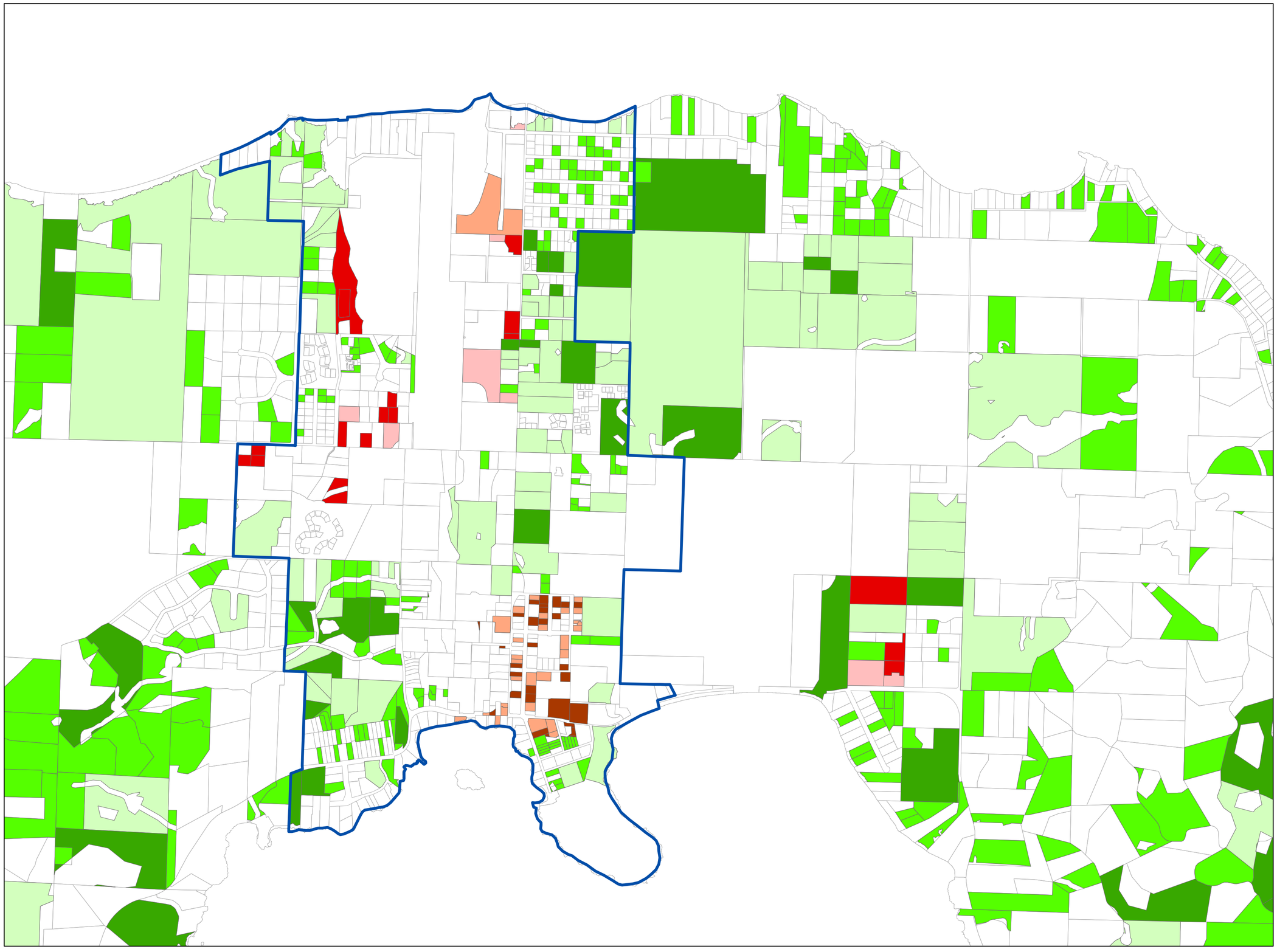
NDLI Orcas Island Version 1.1

Map Drawn: August 23, 2019

Drawn By: Adam Zack, Planner III

Document Path: O:\Projects\Comprehensive Plan\2018\LCA Validation\Maps for June staff report\NDLI\NDLI_Orcas_1.mxd

Map 7.A. Net Developable Land Inventory (NDLI): Eastsound.



Legend

- Eastsound UGA

NDLI

LCA Category

- Partially Used Res.
- Vacant, Non-subdividable Res.
- Vacant, Subdividable Res.
- Re-developable Com./Ind.
- Re-developable Mixed-Use
- Vacant Com./Ind.
- Vacant Mixed-Use

This map shows the net developable land inventory (NDLI).

To prepare the NDLI, critical areas such as wetlands and steep slopes were subtracted from the developable parcels identified in the Gross Developable Lands Inventory (GDLI).

The Land Capacity Analysis is an analysis of the County's data to quantify existing levels of development and understand the capacity available for possible future development.

The purpose of the maps and data in this analysis is to assist with comprehensive planning only, it cannot be used for permitting or evaluation of site specific development proposals.

0 0.2 0.4 0.8 1.2 1.6 2 Miles

1 in = 764 feet

N

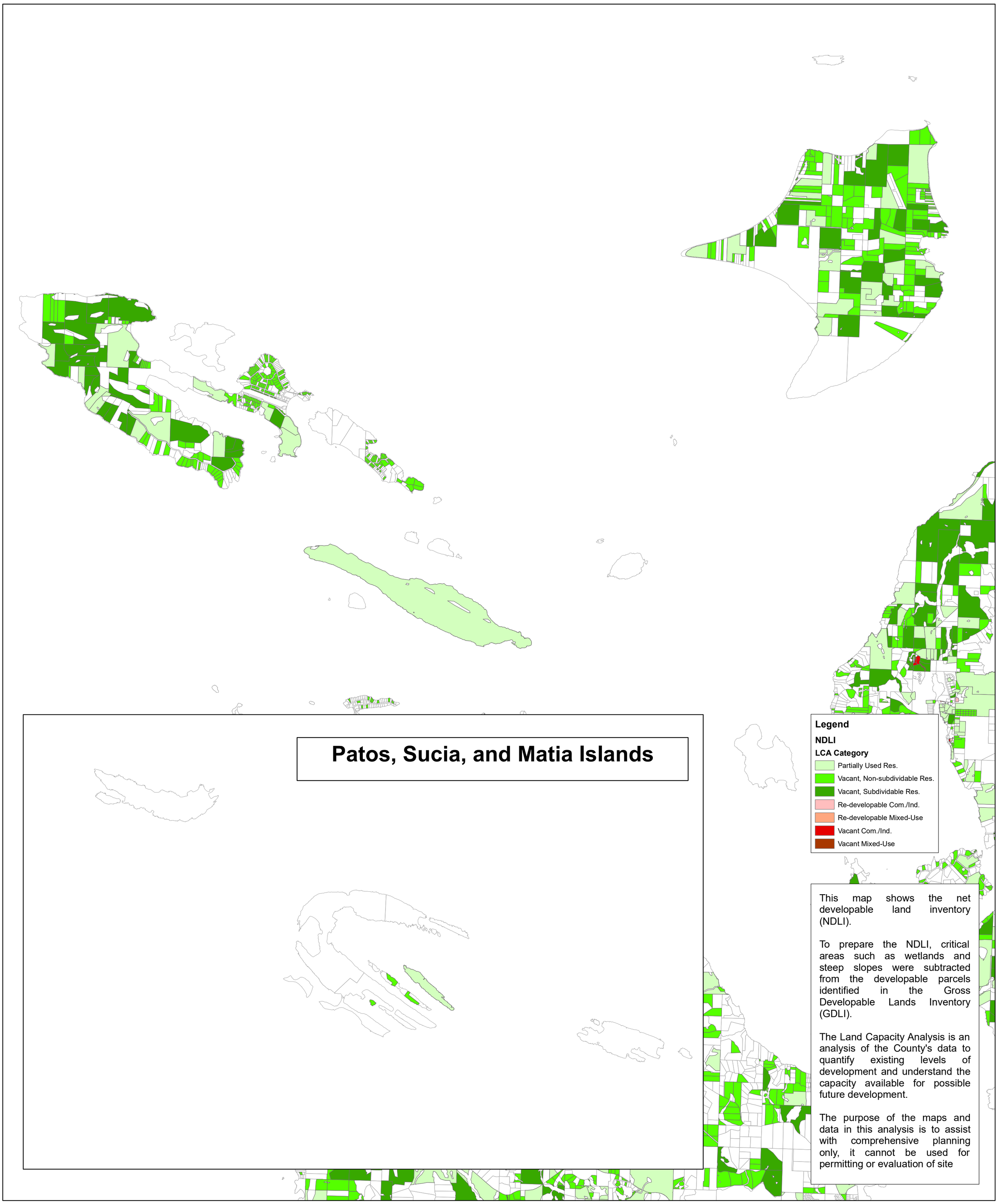
NDLI Eastsound Version 1.0

Map Drawn: August 23, 2019

Drawn By: Adam Zack, Planner III

Document Path: O:\Projects\Comprehensive Plan\2018\LCA Validation\Maps for June staff report\NDLI\NDLI_Eastsound_1.mxd

Map 8. Net Developable Land Inventory (NDLI): Outer Islands.



This map shows the net developable land inventory (NDLI).

To prepare the NDLI, critical areas such as wetlands and steep slopes were subtracted from the developable parcels identified in the Gross Developable Lands Inventory (GDLI).

The Land Capacity Analysis is an analysis of the County's data to quantify existing levels of development and understand the capacity available for possible future development.

The purpose of the maps and data in this analysis is to assist with comprehensive planning only, it cannot be used for permitting or evaluation of site

0 0.5 1 2 3 4 5 Miles

1 in = 1 miles

N

Document Path: O:\Projects\Comprehensive Plan\2018\LCA Validation\Maps for June staff report\NDLI\NDLI_Outer_Islands_1.mxd

NDLI Outer Islands Version 1.1

Map Drawn: August 23, 2019

Drawn By: Adam Zack, Planner III

C. Calculate Existing Floor Area Ratios, Summarize Development Trends, and Assign Assumed Densities and Floor Area Ratios

Multiple calculations and analysis of permit data trends were completed to provide context for examining the LCA results. This data informs us about not only what development has happened, but also what development can be expected. This context is particularly valuable during the comparison of final capacity based on the maximum possible development under the existing Plan and development regulations to final capacity estimates based on assumed densities and achieved development intensities.

Summary of Tasks

Floor Area Ratios

Floor Area Ratios (FARs) of commercial, industrial and mixed-use development were calculated to obtain information about the intensity of development on a parcel. FAR is a metric that helps explain the amount of development on a parcel by comparing the square footage of development with the area of the property. FAR = Total area of development in square feet / Parcel area in square feet.

Development Trends (Achieved)

Past development trends were documented using permit data from April 1, 2005 – March 31, 2019 to determine actual densities achieved in all land use designations and urban growth areas. This information provides a check on the variability of FARs for existing development that was constructed under many different historic building regulations.

Assumed Density

Each land use designation was assigned an assumed density for the purposes of calculating capacity. For residential capacity, the Comprehensive Plan land use designations and densities were used as the future assumed densities. For commercial and industrial building intensity, existing average FAR by land use designation was used. For mixed-use intensity, the assumed density and average achieved FAR by land use designation were used.

Existing Building Floor Area Ratios by Land Use Designation

Table 6 below identifies the average existing FAR by commercial, industrial and mixed-use and land use designations. Existing FAR is based on building floor area and parcel sizes from the Assessor's records. For commercial, industrial and mixed-use parcels, FAR is good measure of how much building capacity exists on a parcel. FAR is useful because it relates the parcel size to building square footage showing the intensity of development.

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Table 6. Achieved FAR by Commercial, Industrial, and Mixed-use Land Use Designations.

Land Use Designation	Achieved FAR	Land Use Designation	Achieved FAR
RC: Rural Commercial	N/A[1]	**OHC:** Olga Hamlet Commercial	0.14
RI: Rural Industrial	0.026	**SP:** Service Park	N/A[2]
RGU: Rural General Use	0.122	**CCC:** Country Corner Commercial	0.024
MPR: Master Planned Resort	0.093	**VC:** Eastsound Village Commercial	0.39
IC: Island Center Limited Area of More Intense Rural Development (LAMIRD)	0.219	**M:** Marina	0.034
MC: Marine Center LAMIRD	0.113	**SLI:** Service and Light Industrial	0.466
DHHC: Deer Harbor Hamlet Commercial	0.299	**LUGA:** Lopez Village Urban Growth Area	0.914
DHHI: Deer Harbor Hamlet Industrial	N/A[2]	**OVC:** Orcas Village Commercial	0.152
		OVT: Orcas Village Transportation	N/A[2]

Notes

1. The Rural Commercial (RC) land use designation only applies in one small area east of Lopez Village. This area does not correspond to specific parcel boundaries so an achieved FAR cannot be determined.

2. Deer Harbor Hamlet Industrial (DHHI), Service Park (SP), and Orcas Village Transportation (OVT) land use designations did not have fully developed commercial or industrial parcels from which to calculate an achieved FAR.

Recent Development

Placeholder

Table 7. Achieved Density by Land Use Designation.

Land Use Designation	Achieved Lots and Dwelling Units	Achieved Building Square Footage	Total Acreage of Lots to be Developed	Mean Recent Achieved FAR	Mean Recent Achieved Density

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D. Calculate and Map Gross Housing and Commercial Development Capacity

Maps 9 through 12 depict the gross development capacity for residential, commercial, industrial and mixed-use parcels. To arrive at gross capacity, the NDLI is converted into capacity for housing units on residential land and building square feet on commercial, industrial and mixed-use land.

Gross capacity calculated is not final capacity. Gross capacity does not include deductions for public uses, market factors, and seasonal/recreational home factors. Those deductions were applied in the last step of the LCA to estimate final capacity.

Gross Housing Capacity

Gross housing capacity was derived from the residential NDLI. It is the total dwelling units of capacity available on each parcel. Pending development calculated in the previous LCA tasks (assumed densities and pending development in residential land use designations) was subtracted from the gross housing capacity. It is depicted in Tables 8 and 9 below and on Maps 9 through 12. Market factor deductions were not included; they are deducted during the next task, calculation of final capacity.

Table 8. Gross Housing Capacity by Land Use Designation.

Land Use Designation	Developable Acres	Dwelling Unit Capacity	Land Use Designation	Developable Acres	Dwelling Unit Capacity
2 BDD	55.95	19.17	**ACT**	74.75	81.73
AG	5,985.93	355.97	**C**	1,241.38	137.93
ER	159.15	298.29	**ER1**	24.11	17.74
ER2	52.59	82.67	**ER412**	1.96	20.47
ER4P	51.58	158.43	**ERR**	100.98	16.25
ERR 2P	59.63	22.27	**FO**	9,487.11	384.89
HR	196.03	48.46	**LGRA**	21.78	2.36
OH	17.29	14.76	**OVR**	30.59	10.73
RFF	24,980.10	3,232.19	**RR**	2,841.74	430.09
VR	50.00	519.12	**VC**	13.15	498.99
M	7.96	52.10	**LUGA**	59.23	217.28

Table 9. Gross Housing Capacity by Land Use Designation and Category.

Land Use Designation	Category	Developable Acres	Dwelling Unit Capacity
2 BDD	1	14.69	2.87
2 BDD	3	38.08	16.30
ACT	1	26.23	12.87
ACT	2	39.07	58.16
ACT	3	9.45	10.70
AG	1	2469.69	137.22
AG	2	1984.26	107.41
AG	3	1531.98	111.34
C	1	818.91	82.65

Land Use Designation	Category	Developable Acres	Dwelling Unit Capacity
C	2	136.01	13.59
C	3	286.45	41.70
ER	1	134.99	251.99
ER	3	24.15	46.30
ER1	1	1.96	0.60
ER1	2	0.90	0.90
ER1P	1	6.78	2.78
ER1P	2	6.21	6.21
ER1P	3	8.26	7.26
ER2	1	11.58	16.16
ER2	2	6.55	11.23
ER2	3	5.92	9.83
ER2P	1	23.38	37.14
ER2P	2	5.16	8.31
ER412	2	1.96	20.47
ER4P	1	27.17	81.79
ER4P	2	11.45	26.77
ER4P	3	12.97	49.87
ERR	1	19.30	2.86
ERR	2	53.72	7.80
ERR	3	27.93	5.59
ERRP2	1	19.12	5.56
ERRP2	2	14.30	4.61
ERRP2	3	26.20	12.10
FO	1	3980.24	157.59
FO	2	3062.86	115.18
FO	3	2444.00	112.12
HR	1	148.44	19.25
HR	2	12.19	17.38
HR	3	35.39	11.83
LGRA	1	14.41	1.88
LGRA	2	7.37	0.47
OLGA	1	7.04	3.34
OLGA	2	8.11	7.15
OLGA	3	2.14	4.27
OVR2	1	10.94	3.47
OVR2	2	15.99	5.43
OVR2	3	3.66	1.83
RFF	1	7782.40	917.16
RFF	2	9645.12	1107.27

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Land Use Designation	Category	Developable Acres	Dwelling Unit Capacity
RFF	3	7552.58	1207.77
RR	1	589.90	75.20
RR	2	1783.70	270.49
RR	3	468.14	84.40
VR	1	32.93	379.16
VR	2	10.51	107.59
VR	3	6.57	32.37

Gross Commercial and Industrial Capacity

Capacity for future commercial or industrial growth is derived from the commercial and industrial NDLI. Gross capacity is calculated using the:

- Net developable area on the parcel, determined in the NDLI (Step B);
- Achieved FAR values for each commercial and industrial land use designation (Step C);
- Assessor's data for re-developable parcels, including the existing building square footage; and
- Pending commercial and industrial development data (Step C).

Commercial and industrial capacity square footage was calculated using the following formula:

(Achieved FAR X Net Developable Area in square feet) – (Existing + Pending building square footage) = Gross Capacity in square feet

The total building capacity in square feet and total net developable area are shown per land use designation in Table 11 below.

Steps for Calculating Commercial and Industrial Capacity

1. Multiply net acres of commercial and industrial land in each land use designation by the achieved FAR for each land use designation. The output will be the total square footage capacity available in each land use designation before accounting for existing development on re-developable parcels.

2. Calculate the total existing commercial and industrial building square footage on vacant and re-developable parcels by land use designation. Subtract this square footage from the total square footage capacity from the previous step so that existing buildings are not counted as part of re-developable parcel capacity.

3. In the Task C of the LCA, pending development was calculated and shown in Table 9. These parcels included commercial and industrial developments that received preliminary approval, but were not constructed by March 3, 2017. The pending building square footage determined in Task C

was subtracted from the capacity determined in the previous two steps. The output will be the gross commercial and industrial square footage capacity available in each land use designation. Gross commercial and industrial capacity is shown in Tables 10 through 11 and Maps 9 through 12.

Table 10. Gross Commercial and Industrial Land Capacity by Land Use Designation.

Land Use Designation	Developable Acres	Building Capacity	Land Use Designation	Developable Acres	Building Capacity
CCC	5.76	688.32	**DHHC**	2.65	28,152.01
MC	17.36	67,031.37	**IC**	30.44	263,578.60
OVC	7.71	48,642.71	**MPR**	131.87	514,760.14
RGU	1145.87	5,890,146.34	**RI**	53.17	38,688.46
SLI	19.98	369,873.98	**VC**	13.15	167,248.51
LUGA	59.23	2,310,313.95	M	7.96	311,966.02

Four land use designations are not shown on Table 11. The gross capacity shown in this table was calculated based on the achieved FAR of fully developed commercial and industrial parcels in each land use designation. Deer Harbor Hamlet Industrial (DHHI), Service Park (SP), and Orcas Village Transportation (OVT) land use designations did not have fully developed commercial or industrial parcels from which to calculate an achieved FAR. These designations will use the maximum capacity calculated in Task E. Rural Commercial (RC) and Olga Hamlet Commercial (OHC) do not have any capacity because they are both fully developed.

Table 11. Gross Commercial Capacity by Land Use Designation and Category.

Land Use Designation	Category	Developable Acres	Building Square Foot Capacity
CCC	2	2.11	0.00
CCC	4	3.64	688.32
DHHC	2	0.31	3649.04
DHHC	4	2.34	24502.97
DHHI	2	4.23	0.00
DHHI	4	0.19	0.00
IC	2	13.99	131124.87
IC	4	16.45	132453.77
LUGA	2	35.78	1421485.42
LUGA	4	23.45	888828.53
M	2	0.89	755.87
M	4	7.07	8365.81
MC	2	9.93	48863.14
MC	4	7.43	18168.24
MPR	2	126.52	505594.86
MPR	4	5.34	9165.27
OVC	2	3.00	19319.50
OVC	4	4.71	29323.20
OVT	2	5.65	0.00
RGU	2	827.70	4373315.84
RGU	4	318.17	1516830.51

Land Use Designation	Category	Developable Acres	Building Square Foot Capacity
RI	4	53.17	38688.46
SLI	2	12.41	228316.57
SLI	4	7.56	141557.41
SP	2	4.97	0.00
VC	2	6.77	101307.61
VC	4	6.38	65940.89
VR	2	0.03	47.66

Gross Mixed-Use Capacity

Some land use designations allow mixed-uses, a combination of residential and commercial development. Assumptions about the proportion of residential and commercial development were used to calculate future capacity for these land use designations. The LCA assumes that mixed-use dwelling units will average 1,000 square feet per dwelling, the same assumption used in mixed-use designations in the Lopez Village and Eastsound urban growth areas. Mixed-use capacity is presented in three scenarios based on different proportions of commercial and residential uses. The scenarios are discussed below. Tables 12 through 13 below show the gross mixed-use capacity for all three scenarios.

Mixed-Use Development Scenarios

Mixed-use developments can be composed of any proportion of residential and commercial square footage. For this reason, the LCA presents mixed-use capacity in three scenarios:

Scenario A: Mixed-use parcels develop with one-hundred percent commercial development;

Scenario B: Mixed-use parcels develop with fifty percent of each residential and commercial; and

Scenario C: Mixed-use parcels develop with one-hundred percent residential development.

Gross Mixed-Use Capacity Steps

1. Calculate building square footage capacity using achieved FAR that was determined in the third LCA task and subtract existing and pending building square footage. The result of this step is the capacity for Scenario A.

2. Multiply the building square footage from the previous step by 0.5 to determine what fifty percent of the square footage is. Fifty percent of the building will be considered commercial capacity in Scenario B. The remaining fifty percent will be used in the next calculation.

3. Divide the fifty percent residential floor area by 1,000 square feet to arrive at the number of possible mixed-use dwelling units for residential capacity in Scenario B. This process assumes that each dwelling unit will be 1,000 square feet. Mixed-use residential capacity in Scenario B is capped at the maximum allowed dwelling units per acre in each area.

4. The maximum allowed density is multiplied by the net developable acreage to calculate the possible dwelling units in Scenario C.

Table 12. Gross Mixed Use Capacity by Land Use Designation.

Scenario A: Mixed Use Develops 100 Percent Commercial			
Land Use Designation	**Net Dev. Acres**	**Possible Commercial Building Square Footage**	**Possible Dwelling Units**
Eastsound Village Commercial	13.15	167,248.51	0
Eastsound Marina	7.96	9,121.68	0
Lopez Village UGA	59.23	2,310,313.95	0
Scenario A Total	**80.34**	**2,486,684.14**	**0**
Scenario B: Mixed Use Develops with 50 Percent Residential and Commercial			
Land Use Designation	**Net Dev. Acres**	**Possible Commercial Building Square Footage**	**Possible Dwelling Units**
Eastsound Village Commercial	13.15	83,297.25	68.95
Eastsound Marina	7.96	4,560.84	4.56
Lopez Village UGA	59.23	1,155,131.98	217.28
Scenario B Total	**80.34**	**1,242,990.07**	**290.79**
Scenario C: Mixed Use Develops 100 Percent Residential			
Land Use Designation	**Net Dev. Acres**	**Possible Commercial Building Square Footage**	**Possible Dwelling Units**
Eastsound Village Commercial	13.15	0	498.99
Eastsound Marina	7.96	0	61.66
Lopez Village UGA	59.23	0	217.28
Scenario C Total	**80.34**	**0**	**725.83**

Table 13. Gross Mixed-Use Capacity by Land Use Designation and Category.

Land Use Designation	Category	Developable Acres	Dwelling Unit Capacity[1]	Building Capacity in Square Feet[2]
LUGA	2	35.78	139.93	1,421,485.42
LUGA	4	23.45	77.35	888,828.53
M	2	0.89	7.11	755.87
M	4	7.07	54.55	8,365.81
VC	2	6.77	260.78	101,307.61
VC	4	6.38	238.22	65,940.89

Notes

1. Dwelling unit capacity from Scenario A is shown in this table. This is the dwelling unit capacity calculated by assuming mixed-use areas develop with one-hundred percent residential.
2. Commercial capacity from Scenario C is shown table. This is the commercial building capacity calculated by assuming mixed-use areas develop with one-hundred percent residential.

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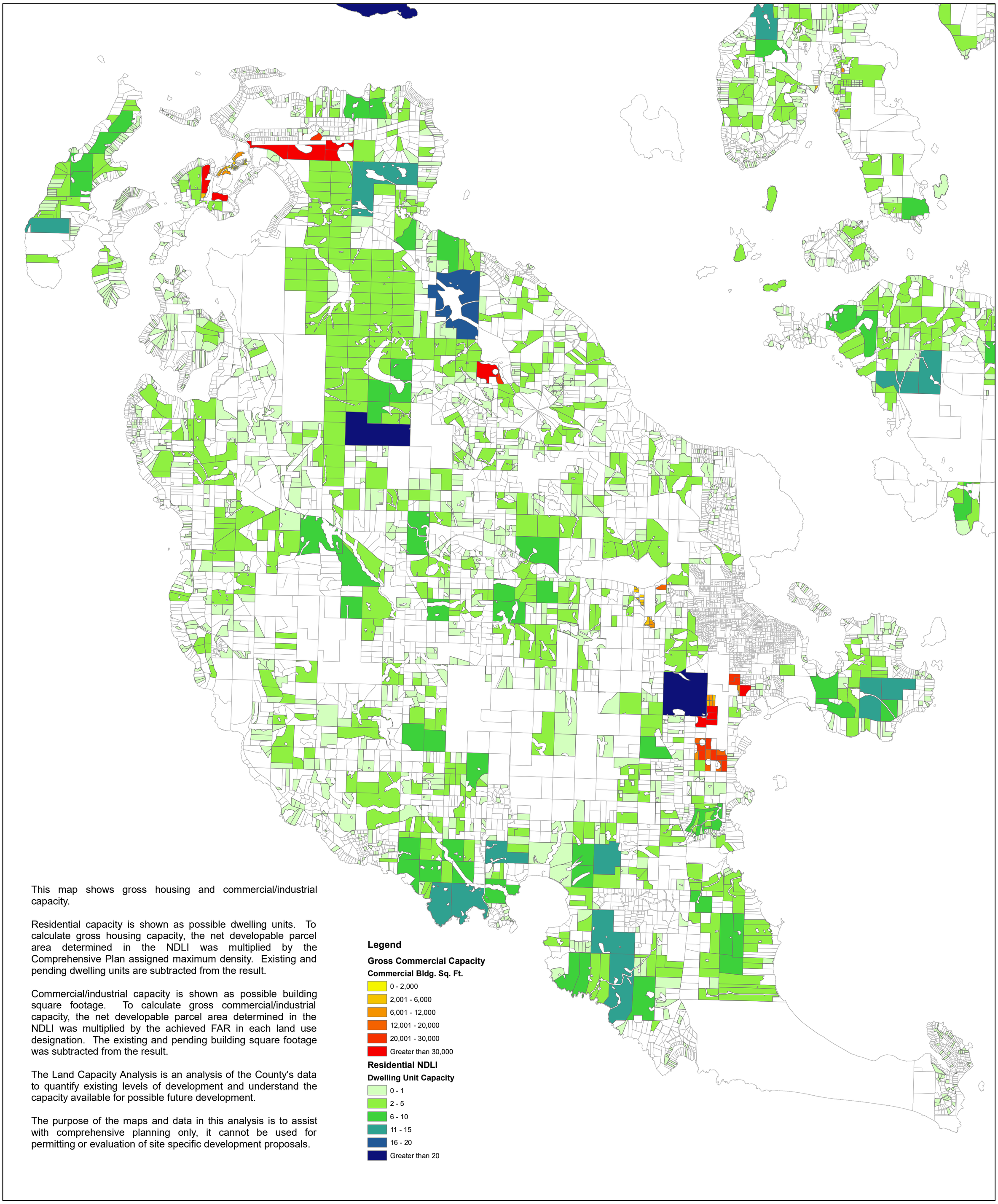
Map 9. Gross Capacity: San Juan Island.



This map shows gross housing and commercial/industrial capacity.

Residential capacity is shown as possible dwelling units. To calculate gross housing capacity, the net developable parcel area determined in the NDLI was multiplied by the Comprehensive Plan assigned maximum density. Existing and pending dwelling units are subtracted from the result.

Commercial/industrial capacity is shown as possible building square footage. To calculate gross commercial/industrial capacity, the net developable parcel area determined in the NDLI was multiplied by the achieved FAR in each land use designation. The existing and pending building square footage was subtracted from the result.

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The purpose of the maps and data in this analysis is to assist with comprehensive planning only, it cannot be used for permitting or evaluation of site specific development proposals.

0 0.5 1 2 3 4 5 Miles

1 in = 1 miles

N

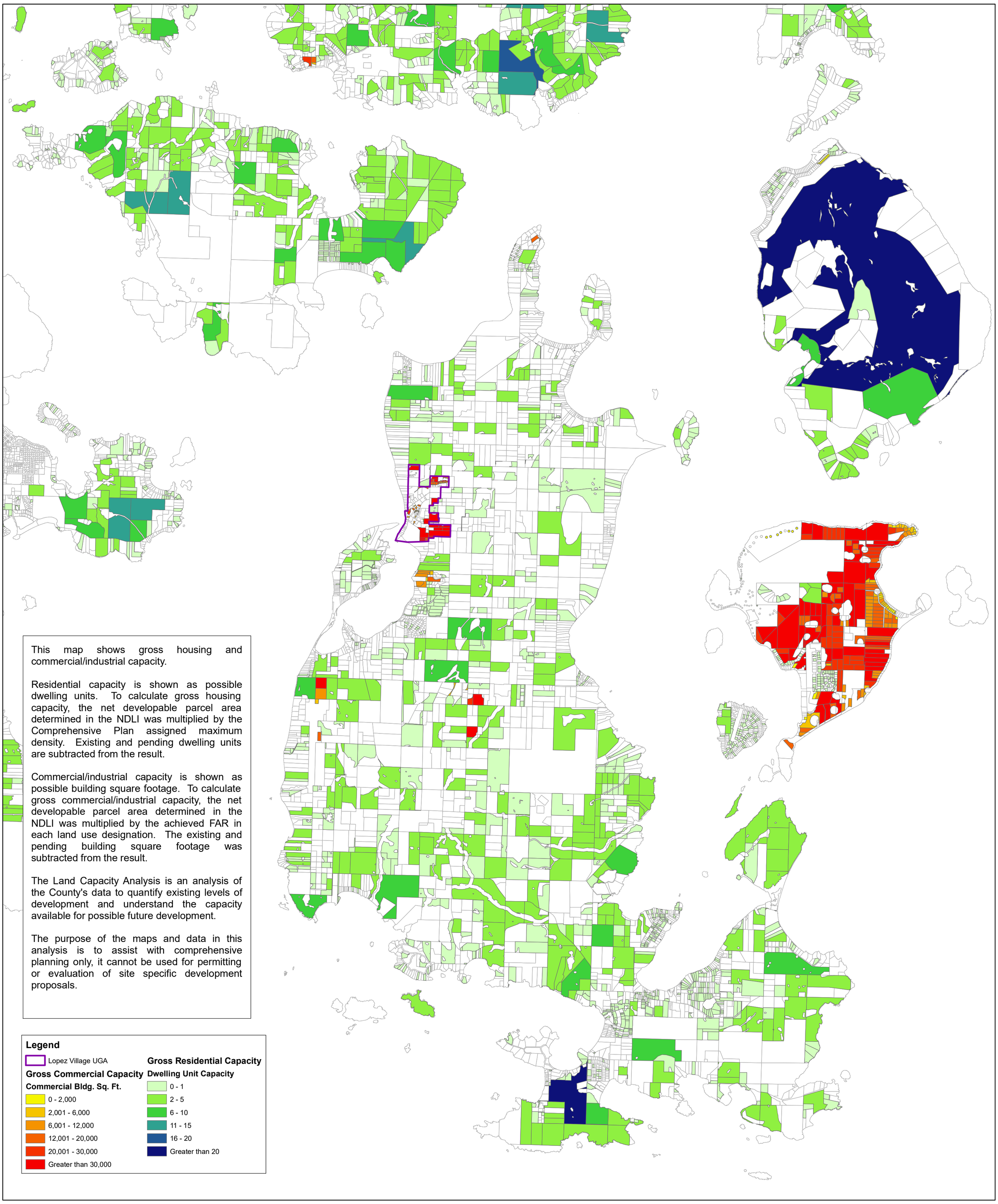
Document Path: O:\Projects\Comprehensive Plan\2018\LCA Validation\Maps for June staff report\Gross Capacity\G_Cap_SJI_1.mxd

Gross Capacity San Juan Island Version 1.0

Map Drawn: August 29, 2019

Drawn By: Adam Zack, Planner III

Map 10. Gross Capacity: Lopez and Shaw.



This map shows gross housing and commercial/industrial capacity.

Residential capacity is shown as possible dwelling units. To calculate gross housing capacity, the net developable parcel area determined in the NDLI was multiplied by the Comprehensive Plan assigned maximum density. Existing and pending dwelling units are subtracted from the result.

Commercial/industrial capacity is shown as possible building square footage. To calculate gross commercial/industrial capacity, the net developable parcel area determined in the NDLI was multiplied by the achieved FAR in each land use designation. The existing and pending building square footage was subtracted from the result.

The Land Capacity Analysis is an analysis of the County's data to quantify existing levels of development and understand the capacity available for possible future development.

The purpose of the maps and data in this analysis is to assist with comprehensive planning only, it cannot be used for permitting or evaluation of site specific development proposals.

Legend

Lopez Village UGA

Gross Commercial Capacity
Commercial Bldg. Sq. Ft.
- 0 - 2,000
- 2,001 - 6,000
- 6,001 - 12,000
- 12,001 - 20,000
- 20,001 - 30,000
- Greater than 30,000

Gross Residential Capacity
Dwelling Unit Capacity
- 0 - 1
- 2 - 5
- 6 - 10
- 11 - 15
- 16 - 20
- Greater than 20

0 0.5 1 2 3 4 5 Miles

1 in = 1 miles

N

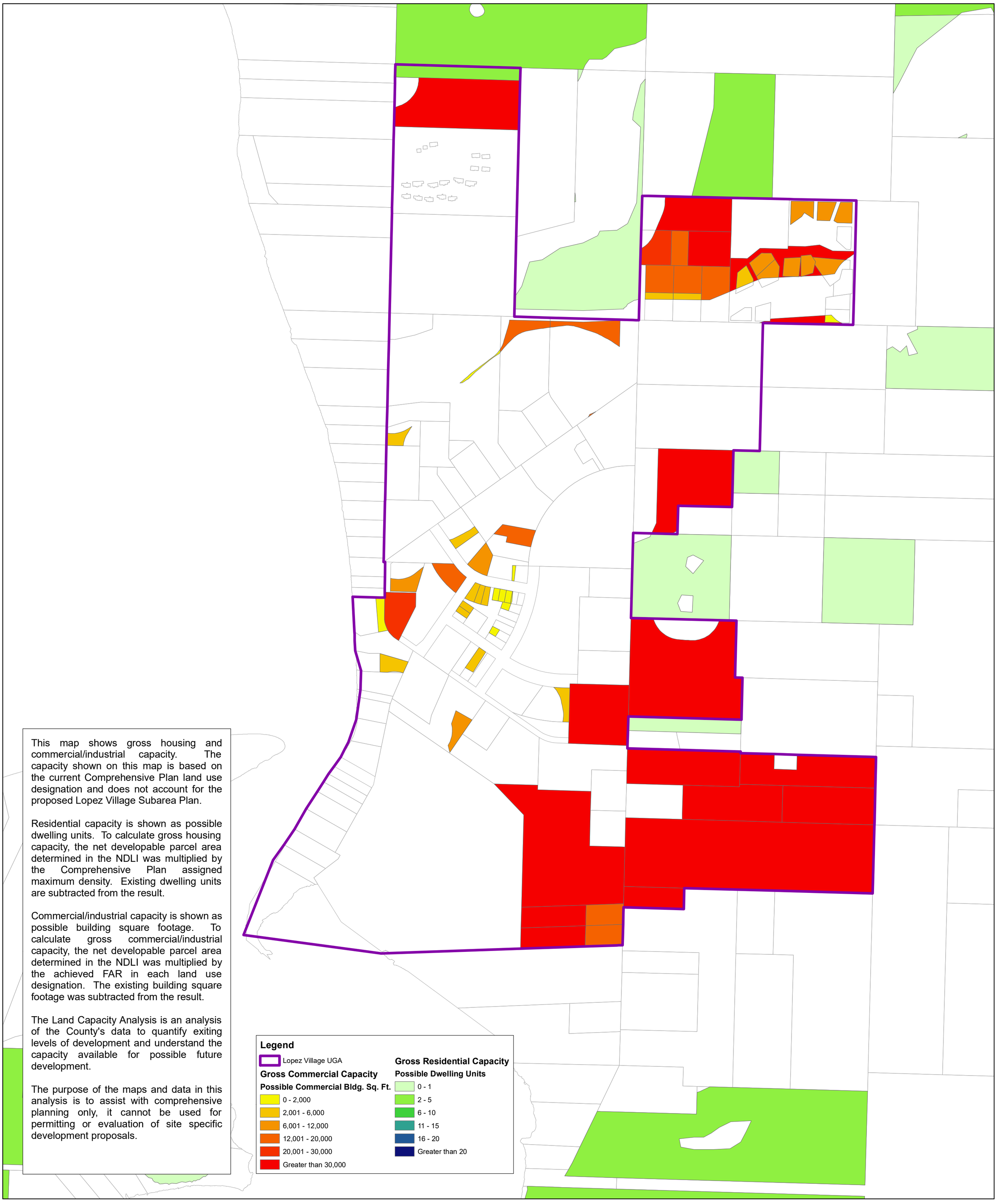
Document Path: O:\Projects\Comprehensive Plan\2018\LCA Validation\Maps for June staff report\Gross Capacity\G_Cap_Lopez_1.mxd

Gross Capacity Lopez and Shaw Version 1.0

Map Drawn: August 29, 2019

Drawn By: Adam Zack, Planner III

Map 10.A. Gross Capacity: Lopez Village.



This map shows gross housing and commercial/industrial capacity. The capacity shown on this map is based on the current Comprehensive Plan land use designation and does not account for the proposed Lopez Village Subarea Plan.

Residential capacity is shown as possible dwelling units. To calculate gross housing capacity, the net developable parcel area determined in the NDLI was multiplied by the Comprehensive Plan assigned maximum density. Existing dwelling units are subtracted from the result.

Commercial/industrial capacity is shown as possible building square footage. To calculate gross commercial/industrial capacity, the net developable parcel area determined in the NDLI was multiplied by the achieved FAR in each land use designation. The existing building square footage was subtracted from the result.

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The purpose of the maps and data in this analysis is to assist with comprehensive planning only, it cannot be used for permitting or evaluation of site specific development proposals.

0 255 510 1,020 1,530 2,040 2,550 Feet

1 in = 320 feet

N

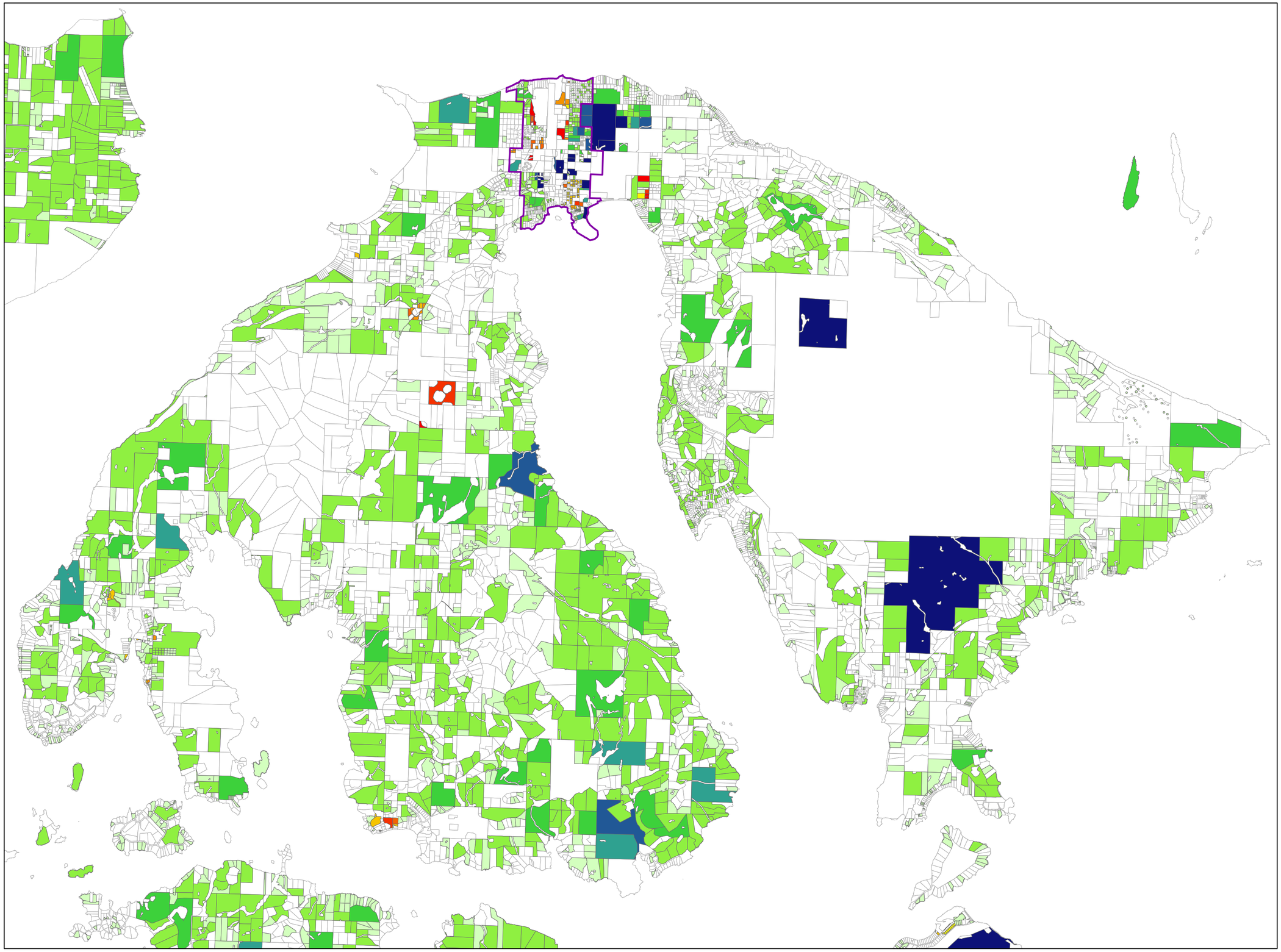
Document Path: O:\Projects\Comprehensive Plan\2018\LCA Validation\Maps for June staff report\Gross Capacity\G_Cap_Lopez_Village_1.mxd

Gross Capacity Lopez Village Version 1.0

Map Drawn: August 29, 2019

Drawn By: Adam Zack, Planner III

Map 11. Gross Capacity: Orcas Island.



Legend

Eastsound UGA

Gross Commercial Capacity

Possible Commercial Bldg. Sq. Ft.

- 0 - 2,000
- 2,001 - 6,000
- 6,001 - 12,000
- 12,001 - 20,000
- 20,001 - 30,000
- Greater than 30,000

Gross Residential Capacity

Possible Dwelling Units

- 0 - 1
- 2 - 5
- 6 - 10
- 11 - 15
- 16 - 20
- Greater than 20

This map shows gross housing and commercial/industrial capacity.

Residential capacity is shown as possible dwelling units. To calculate gross housing capacity, the net developable parcel area determined in the NDLI was multiplied by the Comprehensive Plan assigned maximum density. Existing and pending dwelling units are subtracted from the result.

Commercial/industrial capacity is shown as possible building square footage. To calculate gross commercial/industrial capacity, the net developable parcel area determined in the NDLI was multiplied by the achieved FAR in each land use designation. The existing and pending building square footage was subtracted from the result.

Commercial capacity in Service Park and Hamlet Industrial is shown by maximum allowed. See Land Capacity Analysis Report for details.

The Land Capacity Analysis is an analysis of the County's data to quantify existing levels of development and understand the capacity available for possible future development.

The purpose of the maps and data in this analysis is to assist with comprehensive planning only, it cannot be used for permitting or evaluation of site specific development proposals.

0 1 2 4 6 8 10 Miles

1 in = 1 miles

N

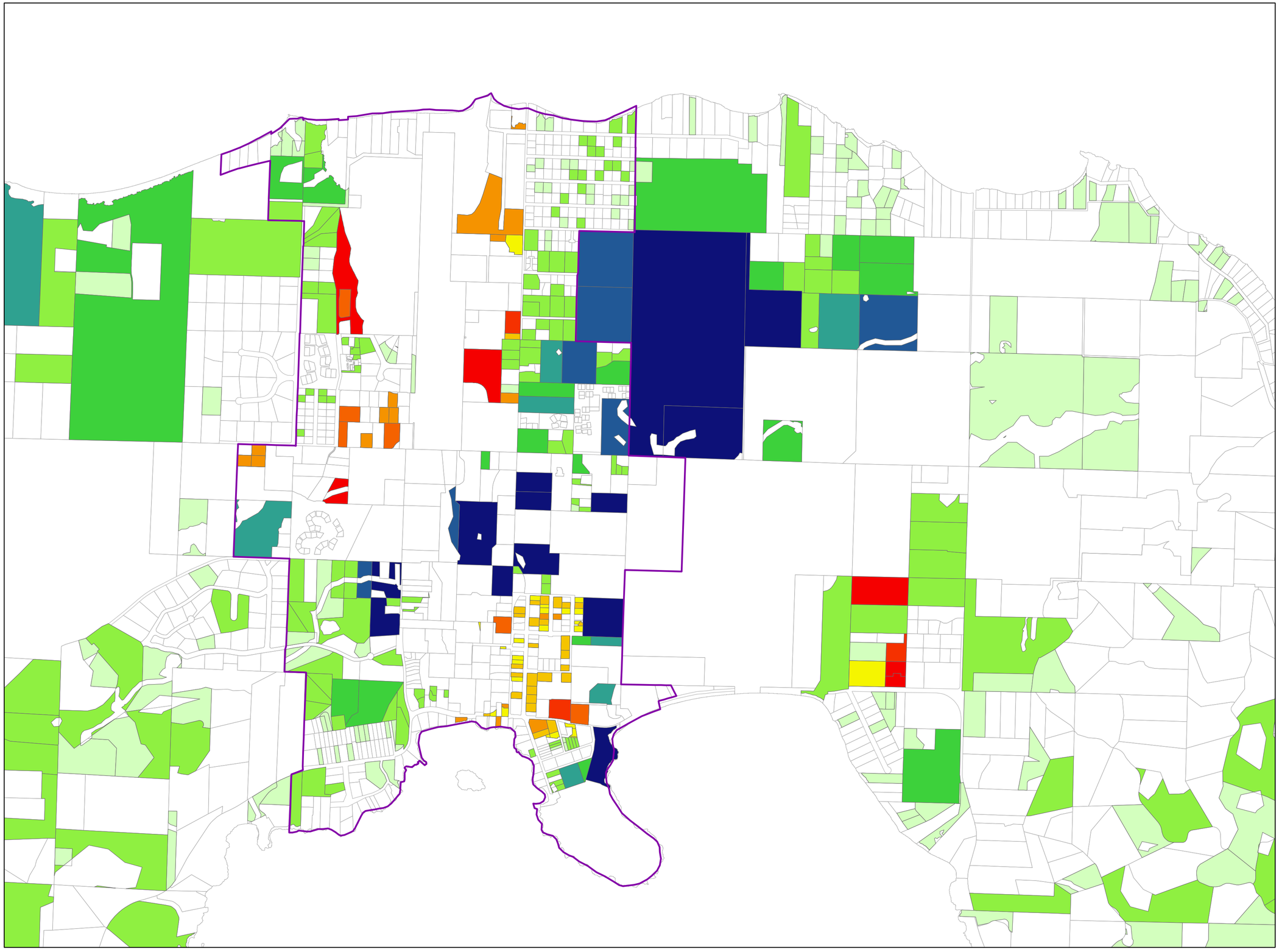
Gross Capacity Orcas Island Version 1.0

Map Drawn: August 29, 2019

Drawn By: Adam Zack, Planner III

Document Path: O:\Projects\Comprehensive Plan\2018\LCA Validation\Maps for June staff report\Gross Capacity\G_Cap_Orcas_1.mxd

Map 11.A. Gross Capacity: Eastsound.



Legend

Eastsound UGA

Gross Commercial Capacity

Possible Commercial Bldg. Sq. Ft.

- 0 - 2,000
- 2,001 - 6,000
- 6,001 - 12,000
- 12,001 - 20,000
- 20,001 - 30,000
- Greater than 30,000

Gross Residential Capacity

Possible Dwelling Units

- 0 - 1
- 2 - 5
- 6 - 10
- 11 - 15
- 16 - 20
- Greater than 20

This map shows gross housing and commercial/industrial capacity.

Residential capacity is shown as possible dwelling units. To calculate gross housing capacity, the net developable parcel area determined in the NDLI was multiplied by the Comprehensive Plan assigned maximum density. Existing and pending dwelling units are subtracted from the result.

Commercial/industrial capacity is shown as possible building square footage. To calculate gross commercial/industrial capacity, the net developable parcel area determined in the NDLI was multiplied by the achieved FAR in each land use designation. The existing and pending building square footage was subtracted from the result.

Commercial capacity in Service Park is shown by maximum allowed. See Land Capacity Analysis report for details.

The Land Capacity Analysis is an analysis of the County's data to quantify existing levels of development and understand the capacity available for possible future development.

The purpose of the maps and data in this analysis is to assist with comprehensive planning only, it cannot be used for permitting or evaluation of site specific development proposals.

0 0.2 0.4 0.8 1.2 1.6 2 Miles

1 in = 764 feet

N

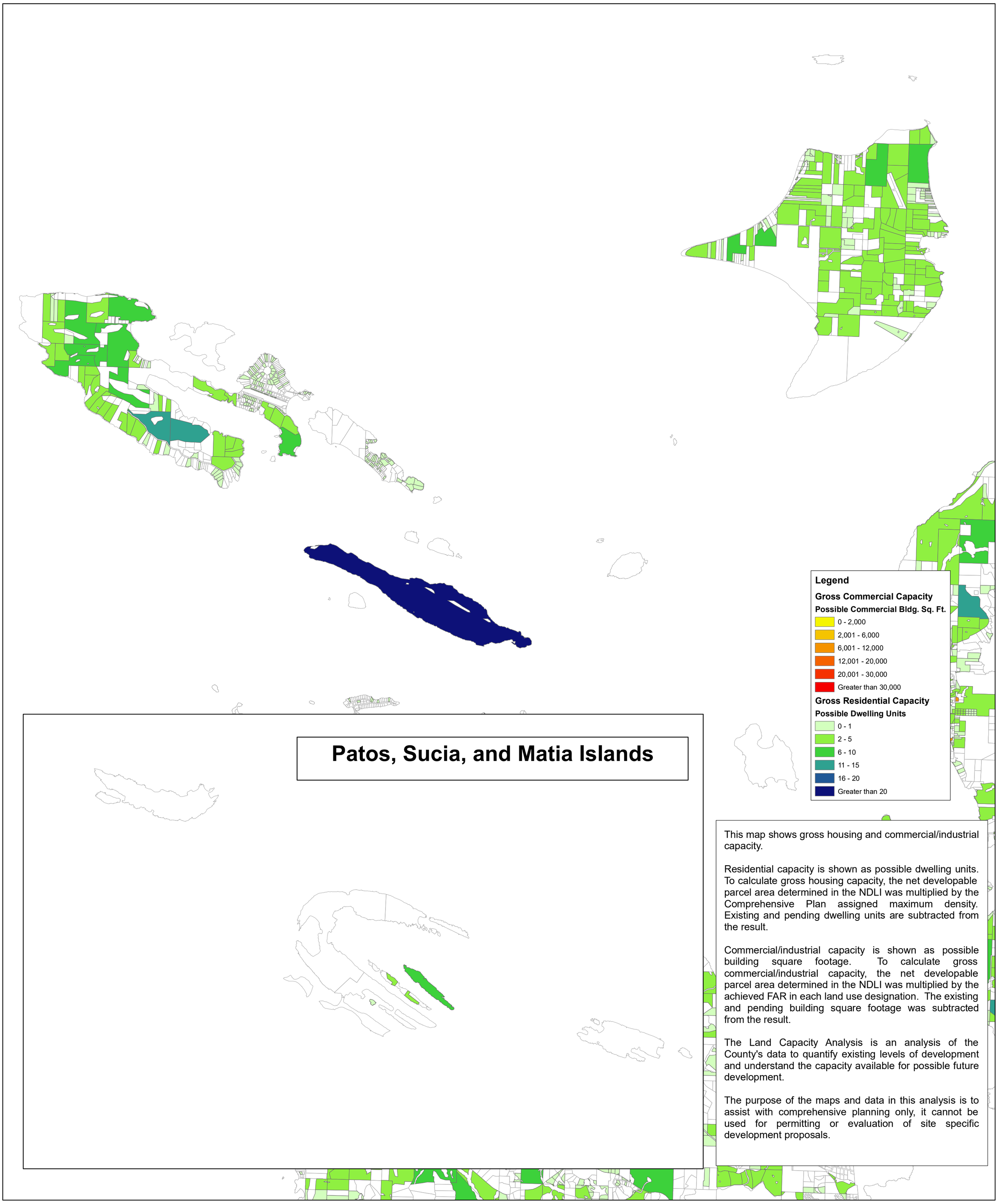
Gross Capacity Eastsound Version 1.0

Map Drawn: August 29, 2019

Drawn By: Adam Zack, Planner III

Document Path: O:\Projects\Comprehensive Plan\2018\LCA Validation\Maps for June staff report\Gross Capacity\G_Cap_Eastsound_1.mxd

Map 12. Gross Capacity: Outer Islands.



This map shows gross housing and commercial/industrial capacity.

Residential capacity is shown as possible dwelling units. To calculate gross housing capacity, the net developable parcel area determined in the NDLI was multiplied by the Comprehensive Plan assigned maximum density. Existing and pending dwelling units are subtracted from the result.

Commercial/industrial capacity is shown as possible building square footage. To calculate gross commercial/industrial capacity, the net developable parcel area determined in the NDLI was multiplied by the achieved FAR in each land use designation. The existing and pending building square footage was subtracted from the result.

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The purpose of the maps and data in this analysis is to assist with comprehensive planning only, it cannot be used for permitting or evaluation of site specific development proposals.

0 0.5 1 2 3 4 5 Miles

1 in = 1 miles

N

Document Path: O:\Projects\Comprehensive Plan\2018\LCA Validation\Maps for June staff report\Gross Capacity\G_Cap_Outer_Islands_1.mxd

Gross Capacity Outer Islands Version 1.0

Map Drawn: August 29, 2019

Drawn By: Adam Zack, Planner III

E. Calculating Maximum Commercial, Industrial, and Mixed-Use Building Capacity

The maximum building capacity was calculated based on what is allowed under current development regulations and Plan designations for commercial, industrial and mixed-use. Capacity is measured in building square feet. The result is a map that shows the maximum buildout capacity of each commercial, industrial and mixed-use parcel.

For all of the assumptions and formulas used in determining the maximum buildout capacity, see Section E of Attachment A, the LCA Methodology. Table 14 below summarizes the maximum FAR for each land use designation.

Table 14. Maximum Building FAR by Land Use Designation.

Land Use Designation	Max FAR	Land Use Designation	Max FAR
RC: Rural Commercial	0.3	**OHC:** Olga Hamlet Commercial	Variable[6]
RI: Rural Industrial	0.6	**SP:** Service Park	0.6
RGU: Rural General Use	0.3	**CCC:** Country Corner Commercial	Variable[7]
MPR: Master Planned Resort	N/A[9]	**VC:** Eastsound Village Commercial	Variable[1]
IC: Island Center Limited Area of More Intense Rural Development (LAMIRD)	Variable[8]	**M:** Marina	0.9
MC: Marine Center LAMIRD	Variable[2]	**SLI:** Service and Light Industrial	1.8
DHHC: Deer Harbor Hamlet Commercial	Set[4]	**LUGA:** Lopez Village Urban Growth Area	Variable[2]
DHHI: Deer Harbor Hamlet Industrial	Set[5]	**EAD:** Eastsound Airport District	0.5
OVC: Orcas Village Commercial	Set[3]		
OVT: Orcas Village Transportation	Set[10]		
OCC: Olga Community Center	Variable[6]		

NOTES

1. In Eastsound Village Commercial, parcels larger than 5,556 are limited by lot coverage, FAR is 1.625. Parcels smaller than 5,556 are not limited by lot coverage, FAR is 2.25.
2. In Lopez Village Commercial and Marine Center, parcels larger than 5,556 are limited by lot coverage, FAR is 1.95. Parcels smaller than 5,556 are not limited by lot coverage, FAR is 2.7.
3. OVC is limited to 3,000 square feet of floor area.
4. DHHC is limited to 5,000 square feet of floor area.
5. DHHI is limited to 6,000 square feet of floor area.
6. In OHC and OCC Parcels smaller than 6,000 square feet: 3,000 square feet of floor area. Parcels 6,001 to 10,000 square feet: 0.5 FAR. Parcels 10,001 to 16,000 square feet: 0.5 FAR. Parcels 16,001 to 43,560 square feet: 8,000 square feet of floor area. Parcels larger than one acre: 0.2 FAR.
7. In CCC parcels larger than 44,444 square feet have a max floor area of 30,000. Parcels smaller than 44,444: 1.2 FAR.

8. In IC, parcels larger than 4,444 square feet: 1.8 FAR. Parcels smaller than 4,444 square feet: 4,000 square feet of floor area.

9. Master Planned Resorts have adopted master plans that determine the dimensional standards and expected development, see LCA Methodology.

10. OVT is limited to 4,000 square feet of floor area.

Commercial, Industrial, and Mixed-Use Maximum Building Capacity

Using the maximum FAR formula for each land use designation, the gross commercial, industrial, and mixed-use capacity in building square footage was calculated for all developable parcels in each relevant land use designation. These were summed. The gross maximum building capacity is shown by land use designation in Table 15 of this report and shown on Maps 13 through 16. The formula used was:

Parcel Area X Maximum FAR = Maximum building capacity per parcel.

Table 15. Maximum Commercial and Industrial Buildout Capacity by Land Use Designation2.

Land Use Designation	Developable Acres	Building Capacity	Land Use Designation	Developable Acres	Building Capacity
CCC	5.76	136,286.61	**DHHC**	2.65	28,225.3
DHHI	4.43	31,840.00	**IC**	30.44	2,359,172.99
MC	17.36	1,457,934.96	**MPR**	131.87	N/A[2]
OVC	7.71	22,631.00	**OVT**	5.65	4,000.00
RGU	1145.87	14,742,215.26	**RI**	53.17	1,347,987.66
SLI	19.98	1,521,010.74	**SP**	4.97	129,097.86
LUGA	59.23	5,013,098.98	**VC**	13.15	889,362.82
			M	7.96	307,209.02

Notes

1. Two land use designations are not shown on Table 14. Rural Commercial (RC) and Olga Hamlet Commercial (OHC) do not have any capacity because they are both fully developed.

2. Development standards in the Master Planned Resort (MRP) land use designation are determined by the adopted master plan. The plan specific parcel information is not included in the available GIS data and so cannot be adequately analyzed with the available information. As a result, maximum building capacity was not calculated in this land use designation. See LCA Methodology for more information (Attachment A).

Maximum Mixed-Use Building Capacity

Some land use designations allow mixed-uses, a combination of residential and commercial development. Assumptions about the proportion of residential and commercial development were used to calculate future capacity for these land use designations. The LCA assumes that mixed-use dwelling units will average 1,000 square feet per dwelling, the same assumption used in mixed-use designations in the Lopez Village and Eastsound urban growth areas. Mixed-use capacity is presented in three scenarios based on different proportions of commercial and residential uses. The scenarios are discussed below. Table 15 below shows the gross mixed-use capacity for all three scenarios.

Mixed-Use Development Scenarios

Mixed-use developments can be composed of any proportion of residential and commercial square footage. Tables 16 through 17 below show the mixed-use capacity based on maximum FAR. For this reason, the LCA presents mixed-use capacity in three scenarios:

Scenario A: Mixed-use parcels develop with one-hundred percent commercial development;

Scenario B: Mixed-use parcels develop with fifty percent of each residential and commercial; and

Scenario C: Mixed-use parcels develop with one-hundred percent residential development.

Gross Mixed-Use Capacity Steps

1. Calculate building square footage capacity using maximum allowed FAR. The result of this step is the capacity for Scenario A.
2. Multiply the maximum building square footage by 0.5 to determine what fifty percent of the square footage is. Fifty percent of the building will be considered commercial capacity in Scenario B. The remaining fifty percent will be used in the next calculation.
3. Divide the fifty percent residential floor area by 1,000 square feet to arrive at the number of possible mixed-use dwelling units for residential capacity in Scenario B. This process assumes that each dwelling unit will be 1,000 square feet.
4. The maximum allowed density is multiplied by the net developable acreage to calculate the possible dwelling units in Scenario C.

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Table 16. Gross Maximum Mixed-Use Building Capacity by Land Use Designation.

Scenario A: Mixed Use Develops 100 Percent Commercial			
Land Use Designation	**Net Dev. Acres**	**Possible Commercial Building Square Footage**	**Possible Dwelling Units**
Eastsound Village Commercial	13.15	889,362.82	0
Eastsound Marina	7.96	307,209.02	0
Lopez Village UGA	59.23	5,013,098.98	0
Scenario A Total	**80.34**	**6,209,670.82**	**0**
Scenario B: Mixed Use Develops with 50 Percent Residential and Commercial			
Land Use Designation	**Net Dev. Acres**	**Possible Commercial Building Square Footage**	**Possible Dwelling Units**
Eastsound Village Commercial	13.15	444,681.41	444.68
Eastsound Marina	7.96	153,604.51	61.66
Lopez Village UGA	59.23	2,506,549.49	217.28
Scenario B Total	**80.34**	**3,104,835.41**	**723.62**
Scenario C: Mixed Use Develops 100 Percent Residential			
Land Use Designation	**Net Dev. Acres**	**Possible Commercial Building Square Footage**	**Possible Dwelling Units**
Eastsound Village Commercial	13.15	0	498.99
Eastsound Marina	7.96	0	61.66
Lopez Village UGA	59.23	0	217.28
Scenario C Total	**80.34**	**0**	**725.83**

Table 17. Gross Maximum Mixed-Use Capacity by Land Use Designation and Category.

Land Use Designation	Category	Developable Acres	Dwelling Unit Capacity[1]	Building Capacity in Square Feet[2]
LUGA	2	35.78	139.93	3,066,479.20
LUGA	4	23.45	77.35	1,946,619.77
M	2	0.89	7.11	34,244.10
M	4	7.07	54.55	272,964.93
VC	2	6.77	260.78	479,052.71
VC	4	6.38	238.22	410,310.10

Notes

1. Dwelling unit capacity from scenario A is shown in this table. This is the dwelling unit capacity calculated by assuming mixed-use areas develop with one-hundred percent residential.
2. Commercial capacity from scenario C is shown table. This is the commercial building capacity calculated by assuming mixed-use areas develop with one-hundred percent residential.

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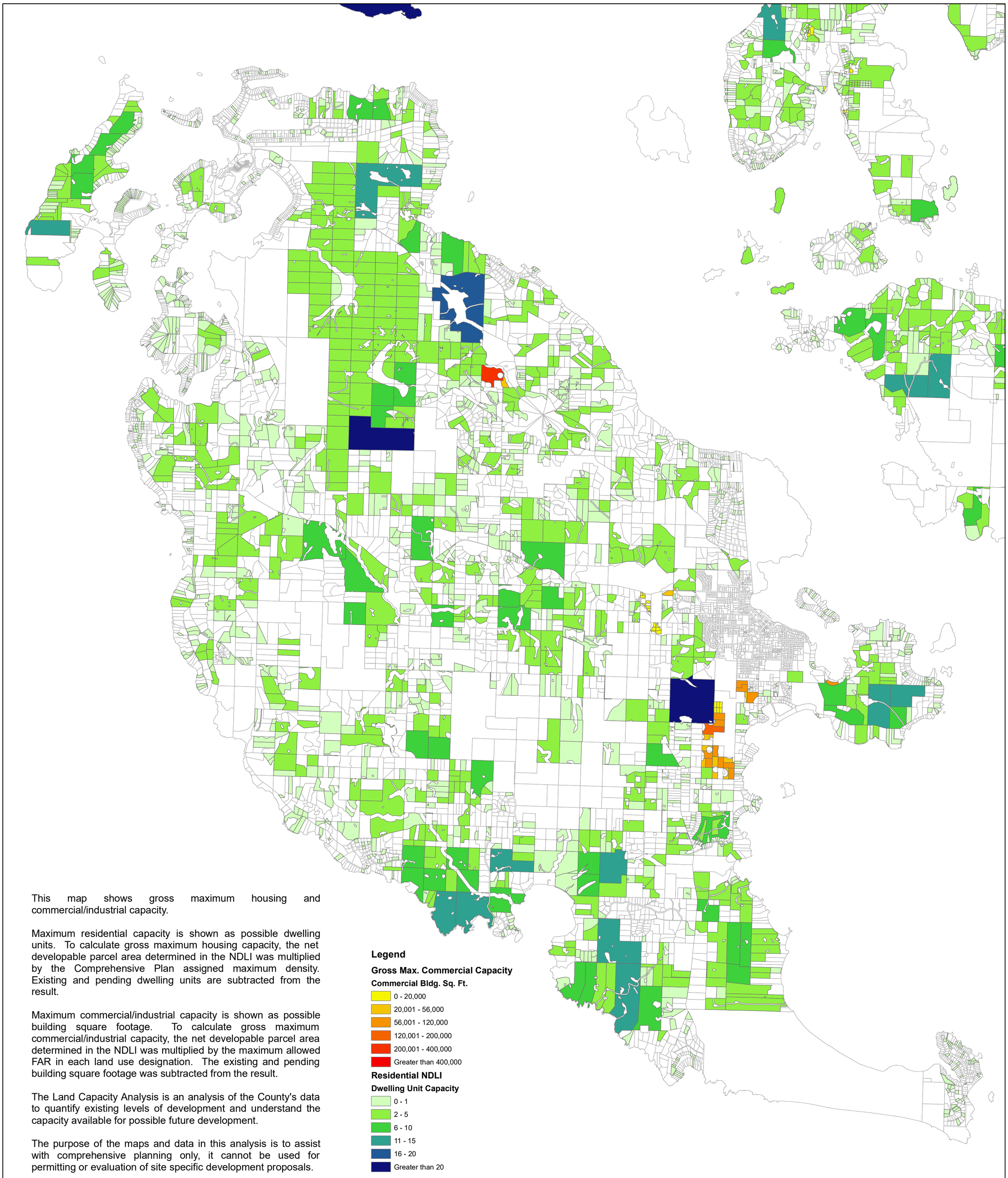
Map 13. Gross Maximum Capacity: San Juan Island.



This map shows gross maximum housing and commercial/industrial capacity.

Maximum residential capacity is shown as possible dwelling units. To calculate gross maximum housing capacity, the net developable parcel area determined in the NDLI was multiplied by the Comprehensive Plan assigned maximum density. Existing and pending dwelling units are subtracted from the result.

Maximum commercial/industrial capacity is shown as possible building square footage. To calculate gross maximum commercial/industrial capacity, the net developable parcel area determined in the NDLI was multiplied by the maximum allowed FAR in each land use designation. The existing and pending building square footage was subtracted from the result.

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0 0.5 1 2 3 4 5 Miles

1 in = 1 miles

N

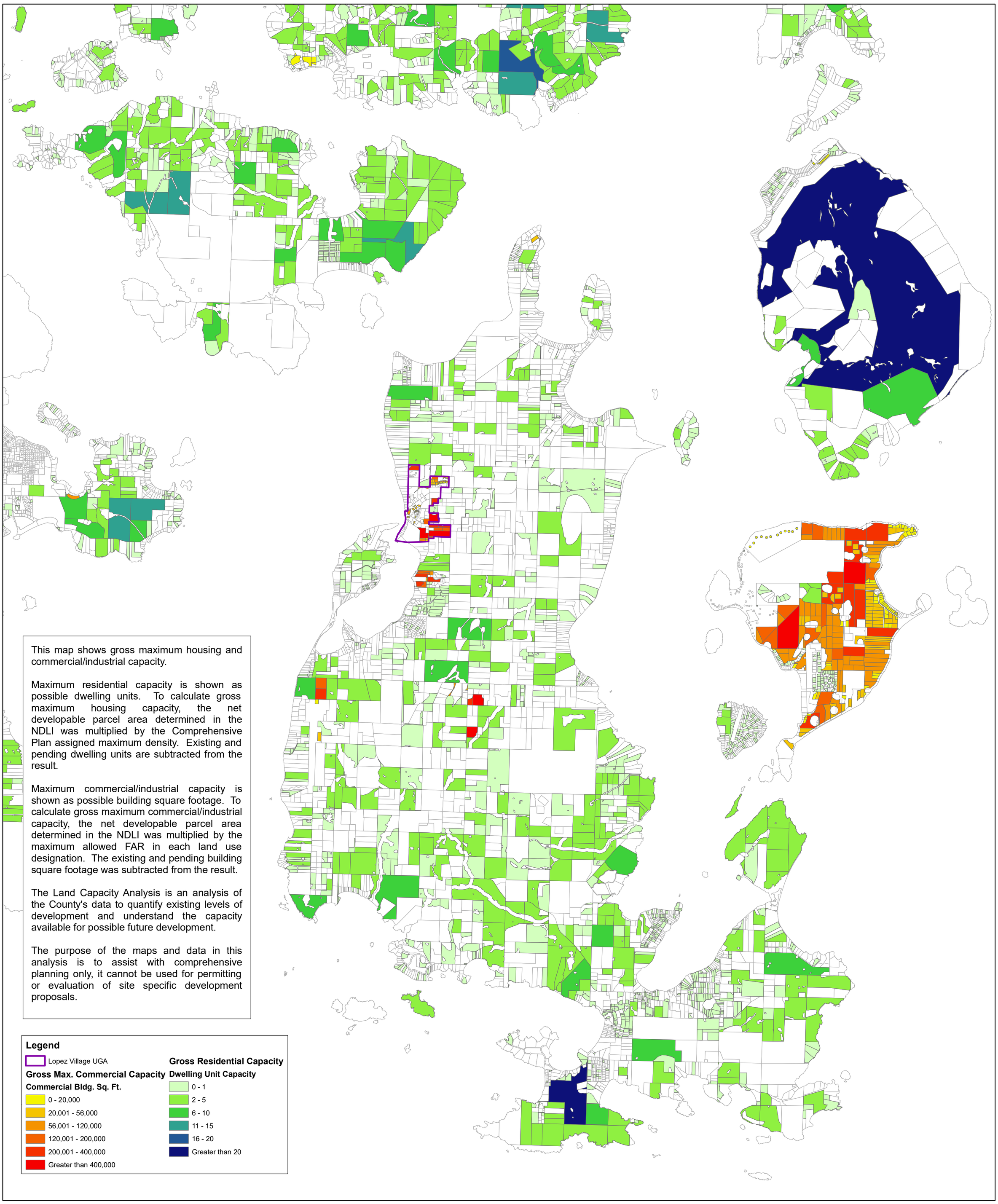
Document Path: O:\Projects\Comprehensive Plan\2018\LCA Validation\Maps for June staff report\Max Capacity\Max-G_Cap_SJI_1.mxd

Gross Maximum Capacity San Juan Island Version 1.0

Map Drawn: September 4, 2019

Drawn By: Adam Zack, Planner III

Map 14. Gross Maximum Capacity: Lopez and Shaw.



This map shows gross maximum housing and commercial/industrial capacity.

Maximum residential capacity is shown as possible dwelling units. To calculate gross maximum housing capacity, the net developable parcel area determined in the NDLI was multiplied by the Comprehensive Plan assigned maximum density. Existing and pending dwelling units are subtracted from the result.

Maximum commercial/industrial capacity is shown as possible building square footage. To calculate gross maximum commercial/industrial capacity, the net developable parcel area determined in the NDLI was multiplied by the maximum allowed FAR in each land use designation. The existing and pending building square footage was subtracted from the result.

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Legend

Lopez Village UGA

Gross Max. Commercial Capacity
Commercial Bldg. Sq. Ft.
- 0 - 20,000
- 20,001 - 56,000
- 56,001 - 120,000
- 120,001 - 200,000
- 200,001 - 400,000
- Greater than 400,000

Gross Residential Capacity
Dwelling Unit Capacity
- 0 - 1
- 2 - 5
- 6 - 10
- 11 - 15
- 16 - 20
- Greater than 20

0 0.5 1 2 3 4 5 Miles

1 in = 1 miles

N

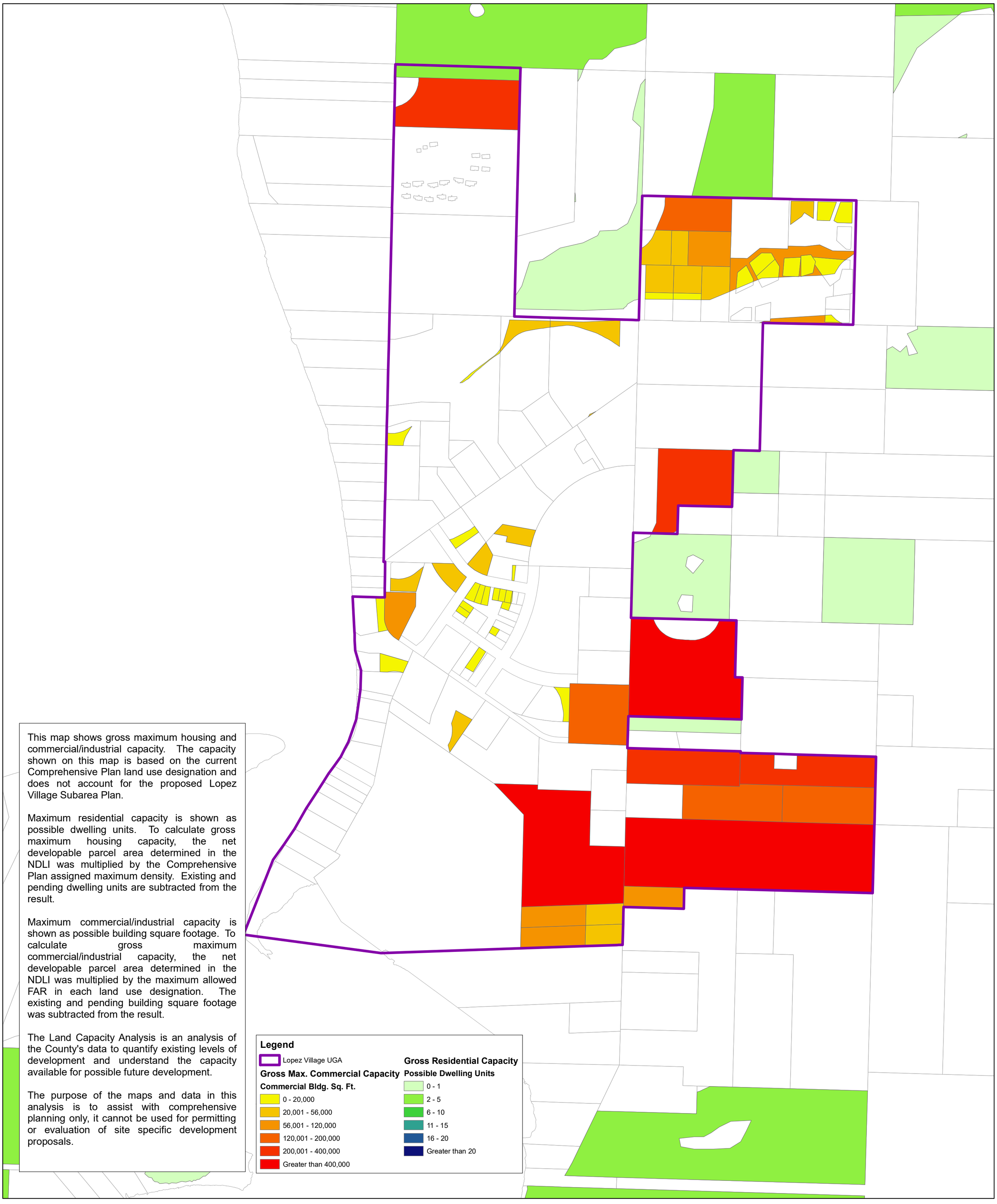
Document Path: O:\Projects\Comprehensive Plan\2018\LCA Validation\Maps for June staff report\Max Capacity\Max-G_G_Cap_Lopez_1.mxd

Gross Maximum Capacity Lopez and Shaw Version 1.0

Map Drawn: September 4, 2019

Drawn By: Adam Zack, Planner III

Map 14.A. Gross Maximum Capacity: Lopez Village.



This map shows gross maximum housing and commercial/industrial capacity. The capacity shown on this map is based on the current Comprehensive Plan land use designation and does not account for the proposed Lopez Village Subarea Plan.

Maximum residential capacity is shown as possible dwelling units. To calculate gross maximum housing capacity, the net developable parcel area determined in the NDLI was multiplied by the Comprehensive Plan assigned maximum density. Existing and pending dwelling units are subtracted from the result.

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0 255 510 1,020 1,530 2,040 2,550 Feet

1 in = 320 feet

N

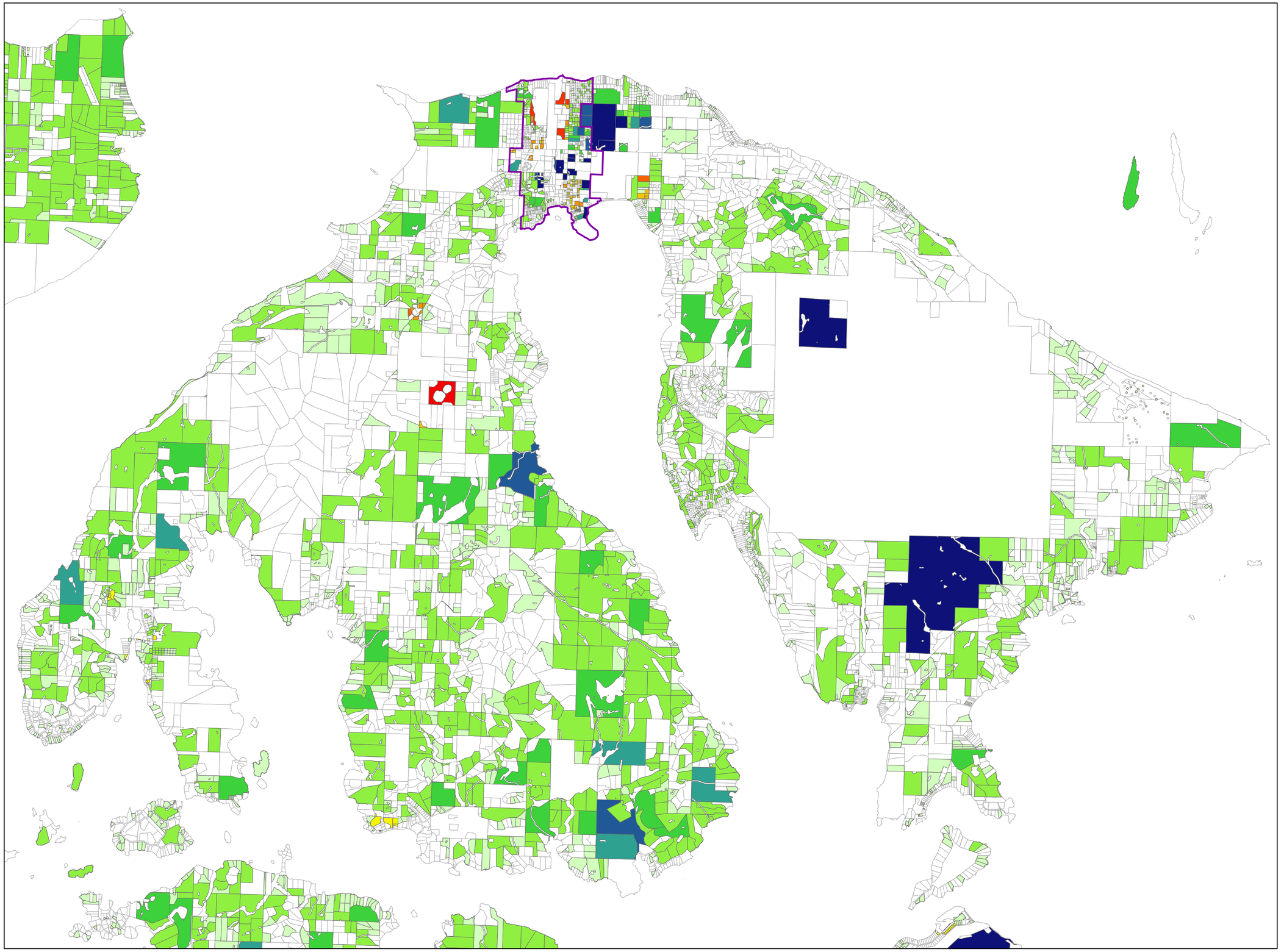
Document Path: O:\Projects\Comprehensive Plan\2018\LCA Validation\Maps for June staff report\Max Capacity\Max-G_Cap_Lopez_Village_1.mxd

Gross Maximum Capacity Lopez Village Version 1.0

Map Drawn: September 4, 2019

Drawn By: Adam Zack, Planner III

Map 15. Gross Maximum Capacity: Orcas Island.



Legend

Eastsound UGA

Gross Max. Commercial Capacity

Commercial Bldg. Sq. Ft.

- 0 - 20,000
- 20,001 - 56,000
- 56,001 - 120,000
- 120,001 - 200,000
- 200,001 - 400,000
- Greater than 400,000

Gross Residential Capacity

Possible Dwelling Units

- 0 - 1
- 2 - 5
- 6 - 10
- 11 - 15
- 16 - 20
- Greater than 20

This map shows gross maximum housing and commercial/industrial capacity.

Maximum residential capacity is shown as possible dwelling units. To calculate gross maximum housing capacity, the net developable parcel area determined in the NDLI was multiplied by the Comprehensive Plan assigned maximum density. Existing and pending dwelling units are subtracted from the result.

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0 1 2 4 6 8 10 Miles

1 in = 1 miles

N

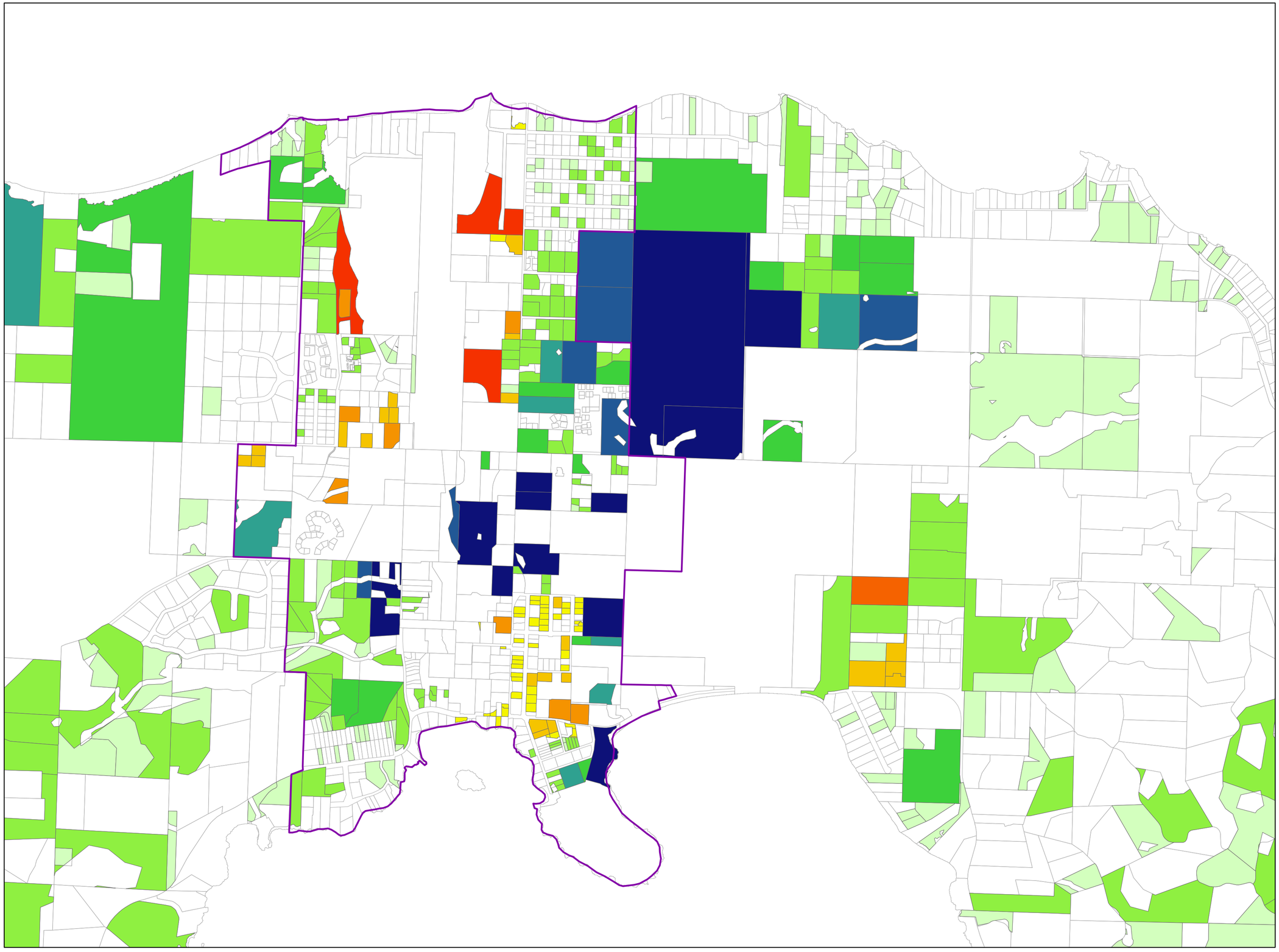
Gross Maximum Capacity Orcas Island Version 1.0

Map Drawn: September 4, 2019

Drawn By: Adam Zack, Planner III

Document Path: O:\Projects\Comprehensive Plan\2018\LCA Validation\Maps for June staff report\Max Capacity\Max-G_Cap_Orcas_1.mxd

Map 15.A. Gross Maximum Capacity: Eastsound.



Legend

Eastsound UGA

Gross Max. Commercial Capacity

Commercial Bldg. Sq. Ft.

- 0 - 20,000
- 20,001 - 56,000
- 56,001 - 120,000
- 120,001 - 200,000
- 200,001 - 400,000
- Greater than 400,000

Gross Residential Capacity

Possible Dwelling Units

- 0 - 1
- 2 - 5
- 6 - 10
- 11 - 15
- 16 - 20
- Greater than 20

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Maximum residential capacity is shown as possible dwelling units. To calculate gross maximum housing capacity, the net developable parcel area determined in the NDLI was multiplied by the Comprehensive Plan assigned maximum density. Existing and pending dwelling units are subtracted from the result.

Maximum commercial/industrial capacity is shown as possible building square footage. To calculate gross maximum commercial/industrial capacity, the net developable parcel area determined in the NDLI was multiplied by the maximum allowed FAR in each land use designation. The existing and pending building square footage was subtracted from the result.

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The purpose of the maps and data in this analysis is to assist with comprehensive planning only, it cannot be used for permitting or evaluation of site specific development proposals.

0 0.2 0.4 0.8 1.2 1.6 2 Miles

1 in = 764 feet

N

Gross Maximum Capacity Eastsound
Version 1.0

Map Drawn: September 4, 2019

Document Path: O:\Projects\Comprehensive Plan\2018\LCA Validation\Maps for June staff report\Max Capacity\Max-G_Cap_Eastsound_1.mxd

F. Final Capacity

Final capacity was calculated using the tables created in the gross capacity step. Columns were added to the tables to include public use, market, seasonal and recreational home factors. The Final Capacity column in the final capacity tables reflects the gross capacity from the previous LCA tasks minus the deductions described below.

The calculation of final capacity on vacant, partially used and re-developable parcels is based on assumptions about how much development is expected on each parcel. The LCA uses two ratios in the final capacity calculations: achieved FAR and maximum possible FAR. The achieved FAR is based on existing development intensity and provides a metric of what development is likely to happen. The maximum FAR is the full FAR allowed under current development regulations. The maximum FAR was used in Task E to calculate the full intensity of development allowed under the development code.

Public Use Factor

The Public Use Factor of five (5) percent was deducted to account for the lands that may be used for public purposes, such as road right-of-ways, utility corridors, public pathways and other lands set aside for public uses.

Market Factor

A market factor of twenty-five (25) percent was deducted from the gross commercial and residential to account for the land that is not available for development during the planning period. It is expected that over the 20-year planning period some lands will be kept off the market due to speculative holding, land banking, and personal use.

Seasonal/Recreational Home Factor

A thirty-five (35) percent deduction was taken from the gross housing capacity. This deduction addresses US Census data indicating that around 35 percent of the houses in the County were categorized as vacant for seasonal, recreational, or occasional use.

Capacity Deductions

The final capacity is shown in Tables 18 through 33 below. The tables show each of the deductions and the final capacity once they are removed from the gross. The tables also show the population capacity for each land use designation by multiplying the final dwelling unit capacity by 2.04, the average number of people per household in San Juan County. Finally, the tables show San Juan County population forecast information as it relates to the LCA, particularly the Eastsound and Lopez Village UGAs.

DRAFT

Commercial and Residential Capacity

2036 Orcas Population	6423
April 1, 2016 Population	5395
Additional Population 2016-	1028
50% of projected Orcas Population Growth for sizing UGA Capacity	514

Scenario A - Village Commercial and Marina Designations develop with 100% commercial

	Gross		Market Factor Reductions							Net				
Land Use Designation	Gross Residential Capacity (Dwelling Units)	Gross Non-Residential Capacity (Building square feet)	Com. Public Use Factor (5%)	Res. Public Use Factor (5%)	Com. Market Factor (25%)	Res. Market Factor (25%)	Res. Seasonal and Recreational Home Factor (35%)	Res. Subtotal Market Factor Capacity Reductions	Com. Subtotal Market Factor Capacity Reductions	Additional Residential Capacity (Dwelling Units)	Additional Non-Residential Capacity (Building square feet)	Population Capacity (2.04 persons per household)	Capacity Excess/ Shortfall	
ER1	1.49	0	0	0.07	0	0.37	0.52	0.97	0	0.52	0	1		
ER1P	16.25	0	0	0.81	0	4.06	5.69	10.56	0	5.69	0	12		
ER2	37.22	0	0	1.86	0	9.30	13.03	24.19	0	13.03	0	27		
ER2P	45.45	0	0	2.27	0	11.36	15.91	29.54	0	15.91	0	32		
ER412	20.47	0	0	1.02	0	5.12	7.17	13.31	0	7.17	0	15		
ER4P	158.43	0	0	7.92	0	39.61	55.45	102.98	0	55.45	0	113		
VC	-27	167,248.51	8,362.43	0	41,812.13	0	0	0	50,174.55	-27.00	117,073.95	-55		
M	-2	311,966.02	15598.30	0	77,991.51	0	0	0	93,589.81	-2.00	218,376.21	-4		
SLI	-5.00	369,873.98	18493.70	0	92,468.50	0	0	0	110,962.19	-5.00	258,911.79	-10		
EAD	0	0	0	0	0	0	0	0	0	0	0	0		
EN	0	0	0	0	0	0	0	0	0	0	0	0		
VR	519.12	0.00	0.00	25.96	0.00	129.78	181.69	337.43	0.00	181.69	0	371		
Total	**764**	**849,088.51**	**42,454.43**	**39.57**	**212,272.13**	**199.61**	**279.45**		**254,726.55**	**245**	**594,362**	**501**	**-13**	**514**

Scenario B - Village Commercial and Marina Designations develop with 50% commercial and 50% residential

Land Use Designation														
ER1	1.49	0	0	0.07	0	0.37	0.52	0.97	0	0.52	0	1.07		
ER1P	16.25	0	0	0.81	0	4.06	5.69	10.56	0	5.69	0	11.60		
ER2	37.22	0	0	1.86	0	9.30	13.03	24.19	0	13.03	0	26.57		
ER2P	45.45	0	0	2.27	0	11.36	15.91	29.54	0	15.91	0	32.45		
ER412	20.47	0	0	1.02	0	5.12	7.17	13.31	0	7.17	0	14.62		
ER4P	270.13	0	0	13.51	0	67.53	94.55	175.59	0	94.55	0	192.88		
VC	68.95	83,298.25	4,164.91	3.45	20,824.56	17.24	24.13	44.82	24,989.48	24.13	58,308.78	49.23		
M	4.56	4,560.84	228.04	0.23	1,140.21	1.14	1.60	2.96	1,368.25	1.60	3,192.59	3.26		
SLI	-5.00	369,873.98	18,493.70	0	92,468.50	0	0	0	110,962.19	-5.00	258,911.79	-10.2		
EAD	0	0	0	0	0	0	0	0	0	0	0	0		
EN	0	0	0	0	0	0	0	0	0	0	0	0		
VR	519.12	0	0	25.96	0	129.78	181.69	337.43	0.00	181.69	0	370.65		
Total	**978.65**	**457,733.07**	**22,886.65**	**48.93**	**114,433.27**	**245.91**	**344.28**	**639.12**	**137,319.92**	**339**	**320,413**	**692**	**178**	**514**

Scenario C - Village Commercial and Marina Designations Develop with 100% Residential

Commercial and Residential Capacity

2036 Orcas Populat	6423
April 1, 2016 Popul	5395
Additional Populati	1028
50% of projected Orcas Population Growth for sizing UGA Capacity	514

	Gross		Market Factor Reductions							Net			
	Gross Residential Capacity (Dwelling Units)	Gross Non-Residential Capacity (Building square feet)	Com. Public Use Factor (5%)	Res. Public Use Factor (5%)	Com. Market Factor (25%)	Res. Market Factor (25%)	Res. Seasonal and Recreational Home Factor (35%)	Res. Subtotal Market Factor Capacity Reductions	Com. Subtotal Market Factor Capacity Reductions	Additional Residential Capacity (Dwelling Units)	Additional Non-Residential Capacity (Building square feet)	Population Capacity (2.04 persons per household)	Capacity Excess/ Shortfall
ER1	4.60	0	0	0.23	0	1.15	1.61	2.99	0	1.61	0	3.28	
ER1P	18.82	0	0	0.94	0	4.71	6.59	12.23	0	6.59	0	13.44	
ER2	37.52	0	0	1.88	0	9.38	13.13	24.39	0	13.13	0	26.79	
ER2P	61.85	0	0	3.09	0	15.46	21.65	40.20	0	21.65	0	44.16	
ER412	1.71	0	0	0.09	0	0.43	0.60	1.11	0	0.60	0	1.22	
ER4P	163.85	0	0	8.19	0	40.96	57.35	106.50	0	57.35	0	116.99	
VC	498.99	0	0	25	0	124.75	174.65	324.35	0	174.65	0	356.28	
M	61.66	0	0	3	0	15.42	21.58	40.08	0	21.58	0	44.03	
SLI	-5.00	369,873.98	18,493.70	0	92,468.50	0	0	0	110,962.19	-5.00	258911.79	-10.20	
EAD	0.00	0	0	0	0	0	0	0	0	0	0	0.00	
EN	0.00	0	0	0	0	0	0	0	0	0	0	0.00	
VR	519.12	0	0	25.96	0	129.78	181.69	337.43	0	181.69	0	370.65	
Total	**1363.12**	**369,873.98**	**18,493.70**		**92,468.50**				**110,962.19**	**474**	**258,912**	**967**	**453**

Lopez Village Capacity

2036 Lopez Population	**2,936**
April 1, 2016 Lopez Population	**2,466**
Additional Lopez Population 2036	470
Additional Lopez Households 2036	**230**
50% of projected Lopez Population Growth for sizing UGA Capacity	**235**
50% of projected Lopez Household growth	**115**

Scenario A. Mixed-Use develops with 100% commercial

	Gross		Market Factor Reductions							Net			
Land Use Designation	**Gross Residential Capacity (Dwelling Units)**	**Gross Non-Residential Capacity (Building square feet)**	**Res. Public Use Factor (5%)**	**Com. Public Use Factor (5%)**	**Res. Market Factor (25%)**	**Com. Market Factor (25%)**	**Res. Seasonal/ Recreational Home Factor (35%)**	**Subtotal Res. Market Factor Capacity Reductions**	**Subtotal Com. Market Factor Capacity Reductions**	**Additional Residential Capacity (Dwelling Units)**	**Additional Non-Residential Capacity (Building square feet)**	**Population Capacity (2.04 persons per household)**	**Capacity Excess/ Shortfall (dwelling units)**
LUGA	-26.00	2,310,313.95	0	115,515.70	0	577,578.49	0	0	693,094.19	-26.00	1,617,220	-53.04	
Total	**-26.00**	**2,310,313.95**	**0**	**115,515.70**	**0**	**577,578.49**	**0**	**0**	**693,094.19**	**-26**	**1,617,220**	**-53**	**-168**

Scenario B. Mixed-Use develops with 50% commercial and 50% residential

	Gross		Market Factor Reductions							Net			
Land Use Designation	**Gross Residential Capacity (Dwelling Units)**	**Gross Non-Residential Capacity (Building square feet)**	**Res. Public Use Factor (5%)**	**Com. Public Use Factor (5%)**	**Res. Market Factor (25%)**	**Com. Market Factor (25%)**	**Res. Seasonal/ Recreational Home Factor (35%)**	**Subtotal Res. Market Factor Capacity Reductions**	**Subtotal Com. Market Factor Capacity Reductions**	**Additional Residential Capacity (Dwelling Units)**	**Additional Non-Residential Capacity (Building square feet)**	**Population Capacity (2.04 persons per household)**	**Capacity Excess/ Shortfall (dwelling units)**
LUGA	217.28	1,155,130.98	10.86	57,756.55	54.32	288,782.74	76.05	141.23	346,680.52	76.05	808,450.45	155.14	
Total	**217**	**1,155,130.98**	**10.86**	**57,756.55**	**54.32**	**288783**	**76.05**	**141.23**	**346,681**	**76**	**808,450**	**155**	**40**

Scenario C. Mixed-Use develops with 100% residential

	Gross		Market Factor Reductions							Net			
Land Use Designation	**Gross Residential Capacity (Dwelling Units)**	**Gross Non-Residential Capacity (Building square feet)**	**Res. Public Use Factor (5%)**	**Com. Public Use Factor (5%)**	**Res. Market Factor (25%)**	**Com. Market Factor (25%)**	**Res. Seasonal/ Recreational Home Factor (35%)**	**Subtotal Res. Market Factor Capacity Reductions**	**Subtotal Com. Market Factor Capacity Reductions**	**Additional Residential Capacity (Dwelling Units)**	**Additional Non-Residential Capacity (Building square feet)**	**Population Capacity (2.04 persons per household)**	**Capacity Excess/ Shortfall (dwelling units)**
LUGA	217.28	0	10.86	0	54.32	0	76.05	141.23	0	76.05	0	155.14	
Total	**217.28**	**0**	**10.86**	**0**	**54.32**	**0**	**76.05**	**141.23**	**0**	**76**	**0**	**155**	**40**

Rural Eastsound Subarea Capacity

2036 County Population	**19,423**
April 1, 2016 Population	**16,314**
Additional Population 2016-2036	**3,109**
Additional Households at 2.04 people per household	1,524

No mixed-use districts in Rural Eastsound Subarea

	Gross		Market Factor Reductions				Net		
Land Use Designation	**Gross Residential Capacity (Dwelling Units)**	**Gross Non-Residential Capacity (Building square feet)**	**Public Use Factor (5%)**	**Market Factor (25%)**	**Seasonal/ Recreational Home Factor (35%)**	**Subtotal Market Factor Capacity Reductions**	**Additional Residential Capacity (Dwelling Units)**	**Additional Non-Residential Capacity (Building square feet)**	**Population Capacity (2.04 persons per household)**
ERR 5P	16.25		0.81	4.06	5.69	10.56	5.69		11.60
ER	298.29		14.91	74.57	104.40	193.89	104.40		212.98
SP		0	0	0.00	0	0	0	-	0
CCC		688.32	34	172.08	0	206	0	481.82	0
ERR 2P	22.27		1.11	5.57	7.79	14.47	7.79		15.90
Total	**336.81**	**688.32**	**51.26**	**256.28**	**117.88**	**425.42**	**118**	**482**	**240**

Deer Harbor Capacity

2036 County Population	**19,423**
April 1, 2016 Population	**16,314**
Additional Population 2016-2036	**3,109**
Additional Households at 2.04 people per household	1,524

No mixed-use districts in Deer Harbor

	Gross		Market Factor Reductions					Net		
Land Use Designation	**Gross Residential Capacity (Dwelling Units)**	**Gross Non-Residential Capacity (Building square feet)**	**Public Use Factor (5%)**	**Market Factor (25%)**	**Seasonal/ Recreational Home Factor (35%)**	**Subtotal Market Factor Capacity Reductions**	**Existing Dwelling Units**	**Additional Residential Capacity (Dwelling Units)**	**Additional Non-Residential Capacity (Building square feet)**	**Population Capacity (2.04 persons per household)**
DHHC		28,152.01	1,407.60	7038	0	8,445.60		0	19,706.41	0
DHHI		0	0	0	0	0		0		0
DHHP		0	0	0	0	0		0		0
DHHR	48.46		2.42	12	16.96	31.50		16.96		34.60
Total	**48.46**	**28,152.01**	**1,410.02**	**7050**	**16.96**	**8,477.10**	**-**	**17**	**19,706**	**35**

Orcas Village Capacity

2036 County Population	**19,423**
April 1, 2016 Population	**16,314**
Additional Population 2016-2036	**3,109**
Additional Households at 2.04 people per household	1,524

No mixed-use districts in Orcas Village

	Gross		Market Factor Reductions				Net		
Land Use Designation	**Gross Residential Capacity (Dwelling Units)**	**Gross Non-Residential Capacity (Building square feet)**	**Public Use Factor (5%)**	**Market Factor (25%)**	**Seasonal/ Recreational Home Factor (35%)**	**Subtotal Market Factor Capacity Reductions**	**Additional Residential Capacity (Dwelling Units)**	**Additional Non-Residential Capacity (Building square feet)**	**Population Capacity (2.04 persons per household)**
OVC	0	48,642.71	2,432.14	12,160.68	0	14,592.81	0	34,049.90	0
OVR	10.73	0	0.54	2.68	3.76	6.97	3.76		7.66
OVT	0	0	0	0	0	0	0		0
Total	**10.73**	**48,642.71**	**2,432.67**	**12,163.36**	**3.76**	**14,600**	**4**	**34,050**	**8**

Olga Capacity

2036 County Population	**19,423**
April 1, 2016 Population	**16,314**
Additional Population 2016-2036	**3,109**
Additional Households at 2.04 people per household	1,524

No mixed-use districts in Olga

	Gross		Market Factor Reductions				Net		
Land Use Designation	**Gross Residential Capacity (Dwelling Units)**	**Gross Non-Residential Capacity (Building square feet)**	**Public Use Factor (5%)**	**Market Factor (25%)**	**Seasonal/ Recreational Home Factor (35%)**	**Subtotal Market Factor Capacity Reductions**	**Additional Residential Capacity (Dwelling Units)**	**Additional Non-Residential Capacity (Building square feet)**	**Population Capacity (2.04 persons per household)**
OCC		0	0	0	0	0	0		0
OHC		0	0	0	0	0	0		0
OPS		0	0	0	0	0	0		0
OH	14.76	0	0.74	4	5.17	9.59	5.17		10.54
Total	**15**	**0.00**	**0.74**	**4**	**5.17**	**10**	**5**		**11**

Activity Center Capacity

2036 County Population	**19,423**
April 1, 2016 Population	**16,314**
Additional Population 2016-2036	**3,109**
Additional Households at 2.04 people per household	1,524

No mixed-use districts in activity centers

	Gross		Market Factor Reductions				Net		
Land Use Designation	**Gross Residential Capacity (Dwelling Units)**	**Gross Non-Residential Capacity (Building square feet)**	**Public Use Factor (5%)**	**Market Factor (25%)**	**Res. Seasonal/ Recreational Home Factor (35%)**	**Subtotal Market Factor Capacity Reductions**	**Additional Residential Capacity (Dwelling Units)**	**Additional Non-Residential Capacity (Building square feet)**	**Population Capacity (2.04 persons per household)**
MPR	0	514,760.14	25,738.01	128,690.04	0	154,428.04	0	360,332.10	0
ACT	81.73	0	4.09	20.43	28.61	53.12	28.61	0	58.36
IC (LAMIRD)	0	263,578.64	13,178.93	0	92,252.53	105,431.46	0	158,147.19	0
2 BDD	19.17	0	0.96	5	6.71	12.46	6.71	0	13.69
MC (LAMIRD)	0	67,031.37	3,351.57	16,757.84	0	20,109.41	0	46,921.96	95,720.80
Total	**100.90**	**845,370.16**	**42,273.55**	**145,473.10**	**92,287.84**	**280,034.50**	**35**	**565,401**	**95,793**

Capacity

2036 County Population	**19,423**
April 1, 2016 Population	**16,314**
Additional Population 2016-2036	**3,109**
Additional Households at 2.04 people per household	1,524

There are no mixed-use land use designation in the Rural areas

	Gross		Market Factor Reductions				Net		
Land Use Designation	**Gross Residential Capacity (Dwelling Units)**	**Gross Non-Residential Capacity (Building square feet)**	**Public Use Factor (5%)**	**Market Factor (25%)**	**Res. Seasonal/ Recreational Home Factor (35%)**	**Subtotal Market Factor Capacity Reductions**	**Additional Residential Capacity (Dwelling Units)**	**Additional Non-Residential Capacity (Building square feet)**	**Population Capacity (2.04 persons per household)**
RFF	3,232.19	0	161.61	808.05	1,131.27	2,100.93	1,131.27	0	2,307.79
RR	430.08	0	21.50	107.52	150.53	279.56	150.53	0	307.08
RC	0	0	0	0	0	0	0	0	0
RI	0.00	38,688.46	1,934.42	9,672.11	0	11,606.54	0	27,081.92	0
C	137.93	0	6.90	34.48	48.28	89.66	48.28	0	98.48
N	0	0	0	0	0	0	0	0	0
LGRA	2.36	0	0.12	0.59	0.82	1.53	0.82	0	1.68
FO	384.89	0	19.24	96.22	134.71	250.18	134.71	0	274.81
AG	355.97	0	17.80	88.99	124.59	231.38	124.59	0	254.16
RGU	0	5,890,146.34	294,507.32	1,472,536.59	0	1,767,043.90	0	4,123,102.44	0
Total	**4,543.43**	**5,928,834.80**	**296,668.91**	**1,483,344.56**	**1,590.20**	**1,781,603.67**	**1,590**	**4,150,184**	**3,244**

Commercial and Residential Capacity

2036 Orcas Population	6423
April 1, 2016 Population	5395
Additional Population 2016-2036	1028
50% of projected Orcas Population Growth for sizing UGA Capacity	514

Scenario A - Village Commercial and Marina Designations develop with 100% commercial

	Gross		Market Factor Reductions							Net			
Land Use Designation	Gross Residential Capacity (Dwelling Units)	Gross Non-Residential Capacity (Building square feet)	Com. Public Use Factor (5%)	Res. Public Use Factor (5%)	Com. Market Factor (25%)	Res. Market Factor (25%)	Res. Seasonal and Recreational Home Factor (35%)	Res. Subtotal Market Factor Capacity	Com. Subtotal Market Factor Capacity Reductions	Additional Residential Capacity (Dwelling Units)	Additional Non-Residential Capacity (Building square feet)	Population Capacity (2.04 persons per household)	Capacity Excess/ Shortfall
ER1	1.49	0	0	0.07	0	0.37	0.52	0.97	0	0.52	0	1	
ER1P	16.25	0	0	0.81	0	4.06	5.69	10.56	0	5.69	0	12	
ER2	37.22	0	0	1.86	0	9.30	13.03	24.19	0	13.03	0	27	
ER2P	45.45	0	0	2.27	0	11.36	15.91	29.54	0	15.91	0	32	
ER412	20.47	0	0	1.02	0	5.12	7.17	13.31	0	7.17	0	15	
ER4P	158.43	0	0	7.92	0	39.61	55.45	102.98	0	55.45	0	113	
VC	-27	889,362.82	44,468.14	0	222,340.71	0	0	0	266,808.85	-27.00	622,553.97	-55	
M	-2	307,209.02	15,360.45	0	76,802.26	0	0	0	92,162.71	-2.00	215,046.31	-4	
SLI	-5.00	1,521,010.74	76,050.54	0	380,252.69	0	0	0	456,303.22	-5.00	1,064,707.52	-10	
EAD	0	0	0	0	0	0	0	0	0	0	0	0	
EN	0	0	0	0	0	0	0	0	0	0	0	0	
VR	519.12	0.00	0.00	25.96	0.00	129.78	181.69	337.43	0.00	181.69	0	371	
Total	**764.44**	**2,717,582.58**	**135,879.13**	**39.57**	**679,395.65**	**199.61**	**279.45**		**815,274.77**	**245**	**1,902,307.81**	**501**	**-13**	**514**

Scenario B - Village Commercial and Marina Designations develop with 50% commercial and 50% residential

Land Use Designation														
ER1	1.49	0	0	0.07	0	0.37	0.52	0.97	0	0.52	0	1.07		
ER1P	16.25	0	0	0.81	0	4.06	5.69	10.56	0	5.69	0	11.60		
ER2	37.22	0	0	1.86	0	9.30	13.03	24.19	0	13.03	0	26.57		
ER2P	45.45	0	0	2.27	0	11.36	15.91	29.54	0	15.91	0	32.45		
ER412	20.47	0	0	1.02	0	5.12	7.17	13.31	0	7.17	0	14.62		
ER4P	158.43	0	0	7.92	0	39.61	55.45	102.98	0	55.45	0	113.12		
VC	444.68	444,681.41	22,234.07	22.23	111,170.35	111.17	155.64	289.04	133,404.42	155.64	311,276.99	317.50		
M	61.66	153,604.51	7,680.23	3.08	38,401.13	15.42	21.58	40.08	46,081.35	21.58	107,523.16	44.03		
SLI	-5.00	1,566,266.74	78,313.34	0	391,566.69	0	0	0	469,880.02	-5.00	1,096,386.72	-10.2		
EAD	0	0.00	0.00	0	0	0	0	0	0	0	0	0		
EN	0	0.00	0.00	0	0	0	0	0	0	0	0	0		
VR	519.12	0.00	0.00	25.96	0	129.78	181.69	337.43	0.00	181.69	0	370.65		
Total	**1,299.78**	**2,164,552.66**	**108,227.63**	**64.99**	**541,138.17**	**326.19**	**456.67**	**847.86**	**649,365.80**	**452**	**1,515,187**	**921**	**407**	**514**

Scenario C - Village Commercial and Marina Designations Develop with 100% Residential

Commercial and Residential Capacity

2036 Orcas Population	**6423**
April 1, 2016 Population	**5395**
Additional Population 2016-2036	**1028**
50% of projected Orcas Population Growth for sizing UGA Capacity	514

	Gross		Market Factor Reductions							Net			
	Gross Residential Capacity (Dwelling Units)	**Gross Non-Residential Capacity (Building square feet)**	**Public Use Factor (5%)**	**Res. Public Use Factor (5%)**	**Market Factor (25%)**	**Res. Market Factor (25%)**	**Res. Seasonal and Recreational Home Factor (35%)**	**Res. Subtotal Market Factor Capacity Reductions**	**Com. Subtotal Market Factor Capacity Reductions**	**Additional Residential Capacity (Dwelling Units)**	**Additional Non-Residential Capacity (Building square feet)**	**Population Capacity (2.04 persons per household)**	**Capacity Excess/ Shortfall**
ER1	4.60	0	0	0.23	0	1.15	1.61	2.99	0	1.61	0	3.28	
ER1P	18.82	0	0	0.94	0	4.71	6.59	12.23	0	6.59	0	13.44	
ER2	37.52	0	0	1.88	0	9.38	13.13	24.39	0	13.13	0	26.79	
ER2P	61.85	0	0	3.09	0	15.46	21.65	40.20	0	21.65	0	44.16	
ER412	1.71	0	0	0.09	0	0.43	0.60	1.11	0	0.60	0	1.22	
ER4P	163.85	0	0	8.19	0	40.96	57.35	106.50	0	57.35	0	116.99	
VC	498.99	0	0	25	0	124.75	174.65	324.35	0	174.65	0	356.28	
M	61.66	0	0	3	0	15.42	21.58	40.08	0	21.58	0	44.03	
SLI	-5.00	1,566,266.74	78,313.34	0	391,566.69	0	0	0	469,880.02	-5.00	1096386.72	-10.20	
EAD	0.00	0	0	0	0	0	0	0	0	0	0	0.00	
EN	0.00	0	0	0	0	0	0	0	0	0	0	0.00	
VR	519.12	0	0	25.96	0	129.78	181.69	337.43	0	181.69	0	370.65	
Total	**1,363.12**	**1,566,266.74**	**78,313.34**	**68.16**	**391,566.69**	**342.03**	**478.84**	**889.27**	**469,880.02**	**474**	**1,096,387**	**967**	**453**

Lopez Village Capacity

2036 Lopez Population	2,936
April 1, 2016 Lopez Population	2,466
Additional Lopez Population 2036	470
Additional Lopez Households 2036	230
50% of projected Lopez Population Growth for sizing UGA Capacity	235
50% of projected Lopez Household growth	115

Scenario A. Mixed-Use develops with 100% commercial

	Gross		Market Factor Reductions							Net			
Land Use Designation	Gross Residential Capacity (Dwelling Units)	Gross Non-Residential Capacity (Building square feet)	Res. Public Use Factor (5%)	Com. Public Use Factor (5%)	Res. Market Factor (25%)	Com. Market Factor (25%)	Res. Seasonal/ Recreational Home Factor (35%)	Subtotal Res. Market Factor Capacity Reductions	Subtotal Com. Market Factor Capacity Reductions	Additional Residential Capacity (Dwelling Units)	Additional Non-Residential Capacity (Building square feet)	Population Capacity (2.04 persons per household)	Capacity Excess/ Shortfall (dwelling units)
LUGA	-26.00	5,013,098.98	0	250,654.95	0	1,253,274.75	0	0	1,503,929.69	-26.00	3,509,169.29	-53.04	
Total	**-26.00**	**5,013,098.98**	**0**	**250,654.95**	**0**	**1,253,274.75**	**0**	**0**	**1,503,929.69**	**-26**	**3,509,169**	**-53**	**-168**

Scenario B. Mixed-Use develops with 50% commercial and 50% residential

	Gross		Market Factor Reductions							Net			
Land Use Designation	Gross Residential Capacity (Dwelling Units)	Gross Non-Residential Capacity (Building square feet)	Res. Public Use Factor (5%)	Com. Public Use Factor (5%)	Res. Market Factor (25%)	Com. Market Factor (25%)	Res. Seasonal/ Recreational Home Factor (35%)	Subtotal Res. Market Factor Capacity Reductions	Subtotal Com. Market Factor Capacity Reductions	Additional Residential Capacity (Dwelling Units)	Additional Non-Residential Capacity (Building square feet)	Population Capacity (2.04 persons per household)	Capacity Excess/ Shortfall (dwelling units)
LUGA	217.28	2,506,549.49	10.86	125,327.47	54.32	626,637.37	76.05	141.23	752,106.08	76.05	1,754,443.41	155.14	
Total	**217.28**	**2,506,549.49**	**10.86**	**125,327.47**	**54.32**	**626,637.37**	**76.05**	**141.23**	**752,106.08**	**76**	**1,754,443**	**155**	**40**

Scenario C. Mixed-Use develops with 100% residential

	Gross		Market Factor Reductions							Net			
Land Use Designation	Gross Residential Capacity (Dwelling Units)	Gross Non-Residential Capacity (Building square feet)	Res. Public Use Factor (5%)	Com. Public Use Factor (5%)	Res. Market Factor (25%)	Com. Market Factor (25%)	Res. Seasonal/ Recreational Home Factor (35%)	Subtotal Res. Market Factor Capacity Reductions	Subtotal Com. Market Factor Capacity Reductions	Additional Residential Capacity (Dwelling Units)	Additional Non-Residential Capacity (Building square feet)	Population Capacity (2.04 persons per household)	Capacity Excess/ Shortfall (dwelling units)
LUGA	217.28	0	10.86	0	54.32	0	76.05	141.23	0	76.05	0	155.14	
Total	**217.28**	**0**	**10.86**	**0**	**54.32**	**0**	**76.05**	**141.23**	**0**	**76**	**0**	**155**	**40**

Rural Eastsound Subarea Capacity

2036 County Population	**19,423**
April 1, 2016 Population	**16,314**
Additional Population 2016-2036	**3,109**
Additional Households at 2.04 people per household	1,524

No mixed-use districts in Rural Eastsound Subarea

	Gross		Market Factor Reductions				Net		
Land Use Designation	**Gross Residential Capacity (Dwelling Units)**	**Gross Non-Residential Capacity (Building square feet)**	**Public Use Factor (5%)**	**Market Factor (25%)**	**Seasonal/ Recreational Home Factor (35%)**	**Subtotal Market Factor Capacity Reductions**	**Additional Residential Capacity (Dwelling Units)**	**Additional Non-Residential Capacity (Building square feet)**	**Population Capacity (2.04 persons per household)**
ERR 5P	16.25	0	0.81	4	5.69	10.56	5.69	0	11.60
ER	298.29	0	14.91	75	104.40	193.89	104.40	0	212.98
SP	0	129,097.86	6,454.89	32,274.47	0	38,729.36	0	90,368.50	0
CCC	0	136,286.61	6,814.33	34,071.65	0	40,885.98	0	95,400.63	0
ERR 2P	22.27	0	1.11	6	7.79	14.47	7.79	0	15.90
Total	**336.81**	**265,384.47**					**118**	**185,769**	**240**

Deer Harbor Capacity

2036 County Population	**19,423**
April 1, 2016 Population	**16,314**
Additional Population 2016-2036	**3,109**
Additional Households at 2.04 people per household	1,524

No mixed-use districts in Deer Harbor

	Gross		Market Factor Reductions				Net		
Land Use Designation	**Gross Residential Capacity (Dwelling Units)**	**Gross Non-Residential Capacity (Building square feet)**	**Public Use Factor (5%)**	**Market Factor (25%)**	**Seasonal/ Recreational Home Factor (35%)**	**Subtotal Market Factor Capacity Reductions**	**Additional Residential Capacity (Dwelling Units)**	**Additional Non-Residential Capacity (Building square feet)**	**Population Capacity (2.04 persons per household)**
DHHC	0	28,225.30	1,411.27	7,056.33	0	8,467.59	0	19,757.71	0
DHHI	0	31,840.00	1592	7960	0	9,552	0	22,288.00	0
DHHP	0	0	0	0	0	0	0		0
DHHR	48.46	0	2.42	12	16.96	31.50	16.96		34.60
Total	**48.46**	**60,065.30**					**17**	**42,046**	**35**

Orcas Village Capacity

2036 County Population	**19,423**
April 1, 2016 Population	**16,314**
Additional Population 2016-2036	**3,109**
Additional Households at 2.04 people per household	1,524

No mixed-use districts in Orcas Village

	Gross		Market Factor Reductions				Net		
Land Use Designation	**Gross Residential Capacity (Dwelling Units)**	**Gross Non-Residential Capacity (Building square feet)**	**Public Use Factor (5%)**	**Market Factor (25%)**	**Seasonal/ Recreational Home Factor (35%)**	**Subtotal Market Factor Capacity Reductions**	**Additional Residential Capacity (Dwelling Units)**	**Additional Non-Residential Capacity (Building square feet)**	**Population Capacity (2.04 persons per household)**
OVC	0	22,631.00	1,131.55	5,657.75	0	6,789.30	0	15,841.70	0
OVR	10.73	0	0.54	3	3.76	6.97	3.76	0	7.66
OVT	0	4,000.00	200	1,000.00	0	1,200	0	2,800.00	0
Total	**10.73**	**26,631.00**					**4**	**18,642**	**8**

Olga Capacity

2036 County Population	**19,423**
April 1, 2016 Population	**16,314**
Additional Population 2016-2036	**3,109**
Additional Households at 2.04 people per household	1,524

No mixed-use districts in Olga

	Gross		Market Factor Reductions				Net		
Land Use Designation	**Gross Residential Capacity (Dwelling Units)**	**Gross Non-Residential Capacity (Building square feet)**	**Public Use Factor (5%)**	**Market Factor (25%)**	**Seasonal/ Recreational Home Factor (35%)**	**Subtotal Market Factor Capacity Reductions**	**Additional Residential Capacity (Dwelling Units)**	**Additional Non-Residential Capacity (Building square feet)**	**Population Capacity (2.04 persons per household)**
OCC		0	0	0	0	0	0		0
OHC		0	0	0	0	0	0		0
OPS		0	0	0	0	0	0		0
OH	14.76	0	0.74	3.69	5.17	9.59	5.17		10.54
Total	**14.76**	**0**	**0.74**	**3.69**	**5.17**	**9.59**	**5**		**11**

Activity Center Capacity

2036 County Population	**19,423**
April 1, 2016 Population	**16,314**
Additional Population 2016-2036	**3,109**
Additional Households at 2.04 people per household	1,524

No mixed-use districts in Activity Centers

	Gross		Market Factor Reductions				Net		
Land Use Designation	**Gross Residential Capacity (Dwelling Units)**	**Gross Non-Residential Capacity (Building square feet)**	**Public Use Factor (5%)**	**Market Factor (25%)**	**Seasonal/ Recreational Home Factor (35%)**	**Subtotal Market Factor Capacity Reductions**	**Additional Residential Capacity (Dwelling Units)**	**Additional Non-Residential Capacity (Building square feet)**	**Population Capacity (2.04 persons per household)**
ACT	81.73	0	4.09	20	28.61	53.12	28.61	0	58.36
IC (LAMIRD)	0	2,359,172.99	117,958.65	0	825,710.55	943,669.20	0.00	1,415,504	0
2 BDD	19.17	0	0.96	5	6.71	12.46	6.71	0	13.69
MC (LAMIRD)	0	1,457,934.96	72,896.75	0	0	72,896.75	0	1,385,038.21	0
Total	**100.90**	**3,817,107.95**					**35**	**2,800,542**	**72**

Capacity

2036 County Population	**19,423**
April 1, 2016 Population	**16,314**
Additional Population 2016-2036	**3,109**
Additional Households at 2.04 people per household	1,524

There are no mixed-use land use designation in the Rural areas

	Gross		Market Factor Reductions				Net		
Land Use Designation	**Gross Residential Capacity (Dwelling Units)**	**Gross Non-Residential Capacity (Building square feet)**	**Public Use Factor (5%)**	**Market Factor (25%)**	**Seasonal/ Recreational Home Factor (35%)**	**Subtotal Market Factor Capacity Reductions**	**Additional Residential Capacity (Dwelling Units)**	**Additional Non-Residential Capacity (Building square feet)**	**Population Capacity (2.04 persons per household)**
RFF	3,232.19	0	161.61	808.05	1,131.27	2,100.93	1,131.27	0	2,307.79
RR	430.08	0	21.50	107.52	150.53	279.56	150.53	0	307.08
RC	0	0	0	0	0	0	0	0	0
RI	0.00	1,347,987.66	67,399.38	336,996.92	0.00	404,396.30	0	943,591.36	0
C	137.93	0	6.90	34.48	48.28	89.66	48.28	0	98.48
N	0	0	0	0	0	0	0	0	0
LVGRA	2.36	0	0.12	0.59	0.82	1.53	0.82	0	1.68
FOR	384.89	0	19.24	96.22	134.71	250.18	134.71	0	274.81
AG	355.97	0	17.80	88.99	124.59	231.38	124.59	0	254.16
RGU	0.00	14,742,215.26	737,110.76	3,685,553.82	0.00	4,422,664.58	0	10,319,550.68	0
Total	**4,543.43**	**16,090,202.92**	**804,737.32**	**4,023,686.59**	**1,590.20**	**4,830,014.10**	**1,590.20**	**11,263,142**	**3,244.01**

2.0 Conclusions

Placeholder

3.0 Glossary of Terms

Achieved Density - the dwelling unit density present in existing development.

Assessor's Land Use Code (Use Code) - A four digit code used by the County Assessor's office to indicate the existing development on a parcel. The use code is assigned at the time of assessment.

Assigned Density - the maximum allowable density as shown on the San Juan County Comprehensive Plan Official Maps. This is typically expressed as dwelling units per acre or acres per dwelling unit.

Achieved Floor Area Ratio (FAR) - the mean FAR of fully developed parcels in each land use designation.

Critical Areas - refers to places that have regulatory constraints on development because of environmental factors. These include wetlands, geologically hazardous areas, fish and wildlife habitat conservation areas, and special flood hazard areas. See Chapter 18.35 SJCC.

Density Ratio (DR) - the ratio of allowed density to parcel size. It is the inverse of dwelling unit capacity.

Final Capacity - the land use capacity calculated by subtracting market factors from gross capacity. Final capacity will be provided in tables showing the total potential dwelling units and possible commercial/industrial square-footage by land use designation.

Floor Area Ratio (FAR) - the total building square footage divided by total lot square footage.

Fully developed - property that is assumed to have no further development capacity.

Gross Capacity - the mapped total land capacity in potential dwelling units (residential) and possible building square footage (commercial).

Gross Developable Lands Inventory (GDLI) - the first step in the Land Capacity Analysis where parcels are categorized based on existing development and what future development may be allowed under current regulations.

Intensity - a measure of the extent that land is developed. Often expressed as floor area ratio.

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Land Capacity Analysis (LCA) - an analysis of lands in San Juan County to determine development capacity given existing development and current regulations. Residential capacity is expressed in possible dwelling units. Commercial and industrial capacity is expressed in possible building square footage.

Land Value - the assessed value of the land as determined at the time of tax assessment.

Maximum Floor Area Ratio (FAR) - the maximum allowed FAR based on regulations in San Juan County Code (SJCC).

Mixed-Use (MU) - property with a development comprised of or land use designation that allows for a mix of commercial and residential uses.

Net Developable Lands Inventory (NDLI) - the second step in the Land Capacity Analysis where critical areas are deducted from the developable lands identified in the GDLI.

Partially-used - residential property occupied by a use allowed by its land use designation which contains enough land to be further subdivided or developed (e.g. a single-family home on a very large lot).

Re-developable - a parcel that has a land use designation that allows uses that would be more intensive than an existing use (e.g. a single family home on a parcel with a commercial land use designation).

San Juan County Code (SJCC) - the County's adopted regulatory code.

Urban Growth Area (UGA) - an area designated by the County within which urban growth is to be encouraged and outside of which growth is not intended to be urban in nature (SJCC 18.20.210).

4.0 Land Capacity Analysis Land Use Designation Abbreviation Guide

Rural Land Use Designations

RFF: Rural Farm Forest

RR: Rural Residential

RC: Rural Commercial

RI: Rural Industrial

RGU: Rural General Use

Special Land Use Designations

C: Conservancy

N: Natural

LVGRA: Lopez Village Growth Reserve Area

Resource Land Use Designations

FOR: Forest Resource

AG: Agricultural Resource

Activity Center Land Use Designations

MPR: Master Planned Resort

ACT: Residential Activity Center

IC: Island Center Limited Area of More Intense Rural Development (LAMIRD)

MC: Marine Center LAMIRD

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Deer Harbor Subarea

DHHC: Deer Harbor Hamlet Commercial

DHHI: Deer Harbor Hamlet Industrial

DHHP: Deer Harbor Hamlet Park

DHHR: Deer Harbor Hamlet Residential

Orcas Village Subarea

OVC: Orcas Village Commercial

OVR: Orcas Village Residential

OVT: Orcas Village Transportation

Olga Subarea

OCC: Olga Community Center

OHC: Olga Hamlet Commercial

OPS: Olga Park Site

OH: Olga Hamlet

Rural Eastsound Subarea

ERR 5P: Eastsound Rural Residential 5 acres per dwelling

ER: Eastsound Rural

SP: Service Park

CCC: Country Corner Commercial

ERR 2P: Eastsound Rural Residential 2 acres per dwelling

Eastsound Urban Growth Area

ER1: Eastsound Residential 1 dwelling per acre

ER1P: Eastsound Residential 1 dwelling per acre, site planning required

ER2: Eastsound Residential 2 dwellings per acre

ER2P: Eastsound Residential 2 dwellings per acre, site planning required

ER412: Eastsound Residential min. 4, max. 12 dwellings per acre

ER4P: Eastsound Residential four dwellings per acre, site planning required

VC: Eastsound Village Commercial

M: Marina

SLI: Service and Light Industrial

EAD: Eastsound Airport District

EN: Eastsound Natural

VR: Eastsound Village Residential

Lopez Village Urban Growth Area

LUGA: Lopez Village Urban Growth Area

LVC: Lopez Village Commercial

LVI: Lopez Village Institutional

LVR: Lopez Village Residential

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Attachment A

COMPREHENSIVE PLAN

Appendix 1

LAND CAPACITY ANALYSIS METHODOLOGY

~~**October 11, 2017**~~

September 6, 2019

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1.0 Introduction

San Juan County's 2036 Comprehensive Plan update process includes a Land Capacity Analysis (LCA). The Land Capacity Analysis methodology is ~~described~~ established in this document.

The Growth Management Act (GMA) allows counties to exercise discretion in their Comprehensive Plans and to make choices on how they plan to accommodate growth over the twenty-year planning horizon.

Conducting a Land Capacity Analysis is an important ~~step~~ process that will help the County determine how and what growth can be accommodated through the year 2036. The Washington State Department of Commerce (Commerce) indicates that the Land Capacity Analysis methodology is used to determine:

- The amount of vacant, partially-used, under-utilized lands, and redevelopment potential of built properties needed to accommodate growth, and

- If the existing or potential Urban Growth Areas (UGA's) can accommodate twenty years of urban growth.

The Land Capacity Analysis will help determine if the County's land supply aligns with the 2036 population growth projection of 19,423. The primary purpose of the Land Capacity Analysis is to determine the capacity of Urban Growth Areas for balancing urban development with adequate and cost-efficient urban services. However, because the majority of development in San Juan County occurs outside of the Urban Growth Areas, the Land Capacity Analysis will help the County evaluate the development potential of rural and natural resource lands.

The Land Capacity Analysis is also used to determine whether the County will have sufficient developable land to meet the Growth Management Act housing goal. This goal encourages the availability of affordable housing to all economic segments of the population, promotes a variety of residential densities and housing types and encourages preservation of existing housing stock (RCW 36.70A.020(4).

What tools are used to complete the LCA?

Geographic Information System (GIS) software, code that tells the software what to do (a script), County data, and staff calculations in excel spreadsheets have been used to apply the LCA Methodology. The results show existing levels of development and future capacity for residential and commercial/industrial development under existing development regulations. The LCA Methodology explains the criteria for each step of the LCA process.

How is GIS used in the process?

A Geographic Information System (GIS) is a computer program that allows us to geographically understand, analyze, and represent data. It associates geographic features such as parcels with a data table, similar to an Excel spreadsheet. This data can be presented visually by a map.

The County's parcel data is constantly changing as it is updated. The LCA requires a fixed data set.

This methodology defines terms, provides a high-level overview of the LCA. It outlines the LCA steps and assumptions. It also identifies deliverables of each step of the analysis and documents the LCA calculations using GIS maps, metadata, and Excel tables.

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2.0 Terms.

The following terms are used in this methodology:

Vacant means property with minimal or no building improvements.

Re-developable means a parcel that has a land use designation that allows uses that would be more intensive than an existing use (e.g. a single family home on a parcel with a commercial land use designation).

Partially-used means residential property occupied by a use allowed by its land use designation which contains enough land to be further subdivided or developed (e.g. a single-family home on a very large lot).

Fully developed means property that is assumed to have no further development capacity.

Floor Area Ratio (FAR) means the total building square footage divided by total lot square footage.

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3.0 Methodology Overview

The bullets below ~~provide a high level overview of~~ describe the six major tasks included in the LCA methodology:

A. Prepare the Land Capacity Analysis County Land Base and Develop a Gross Developable Land Inventory (GDLI) and GIS Map Layers

Assessing land supply begins with the identification of all parcels within the County that are fully developed, vacant, partially-used, re-developable, or public, utility & conservation. The **Gross Developable Land Inventory** includes parcels, which are categorized as vacant, partially used or re-developable and are potential candidates to accommodate future growth. This parcel-based inventory is based upon the Assessor's land use codes and data from March 3, 2017, the most current information when the project was initiated.

All parcels are categorized. Two map layers (GIS shapefiles) are produced:

- The first layer categorizes all parcels as fully developed, public/conservation, vacant, partially used, or re-developable. This layer is the **Land Capacity Analysis Land Base**.

- The second layer identifies all parcels categorized as vacant, partially used or re-developable and are assumed to have further development capacity.

The second map layer of potentially developable land is the **Gross Developable Land Inventory**.

B. Prepare an Inventory of Net Developable Land for Residential and Commercial, Industrial and Mixed-use Lands

The **Net Developable Land Inventory** is determined by deducting areas with reduced development potential such as critical areas and their buffers from the Gross Developable Land Inventory.

Gross Developable Land Inventory
\- Critical areas, buffers and other undevelopable areas
= Net Developable Land

Deliverables: Two map layers (GIS shapefiles):

- The first layer depicts the net developable residential land.

- The second layer depicts the net developable Commercial, Industrial and Mixed-Use land.

These layers show the land expected to be available to accommodate future growth before other deductions are made. This information is provided by island, UGA's, and land use designations.

C. Calculate Existing Floor Area Ratios, Summarize Development Trends, Assign Assumed Densities and FAR, and Calculate Pending Development Capacity.

~~This section provides~~ Analysis of past development trends is completed in this task in order to provide a basis for estimating future development capacity; to determine if development is occurring consistent with Comprehensive Plan densities; and to calculate pending development.

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The information gathered in this Step will be used in the capacity calculations. ~~This Step~~ In this task we will:

- Analyze recent development history, achieved densities and assign assumed densities;
- Provide data necessary to convert available land into capacity in terms of dwelling and square feet of building on each parcel; and
- Calculate pending development capacity.

D. Calculate and Map Gross Housing and Development Capacity

The Net Developable Land Inventory (in acres) is converted into capacity for housing units for residential land and building square feet for commercial, industrial, and mixed-use land. This work is conducted in GIS and Excel. This results in tables and GIS map layers showing capacity by parcel. The purpose of this exercise is to graphically display capacity at the parcel level.

The capacity calculated in this task will not be the final capacity because it is not converted to population by comparing the dwelling unit capacity with the average rate of people per household in San Juan County. It also does not include the deductions taken later that account for public uses, market factors, and seasonal/recreational home factors.

Deliverables:

- Net Developable Land Inventory maps for residential land – categorized into housing capacity ranges (dwelling units), and
- Net Developable Land Inventory maps for commercial, industrial and mixed-use lands – categorized into building capacity ranges (square feet).
- Excel tables of the Preliminary Housing and Development Capacity calculations summarized by island, land use designation, and urban growth areas.

E. Calculate and Map Maximum Commercial, Industrial, and Mixed-Use Building Capacity

Another way to calculate capacity is to determine what the maximum development is allowed under San Juan County Code (SJCC). This will be calculated by interpreting the development standards in SJCC into a maximum floor area ratio (FAR). The maximum FAR is multiplied by the net developable lands inventory parcel area in square feet to arrive at the maximum building square footage allowed on each parcel. Existing and pending building square footage is subtracted from the result to arrive at a gross maximum commercial, industrial, and mixed-use capacity.

F. Calculate Final Housing and Development Capacity

The summary tables of the preliminary housing and development capacity calculations created in the previous Step are the basis of the **Final Capacity Calculations**. Public use, market and seasonal/recreational home factors are deducted from the preliminary housing and development capacity. After these deductions, the following are calculated:

- **Total Occupied Housing Units by Land Use Designation**
- **Total Population Capacity**
- **Employment Capacity** (square feet of building)

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4.0 Land Capacity Analysis (LCA) Methodology

A. Prepare the Land Capacity Analysis County Land Base and Gross Developable Land Inventory

Assessing land supply begins with the categorizing of all parcels within the County as fully developed, vacant, partially used, and re-developable, or public, utility, and conservation as identified in Table 1. This results in the **Land Capacity Analysis Parcel Base** GIS layer. The subset of this layer consisting of all vacant, partially used and re-developable parcels is the **Gross Developable Land Inventory**. The Gross Developable Land Inventory is calculated by deducting all parcels categorized as fully developed from the Land Capacity Analysis Parcel Base.

LCA Parcel Base
- Fully developed parcels
- <u>Public, utility and conservation parcels</u>
= Gross Developable Land Inventory

The San Juan County Assessor's county-wide parcel data in shapefile format and the associated attribute data including improvement value and land value from March 3, 2017 (the latest data update) is used.

Parcels with structures existing on March 3, 2017 are considered developed. Structures proposed, built, or occupied after that date are counted in future capacity calculations.

GIS shapefiles for each island, Lopez Village and Eastsound UGA's, the Town of Friday Harbor, and all of the County land use designations are used.

<u>Steps</u>

A.1. Create a GIS layer that consists of all county parcels and includes fields for area, assessor land use code, assessed value of improvements, land use designation, Comprehensive Plan density and Land Capacity Analysis category.

A.2. Consistent with the assumptions in *Table 1. Gross Developable Land Inventory: Thresholds and Assumptions* and using the Assessor's land use codes and Comprehensive Plan land use designations categorize each parcel as:

- Fully developed residential;
- Fully developed industrial, commercial or institutional;
- Fully developed mixed-use;
- Public and conservation lands;
- Vacant and subdividable residential;
- Vacant non-subdividable residential;
- Partially-used residential;
- Vacant industrial or commercial;
- Vacant mixed-use;
- Re-developable industrial or commercial; or
- Re-developable mixed-use.

A.3 All parcels categorized as fully developed or public/conservation lands are deducted from the LCA Land Base. The result of this initial cut is a collection of all the parcels in the County that are vacant, partially-used or re-developable. This is the **Gross Developable Land Inventory**. The Gross

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Developable Land Inventory is the base from which additional acreage is deducted to account for various physical and regulatory constraints on future development.

Gross Developable Land Inventory = GIS layer of all parcels that are not fully developed.

This map layer depicts categories of the County's parcels and includes fields for land use and density designation, the Assessor' land use codes, improvement value, and land area.

Table 1. LCA Categories: Thresholds and Assumptions.

	LCA CATEGORY	DEFINITION	THRESHOLDS /ASSUMPTIONS
A.	**Fully Developed Residential** (No further development potential) GIS Data Category 0 GIS data type: R	**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~~ $42,000; 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) GIS data Category 0 GIS data type: CI	**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 3900: Misc. Manufacturing 4100: Railroad and Transit 4200: Motor vehicle transportation 4300: Aircraft transportation 4400: Marine transportation 4600: Automobile parking 4700 Communications 4900: Other transportation 5000: Non-residential condos	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.

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	LCA CATEGORY	DEFINITION	THRESHOLDS /ASSUMPTIONS
		5100: Wholesale trade 5200: Building & hardware & farm 5300-5320: General merchandise 5400-5403: Retail food 5500-5503: Retail-auto, marine, aircraft 5600: Apparel 5700-5708: Retail furniture and home furnishings 5800: Retail- Eating and drinking 5900: Other retail 6100: Finance, insurance & real estate 6200-6220: Personal services 6300: Business services 6400-6402: Repair services 6500-6503: Professional services 6600 Contract construct. services 6900-6902 Miscellaneous services 7100: Cultural activities 7200-7202: Public assembly 7300: Amusements 7400-7420: Recreational activities 7500: Resorts and group camps 7900: Other recreational 8100-8328: Agriculture 8400: Fishing and related services 8500: Mining activities 8600: Marijuana grow operation 8900: Other resource production	

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	LCA CATEGORY	DEFINITION	THRESHOLDS /ASSUMPTIONS
C.	**Public, Utility & Conservation** (No further development potential) GIS Data Category 0 GIS data type: P	**Assessors Land Use Codes:** 7600: Parks 4800-4820: Utilities 6800-6820: Educational services 6700-6793: Governmental services ~~9240~~ 9420: ~~Open space with conservation easement~~ ~~9243~~ 9423: ~~Open Space with conservation easement and dock~~ ~~9520: Current Use Timber land with a conservation easement~~ ~~8120: Agriculture with Conservation Easement~~ 4500: Highway right-of-way 7400-7420: Recreational activities ~~8800-8820: Designated forest land~~ 9900-9920 – Platted Common Area or Access **Land Use Designations** Natural (N) Eastsound Natural (EN) Olga Community Center (OCC) Hamlet Park (HP)	Parcels are considered fully developed public, utility and conservation lands if the following criteria apply: a. Properties with land uses listed by the Assessor's codes as Public, Utility and Conservation; or b. The parcel is on the GIS layers of public lands and County Parks and Open Space; or c. Existing public, utility and conservation developments preclude future development (i.e. cemeteries, public water system properties)
D.	**Vacant and Sub-dividable Residential** GIS Data Category 3 GIS data type: R	**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 Orcas Village Residential (OVR) *With several densities	Parcels in these land use designations will be considered vacant and sub-dividable if they meet the following criteria: a. The assessed improvement value is < ~~$10,000~~ $42,000; and b. The ratio of allowed density to parcel size is ≤ 0.5.

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	LCA CATEGORY	DEFINITION	THRESHOLDS /ASSUMPTIONS
E.	**Vacant Non-Subdividable Residential** GIS Data Category 2 GIS data type: R	**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 Res./Institutional (VR/I) Olga Hamlet Residential (OHR), Deer Harbor Hamlet Residential (DHHR) Orcas Village Residential (OVR) *With several densities	Parcels in these land use designations will be considered vacant but not sub-dividable if they meet the following criteria: a. The assessed improvement value is < $~~10,000~~ $42,000; and b. The ratio of allowed density to parcel size is > 0.5.
F.	**Partially-Used Residential** GIS Data Category 1 GIS data type: R	**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) *With several densities	Parcels in these land use designations are considered partially-used if they meet the following criteria: a. The assessed improvement value ≥ ~~$10,000~~ $42,000; and b. The ratio of allowed density to parcel size is ≤ 0.5.

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	LCA CATEGORY	DEFINITION	THRESHOLDS /ASSUMPTIONS
G.	**Vacant Industrial and Commercial** GIS Data Category 2 GIS data type: CI	**Land Use Designations:** Rural Industrial (RI) Island Center(IC) Rural Commercial (RC) Orcas Village Transportation (OVT) Orcas Village Commercial (OVC) Rural General Use (RGU), Village Commercial (VC) Village Industrial (VI) Hamlet Commercial (HC) Hamlet Industrial (HI) Service Light Industrial (SLI) Service Park (SP) Country Corner Commercial (CCC) Eastsound Marina (~~EM~~ M) Eastsound Airport (EAD) Olga Hamlet Commercial (OHC), Olga Hamlet Community Cntr. (OHCC) Deer Harbor Commercial (DHC) Deer Harbor Industrial (DHI)	Parcels in these land use designations are considered vacant if the: Assessed improvement value is < ~~$10,000~~ $42,000.
H.	**Vacant Mixed-Use** GIS Data Category 2 GIS data type: MU	Eastsound Village Commercial (EVC) Lopez Village ~~Commercial (LVC)~~ Urban Growth Area (LUGA)	Parcels in these land use designations are considered vacant if the assessed improvement value is < $~~10,000~~ $42,000.
I.	**Re-Developable Industrial and Commercial** An assumption is that existing use may be demolished and new project developed over the planning period. GIS Data Category 4 GIS data type: CI	**Industrial, Commercial, Institutional** Rural Industrial (RI) Island Center(IC) Rural Commercial (RC) Orcas Village Transportation (OVT) Orcas Village Commercial (OVC) Rural General Use (RGU), Village Commercial (VC) Village Industrial (VI) Hamlet Commercial (HC) Hamlet Industrial (HI) Service Light Industrial (SLI) Service Park (SP) Country Corner Commercial (CCC) Eastsound Marina (~~EM~~ M) Eastsound Airport (EAD) Olga Hamlet Commercial (OHC), Olga Hamlet Community Cntr. (OHCC) Deer Harbor Commercial (DHC) Deer Harbor Industrial (DHI)	Parcels in these land use designations are considered re-developable if they meet the following criteria: a. The ratio of building value to land value is ≤ 1.0; or b. They are occupied by a single family residence (Assessor's codes 1100-1199).
J.	**Re-Developable Mixed-Use** GIS Data Category 4 GIS data type: MU	Eastsound Village Commercial (EVC) Lopez Village ~~Commercial (LVC)~~ Urban Growth Area (LUGA)	Parcels in these land use designations are considered re-developable if one of the following conditions are met: a. The ratio of building value to land value is ≤1. or b. The parcel is occupied by a single family residence. (Assessor's codes 1100-1199).

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B. Prepare an Inventory of Net Developable Land

The **Net Developable Land Inventories** are obtained by deducting critical areas, buffers, and other areas with reduced development potential from the **Gross Developable Land Inventory**.

Gross Developable Land Inventory
- <u>Critical Areas and areas with reduced development potential (Residential)</u>
= **Residential Net Developable Land Inventory**

Gross Developable Land Inventory
- <u>Critical areas, buffers and areas w/reduced development potential (Commercial, Industrial)</u>
= **Commercial, Industrial and Mixed-Use Land Inventory**

There are two layers because different deductions from the **Gross Developable Land Inventory** will be taken to create each layer based on the following assumptions:

Critical area buffers will not affect future capacity on residential parcels and are not deducted because the San Juan County development regulations allow for reasonable use exceptions and flexible development of residential properties with critical areas on them.

Critical area buffers are not be developable on commercial, industrial and mixed-use parcels because development regulations for these uses are more restrictive. These uses are also more intensive than residential uses.

<u>Steps</u>

B.1. Create the **Critical Area Deduction** GIS layer (shapefile) consisting of all critical area deductions described as follows:

<u>Critical Area Deductions</u>

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, corresponding with Tree Protection Zone 1 (TPZ 1) per SJCC Table 18.35.130-2.

Steep Slopes: Areas with slopes greater than 50 percent which are considered Category 1 geo-hazards. Development in these areas is limited per SJCC 18.35.065.

Flood Plain: Land located within 100-year floodplains as shown on the Federal Emergency Management Agency (FEMA), April 2017, Flood Insurance Rate Maps (FIRMS.

Other Undevelopable Areas: Mitigation and old dump sites that are not available or suited for development.

B.2. Create the **Total Net Developable Land Inventory** by deducting critical areas from the GDLI. In GIS, overlay the Critical Area Deduction layer on the Gross Developable Land Inventory and clip the Gross Developable Land Inventory. The result will be the Gross Developable Land Inventory with critical areas removed. This layer is the **Total Net Developable Land Inventory.**

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B.3. Create the **Residential Net Developable Land Inventory** by selecting residential vacant, partially used and re-developable parcels from the Total Net Developable Land Inventory. The layer resulting from this selection is the **Residential Net Developable Land Inventory**.

B.4. Create the **Critical Area Buffer Deduction** GIS layer (shapefile). Create a GIS layer of critical area buffers as follows:

a. A 150 foot wetland buffer because most of the County's wetlands are Class III or Class IV and industrial and commercial uses are designated high intensity uses (SJCC 18.35.095 and Tables 18.35.100-2 and 18.35.100-2), and

b. The following Tree Protection Zone buffers on parcels with a ~~shoreline~~ FWHCA (SJCC Tables 18.35.100-2 18.35.130-2):

i. 110 feet from the centerline for Type F (Type 2 or 3) streams and ponds designated as FWHCAs (assuming an 8 foot wide stream);
ii. 110 feet from the Ordinary High Water Mark (OHWM) for marine shorelines containing FWHCAs and ponds, excluding parcels subject to the Eastsound Waterfront Access Plan or parcels within approved master planned resorts;
iii. 50 feet from the bank full width for Type Np (Type 4) streams;
iv. 30 feet from the bank full width for Type Ns (Type 5) streams; and
v. 30 feet from the bank full width for un-typed streams.

B.5. Create the **Commercial, Industrial and Mixed-Use Net Developable Land Inventory** as follows:

a. Select vacant, partially used and Re-developable Commercial, Industrial and Mixed-Use parcels from the Total Net Developable Land Inventory created in B.2.

b. Overlay the Critical Area Buffer Deduction layer over this selection and clip to remove the critical area buffers. The resulting layer will be the **Commercial, Industrial and Mixed-use Net Developable Land Inventory.**

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C. Calculate Existing Floor Area Ratios, Summarize Development Trends, Assign Assumed Densities and Floor Area Ratio and Calculate Pending Development Capacity

This section provides analysis of past development trends in order to provide a basis for estimating future development capacity; to determine if development is occurring consistent with Comprehensive Plan densities; and to calculate pending development.

To calculate future capacity on vacant, partially-used and re-developable parcels, the Land Capacity Analysis must use assumptions about how much development is expected on each parcel in the future. Analysis of existing built conditions, achieved densities, and development trends provides the data necessary to forecast future development.

This analysis will also account for pending development which is a more accurate predictor of future densities. Later, achieved densities and building intensities will be used to calculate the future capacity of available land.

- Analyze recent development history and achieved densities and assign assumed densities,
- Convert information into dwelling units per acre and building intensity Floor Area Ratio, and
- Calculate pending development capacity

C.1 Calculate Existing Building Floor Area Ratios by Land Use Designation

One method to calculate future capacity on Commercial, Industrial and Mixed-use parcels is to assume future Floor Area Ratios will be similar to Floor Area Ratio as past development. This information will be used in Step C.3 to determine future ~~assumed~~ Floor Area Ratio.

For commercial, industrial and mixed-use parcels, Floor Area Ratio is good measure of how much building capacity exists on a parcel. Floor Area Ratio is a good measure because it accounts for parking, sewage disposal and other site improvements that affect capacity but vary widely by use and from site to site. The capacity of a commercial, industrial or mixed-use parcel is the assumed future Floor Area Ratio multiplied by the area of the parcel.

The following ~~are the~~ steps <u>are used</u> to calculate the average existing Floor Area Ratio by land use designation:

a. Select all parcels from the Land Capacity Analysis Land Base layer that are fully developed and are Commercial, Industrial or Mixed-use land as defined by Table 1. Add a field for Floor Area Ratio for each parcel.

b. Calculate the ratio of total building square feet to lot area for each parcel using the Assessor's building improvement information for the parcels selected in Task A. This results in a<u>n achieved</u> floor area ratio for each parcel.

$$\underline{\text{Achieved}}\ \text{FAR} = \frac{\underline{\text{Total building area (square feet)}}}{\text{Parcel area (square feet)}}$$

c. Average the <u>achieved</u> floor area ratio for each land use designation and export to an Excel table.

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C.2 Summarize Recent Development Trends (Achieved)

The results of Step C.1 above will provide an average Floor Area Ratio for all Commercial, Industrial and Mixed-Use parcels as of March ~~3, 2017~~ March 31, 2019. This average will include buildings constructed under many different land use and building regulations, and therefore may not be accurate for forecasting into the future if regulations have changed and significantly altered the amount of development that is allowed. In order to check the reliability of the averages developed in C.1, the Land Capacity Analysis must also evaluate development that occurred within the recent past to see if there are other development trends to consider.

~~Ten~~ Fourteen years of County development history (April 1, 2005 – ~~April 1, 2015~~ March 31, 2019) is evaluated to determine the actual densities achieved in all land use designations and Urban Growth Areas (UGAs). Department of Community Development staff performs this analysis using permit files.

Table 2. Basic Achieved Density Calculations by Development Type.

Development Type	Achieved Density Calculation
Single Family Residential Plats	Number of Lots / Plat Area
Multi-family Building Permits and Plats	Number of Units / Site Area
Mixed-Use Building Permits Residential Portion	Number of Units / Residential Portion of Site
Mixed-Use Building Permits Commercial Portion	Commercial Floor Area / Commercial Portion of Site
Commercial and Industrial Building Permits	Total Floor Area (main building)/ Site Area

Create an Excel table and compile data from permit files as follows:

Table 3. Achieved Density by Land use Designation 2008-2019. (Note Parcel & permit# parcels deleted)

A. Land Use Designation	B. Plat area or lot site area (SF)	C. Pending lots (Number of lots approved)	D. Pending housing units (Number approved)	E. Pending building square feet (SF approved)	F. Achieved FAR	G Achieved Density (DU/acre)
					= G/D	= F/ (D/43,560)

Source: DCD permit data April 1, 2005- 201~~5~~9

C.3 Assign Assumed Density and Floor Area Ratios (FAR)

Each land use designation will be assigned an assumed density for the purposes of calculating capacity. For residential capacity, the Comprehensive Plan land use designations and densities are the future assumed densities. For commercial and industrial building intensity, existing average Floor Area Ratio by land use designation will be used. For mixed-use intensity, an assumed density and Floor Area Ratio will be used based on land use regulations and ~~existing~~ achieved FAR.

~~Different assumptions may be used if there is a clear and compelling rationale for deviating from these designations. The following factors would be considered in deviating from the assumed densities: recent achieved densities; land use goals and policies; local circumstances such as development plans and pending development; and any other local market or policy conditions that are likely to impact future development densities.~~

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~~C.4. Calculate Pending Development Capacity~~

~~This step accounts for pending development which is a more accurate predictor of future density than assumed densities. It involves compiling parcels with approved multi-family permits, commercial and industrial binding site plans, and preliminary and final plats that were not constructed by March 3, 2017 (last date of Assessor's update). This includes Master Planned Projects that are not completely built out but that have received preliminary approval for a number of dwelling units or commercial and industrial square footage. These developments will be considered pending capacity and will be added to the final land capacity for each parcel during the final capacity calculations.~~

~~For this analysis, the development records for all multi-family, commercial, industrial, binding site plans, and preliminary and final plats approved since January 1, 2010 that were not finalized prior to March 3, 2017 31, 2019 are compiled including:~~

- ~~Single family residential building permits;~~
- ~~Residential preliminary and final approved plats and short plats;~~
- ~~Multi-family building permits;~~
- ~~Assessor's county-wide parcel data in shapefile format; and~~
- ~~Commercial and industrial building permit activity and binding site plans.~~

~~Create an Excel table and compile data as follows: **(Note Parcel & permit# parcel columns deleted)**~~

~~**Table 4. Pending Development Capacity Summary by land Use Designation 2005–2019.**~~

~~A. Land Use Designation~~	~~B. Plat area or lot site area (SF)~~	~~C. Pending lots (Number of lots approved)~~	~~D. Pending housing units (Number approved)~~	~~E. Pending building square feet (SF approved)~~	~~F. Achieved FAR~~	~~G. Achieved Density (DU/acre)~~
					~~= G/D~~	~~= F/(D/43,560)~~

~~Source: DCD permit data April 1, 2005-2015 19 and GIS shapefiles~~

~~Deliverables:~~

~~Excel tables that summarize the following by land use designation and island:~~

- ~~Achieved densities;~~
- ~~Achieved floor area ratios;~~
- ~~Existing floor area ratios;~~
- ~~Recommended assumed densities to be used in Task D; and~~
- ~~Pending development capacity to be used in Task D.~~
-

Note: Pending development relocated to task D.

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D. Calculate and Map Gross Housing and Commercial Development Capacity

The purpose of this Step is to graphically display capacity at the parcel level. This work is conducted in GIS and produces maps showing capacity by parcel. Gross capacity is also provided in tables showing capacity by land use designation and by NDLI category.

The Net Developable Land Inventory (in acres) is converted into capacity for housing units on residential land and building square feet on commercial, industrial and mixed-use land.

The capacity calculated in this Step will not be the final capacity because it will not be converted to population ~~and will not~~ or include deductions for public uses, market factors, and seasonal/recreational home factors. Those deductions will be taken to obtain final capacity in Step E.

The following conversion factors as modified by Step C.3 are used in this Step:

a. Density allowed by Comprehensive Plan land use designation for residential, and

b. Average existing floor area ratio for fully developed commercial and industrial by land use designations.

Determine Gross Housing Unit Capacity

Gross Housing Unit Capacity is derived from the Residential Net Developable Land Inventory developed in Step B.3. The output will be total dwelling units of capacity available on each parcel**.** These calculations use:

- The Residential Net Developable Land Inventory;
- Assumed densities for residential land use designations; and
- Pending development capacity**.**

D.1 Using GIS, multiply the net developable acres of residential developable land on each parcel by the assumed density (DUs/acre) for each land use designation. The output will be the Total Dwelling Unit Capacity available on each parcel before accounting for existing development on partially-used and re-developable parcels.

D.2 Subtract existing dwelling units on partially-used and re-developable parcels by land use from the capacity calculated in the previous Step so that existing units are not counted as part of partially-used or parcel capacity. Existing dwelling units are derived from the number of residential addresses assigned to a property.

D.3 ~~Earlier in the process, parcels with pending developments were set aside. These parcels included preliminary or final plats, permits, and binding site plans for developments that have received preliminary approval but have not been constructed by March 3, 2017. Master Planned Projects that have not been completely built out but have received approval for a certain number of dwelling units are also included.~~ Addresses for pending residential development are assigned when the permit is issued but prior to the building being finished. The addressing data used to determine existing dwelling units includes pending residential development. The estimated capacity in these ~~developments is~~ data are a more accurate count of future dwelling units than the calculated

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theoretical capacity. ~~Add these pending housing units to the parcels on which they occur.~~ Addresses assigned to parcels will be counted as existing/pending dwellings when determining gross residential capacity. The addressing data is added as Column F "Existing/Pending Housing Units", in Table 5 below.

D.4 Using GIS and the Residential Net Developable Land Inventory, calculate capacity for each parcel using the following fields and export to Excel table:

Table ~~5~~ 4. Gross Housing Capacity by Land Use Designations.

A. Parcel Number	B. Area	C. Land Use Designation	D. LCA Category (Vacant, Re-developable, Partially used etc…)	E. Comprehensive Plan Density (assumed density)	F. Existing /Pending Housing Units	G. ~~Pending Housing Units~~	H. Housing Capacity (Housing Units)
							= (B*E) - F ~~OR~~ ~~= G-F (if pending >0)~~

Determine Commercial and Industrial Land Capacity

Capacity to accommodate future commercial or industrial growth is derived from the net developable area in commercial and industrial land use designations. This work requires the following data:

- The Commercial and Industrial Net Developable Land Inventory created in Step B.5;
- Assumed Floor Area Ratio values for commercial and industrial designations created in Step C.3;
- Assessor's data for re-developable parcels; and
- Pending commercial and industrial development from Step C.~~4~~2.

D.5 Multiply net acres of commercial and industrial land in each land use designation by the ~~assumed~~ achieved Floor Area Ratio for each land use designation. The output will be the **Total Square Footage Capacity** available in each land use designation before accounting for existing development on re-developable parcels.

D.6 Summarize total existing and pending commercial and industrial building square footage on parcels by land use designation. Subtract this square footage from the totals from the previous Step and parcel data showing total existing building square footage so that existing buildings are not counted as part of re-developable parcel capacity.

D.7 Earlier in the process, parcels with pending developments were set aside. These parcels included commercial and industrial permits or binding site plans for developments that have received preliminary approval but had not been constructed by March 3, 2017. Master Planned Projects that have not been completely built out but have received approval for a certain amount of commercial/industrial square footage are also included. The estimated capacity in these developments is more accurate than calculated theoretical capacity.

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Replace theoretical capacity on each parcel with actual capacity from Step C.4. The output will be total commercial and industrial square footage capacity available in each land use designation.

D.8 Some parcels with existing development that exceeds the theoretical capacity may have a negative gross capacity. The negative gross capacity on these parcels may be the result of development such as a building floor area that exceeds the average achieved FAR for that land use designation or residential development on existing lots smaller than the density would allow. These negative gross capacity values were reduced to zero before totaling the gross capacity per land use designation.

D.9 Mixed-use developments can be composed of any proportion of residential and commercial square footage. For this reason, mixed-use capacity will be provided in three scenarios:

Scenario A: Mixed-use parcels develop with one-hundred percent commercial development;

Scenario B: Mixed-use parcels develop with fifty percent of each residential and commercial; and

Scenario C: Mixed-use parcels develop with one-hundred percent residential development.

D.10 Gross mixed-use capacity will be calculated in the following steps

1. Calculate building square footage capacity using achieved FAR that was determined in the third LCA task. The result of this step is the capacity for Scenario A.

2. Multiply the building square footage by 0.5 to determine what fifty percent of the square footage is. Fifty percent of the building will be considered commercial capacity in Scenario B. The remaining fifty percent will be used in the next calculation.

3. Divide the fifty percent residential floor area by 1,000 square feet to arrive at the number of possible mixed-use dwelling units for residential capacity in Scenario B. This process assumes that each dwelling unit will be 1,000 square feet. Mixed-use residential capacity in Scenario B is capped at the maximum allowed dwelling units per acre in each area.

4. The maximum allowed density is multiplied by the net developable acreage to calculate the possible dwelling units in Scenario C.

Deliverables:

- Map layers (GIS Shapefiles) of the Net Developable Land Inventory parcel map of commercial, industrial, and mixed-use lands including the following fields in the attribute table:

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Table ~~6~~ 5. Gross Commercial and Industrial Land Capacity.

A. Parcel Number	B. Area	C. Comp Plan Land Use Designation	D. LCA Category (Vacant, re-developable etc.)	E. ~~Assumed~~ Achieved Floor Area Ratio	F. Existing Total Floor Area	G. Pending Floor Area	H. Building Capacity (Square Feet)
							= (B*E) - F OR G+F (If pending>0)

- Net Developable Land Inventory parcel map of mixed-use lands including the following fields in the attribute table:

Table ~~7~~ 6. Gross Mixed-Use Capacity.

A. Parcel No.	B. Area	C. Land use designation	D. Category (Vacant, redevelopable etc.)	E. Assumed Floor Area Ratio	F. Comprehensive Plan Density or Achieved Densities	G. Existing total floor area	H. Existing Housing Units	I. Pending Floor Area	J. Pending housing units	K. Building capacity (Square Feet)	L. Housing Capacity (Housing Units)
										= (B*E) - G OR G+I (if pending>0)	= (B*F) –H OR J-H (if pending >0)

Excel Tables for County-Wide Capacity and Capacity for Each Island Depicting:

1. Totals of residential acreage and capacity (housing units) by land use designation;

2. Totals of residential acreage and capacity by category (vacant, partially used etc.) and by land use designation;

3. Totals of commercial and industrial acreage and capacity (building square feet) by land use designation;

4. Totals of commercial and industrial acreage and capacity by category (vacant, partially used etc.) and by land use designation;

5. Totals of mixed-use acreage and capacity (building square feet) by land use designation and category (vacant, partially used etc.); and

6. Totals of mixed-use acreage and capacity (housing units) by land use designation and category (vacant, partially used etc.).

Maps

1. Residential Net Developable Land Inventory with parcels categorized in housing capacity ranges;

2. Commercial and Industrial Net Developable Land Inventory parcel maps with parcels categorized in building capacity ranges;

3. Mixed-use Net Developable Land Inventory maps of mixed-use lands with parcels categorized in building capacity ranges;

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4. Mixed-use Net Developable Land Inventory maps with parcels categorized in housing capacity ranges.

E. Calculate and Map Maximum Commercial, Industrial, and Mixed-Use Building Capacity

This step calculates the maximum buildout capacity allowed under current development regulations and the SJC Comprehensive plan for commercial, industrial and mixed-use land use designations. Capacity is measured in building square feet. The result is a map that shows the maximum buildout capacity of each commercial, industrial and mixed-use parcel.

The maximum allowed commercial, industrial and mixed-use square footage is limited by development standards in San Juan County Code (SJCC) Chapters 18.30 and 18.60. Standards such as maximum lot coverage, height, and building footprint influence the possible building square footage allowed on a lot. Since capacity is measured in building square feet, a series of calculations are necessary determine how many square feet of building is possible under the current development regulations on each parcel:

1. Determine the maximum lot coverage by buildings allowed in each land use designation
2. Determine the maximum height of buildings allowed in each land use designation
3. Maximum lot coverage by buildings X max building height = maximum floor area ratio (Maximum FAR) for each land use designation
4. Maximum FAR X parcel size in square feet = maximum allowable building square feet on the parcel

For example, in Eastsound the Service and Light Industrial (SLI) designation allows a maximum height of 35 feet (three stories) and a maximum lot coverage by buildings of sixty percent. The results in a maximum FAR of 1.8:

0.60 lot coverage X 3 stories = a maximum FAR value of 1.8

To get the possible building square footage for developable parcels in the SLI designation, multiply the parcel area by 1.8 (maximum FAR value). For example, a 10,000 square foot parcel in the SLI designation would have a possible building square footage of 18,000 square feet (10,000 X 1.8).

In addition to looking at the possible buildout of commercial, industrial and mixed-use development, the LCA also provides information about trends and achieved buildout. Sections C, D and F address what development is likely because full allowed buildout of a parcel rarely occurs.

Key Points

- Maximum buildout provides a picture of how much development is possible under current regulations and land use designations.
- Maximum buildout of a parcel rarely occurs.

Maximum FAR Formulas: Eastsound UGA Industrial, Commercial, and Mixed-Use Designations

Assumptions

1. A maximum building height of 35 feet allows the construction of three stories except in the Eastsound Village Commercial designation which has a required roof pitch (SJCC 18.30.670 (B)).
2. Required landscaping and setbacks are included in areas of the parcel not covered by structures.

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Service Light Industrial (SJCC 18.30.500)

Standards

Maximum lot coverage: 60 percent
Maximum height: 35 feet

Service Light Industrial MAXIMUM FAR = 0.60 lot coverage X 3 stories = 1.8

Marina (SJCC 18.30.530)

Standards

Maximum lot coverage: 30 percent
Maximum height: 35 feet

Marina MAXIMUM FAR = 0.3 lot coverage X 3 stories = 0.9

Eastsound Village Commercial (SJCC 18.30.470)

Assumption

SJCC 18.30.470 Table 9. Eastsound Village Commercial District limits lot coverage to 65 percent for buildings 5,000 square feet or larger. Lots larger than 5,556 square feet can have a building of 5,000 square feet, the maximum square footage. A 65 percent limit on lot coverage is applied to larger parcels.

Standards

Required open space: Ten percent
Maximum height: Thirty-five feet (three stories) pitched roof limiting the third story to 0.5 stories = 2.5 stories
Lot coverage: Buildings larger than 5,000 square feet in the net use building area shall not exceed 65 percent of the lot

Village Commercial MAXIMUM FAR = Parcels with possible buildings less than 5,000 square feet = 0.9 lot coverage X 2.5 stories =2.25.

Parcels with possible building 5,000 square feet or larger = Parcel area X 0.65 lot coverage X 2.5 stories = 1.625.

Eastsound Airport District (SJCC 18.30.540)

Standards

Maximum FAR set by code: 50 percent (0.5)

Eastsound Airport District MAXIMUM FAR = 0.5

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Existing Lopez Village UGA: Commercial, Industrial, and Mixed-Use Maximum FAR Formulas

Village Commercial (all of Lopez Village UGA) (SJCC 18.60.050)

The maximum FAR is calculated based on two parcel size scenarios:

- Parcels larger than 5,556 square feet, and
- Parcels smaller than 5,556 square feet.

These scenarios are needed because there is a maximum building footprint in the standards. This creates two scenarios, one above and below that maximum.

Assumptions

1. SJCC 18.60.050 Table 6.1. Density, Dimension and Opens Space Standards for Activity Center Land Use Districts requires a minimum of 10 percent open space. Parcels smaller than 5,000 are limited by the 10 percent open space requirement.
2. SJCC 18.60.050 Table 6.1 limits building height to thirty feet allowing the construction of a three-story building.
3. The required 10 percent open space will be used to meet the front setback.

PARCELS LARGER THAN 5,556 SQUARE FEET

Village Commercial lots larger than 5,556 square feet (0.127 Acre) MAXIMUM FAR = 0.65 lot coverage X 3 stories = 1.95

LOTS SMALLER THAN 5,556 SQUARE FEET (0.127 ACRE)

Village Commercial MAXIMUM FAR lots smaller than 5,556 square feet MAXIMUM FAR = 0.9 buildable area allowed by the open space requirement X 3 stories = 2.7

Activity Center Land Use Designations: Commercial and Industrial Maximum FAR Formulas

Orcas Village Commercial (SJCC 18.30.440 and Table 18.30.440)

Standard

Maximum building floor area: 3,000 square feet

No FAR is applied on OVC parcels because the maximum floor area of 3,000 square feet is the most limiting standard. The maximum square footage of 3,000 square foot is used in the calculations.

Orcas Village Transportation (SJCC 18.30.440 and Table 18.30.440)

Maximum building floor area: 4,000 square feet

No FAR is applied on OVT parcels because the maximum floor area of 4,000 square feet is the most limiting standard. The maximum square footage of 4,000 square foot is used in the calculations.

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Deer Harbor Hamlet Commercial (DHHC) (SJCC 18.30.320 and Table 18.30.320 Development Standards.)

Standard

Total cumulative floor area: 5,000 square feet per parcel

No FAR is applied on DHHC parcels because the maximum floor area of 5,000 square feet is the most limiting standard. In the calculations, the maximum square footage of 5,000 square feet is used.

Deer Harbor Hamlet Industrial (SJCC 18.30.320, Table 18.30.320 Development Standards.)

Standard

Total, cumulative floor area: 6,000 square feet per parcel

No FAR is applied in the DHHI designation because the maximum floor area is more limiting than other dimensional standards.

Olga Hamlet Commercial and Olga Community Center (SJCC 18.30.246)

Assumptions

- The twenty-five foot maximum height allows the construction of two stories.
- The required setbacks depend on what road the parcel fronts on.
- Setbacks are assumed to be located in the required open space.
- The Olga Subarea Plan and SJCC 18.30.246 include complex variations on the dimensional standards depending on the proximity to Olga Park Lane and Olga Road. In the following formula, the regulations are generalized by the dimensional standards that apply throughout the subarea.

Standards

Height: Twenty-five feet
Lot coverage: Based on four parcel sizes:

1. Lots 6,000 square feet or smaller:

   Maximum building square footage: 1,500 square feet lot coverage X 2 stories = 3,000 square feet (no maximum FAR)

2. Lots 6,001 to 10,000 square feet:

   Maximum FAR =: 0.25 lot coverage X 2 stories = 0.5

3. Lots 10,001 to 43,560 square feet:

   25 percent lot coverage up to a maximum of 4,000 square feet

   Lots between 10,001 and 16,000 square feet, MAXIMUM FAR = 0.25 lot coverage X 2 stories = 0.5

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Lots between 16,001 and 43,560 square feet, MAXIMUM FAR = 4,000 maximum square feet X 2 stories = 8,000 square feet

4. Lots larger than one acre:

   10 percent maximum lot coverage is allowed, MAXIMUM FAR = 0.1 lot coverage X 2 stories = 0.2

Eastsound Service Park (SJCC 18.30.520 Table 14 – Service Park District) – Not in UGA

Assumptions:

1. The maximum height of thirty-five feet allows the construction of three stories.
2. The lot coverage limit includes parking and driveways. Parking areas and driveways are assumed to use up twenty percent of the available lot coverage. The building is assumed to make up eighty percent of the available lot coverage.

Standards

Maximum building height: Thirty-five feet
Maximum lot coverage: Twenty-five percent

Service Park MAXIMUM FAR = 0.25 lot coverage X 3 stories X 0.8 building share of lot coverage = 0.6

Country Corner Commercial (SJCC 18.30.550, Table 17 – Eastsound Country Corner Commercial) – Not in UGA

Assumptions

1. Lots smaller than 44,444 square feet are limited by the forty percent maximum lot coverage because the allowed lot coverage is less than the 10,000 square foot maximum building footprint.
2. Lots larger than 44,444 square feet are limited by the 10,000 square foot maximum building footprint because that footprint is smaller than the forty percent maximum lot coverage.
3. The maximum height of thirty feet allows the construction of three stories.

Standards

Maximum height: Thirty feet
Maximum lot coverage: Forty percent
Maximum building footprint: 10,000 square feet

Country Corner MAXIMUM FAR for lots larger than 44,444 square feet = 30,000 square feet (limited to 3 stories with 10,000 square feet building footprint)

Country Corner MAXIMUM FAR for lots smaller than 44,444 square feet = 0.4 lot coverage X 3 stories = 1.2

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Island Center (SJCC 18.60.050, Table 6.1 Density, Dimension, and Open Space Standards for Activity Center Land Use Districts.)

Assumptions

1. SJCC 18.60.050 Table 6.1. Density, Dimension and Opens Space Standards for Activity Center Land Use Districts limits lot coverage to 60 percent for buildings over 4,000 square feet. Lots larger than 4,444 square feet can have a building of 4,000 square feet, the maximum square footage.
    - A 60 percent limit on lot coverage is applied to larger parcels. On parcels larger than 4,444 square feet, the open space is included in the forty percent of the parcel that must not be covered by buildings.
    - On parcels smaller than 4,444 square feet, the ten percent open space standard limits the building footprint to footprints below 4,000 square feet.
2. The maximum height of thirty feet allows the construction of three stories.
3. The required ten percent open space and setbacks are included in the forty percent of the parcel that is not covered by the maximum lot coverage.

Standards

Maximum building height:	Thirty feet
Maximum lot coverage:	Sixty percent (applies to buildings larger than 4,000 square feet in gross floor area)
Maximum lot coverage:	None for buildings with 4,000 square feet or less in gross floor area

Island Center MAXIMUM FAR for lots larger than 4,444 square feet = 0.60 max lot coverage X 3 stories = 1.8

Island Center MAXIMUM FAR for lots smaller than 4,444 square feet = 4,000 square feet

Marine Center (SJCC 18.30.030 and SJCC 18.60.050 Table 6.1 Allowed and Prohibited Uses in Activity Center Designations.)

SJCC 18.30.210 (G) specifies that Marine Center shall be governed by the Village Commercial land use designation. The maximum FAR is calculated based on two lot size scenarios: those parcels larger than 5,556 square feet and those smaller than that because there is a maximum building footprint in the standards. This creates two scenarios, one above and below that maximum.

LOTS LARGER THAN 5,556 SQUARE FEET

Assumptions

1. SJCC 18.60.050 Table 6.1. Density, Dimension and Opens Space Standards for Activity Center Land Use Districts limits lot coverage to 65 percent for buildings over 5,000 square feet. Lots larger than 5,556 square feet can have a building of 5,000 square feet, the maximum square footage. A 65 percent limit on lot coverage is applied to larger parcels.
2. SJCC 18.60.050 Table 6.1 also limits building height to thirty feet which allows construction of a three-story building.

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Marine Center lots larger than 5,556 square feet (0.127 Acre) MAXIMUM FAR = 0.65 lot coverage X 3 stories = 1.95

LOTS SMALLER THAN 5,556 SQUARE FEET (0.127 ACRE)

Assumptions

1. SJCC 18.60.050 Table 6.1. Density, Dimension and Opens Space Standards for Activity Center Land Use Districts requires a minimum of 10 percent open space. Lots smaller than 5,000 are limited by the 10 percent open space requirement.
2. SJCC 18.60.050 Table 6.1 limits building height to thirty feet allowing the construction of a three-story building.
3. The required 10 percent open space will be used to meet the front setback.

Marine Center lots smaller than 5,556 square feet MAXIMUM FAR = 0.9 buildable area allowed by the open space requirement X 3 stories = 2.7

Rural Land Use Designations: Commercial and Industrial MAXIMUM FAR Formulas

Rural Commercial (SJCC 18.60.050, Table 6.2 – Density, Dimension, and Open Space Standards for Rural, Resource, and Special Land Use Designations.)

Assumptions

1. The maximum height of thirty-five feet allows the construction of three stories.
2. The required open space and setbacks are included in the ninety percent of the parcel that is not allowed to be covered by impervious surface.

Standards

Maximum building height: Thirty-five feet
Maximum impervious surface: Ten percent

Rural Commercial MAXIMUM FAR = 0.1 maximum impervious X 3 stories = 0.3

Rural Industrial (SJCC 18.60.050, Table 6.2 – Density, Dimension, and Open Space Standards for Rural, Resource, and Special Land Use Designations.)

Assumptions

1. The maximum height of thirty-five feet allows the construction of three stories.
2. The required open space and setbacks will be included in the remainder of the parcel that is not covered by impervious surface.

Standards

Maximum building height: Thirty-five feet
Maximum impervious surface: Twenty percent

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Rural Industrial MAXIMUM FAR = 0.2 maximum impervious X 3 stories = 0.6

Rural General Use (SJCC 18.60.050, table 6.2 – Density, Dimension, and Open Space Standards for Rural, Resource, and Special Land Use Designations.)

Assumptions

1. The maximum height of thirty-five feet allows the construction of three stories.
2. The required open space and setbacks will be included in the ninety percent of the parcel that is not allowed to be covered by impervious surface.

Standards

Maximum building height: Thirty-five feet
Maximum impervious surface: Ten percent

Rural General Use MAXIMUM FAR = 0.1 maximum impervious X 3 stories = 0.3

Master Planned Resorts

Development in master plan resorts is defined by adopted master plans. Building in the commercial, industrial and mixed-use areas in these resorts affects a small percentage of possible rural development.

The primary area in the Roche Harbor Master Plan Resort contains 170 acres. Another 187 acres includes the Roche Harbor Airport and surrounding land. The total resort area is 357 acres, much of which is developed. Roche Harbor open space standard is 40 percent

The Rosario Master Plan Resort includes approximately 100 acres. It has a variable open space and lot coverage standards depending on the resort subarea. These subareas are not identified in the GIS data.

West Beach Resort has not adopted a master plan.

No maximum commercial, industrial or mixed-use buildout capacity was figured for these resorts. Plan specific parcel information is not in GIS. Their development standards cannot be easily analyzed using available data. These rural resorts are relatively small in overall rural acreage and are largely built out.

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F. Calculate Final Capacity

Conduct the **Final Capacity** calculations using the Excel tables created in Tasks D and E, **Gross Capacity and Maximum Capacity**. ~~Add~~ Create a new ~~column to the~~ table~~s~~ to ~~include~~ calculate the Final Capacity numbers. The Final Capacity ~~column reflects~~ uses the gross capacity from Task D ~~minus~~ and subtracts the capacity deductions described below:

Deduct Capacity to Account for Public Use, Market, Seasonal/Recreational Home Factors

Public Use Factor

The public use factor is a deduction to account for the lands that may be used for public purposes, such as road right-of-ways, utility corridors, public pathways and other lands set aside for public uses. A public use factor of five percent (5%) will be deducted.

Market Factor

A market factor of twenty-five percent (25%) of the Developed Land Inventory will be deducted to account for the land that is not available for development during the planning period. ~~The market factor is a deduction to account for lands that will not be available for development during the planning period.~~ It is expected that over the 20-year planning period some lands will be kept off the market due to speculative holding, land banking, and personal use.

Seasonal/Recreational Home Factor

A~~n additional~~ deduction of ~~twenty five percent (25%)~~ thirty five percent (35%) of the gross housing capacity will be deducted to account for the recreational home market. The 2010 US Census indicated that 35 percent (35%) of the houses in the County were categorized as seasonal/recreational, or occasional use properties. ~~Recent comparisons of the population increases and finalized residential building permits indicate that between 2010 and 2016 approximately one and one half (1.5) housing units were built for each new resident.~~

F.1 To each Excel tables developed in Section F, add columns for "Public Use Deduction", "Market Factor", "Seasonal/Recreational Home Factors", "Capacity Deduction", "Occupied Housing Units", "Total Population Capacity" and "Final Building Capacity".

F.2 Add the following factors to the final capacity tables ~~in Step D~~ as applicable:

- A 5 percent (5%) public use factor for all designations;
- For vacant residential designations: a 25 percent (25%) market factor, plus an additional ~~25~~ 35 (~~25~~ 35%) percent seasonal, recreational or occasional use home factor;
- For partially-used residential parcels: a 25 percent (25%) market factor and an additional ~~25~~ 35 (~~25~~ 35%) percent seasonal, recreational or occasional use home factor;
- For vacant commercial or industrial land use designations: a 25 percent (25%) market factor; and
- For re-developable commercial or industrial parcels: a 25 percent (25%) market factor.

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~~**F.3** A market factor will be applied to Master Planned Resorts as a proportionate share based on the ratio of developed to undeveloped areas within the Master Planned Resort. See Section C.~~

F.4 In the "Capacity Deduction" column, calculate the total amount of capacity to be subtracted based on steps F.2 and F.3.

F.5 Calculate the Total Occupied Housing Units by Land Use Designation. To convert dwelling units into occupied housing units use the following data on occupancy rates and average household sizes:

- Apply occupancy rate assumptions for the County by using best available data from Washington Office of Financial Management (OFM) and/or the US Census. Seasonal housing is considered vacant according to Census definitions. These housing units are not included in the occupied housing unit category and are not folded into Census calculations of average household size.

- Multiply the total housing units of capacity in each land use designation by the occupancy rate assumption. The output will be total occupied dwelling units in each land use designation. Add this result in a column to the table modified as part of Step 1 called "Occupied Housing Units".

F.6 Calculate the **Total Population Capacity**. In the "Total Population Capacity" Column, subtract "Capacity Reduction" from the "Housing Capacity" column and multiply the result by the average household size for the County which is 2.04 to calculate "Total Population Capacity".

F.7. Calculate **Employment Capacity**. In the "Total Building Capacity" column, subtract "Capacity Reduction" from the "Building Capacity" column to calculate "Total Building Capacity."

F.8 Repeat steps F.1 through F.7 using the maximum capacity from Task E in place of the gross capacity.

Deliverables:

Excel Tables for County-Wide Final Capacity and Final Capacity for Each Island Depicting:

1. Totals of both gross and maximum allowed residential acreage and final capacity (housing units and population) by land use designation;

2. Totals of both gross and maximum allowed residential acreage and final capacity by category (vacant, partially used etc.) and by land use designation;

3. Totals of both gross and maximum allowed commercial and industrial acreage and final capacity (building square feet) by land use designation;

4. Totals of both gross and maximum allowed commercial and industrial acreage and final capacity by category (vacant, partially used etc.) and by land use designation;

5. Totals of both gross and maximum allowed mixed-use acreage and final capacity (building square feet) by land use designation and category (vacant, partially used etc.); and

6. Totals of both gross and maximum allowed mixed-use acreage and final capacity (housing units) by land use designation and category (vacant, partially used etc.).

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