



SAN JUAN COUNTY DEPARTMENT OF COMMUNITY DEVELOPMENT

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MEMO

MEMO DATE: December 3, 2019

TO: San Juan County Council
San Juan County Planning Commission

CC: Mike Thomas, County Manager
Erika Shook, AICP, DCD Director

FROM: Adam Zack, Planner III 
Linda Kuller, AICP, Planning Manager 

SUBJECT: 2036 Comprehensive Plan Update
Briefing: Land Capacity Analysis (LCA) Employment Capacity Methodology

BRIEFINGS: County Council: TBD
Planning Commission: December 20, 2019

ATTACHMENT: December 2, 2019 preliminary draft Employment Capacity Methodology

Briefing Purpose: To explain and get feedback on a preliminary draft Employment Capacity Methodology (ECM). This methodology needs to be incorporated into the County's draft LCA Methodology to complete the analysis required for projecting commercial and industrial capacity. The November 4, 2019 draft LCA Report (Draft LCA Report) identifies how much commercial development is possible through 2036 in commercial building square feet. The draft ECM uses that data and projected population growth to analyze commercial capacity to determine if there is sufficient capacity for population and employment growth forecasts.

Public Comment Period: Comments on the December 2, 2019, draft Employment Capacity Methodology must be submitted by **December 20, 2019**.

How to Comment: Comments are requested on Sections II through V of the draft ECM. Please reference the page and line numbers from the report to compplancomments@sanjuanco.com. Please provide your name and address for the record and use the subject line: Employment Capacity Methodology.

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 review. The LCA is a study of existing development, current regulations and Comprehensive Plan land use designations. It is required to ensure that there is sufficient land capacity for residential, commercial and industrial development to meet the projected growth through 2036.

The County's draft LCA Methodology was developed using the previous methodology and guidance in the November 2012 *WA Department of Commerce Urban Growth Area Guidebook* publication 003 (UGA Guidebook).

The draft LCA Report (<https://www.sanjuanco.com/DocumentCenter/View/19296>) contains more information including the commercial and industrial capacity results.

The LCA must include analysis of capacity for commercial and industrial development. The County's draft LCA Methodology does not include specific steps for analyzing commercial and industrial capacity as it relates to future growth. It specifically does not include a method for comparing projected population and employment growth with commercial and industrial capacity. The draft ECM identifies steps to analyze these two factors. It explains how the County will compare commercial capacity with employment statistics and projected population growth. The draft ECM will help answer the question:

Is there sufficient commercial and industrial capacity to accommodate the projected growth through the year 2036?

Preliminary Draft Employment Capacity Methodology: Staff has developed the steps of the draft ECM in consultation with state agencies, review of the UGA Guidebook, and comparison with the methodologies used in neighboring counties.

State Agency Consultation

Staff consulted with the WA State Employment Security Department (ESD) prior to drafting the draft ECM. ESD indicated that the best available employment data was found on the U.S. Census Bureau's *On the Map* web application. Staff also contacted the WA State Department of Commerce (Commerce) for additional guidance regarding a recommended methodology. The draft ECM was sent to Commerce for review on November 20, 2019. Commerce will provide comments in mid-December. Their comments will be provided for your consideration when they are received.

UGA Guidebook

Staff reviewed Commerce's UGA Guidebook for guidance on reviewing, updating and implementing UGAs (<https://deptofcommerce.box.com/s/pnkar5j81ghxrgfdgr3ofa7pmw5v37da>). Chapter 5 of this Guidebook outlines the steps recommended for conducting a Land Capacity Analysis including discussion of employment capacity.

Neighboring Counties

Commerce recommended a review of the Island County land capacity analysis methodology prior to developing the County's draft ECM. Staff reviewed the methodologies from Island, Skagit, and Whatcom counties. These counties utilized similar methodologies for comparing jobs per household, population growth, and jobs per building square footage. The logic in the draft ECM is consistent with the logic used by neighboring counties.

Five Steps of the Employment Capacity Methodology: The draft ECM includes five steps to compare commercial and industrial capacity with forecasted population and employment growth. These steps are summarized below. Full details of the steps are provided in the attachment. The five steps are:

1. **Determine the jobs to household ratio** – The number of jobs in 2016 from the U.S. Census Bureau is compared to the number households in 2016. This provides the rate that jobs occurred per household in 2016 (jobs to household ratio).
2. **Forecast future new jobs** – The County's 2036 population forecast was expressed in a projected number of households. The jobs to household ratio is compared with the forecasted number of households to determine the expected number of new jobs by the year 2036.

3. **Determine existing building square feet per job** – Existing commercial building square feet on fully developed commercial and industrial parcels from the County’s 2017 parcel data set is compared to the number of 2017 jobs. This provides the rate of building square feet per job in 2017.
4. **Calculate future employment capacity** – The building square feet per job rate from 2017 is applied to the possible commercial and industrial building square feet to calculate future employment capacity.
5. **Calculate future employment capacity surplus or deficit** – The future employment capacity is compared to the forecasted number of jobs to determine if there is a surplus or deficit of employment capacity. This is the final analysis needed to determine whether there is sufficient commercial and industrial capacity for the projected growth.

ECM Data Sources: The draft ECM uses data from four sources. They are:

- **U.S. Census Bureau** – Includes *On the Map* web application, American Community Survey (ACS), Longitudinal Employer-Household Dynamics (LEHD) data, and the Decennial Census.
- **San Juan County 2036 Population Forecast** – Population figures come from the population forecast adopted for use in the SJC Comprehensive Plan update in Resolution 27-2017.
- **San Juan County Land Capacity Analysis Data Set** – The draft November 4, 2019, *Land Capacity Analysis Report* identifies the gross and net developable land, possible future dwelling units under existing development and current development regulations, and capacity for future nonresidential building square footage based on existing Comprehensive Plan land use designations and regulations.
- **Employment Security Department (ESD) Workforce Development Area Employment Projection** – ESD provides employment projections for areas in Washington State called workforce development areas (WDA). San Juan County is located in WDA 3, which includes Whatcom, Skagit, and Island counties. ESD provides projections for two, five, and ten year periods.

Expected Additional Analysis: Additional analysis is expected if the steps of the draft ECM are refined. The tables in Sections I through IV runs through the steps of the draft ECM for reference. They will be updated if the draft ECM steps are changed. Staff will also calculate employment capacity per land use designation and include those results in a new table in the next draft.

Additional Employment Background: The draft ECM includes additional employment data in Section VI, beginning on page 7 related to demographics and recent employment history. It is not complete. It will be completed in the next draft. Eventually, it will summarize County employment figures and employment by industry sector. This information will help identify what kinds of commercial and industrial capacity may be needed in the future.

Draft Land Capacity Analysis
Employment Capacity Methodology
December 2, 2019

First Draft

San Juan County Department of Community Development

Adam Zack, Planner III



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I. Background

This methodology will be used to evaluate whether the County has sufficient employment capacity to serve the projected growth by the year 2036. This analysis is one component of the Land Capacity Analysis (LCA). The LCA evaluates what development is possible in San Juan County given existing development, current regulations, and land use designations.

Under the Growth Management Act, the County must find that areas within the County as a whole must provide a sufficient amount of land for development or redevelopment that meets forecasted population and employment allocations (RCW 36.70A.115). During the Comprehensive Plan update process, policy options related to development regulations or changes in land use designations will be evaluated. This assessment should determine the effects of policy alternatives on the capability of the development regulations and land use designations to provide sufficient capacity for growth allocations.

The County's estimate of commercial and industrial capacity is provided in tables 18 through 33 beginning on page 46 of the November 4, 2019 Draft Land Capacity Analysis Report. Capacity was determined using the *SJC Land Capacity Analysis Methodology*. That methodology provides two methods for calculating commercial capacity. One is based on the maximum allowed building square footage under current regulations. The other reflects the Assessor's records for building square footage for structures actually constructed, which produces the average achieved floor area ratio per land use designation.

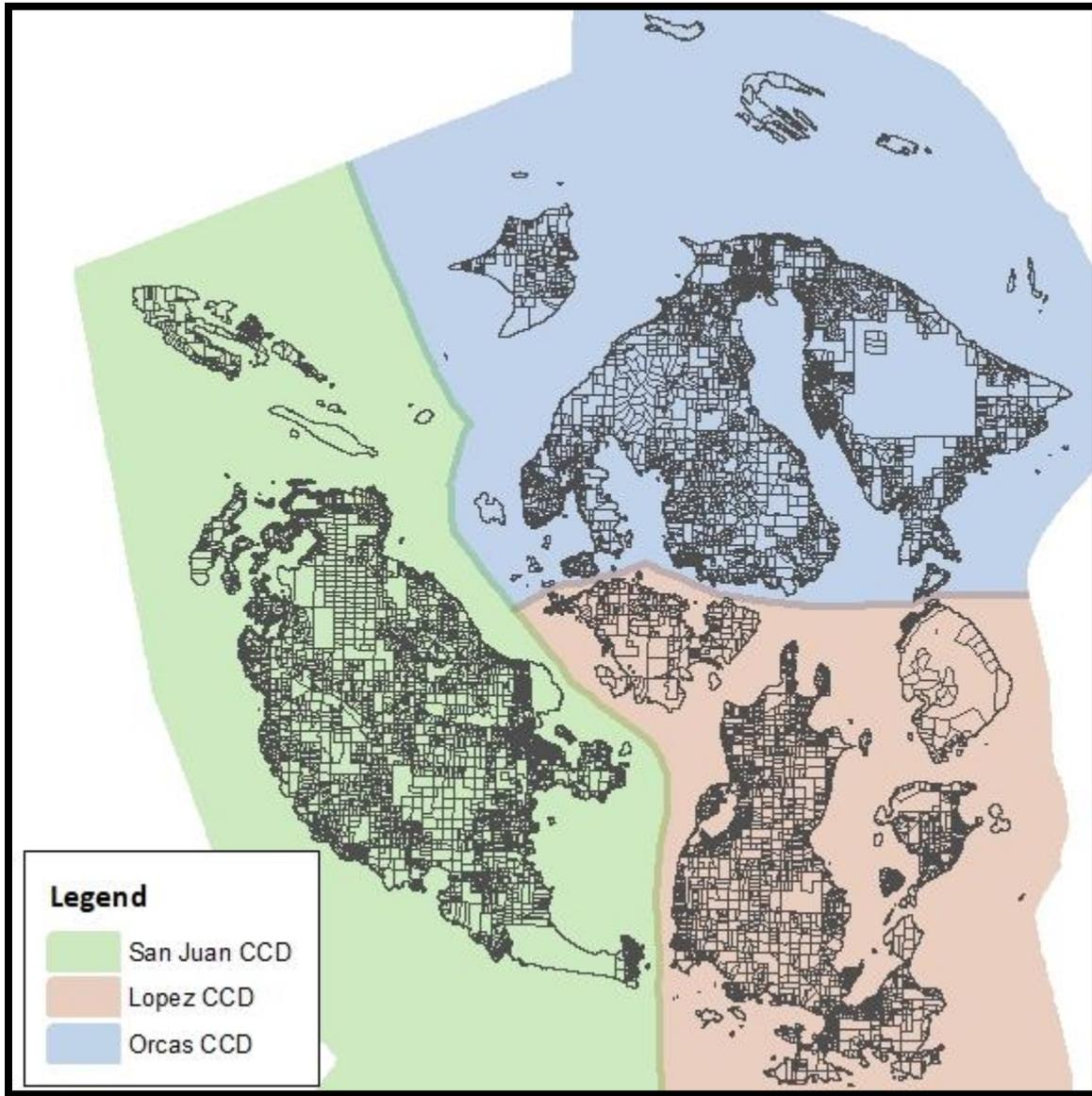
The Growth Management Act requires analysis of commercial capacity to determine whether there will be a sufficient capacity of land suitable for commercial and industrial development through the planning horizon. The County must show that commercial and industrial land capacity can accommodate projected population and employment growth (RCW 36.70A.115). This analysis is particularly important for sizing urban growth areas.

To ascertain whether there is sufficient commercial/industrial capacity to accommodate the forecasted growth, countywide employment statistics are compared with the commercial and industrial building square footage capacity results from the Land Capacity Analysis. The following sections of this report provide planning estimates of projected job growth and their relationship to that capacity. They also describe the methodologies used to forecast additional employment and relate it to commercial and industrial capacity.

The employment information analyzed in the remainder of this report is provided per Census County Division (CCD). The U.S. Census Bureau does not provide employment statistics for individual islands but provides it by three CCDs; San Juan, Orcas, and Lopez (Shaw is included with Lopez). The employment data by CCD is the most geographically specific data source available. The CCDs group the San Juan Islands as shown in Map 1 below. CCD is defined by the U.S. Census Bureau as:

A subdivision of a county that is a relatively permanent statistical area established cooperatively by the Census Bureau and state and local government authorities. Used for presenting decennial census statistics in those states that do not have well-defined and stable minor civil divisions that serve as local governments.

1 Map 1. U.S. Census County Divisions (CCDs) in San Juan County.



2

3 II. Forecasting Future Jobs

4

5 A. Jobs to Households Ratio

6

7 A ratio of jobs to households relates employment and population. This ratio (dividing the number of jobs
8 by the number of households) describes the rate at which jobs occur relative to the population. It is
9 calculated as:

10

11

12

13

14

15

Jobs to Households Ratio =

Total jobs in San Juan County
Households in San Juan County

1 The jobs to household ratio for each CCD is calculated in Table 1 below.

2

3 **Table 1. Jobs to Households in Each Census County Division (CCD), 2016.**

CCD	2016 Population	2016 Households	2016 Jobs	2016 Jobs per Household
San Juan without Friday Harbor	5652	2771	742	0.268
Friday Harbor	2250	1103	2172	1.969
Lopez	2858	1401	623	0.445
Orcas	5514	2703	1760	0.651

4 *Source: U.S. Census Bureau and SJC 2036 Population Forecast adopted in Resolution 27-2017 and 2017 Technical Memorandum.

5

6 Jobs and household numbers from 2016 were used to calculate the jobs to household rate because the
7 per-island population information in the SJC population forecast for that year was the best available
8 information.

9

10 **B. 2036 Households and Forecast of Future New Jobs**

11

12 The jobs to household ratio allows for the extrapolation of expected future jobs based on the forecasted
13 population. In this step of the methodology, the ratio of jobs to households is used to project how many
14 jobs are expected in each CCD based on the County’s 2036 population projection. The forecasted future
15 jobs is an estimate of the number of jobs relative to population expected by the year 2036. For this
16 analysis, forecasted future new jobs is the amount of additional jobs that will be demanded during the
17 planning period, based on population growth.

18

19 Assuming the jobs to household ratio remains at the 2016 rate in each CCD, the total number of forecasted
20 jobs in 2036 can be estimated by multiplying the jobs to household rate by the expected number of
21 households. The expected number of households is derived by dividing the projected population in each
22 CCD with the average number of people per household in San Juan County, 2.04 persons per household.
23 Once the total number of forecasted jobs is calculated, the number of future new jobs is found by
24 subtracting the existing 2017 jobs. Future new jobs are calculated as follows.

25

26 **Future New Jobs =**

27

28 **(Projected Households X Jobs to Household Ratio) – 2017 Existing Jobs**

29

30 **Table 2. Future Jobs per U.S. Census County Division (CCD).**

CCD	2036 Forecasted Population	Forecasted Households	Jobs per Household	Total Forecasted Future Jobs	2017 Existing Jobs	Forecasted Future New Jobs, 2036
San Juan without Friday Harbor	6,255	3,067	0.268	822	787	35
Friday Harbor	3,152	1,545	1.969	3,042	2,149	893
Lopez	3,403	1,668	0.445	742	646	96
Orcas	6,565	3,218	0.651	2,095	1,753	342

31 *Source: U.S. Census Bureau and SJC 2036 Population Forecast adopted in Resolution 27-2017.

1 Based on the forecasted population and ratio of jobs to households, 6,701 total jobs are forecasted to be
2 in the County by the year 2036. In 2017, there were 5,335 jobs countywide. Based on this forecast, the
3 County can expect 1,366 new jobs by the year 2036.

4
5 The San Juan County Comprehensive Plan (Plan) specifically requires the County to plan for allocating fifty
6 percent of the projected growth per island to the UGA (Land Use Element, Policy 2.3.A.12). Table 3 below
7 shows the fifty percent job growth allocation for Orcas and Lopez islands. On San Juan Island, more than
8 fifty percent of the projected growth in jobs is expected to take place in Friday Harbor, see Table 2 above.
9 In fact, this forecast predicts that more than fifty percent of the new jobs countywide will occur in Friday
10 Harbor.

11
12 **Table 3. Job Growth Allocation for Eastsound and Lopez Village UGAs.**

Island	Total Future New Jobs in CCD	Fifty Percent of Future Jobs New Allocated to the UGA
Orcas (Eastsound UGA)	342	171
Lopez (Lopez Village UGA)	96	48

13 *Source: Table 2 above.

15 III. Jobs to Nonresidential Building Square Footage

17 A. Comparison of Existing Building Square Footage and Existing Jobs

18
19 The relationship between existing nonresidential building square footage and the number of existing jobs
20 is used to identify the rate at which jobs occur per building square foot. This information is used to
21 estimate how many new square feet of building area may be needed to provide for the number of new
22 jobs forecasted for the year 2036.

23
24 This ratio is calculated using the LCA data set for existing building square footage from 2017 Assessor's
25 data and U.S. Census Bureau job statistics. The commercial and industrial building square footage from
26 the LCA Report is derived from the Gross Developable Lands Inventory (GDLI) the first step in the *Land
27 Capacity Analysis Methodology* that characterizes fully and partially developed parcels.

28
29 A metric of building square feet per job is based on the relationship between existing commercial and
30 industrial building square feet and the number of existing jobs. This metric is calculated by U.S. Census
31 County Division (CCD) as shown on Map 1. This will allow for a more refined per-area rate rather than
32 calculating the ratio countywide. Building square feet per jobs is calculated as follows:

$$\text{Building square feet per job} = \frac{\text{Existing building square feet in the CCD}}{\text{Existing jobs in the CCD}}$$

1 **Table 4. Building Square Feet per Job by U.S. Census County Division (CCD).**

Area	Nonresidential Building Square Feet	Existing Jobs	Building Square Ft./Job
San Juan CCD without Friday Harbor	247,696.9	787	314.74
Lopez CCD	268,264.1	646	415.27
Orcas CCD	930,839.1	1,753	530.99

2 *Source: U.S. Census Bureau and SJC Land Capacity Analysis Report data.

3
 4 The building square feet per job metric for the Eastsound and Lopez Village UGAs cannot be calculated
 5 with the jobs data available. Jobs statistics are not provided for the UGA. Future commercial capacity in
 6 the UGA will use the rate of square feet per job from that island’s CCD.

7
 8 **B. Future Employment Capacity and Building Square Feet per Job**

9
 10 Using the assumption that the rate of building square feet per job remains the same for each CCD, a
 11 forecast of employment capacity in number of jobs is calculated for each CCD. This analysis uses the
 12 expected final capacity of nonresidential development in building square footage from the LCA Report
 13 data. The draft *Land Capacity Analysis Methodology* outlines the process for identifying the possible
 14 building square footage and final capacity. It includes two methods for calculating commercial capacity.
 15 One is based on achieved floor area ratio per land use designation. The second is based on the maximum
 16 allowed building square footage under the current development regulations. To compare future
 17 commercial capacity and building square feet per job, the capacity numbers from the LCA Report based
 18 on the achieved floor area ratio are used. Achieved FAR most accurately characterizes existing
 19 development and what is most likely to occur. Future employment capacity is calculated as follows.

20
 21 **Future Employment Capacity =**
 22 **Commercial Capacity per CCD**
 23 **Building Square Feet per Job per CCD**

24
 25
 26 **Table 5. Future Employment Capacity per U.S. Census County Division (CCD).**

Area	Commercial Capacity Square Feet	Building Square Feet per Job	Future Employment Capacity In Jobs
San Juan CCD without Friday Harbor	874,965	314.74	2,780
Lopez CCD without the UGA	5,438,189	415.27	9,167
Lopez Village UGA	1,155,131	415.27	1,947
Orcas CCD without the UGA	114,484	530.99	216
Eastsound UGA	320,413	530.99	603

27 *Source: Land Capacity Analysis Report Data Set and Table 4 above.

1 **Table 6. Future Employment Capacity per U.S. Census County Division (CCD) and Land Use Designation.**

San Juan CCD				
Land Use Designation	Developable Acres	Commercial Capacity Square Feet	Building Square Feet per Job	Future Employment Capacity in Jobs
Lopez CCD				
Land Use Designation	Developable Acres	Commercial Capacity Square Feet	Building Square Feet per Job	Future Employment Capacity in Jobs
Orcas CCD				
Land Use Designation	Developable Acres	Commercial Capacity Square Feet	Building Square Feet per Job	Future Employment Capacity in Jobs

2 *Note: Table 6 will be completed in a future draft of this analysis.

3 **IV. Forecasted Future Jobs and Future Employment Capacity**

4
5 Now that an expected number of future jobs (Tables 2 and 3) and a future employment capacity (Table 5)
6 have been established it is possible to compare these two metrics. A potential future job capacity surplus
7 or deficit is determined by comparing future jobs and future job capacity as follows.

8
9 **Future Employment Capacity Surplus or Deficit =**

10
11 **Future Employment Capacity - Forecasted Future New Jobs**

12
13 **Table 7. Future Employment Capacity Surplus or Deficit by U.S. Census County Division (CCD).**

Area	Future Employment Capacity (in possible new jobs)	Forecasted Future New Jobs	Future Employment Capacity Surplus or Deficit (+/-)
San Juan CCD without Friday Harbor	2,780	35	2,745
Lopez CCD without the UGA	9,167	48	9,119
Lopez Village UGA	1,947	48	1,899
Orcas CCD without the UGA	216	171	45
Eastsound UGA	603	171	432
Countywide without Friday Harbor	14,713	473	13,808

14 Source: Tables 2-5 above.

15

16 *Placeholder for additional discussion of results.*

1 **V. Assumptions**

2
3 **A. List of Assumptions**

4
5 *Placeholder for a list and discussion of the assumptions used in the analysis above (i.e. the amount of*
6 *retirees in the County may skew the jobs per household ratio in the future).*

7
8 **Assumptions**

- 9
- 10 ▪ The ratio of jobs per household will remain at 2016 levels through the planning period. As the
- 11 County’s population ages and the percentage of retirees in the County increases, the jobs per
- 12 household rate may decrease. Additional information about the expected changes in demographics
- 13 is included in Section VI of this report.
- 14 ▪ The 2017 rate of employment per square foot in each CCD will remain through the planning period.
- 15 ▪ Building square feet per job by CCD used to analyze employment capacity in the UGA. This island-
- 16 wide rate includes commercial development in areas not within the UGA.
- 17 ▪ The distribution of employment per sector will be similar to the sixteen-year (2002 – 2017) average
- 18 of employment distribution per sector.
- 19 ▪ Development scenario B from the final capacity tables in the LCA Report was used when calculating
- 20 employment capacity in mixed-use areas. Scenario B assumes that mixed-use development will
- 21 occur at a ratio of fifty percent residential and fifty percent commercial.
- 22 ▪ Self-employed/work from home not accounted for. These jobs typically happen in the home and
- 23 may not be directly related to commercial or industrial capacity (building square footage).

24
25 **B. Implications of Assumptions**

26
27 Placeholder for a discussion of what influence each of the assumptions listed above have on the analysis
28 (does this make the estimates higher or lower, etc.).

29
30 **VI. Additional Employment Background**

31
32 Placeholder for more information about the workforce in SJC. This may be supporting information for
33 section V.B.

34
35 **A. Employment Totals per CCD**

36 Placeholder for discussion of trends.

1 **Table 8. San Juan County Jobs by U.S. Census County Division (CCD), 2012 to 2017.**

	2017	2016	2015	2014	2013	2012
Unincorporated San Juan	787	742	709	686	740	683
Friday Harbor	2,149	2,172	1,990	1,938	1,997	1,915
San Juan CCD Total	2,936	2,914	2,699	2,624	2,737	2,598
Orcas CCD	1,753	1,760	1,630	1,611	1,497	1,468
Lopez CCD	646	623	615	630	665	639
Countywide Total	5,335	5,297	4,944	4,865	4,899	4,705

2 *Source: U.S. Census Bureau.

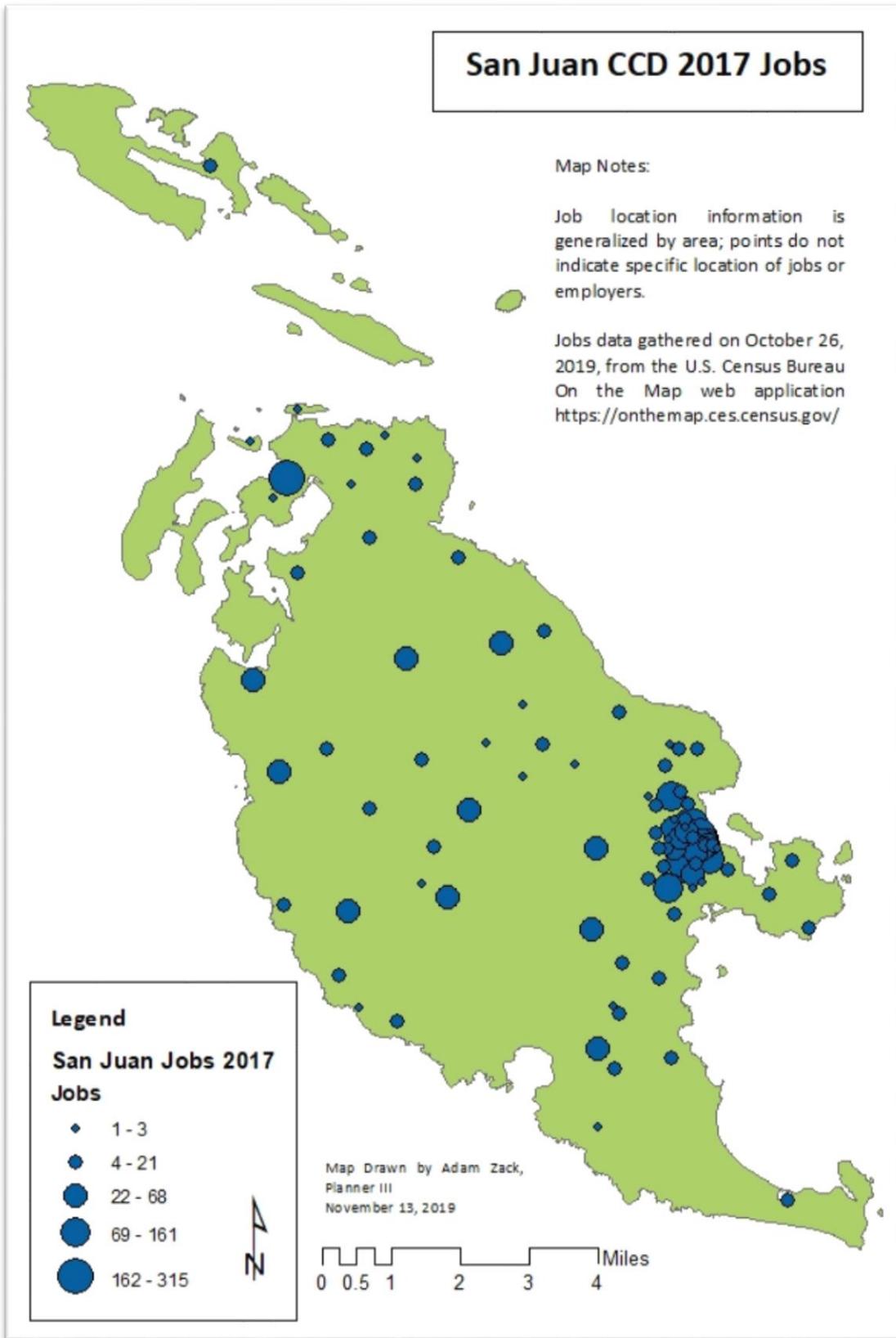
3 **NOTE: expand Table 7 to include more years and capture employment prior to 2008 recession.**

4 **B. Geography of Employment**

5

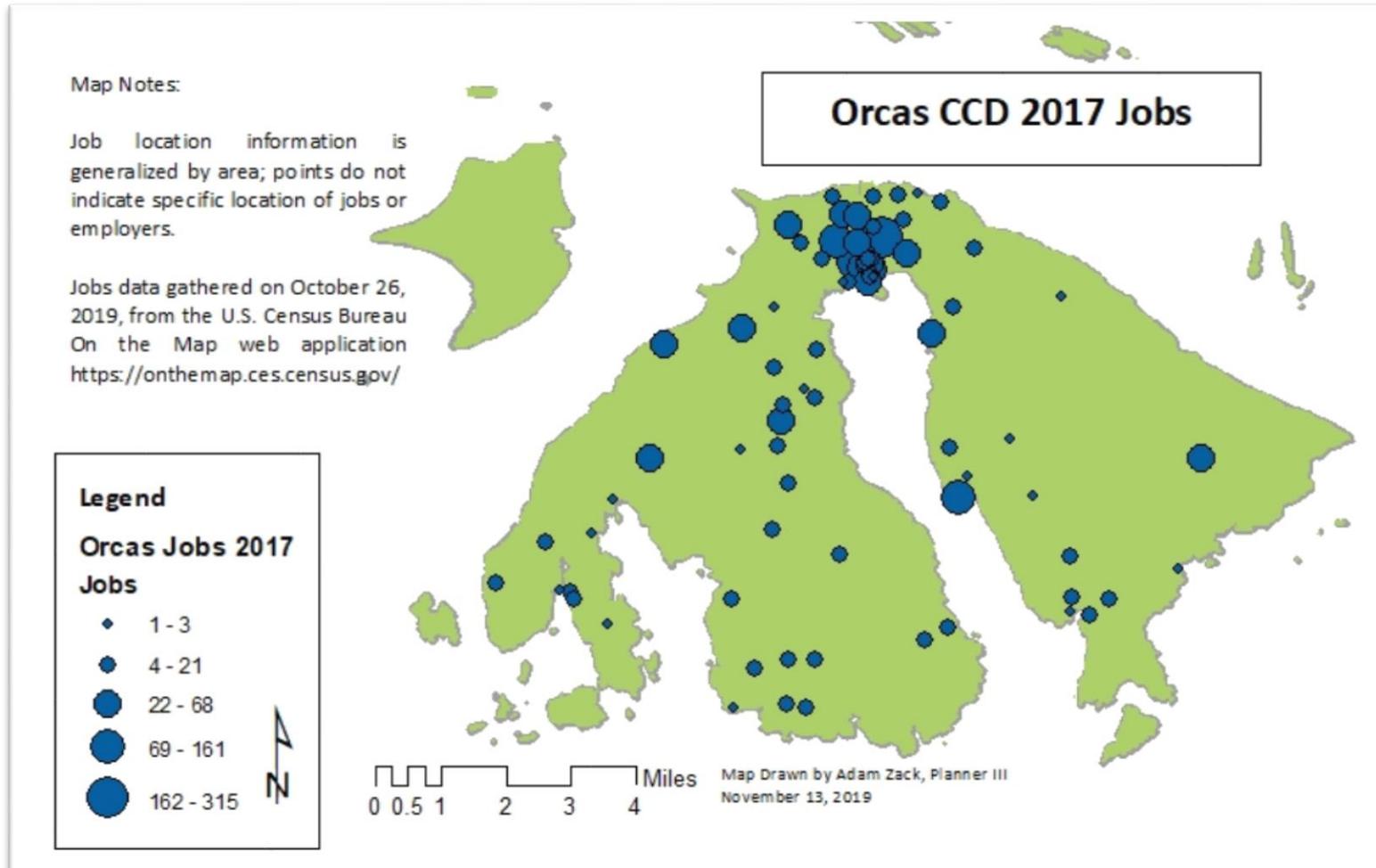
6 Maps 2 through 4 below show the generalized location of employment in each CCD. These maps show
 7 employment information provided by the U.S. Census Bureau with their *On the Map* web application. The
 8 job information shown on the maps are generalized by area and do not represent the precise location of
 9 employment. The maps provide some context as to approximately where employment is provided.

1 **Map 2. San Juan Island U.S. Census County Division (CCD) Generalized Job Locations.**



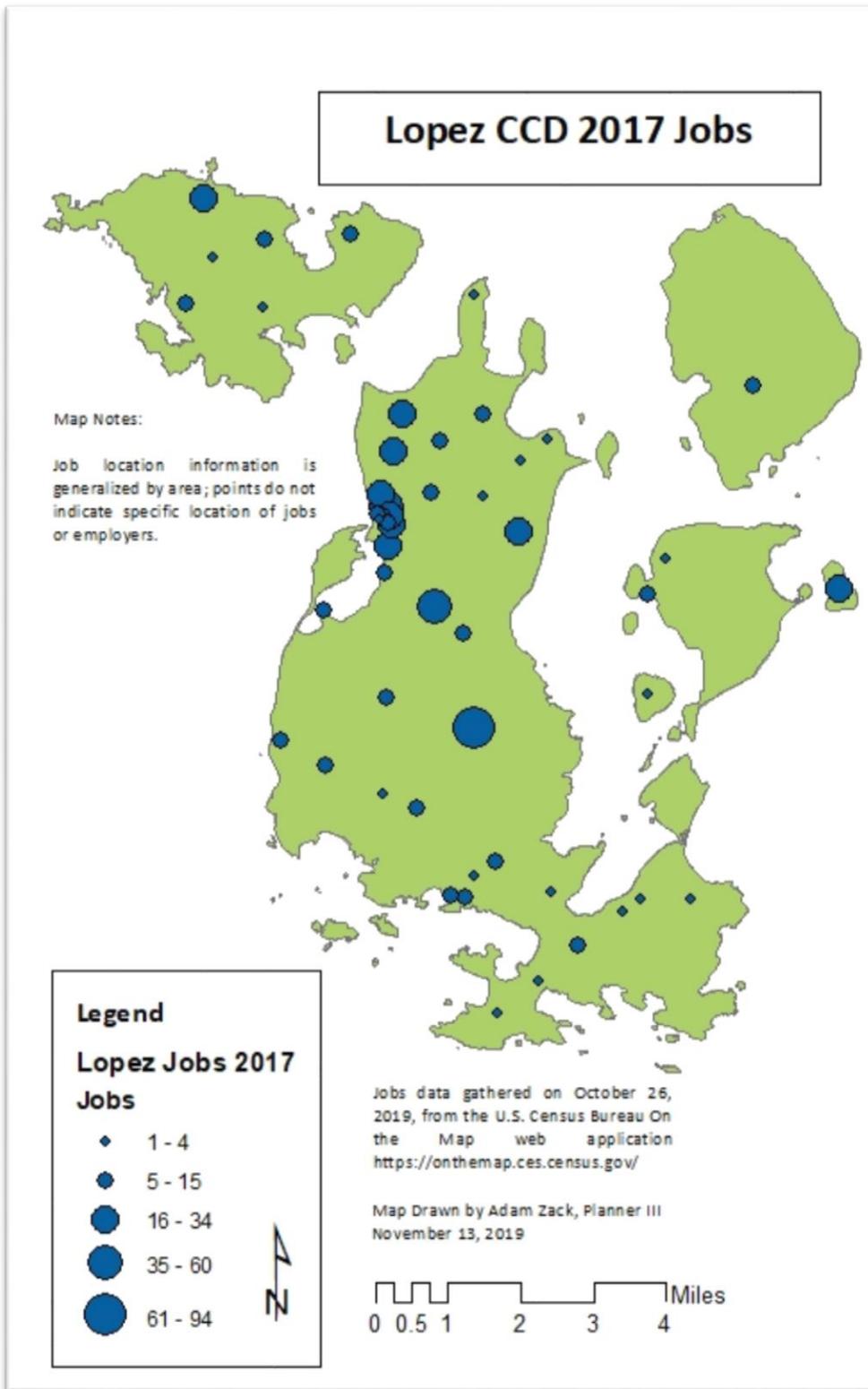
2

1 **Map 3. Orcas U.S. Census County Division (CCD) Generalized Job Locations.**



2

1 **Map 4. Lopez U.S. Census County Division (CCD) Generalized Job Locations.**
2



3
4

1 **C. Recent Employment by NAICS Industry Sector**

2

3 The U.S. Census Bureau provides jobs data by North American Industry Classification System (NAICS)
4 industry for each CCD. Employment data for each CCD is provided through *On the Map* for the years
5 2002 through 2017. Tables 8 through 11 below provide the number of jobs per sector for each CCD for
6 2012 through 2017.

7

8 *Placeholder for additional discussion of recent trends.*

9

DRAFT

1 **Table 9. Jobs by NAICS Industry Sector in San Juan U.S. Census County Division (CCD), Without Friday Harbor, 2012 to 2017.**

Industry Sector	2017		2016		2015		2014		2013		2012	
	Count	Share										
Agriculture, Forestry, Fishing and Hunting	36	4.57%	30	4.04%	15	2.12%	10	1.46%	37	5.00%	35	5.12%
Mining, Quarrying, and Oil and Gas Extraction	4	0.51%	1	0.13%	8	1.13%	4	0.58%	6	0.81%	6	0.88%
Utilities	6	0.76%	4	0.54%	5	0.71%	7	1.02%	5	0.68%	5	0.73%
Construction	260	33.04%	245	33.02%	196	27.64%	158	23.03%	128	17.30%	140	20.50%
Manufacturing	14	1.78%	13	1.75%	12	1.69%	35	5.10%	23	3.11%	28	4.10%
Wholesale Trade	19	2.41%	22	2.96%	24	3.39%	26	3.79%	26	3.51%	20	2.93%
Retail Trade	18	2.29%	14	1.89%	27	3.81%	11	1.60%	14	1.89%	22	3.22%
Transportation and Warehousing	19	2.41%	15	2.02%	6	0.85%	5	0.73%	2	0.27%	5	0.73%
Information	1	0.13%	1	0.13%	14	1.97%	2	0.29%	10	1.35%	10	1.46%
Finance and Insurance	3	0.38%	4	0.54%	3	0.42%	3	0.44%	3	0.41%	6	0.88%
Real Estate and Rental and Leasing	1	0.13%	4	0.54%	3	0.42%	1	0.15%	3	0.41%	3	0.44%
Professional, Scientific, and Technical Services	23	2.92%	21	2.83%	20	2.82%	12	1.75%	12	1.62%	8	1.17%
Management of Companies and Enterprises	1	0.13%	1	0.13%	1	0.14%	2	0.29%	1	0.14%	1	0.15%
Administration & Support, Waste Management and Remediation	26	3.30%	30	4.04%	33	4.65%	33	4.81%	34	4.59%	29	4.25%
Educational Services	2	0.25%	2	0.27%	6	0.85%	3	0.44%	2	0.27%	5	0.73%
Health Care and Social Assistance	18	2.29%	6	0.81%	26	3.67%	40	5.83%	21	2.84%	15	2.20%
Arts, Entertainment, and Recreation	25	3.18%	32	4.31%	39	5.50%	38	5.54%	26	3.51%	38	5.56%
Accommodation and Food Services	222	28.21%	195	26.28%	178	25.11%	167	24.34%	217	29.32%	142	20.79%
Other Services (excluding Public Administration)	82	10.42%	95	12.80%	83	11.71%	119	17.35%	123	16.62%	120	17.57%
Public Administration	7	0.89%	7	0.94%	10	1.41%	10	1.46%	47	6.35%	45	6.59%

2 Source: U.S. Census Bureau *On The Map*.

3

1 **Table 10. Jobs by NAICS Industry Sector in Friday Harbor, 2012 to 2017.**

Industry Sector	2017		2016		2015		2014		2013		2012	
	Count	Share										
Agriculture, Forestry, Fishing and Hunting	0	0.0%	0	0.0%	24	1.2%	0	0.0%	0	0.0%	0	0.0%
Mining, Quarrying, and Oil and Gas Extraction	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Utilities	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Construction	99	4.6%	107	4.9%	92	4.6%	112	5.8%	109	5.5%	93	4.9%
Manufacturing	47	2.2%	35	1.6%	48	2.4%	26	1.3%	42	2.1%	38	2.0%
Wholesale Trade	18	0.8%	14	0.6%	13	0.7%	16	0.8%	11	0.6%	14	0.7%
Retail Trade	293	13.6%	310	14.3%	287	14.4%	291	15.0%	272	13.6%	266	13.9%
Transportation and Warehousing	58	2.7%	59	2.7%	39	2.0%	39	2.0%	43	2.2%	48	2.5%
Information	50	2.3%	49	2.3%	48	2.4%	66	3.4%	41	2.1%	44	2.3%
Finance and Insurance	53	2.5%	43	2.0%	61	3.1%	68	3.5%	44	2.2%	64	3.3%
Real Estate and Rental and Leasing	86	4.0%	80	3.7%	84	4.2%	65	3.4%	49	2.5%	37	1.9%
Professional, Scientific, and Technical Services	54	2.5%	56	2.6%	39	2.0%	48	2.5%	55	2.8%	69	3.6%
Management of Companies and Enterprises	15	0.7%	13	0.6%	19	1.0%	18	0.9%	15	0.8%	15	0.8%
Administration & Support, Waste Management and Remediation	60	2.8%	64	2.9%	50	2.5%	52	2.7%	56	2.8%	57	3.0%
Educational Services	236	11.0%	236	10.9%	196	9.8%	217	11.2%	234	11.7%	220	11.5%
Health Care and Social Assistance	218	10.1%	237	10.9%	193	9.7%	187	9.6%	231	11.6%	209	10.9%
Arts, Entertainment, and Recreation	141	6.6%	125	5.8%	121	6.1%	89	4.6%	131	6.6%	127	6.6%
Accommodation and Food Services	380	17.7%	369	17.0%	319	16.0%	313	16.2%	321	16.1%	294	15.4%
Other Services (excluding Public Administration)	51	2.4%	60	2.8%	50	2.5%	52	2.7%	62	3.1%	48	2.5%
Public Administration	290	13.5%	315	14.5%	307	15.4%	279	14.4%	281	14.1%	272	14.2%

2 Source: U.S. Census Bureau *On The Map*.

3
4

1 **Table 11. Jobs by NAICS Industry Sector in Lopez U.S. Census County Division (CCD), 2012 to 2017.**

Industry Sector	2017		2016		2015		2014		2013		2012	
	Count	Share										
Agriculture, Forestry, Fishing and Hunting	4	0.6%	2	0.3%	6	1.0%	11	1.7%	2	0.3%	7	1.1%
Mining, Quarrying, and Oil and Gas Extraction	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Utilities	14	2.2%	9	1.4%	9	1.5%	5	0.8%	9	1.4%	5	0.8%
Construction	89	13.8%	76	12.2%	68	11.1%	65	10.3%	71	10.7%	75	11.7%
Manufacturing	42	6.5%	40	6.4%	34	5.5%	40	6.3%	43	6.5%	46	7.2%
Wholesale Trade	10	1.5%	9	1.4%	15	2.4%	17	2.7%	20	3.0%	8	1.3%
Retail Trade	105	16.3%	98	15.7%	94	15.3%	97	15.4%	93	14.0%	99	15.5%
Transportation and Warehousing	12	1.9%	12	1.9%	15	2.4%	10	1.6%	5	0.8%	5	0.8%
Information	8	1.2%	5	0.8%	8	1.3%	6	1.0%	6	0.9%	5	0.8%
Finance and Insurance	8	1.2%	10	1.6%	3	0.5%	6	1.0%	12	1.8%	6	0.9%
Real Estate and Rental and Leasing	31	4.8%	23	3.7%	27	4.4%	20	3.2%	19	2.9%	20	3.1%
Professional, Scientific, and Technical Services	9	1.4%	11	1.8%	12	2.0%	8	1.3%	7	1.1%	12	1.9%
Management of Companies and Enterprises	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Administration & Support, Waste Management and Remediation	32	5.0%	27	4.3%	40	6.5%	40	6.3%	42	6.3%	31	4.9%
Educational Services	95	14.7%	89	14.3%	101	16.4%	103	16.3%	109	16.4%	98	15.3%
Health Care and Social Assistance	42	6.5%	48	7.7%	53	8.6%	63	10.0%	54	8.1%	61	9.5%
Arts, Entertainment, and Recreation	36	5.6%	35	5.6%	14	2.3%	15	2.4%	36	5.4%	32	5.0%
Accommodation and Food Services	58	9.0%	86	13.8%	63	10.2%	60	9.5%	62	9.3%	62	9.7%
Other Services (excluding Public Administration)	39	6.0%	33	5.3%	43	7.0%	49	7.8%	58	8.7%	53	8.3%
Public Administration	12	1.9%	10	1.6%	10	1.6%	15	2.4%	17	2.6%	14	2.2%

2 Source: U.S. Census Bureau *On The Map*.

3
4

1 **Table 12. Jobs by NAICS Industry Sector in Orcas U.S. Census County Division (CCD), 2012 to 2017.**

Industry Sector	2017		2016		2015		2014		2013		2012	
	Count	Share										
Agriculture, Forestry, Fishing and Hunting	33	1.9%	34	1.9%	29	1.8%	16	1.0%	14	0.9%	10	0.7%
Mining, Quarrying, and Oil and Gas Extraction	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Utilities	73	4.2%	71	4.0%	69	4.2%	71	4.4%	77	5.1%	74	5.0%
Construction	239	13.6%	219	12.4%	205	12.6%	225	14.0%	190	12.7%	190	12.9%
Manufacturing	59	3.4%	52	3.0%	58	3.6%	59	3.7%	50	3.3%	46	3.1%
Wholesale Trade	23	1.3%	21	1.2%	23	1.4%	22	1.4%	36	2.4%	28	1.9%
Retail Trade	260	14.8%	227	12.9%	219	13.4%	195	12.1%	190	12.7%	198	13.5%
Transportation and Warehousing	22	1.3%	20	1.1%	17	1.0%	17	1.1%	17	1.1%	15	1.0%
Information	43	2.5%	34	1.9%	29	1.8%	27	1.7%	24	1.6%	28	1.9%
Finance and Insurance	34	1.9%	13	0.7%	20	1.2%	26	1.6%	13	0.9%	27	1.8%
Real Estate and Rental and Leasing	32	1.8%	36	2.0%	42	2.6%	28	1.7%	32	2.1%	24	1.6%
Professional, Scientific, and Technical Services	64	3.7%	99	5.6%	50	3.1%	55	3.4%	56	3.7%	59	4.0%
Management of Companies and Enterprises	6	0.3%	1	0.1%	1	0.1%	0	0.0%	2	0.1%	1	0.1%
Administration & Support, Waste Management and Remediation	79	4.5%	81	4.6%	85	5.2%	81	5.0%	75	5.0%	76	5.2%
Educational Services	137	7.8%	141	8.0%	127	7.8%	126	7.8%	133	8.9%	128	8.7%
Health Care and Social Assistance	108	6.2%	122	6.9%	140	8.6%	118	7.3%	99	6.6%	83	5.7%
Arts, Entertainment, and Recreation	38	2.2%	52	3.0%	42	2.6%	46	2.9%	38	2.5%	41	2.8%
Accommodation and Food Services	412	23.5%	419	23.8%	381	23.4%	403	25.0%	355	23.7%	340	23.2%
Other Services (excluding Public Administration)	77	4.4%	62	3.5%	72	4.4%	68	4.2%	62	4.1%	70	4.8%
Public Administration	14	0.8%	56	3.2%	21	1.3%	28	1.7%	34	2.3%	30	2.0%

2 Source: U.S. Census Bureau *On The Map*.

3

1 **D. Employment Projections for Northwest Washington Workforce Development Area**
2 **(WDA).**
3

4 The Washington State Employment Security Department (ESD) provides employment projections for
5 areas in Washington State, called workforce development areas (WDA). San Juan County is located in
6 WDA 3, which includes Whatcom, Skagit, and Island counties. ESD provides projections for two, five, and
7 ten year periods. They annually update these employment projections. The most recent ten-year
8 projection covers the years 2017 to 2027. The ESD projections for the Northwest Washington WDA is
9 provided in Table 13 below.

10
11 ESD employment projections and information about how the projections were made is available at
12 <https://esd.wa.gov/labormarketinfo/projections>
13
14

DRAFT

Table 13. Employment Projections for Northwest Washington WDA (Two Pages).

Title	Estimated employment 2017	Estimated employment 2022	Estimated employment 2027	Average annual growth rate 2017-2022	Average annual growth rate 2022-2027
TOTAL NONFARM	166,200	179,600	190,000	1.56%	1.13%
NATURAL RESOURCES and Mining	500	500	500	0.00%	0.00%
Logging	300	300	300	0.00%	0.00%
Mining	200	200	200	0.00%	0.00%
CONSTRUCTION	13,600	15,700	16,400	2.91%	0.88%
MANUFACTURING	17,100	17,800	18,100	0.81%	0.33%
Durable Goods	9,600	9,800	10,000	0.41%	0.40%
Wood Product Manufacturing	2,100	2,100	2,100	0.00%	0.00%
Nonmetallic Mineral Product Manufacturing	500	500	500	0.00%	0.00%
Fabricated Metal Product Manufacturing	800	800	800	0.00%	0.00%
Machinery Manufacturing	1,400	1,800	1,900	5.15%	1.09%
Computer and Electronic Product Manufacturing	500	500	500	0.00%	0.00%
Electrical Equipment and Appliance Mfg	400	400	400	0.00%	0.00%
Other Transportation Equipment	1,500	1,300	1,300	-2.82%	0.00%
Other Durable Manufacturing	1,100	1,200	1,300	1.76%	1.61%
Non Durable Goods	7,500	8,000	8,100	1.30%	0.25%
Food and Beverages Manufacturing	4,000	4,300	4,300	1.46%	0.00%
Printing and Related Support Activities	200	200	200	0.00%	0.00%
Other Non Durable	3,200	3,400	3,500	1.22%	0.58%
WHOLESALE TRADE	4,200	4,400	4,500	0.93%	0.45%
RETAIL TRADE	21,400	22,000	22,900	0.55%	0.81%
Food and Beverage Stores	4,500	4,500	4,600	0.00%	0.44%
Motor Vehicle and Parts Dealers	2,700	2,700	2,800	0.00%	0.73%
Other Retail Trade	14,200	14,800	15,500	0.83%	0.93%
TRANSPORTATION, WAREHOUSING AND UTILITIES	4,700	5,100	5,300	1.65%	0.77%
Utilities	500	500	500	0.00%	0.00%
Transportation and Warehousing	4,200	4,600	4,800	1.84%	0.85%
INFORMATION	1,800	1,700	1,800	-1.14%	1.15%

Table 13. Employment Projections for Northwest Washington WDA (Two Pages).

Title	Estimated employment 2017	Estimated employment 2022	Estimated employment 2027	Average annual growth rate 2017-2022	Average annual growth rate 2022-2027
Software Publishers	400	500	500	4.56%	0.00%
Other Publishing Industries	400	200	200	-12.94%	0.00%
Other Information	1,000	1,000	1,100	0.00%	1.92%
FINANCIAL ACTIVITIES	6,800	7,200	7,500	1.15%	0.82%
Finance and Insurance	4,500	4,700	4,900	0.87%	0.84%
Real Estate, Rental and Leasing	2,300	2,500	2,600	1.68%	0.79%
PROFESSIONAL and BUSINESS SERVICES	13,200	14,700	15,900	2.18%	1.58%
Professional, Scientific and Technical Services	6,000	6,700	7,300	2.23%	1.73%
Management of Companies and Enterprises	600	700	700	3.13%	0.00%
Other Professional Services	5,100	5,500	6,000	1.52%	1.76%
Employment Services	1,500	1,800	1,900	3.71%	1.09%
EDUCATION and HEALTH SERVICES	21,400	23,500	26,100	1.89%	2.12%
Education Services	2,200	2,500	2,800	2.59%	2.29%
Health Services and Social Assistance	19,200	21,000	23,300	1.81%	2.10%
LEISURE and HOSPITALITY	19,700	21,900	23,300	2.14%	1.25%
Arts, Entertainment and Recreation	2,600	2,800	3,000	1.49%	1.39%
Accommodation and Food Services	17,100	19,100	20,300	2.24%	1.23%
OTHER SERVICES	7,000	8,000	8,300	2.71%	0.74%
GOVERNMENT	34,800	37,100	39,400	1.29%	1.21%
Federal Government	3,200	3,200	3,200	0.00%	0.00%
State and Local Government Other	14,800	15,700	16,700	1.19%	1.24%
Government Educational Services	16,800	18,200	19,500	1.61%	1.39%

1 Source: Washington State Employment Security Department.

1 **E. Trends**

2
3 Placeholder

4
5 **Table 13. Population by Age Cohort, 2017 American Community Survey (U.S. Census).**

Cohort	Estimate	Percent
Under 5 years old	463	2.9
5 to 9 years old	701	4.3
10 to 14 years old	615	3.8
15 to 19 years old	744	4.6
20 to 24 years old	550	3.4
25 to 34 years old	1,242	7.7
35 to 44 years old	1,604	9.9
45 to 54 years old	2,031	12.5
55 to 59 years old	1,622	10
60 to 64 years old	1,688	10.4
65 to 74 years old	3,189	19.7
75 to 84 years old	1,314	8.1
85 years or older	458	2.8
Median Age	55.7	

6 *Source: U.S. Census Bureau 2017 ACS.

7
8 **Table 14. County Population and Employment, 2011 to 2017.**

	2010	2011	2012	2013	2014	2015	2016	2017
Population	15784	15844	15849	15909	16010	16198	16304	16725
Jobs	4728	4580	4705	4899	4865	4994	5297	5335
Jobs to Household Ratio	0.61	0.59	0.61	0.63	0.62	0.63	0.66	0.65
Population Added	-	60	5	60	101	188	106	421
Jobs Added	-	-148	125	194	-34	129	303	38

9 *Source: U.S. Census Bureau and SJC Population Forecast.

10
11 Placeholder

12
13 **VII. Data Sources**

14
15 **A. Job Statistics**

16
17 Job statistics come from the U.S. Census Bureau *On the Map* web application
18 (<https://onthemap.ces.census.gov/>) provided as part of the Longitudinal Employer-Household Dynamics
19 (LEHD) program. LEHD describes the source for *On the Map* as follows:
20

1 The employment data used in this application are derived from several sources:

- 2
- 3 ▪ Unemployment Insurance (UI) Wage Records reported by employers and maintained by
- 4 each state for the purpose of administering its unemployment insurance system provide
- 5 information on employees and jobs (relationship between employee and firm). These
- 6 data are provided for "UI-covered employment," which typically includes private-sector
- 7 employment as well as state and local government.
- 8
- 9 ▪ The Office of Personnel Management (OPM) provides information on employees and jobs
- 10 for most Federal employees.
- 11
- 12 ○ See http://www.fedscope.opm.gov/datadefn/aboutehri_sdm.asp#cpdf3.
- 13 This link to a non-federal Web site does not imply endorsement of any
- 14 particular product, company, or content and
- 15 <http://www.fedscope.opm.gov/datadefn/index.asp#location>. This link to a
- 16 non-federal Website does not imply endorsement of any particular product,
- 17 company, or content for major exceptions. In addition, LODES/OnTheMap
- 18 does not include all workers covered by OPM. In particular, civilian
- 19 employees of the Department of Defense and the Armed Forces are
- 20 excluded. Starting in 2015 some additional suppressions are applied to
- 21 federal employment. See lehd.ces.census.gov/doc/help/onthemap/LODES
- 22 [Data Note - Fed Emp 2015.pdf](http://lehd.ces.census.gov/doc/help/onthemap/LODES). Data on Federal Workers are not currently
- 23 available for 2016 and 2017.
- 24
- 25
- 26 ▪ The Quarterly Census for Employment and Wages (QCEW) provides information on firm
- 27 structure and establishment location. These data are collected by each state under an
- 28 agreement with the U.S. Bureau of Labor Statistics (BLS).
- 29
- 30 ○ Age, earnings, and industry profiles are compiled by the U.S. Census Bureau
- 31 from a state's records and are supplemented with other Census Bureau
- 32 source data. Final compilations and confidentiality protection are
- 33 performed by the U.S. Census Bureau. The states assign employer locations,
- 34 while workers' residence locations are assigned by the U.S. Census Bureau
- 35 using data from multiple federal agencies.
- 36

37 **B. Population Forecast**

38

39 Population figures, including future population numbers, come from the population forecast adopted for

40 use in the SJC Comprehensive Plan update in Resolution 27-2017. The population forecast is based on the

41 County's proportionate share of Washington State's population. An April 11, 2017 staff report provides

42 background on the population projection (<https://www.sanjuanco.com/DocumentCenter/View/11845/>).

43

44 **C. Housing Units**

45

46 Housing unit information is provided in the draft **March 28, 2019** *SJC Housing Needs Assessment (HNA)*

47 (<https://www.sanjuanco.com/DocumentCenter/View/18231>). The HNA combines data from many

48 sources, including County permit and U.S. Census Bureau data.

49

1 **D. Census County Division (CCD)**

2
3 The U.S. Census Bureau does not provide jobs numbers for individual islands but provides it by three
4 census county divisions (CCD) in San Juan County. The CCDs groups the San Juan Islands as shown in Map
5 1. CCD is defined by the U.S. Census Bureau as:

6
7 A subdivision of a county that is a relatively permanent statistical area established
8 cooperatively by the Census Bureau and state and local government authorities. Used for
9 presenting decennial census statistics in those states that do not have well-defined and
10 stable minor civil divisions that serve as local governments.

11
12 Link to definition: https://factfinder.census.gov/help/en/census_county_division_ccd.htm

13
14 **E. Decennial Census and American Community Survey (ACS)**

15
16 General information about population and demographics was also gathered from the U.S. Census Bureau
17 using the American Factfinder website (factfinder.census.gov).

18
19 **F. San Juan County Land Capacity Analysis (LCA) data set**

20
21 The LCA data uses several County sources including the Assessor’s parcel data. It is described in the draft
22 *SJC Land Capacity Analysis Methodology*. The November 4, 2019 Land Capacity Analysis Report identifies
23 the gross and net developable land, possible future dwelling units under existing development and current
24 development regulations, and capacity for future nonresidential building square footage based on existing
25 Comprehensive Plan land use designations and regulations.

26
27 **G. Employment Security Department (ESD) Workforce Development Area Employment**
28 **Projections**

29
30 ESD provides employment projections for areas in Washington State called workforce development areas
31 (WDA). San Juan County is located in WDA 3, which includes Whatcom, Skagit, and Island counties. ESD
32 provides projections for two, five, and ten year periods. They annually update these employment
33 projections. The most recent ten-year projection covers the years 2017 to 2027.

34
35 ESD employment projections and information about how the projections were made are available at
36 <https://esd.wa.gov/labormarketinfo/projections>