

## **APPENDIX C**

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# San Juan County Land Capacity Analysis Methodology

## APPENDIX C: SAN JUAN COUNTY

No.	Step	Proposed Assumption	San Juan County Residential LCA
<b>Geography/ Time Period</b>			
1.	Base point in time	Use SMP map inventory parcel data date as baseline.	Used data from November 2010.
2.	Study area boundaries	Parcels fully within or intersecting shoreline jurisdiction (200 ft. measured horizontally from the ordinary high water mark) were considered in the analysis. Parcels only within associated wetlands were not included.	Marine shoreline jurisdiction based on National Oceanic and Atmospheric Administration data (2010) provided by San Juan County. Lake shoreline jurisdiction based on San Juan County lake data (2008). Divided parcels into 20 management areas in order to provide the same units of analysis as the ecological function analysis. If a lake parcel straddled a marine management area and a lake management area, it was assigned to the marine management area. If a parcel straddled two marine management areas, it was assigned to only one management area.
<b>Gross Developable Land Inventory</b>		Include public and private lands that meet criteria since all lands may have shoreline uses. Discount or remove public/reserved lands after Step 10 as needed.	Parcels that spanned multiple density designations were assigned to the categories described in steps 3-6 in a case-by-case assessment.
3.	Single-family residential developable land: vacant land that can be subdivided	Assessor building value $\leq$ \$10,000 is vacant land. Parcels where the ratio of allowed density to parcel size is $\leq$ 0.5 are subdividable.	This amount of gross developable land had density provisions of the County code applied after the deductions noted below in order to arrive at future development capacity.
4.	Single-family residential developable land: vacant land too small for subdivision	Assessor building Value $\leq$ \$10,000 is vacant land. Parcels where the ratio of allowed density to parcel size is $>$ 0.5 are not subdividable. Lots $<$ 2,499 square feet <sup>1</sup> should not be included in this category.	After deducting lands as described below, the remainder of this category was used in Step 18 under the assumption that these properties have a legal right to develop, despite their nonconformance with density requirements.
5.	Single-family residential developable land: partially used	Assessor building Value $>$ \$10,000 is in use. Parcels where the ratio of allowed density to parcel size is $\leq$ 0.5 are further subdividable and therefore are only "partially used."	This amount of gross developable land had density provisions of the County code applied after the deductions noted below in order to arrive at future development capacity.
6.	Multifamily, commercial, and industrial developable land: underutilized	Multifamily, commercial, industrial designated parcels are "underutilized" if vacant; occupied by a single-family residential use (as indicated by an 1100-series assessor land use code); or if the ratio of building value to land value is $<$ 1.0.	Apply the method for the following zones that allow a wider range of industrial and commercial uses but not single-family residential: Rural Industrial (RI), Rural Commercial (RC), Village Industrial (VI), Activity Centers, Hamlets, zone which allows a range of commercial and industrial as well as single-family residential (but through Discretionary process only). Also apply this method to the following zones which allow both multi-family and single-family uses: Village Residential (VR), Hamlet Commercial (HC), and Hamlet Residential (HR).
<b>Deduct Critical Areas</b>			
7.	Lakes and wetlands	Lakes and wetlands should be deducted from the gross developable land inventory.	Lakes and wetlands identified in the 2010 study by Dr. Paul Adamus were deducted.
8.	Streams	Streams should be deducted from the gross developable land inventory.	Streams on San Juan Island and Orcas Island identified in Wild Fish Conservancy data (2008) were deducted. Streams on all other islands were deducted based on the US Geological Survey National Hydrography Dataset.
9.	Critical area buffers	Critical area buffers should be deducted from the gross developable land inventory.	Critical area buffers were deducted based on existing County CAO regulations, which are as follows. Wetlands: Class I = 150 ft., Class II = 75 ft., Class III = 50 ft., Class IV = 35 ft.; Streams/Riparian areas: Type 2 = 50 ft., Types 3-5 = 25 ft. Shoreline buffers: 50 ft. for Urban Environment (commercial and residential), 100 ft. for Rural Environment (commercial), 50 ft. for Rural Environment (residential), 100 ft. for Conservancy (commercial), 50 ft. for Conservancy (residential). Used an average buffers. Used 62.5 ft. for wetlands with assumption that wetlands in shoreline jurisdiction are more likely to be Class II or III. Lakes also used an average buffer of 62.5 ft., as they were included in the wetlands dataset. Used 50 ft. for streams. Used 50 ft. for marine shorelines in consideration that most development in Rural and Conservancy environments is likely to be residential development rather than commercial. <sup>1</sup>
10.	Deduct Land Set Aside For Conservation Purposes	Identified fish and wildlife habitat conservation areas (FWHCA) should be deducted from the gross developable land inventory. These include state natural area preserves, natural resource conservation areas managed by DNR, National Wildlife Refuges, National Parks, National	Deducted the following properties preserved for purposes of habitat protection shown on the Land Ownership folio maps: San Juan County Parks, Land bank preserve, land bank conservation easement, Washington DNR, Washington State Parks, Washington Department of Fish & Wildlife Services, National Parks Service, BLM, Other Federal, the Nature Conservancy, other San Juan

<sup>1</sup> Noted that San Juan County is in process of updating CAO; therefore, larger buffers may be in consideration (e.g., closer to 100 ft.). However, since new buffers were not adopted at time of this land capacity analysis, those adopted as of March 2011 were used.

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		Estuary Reserves, and Natural Area Preserves.	County, and Community common lands.
<b>Deduct Infrastructure and Public Uses</b>			
11.	Schools, boat ramps, barge landings, police/fire stations, water, sewer, recreation/ open space, and similar.	Deduct lands identified for public purposes (i.e., barge landings, boat ramps, outlet lines for sewer, power line easements, etc).	Deducted parcels with land use codes of "Government services" (67-series), "Educational services" (68-series), "Small islands, US Government" (9600), or "Parks" (7600). Deducted public benefit rating lands identified in County data, port-owned properties, and properties with land use designations of P ("Publicly Owned Conservancy Lands).
12.	Right-of-way and other development requirements	Percentage reduction to account for future right-of-way, public and private vehicular access (including driveways), and other development requirements (i.e., stormwater, utilities, and similar facilities).	Use 8% based upon a review of "future right-of-way" and similar dedications identified in various jurisdictions subject to GMA Buildable Lands requirements. Larger jurisdictions and those largely platted tended to have lower or no deductions. Most jurisdictions included deduction in the 5-15% range. An 8% deduction would be within that range and on the slightly lower end because this study is considering shoreline jurisdiction only, where fewer new roads and vehicle access would be found.
13.	Determine developable acres by planned land use category (zoning district)	Sum developable acres (vacant, partially used, and underutilized with critical area deductions) by zoning district.	Note: This subtotal excludes the public purpose and rights-of-way/development requirement deductions from subtotal.
<b>Market Factor Deduction</b>			
14.	Vacant lands	Market factor to account for vacant lands that do not develop within planning timeframe.	Comp. Plan: 10-12% unlikely to develop due to market factor. Appendix 1 to the San Juan County Comprehensive Plan included a range of 10-12% of properties unlikely to develop for market reasons/owner preferences. This is similar to the market factor range used in other jurisdiction's calculations that represent an amount of property potentially available for development or redevelopment but that does not do so within the planning period. Recommend using 12%, on the higher end of the range due to current recession and the likelihood that economic recovery will take longer and result in less redevelopment than in more recent analyses.
15.	Partially Used and Under-Utilized	Market factor to account for lands that do not redevelop within planning timeframe.	Comp. Plan: 10-12% unlikely to develop due to market factor. Same as Step #14 above. Recommend using 12%, on the higher end of the range due to current recession and the likelihood that economic recovery will take longer and result in less redevelopment than in more recent analyses.
<b>Determine Population Capacity</b>			
16.	Mixed Use Development Share	Assume 80/20 share of development will be residential or commercial.	No zones were identified as appropriate mixed-use development zones. Development was either assumed as residential or commercial based upon the zoning. Zones listed as commercial are identified as such in Step #6 above.
17.	Determine Total Dwelling Units Capacity By Zone	Multiply net acres of developable land in each zone by assumed density of each zone to determine total dwelling units of capacity. Subtract existing dwelling units, where they exist.	Apply Comprehensive Plan densities as identified on the Comprehensive Plan Official maps for shoreline and upland portions of parcels. Use data found in available GIS layers provided by County.
18.	Number of vacant parcels	Include subtotal of number of vacant parcels that cannot be subdivided by zoning district from step 4 above.	Carry over number of assumed dwelling units by zoning district from step #4 above.
19.	Break-out Dwelling units for permanent occupation from guest house and/or vacation housing.	Apply percentages of guest house/vacation housing to the total dwelling units by zone identified in previous step.	Use latest U.S. Census data to apply break-out of guest house/vacation housing from total housing by zone identified in #18. Use 40% of all dwelling units to identify which ones are considered 2nd homes/guest housing. This number is derived from County Housing Needs analysis which deducts the vacant housing due to real estate transaction (i.e., for sale) from the number of "vacant" classified residences in the 2010 U.S. Census.
<b>Determine Employment Capacity</b>			
20.	Determine Total Square Footage Capacity By Zone	Provide net acres of commercial and industrial developable land to County staff for a customized assessment of employment capacity. Provide for the following zones: Master Planned Resort (MPR), Marine Center (MC), Village Industrial (VI), Rural Industrial (RI), and Rural Commercial (RC).	Provided County staff with commercial and industrial zoned parcels identified in Step #6 (MPR, MC, VI, RI, and RC zones) within the shoreline jurisdiction. Zones are chosen in which a wider range of commercial and industrial uses are allowed or provisionally/conditionally allowed. Those zones which allow a smaller range of commercial uses are not included in this step. County staff provided a qualitative assessment on which parcels are likely to redevelop and which ones are less likely to development.