



San Juan County Public Works Department

Location:
915 Spring Street
Friday Harbor, WA 98250
www.sanjuanco.com

Mail:
P. O. Box 729
Friday Harbor, WA 98250
pubwks@sanjuanco.com

Contact:
P: (360) 370-0500
F: (360) 378-6405

Staff Report

01/30/2020

TO: County Council

FROM: Shannon Wilbur, Sr. Project Engineer
Christine Coray, Project Engineer

SUBJECT: 2036 Comprehensive Plan-Transportation Element Briefing

FOR MEETING OF: February 10, 2020

Background: The purpose of the Transportation Element is to establish the goals and policies that will guide the development of air, marine, and land transportation facilities and services in San Juan County in a manner consistent to the overall goals of the Comprehensive Plan and Vision Statement. This element addresses how transportation infrastructure will accommodate the needs of the population.

In 2016, San Juan County completed the Washington State Department of Commerce compliance checklists to evaluate the Comprehensive Plan to ensure that it complies with Washington State Growth Management Act (GMA). The evaluation identified the following 5 items to be reviewed and/or updated in the Transportation Element to comply with GMA:

- Update inventory of air, water and ground transportation facilities
- Update the traffic forecast to cover at least a 10 year period
- Update the future funding capability to 2036
- Update the multiyear financing plan to 2036
- Re-assess strategies for if funding falls short of meeting identified needs; and update if necessary how additional funds will be raised, or how land use assumptions will be reassessed to ensure that LOS standards will be met.

The Transportation Element and Appendix 6 were updated to reflect current data; dates and wording were changed as appropriate. The following tables summarize the significant changes made to the documents.

Attachments:

- A 2020-02-10 Trans Element Track Changes
- B 2020-02-10 Trans Element Clean
- C 2016-11-08 Trans Element Adopted
- D 2020-02-10 TE Appendix 6 Track Changes
- E 2020-02-10 TE Appendix 6 Clean
- F 2016-11-08 TE Appendix 6 Adopted

Section B Element 6 Transportation	
Section	Significant Changes Made
Through-out Element	<ul style="list-style-type: none"> Streamlined sections as appropriate and to eliminate redundancy. Updates recommended by SJC Comp Plan Work Group, Transportation and Land Use Elements, 10 October 2018 primarily related to energy conservation, greenhouse gas emission reduction, island climate resilience, and stormwater/sea level rise planning.
Cover	<ul style="list-style-type: none"> Updated the Vision Statement
6.1 Introduction Purpose and Background	<ul style="list-style-type: none"> Provided a paragraph to summarize the changes made in 2016 related Nonmotorized transportation facilities. Added summaries of the Parks Plan and the Human Services Transportation Plan. Removed paragraphs of general information, this information is covered in the appropriate sections of the Element.
6.2 General Transportation Goals and Policies	<ul style="list-style-type: none"> Added information about the new Complete Streets Program and deleted redundant paragraphs. Added goal and policy related to establishing an adaptation planning process to evaluate climate change impacts and County infrastructure resilience. Revised description of priority rating system to reflect current system.
6.4 Marine Transportation Goals and Policies	<ul style="list-style-type: none"> Updated language related to marine facilities.
6.4B Policies Related to WSF	<ul style="list-style-type: none"> Updated information about Orcas Village Park and Ride. Reviewed 7b, "Provide ferry boats in a vessel class that meet the needs of the County." This goal was updated in 2016. No further changes required. Updated element with information from the 2040 WSF Long Range Plan. Revised Long Range Transportation Planning recommendations to specify that County should support WSF in achieving adequate level of service.
6.4.C Policies for County Marine Facilities	<ul style="list-style-type: none"> GMA does not require LOS standards for marine facilities and the LOS standards in the 2016 Transportation Element do not correlate with capacity and demand. Revised marine facility section to eliminate reference to "LOS". Revised wording to align with current process used to assess marine priority projects.
6.5 Land Transportation Goals and Policies	<ul style="list-style-type: none"> Added information about the new Complete Streets Program and deleted redundant paragraphs. Integrated reference to Scenic Roads Manual into Complete Streets Requirements. Streamlined and clarified discussion of level of service. Adopted LOS D as adequate for County collector roads. Adopted UGA intersection LOS for Eastsound and Lopez Village key collector road intersections.
6.5 Policies for Bicycles and Mopeds	<ul style="list-style-type: none"> Updated section to include motorized bicycles. Streamlined section by combining bicycle and moped together.
6.6 Policies for Intergovernmental Agencies	<ul style="list-style-type: none"> Updated section on RTPOs. Island and Skagit now have separate RTPOs.

Appendix 6 Transportation	
Section	Significant Changes Made
Throughout Appendix	<ul style="list-style-type: none"> • Re-organized Appendix to provide Inventory, Demand/Capacity, and Long Range Transportation Planning Recommendation for each Section. • Updated information based on current data and reports. Streamlined information to improve relevance.
1-Transp Facilities Inventory & LOS	<ul style="list-style-type: none"> • Updated census data and visitor data. • Added explanation about purpose and contents of the Appendix 6.
1A Air Transportation	<ul style="list-style-type: none"> • Updated information about each airport inventory and demand/capacity. • Added a reference to the airport master plans that are available on the website for each Port.
1B1 Marine Transportation-Ferries	<ul style="list-style-type: none"> • Updated inventory, demand/capacity, and Long Range Transportation Planning Recommendations based on the WSF 2040 Long Range Plan. • Added information about Orcas Village Park and Ride. • Removed references to LOS Standards for Ferries and Ferry parking as the County is not directly responsible for meeting these standards. • Added Long Range Transportation Planning Recommendations that the County can pursue to support WSF.
1B3 County Marine Facilities	<ul style="list-style-type: none"> • Provided overview of marine facilities and noted that details of each facility are provided in the Annual Marine Facility Report which is available on the County Website. • LOS standards for marine facilities and the LOS standards in the 2016 Transportation Element do not correlate with capacity and demand. Revised marine facility section to eliminate reference to “LOS”. Revised wording to align with current process used to assess marine priority projects. • Referenced 6-year TIP, provided as Table 7 for list of current capital improvement project for marine facilities.
1C1 Land Transportation	<ul style="list-style-type: none"> • Added information about Complete Streets Program noting that details of the program are provided in the Annual Complete Streets Program Report which is available on the County Website. • Provided an explanation of the Federal Classification System for roadways. • Consolidated figures showing public roads from 5 Figures to 1 Figure. • Revised the roadway level of service (LOS) standards to reflect relevant traffic flow. The maximum roadway capacity, LOS F, remained AADT >11,670. LOS C, Stable Flow, was increase to AADT = 5,300-6,535 based on current traffic flow. The remaining LOS categories were scaled within this range. LOS D, approaching unstable flow, the County standard for maximum acceptable threshold for traffic volume was increased to AADT <7,900 • Based on the revised LOS standards, current and forecasted AADT for the County collector roads were assessed. All of the County collector road segments are currently operating at LOS A/B, free-flowing traffic volume. The 2036 LOS forecast predicts that all the collector roads will operate within the established LOS Standard D.

	<ul style="list-style-type: none"> • Added discussion of Urban Growth Area intersection LOS and defined intersection LOS standards. Draft estimates for current intersection LOS for Eastsound and Lopez Village UGAs. These estimates will be updated with 2036 projections. The intersections are currently operating at LOS A/B or C. 2036 projection may identify intersections that will be operating at LOS F due to excessive side street delay. • Updated information about road safety and multimodal access • Revised description of priority rating system to reflect current system.
1C2 Bridges	<ul style="list-style-type: none"> • Provided overview of bridges and noted that details of each facility are provided in the Annual Bridge Report which is available on the County Website.
1C3 Human Svs Transportation Plan	<ul style="list-style-type: none"> • Moved the Coordinated Human Services Transportation Plan (HSTP) to Section D, Demand Management Transportation Options
1D Demand Mgmt Transp Options	<ul style="list-style-type: none"> • Updated the information based on the 2018 HSTP. Noted that HSTP is available on the County Website.
1F Intergov Coord	<ul style="list-style-type: none"> • Updated section on RTPOs. Island and Skagit now have separate RTPOs.
2 Transportation Financing	<ul style="list-style-type: none"> • Replaced 2016 with Streamlined and Updated Section

2036 Comprehensive Plan
Transportation Element Briefing

Attachment A

2020-02-10 Transportation Element Track Changes

COMPREHENSIVE PLAN

SECTION B, ELEMENT 6

TRANSPORTATION

February 10, 2020

~~October 21, 2016~~

~~Adopted November 8, 2016~~

"We have water, land, and air transportation systems commensurate with our island culture. ~~On-island circulation is by means of a system of scenic rural roads with automobile, bicycle and pedestrian ways functioning without conflict. In some places, the roads are unpaved, narrow, and winding, and care is taken to maintain a rustic quality in public signs. Transportation plans carefully consider multimodal transportation and rural character. Expansion or new construction of basic public transportation systems, infrastructure, and facilities occurs only on the basis of based on demonstrated local public need. Advanced interactive communication systems are~~ infrastructure is encouraged."

ELEMENT 6

TRANSPORTATION

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6.6 INTERGOVERNMENTAL AND REGIONAL COORDINATION GOALS AND POLICIES..... X

See APPENDIX 6 for Transportation Facilities Inventory, LOS Analysis, and Financial Analysis

1 **6.1 INTRODUCTION**

2
3 **6.1.A Purpose and Background**

4
5 The purpose of the Transportation Element is to establish goals and policies ~~which that~~ will guide the
6 development of air, marine, and land transportation facilities and services in San Juan County, in a manner
7 consistent with the overall goals of the Comprehensive Plan and Vision Statement. It establishes direction
8 for development of regulations for transportation systems, and for facilities and transportation
9 improvement programs now and through the year ~~2030~~ 2036. The goals and policies in the Transportation
10 Element are based upon ~~the~~ community vision, ~~the 2021~~ 2036 travel population forecasts, and other
11 information provided in Appendix 6, and other applicable transportation plans, ~~that address~~
12 ~~nonmotorized trails development for pedestrians, equestrians and bicyclists.~~

13
14 The San Juan County Parks, Trails and Natural Areas Plan and Nonmotorized Plan was developed to meet
15 the multimodal transportation and recreational needs of the community. It is implemented
16 collaboratively by San Juan County Parks, Public Works, the Land Bank and other partners. It establishes
17 the community's criteria for prioritizing nonmotorized projects, contains a trails classification system, and
18 identifies trail corridors for development. It identifies nonmotorized facility funding mechanisms and local
19 financing options. Its goals and strategies provide a framework that the community can use to meet its
20 vision of providing safe, nonmotorized travel on a multi-purpose trail and corridor system designed to
21 provide accessibility to community activities and recreational areas.

22
23 Another San Juan County plan referenced in the Transportation Element is the San Juan County
24 Coordinated Human Services Transportation Plan. This plan built upon community efforts to gain a better
25 understanding of the transportation needs of San Juan County residents (especially low-income, elderly
26 and disadvantaged persons) and visitors. It explores potential options for creating a new vision of island
27 travel, awareness of transportation needs and issues, and explores public and private transit coordination
28 and transit funding strategies.

29
30 The Transportation Element is a mandatory planning element under the Growth Management Act
31 (GMA) and was developed in accordance with RCW 36.70A.070(6) to be consistent with and implement
32 the Land Use Element. It is based on a systematic planning approach that considers anticipated growth
33 and transportation demand in planning for future transportation system needs.

34
35 The Transportation Element contains the introduction, goals and policies, and is based upon the data
36 and analysis provided in Appendix 6, Transportation, ~~Appendix 6, Transportation of this Comprehensive~~
37 ~~Plan~~ which includes inventories of the existing air, marine and land transportation systems. A
38 consultant, Transpo Group, evaluated the available population and vehicular data to prepare projected
39 growth rates to ~~2021~~ 2036, which were used to assess transportation facility and service demand and
40 capacity. The transportation analysis includes a ~~ten-year~~ forecast of impacts to the transportation
41 system and state-owned transportation facilities, consistent with land use and growth assumptions.
42 ~~Factors affecting the existing level of service (LOS) and recommended LOS for the various facilities was~~
43 ~~presented by Transpo Group in the following series of memos dated June 16, 2010:~~

- 44
45 ~~● Memo 1 of 3: San Juan County Transportation Element Growth Rates~~
46 ~~● Memo 2 of 3: San Juan County Transportation Level of Service Analysis~~

1 ● ~~Memo 3 of 3: Potential Transportation Level of Service Refinement~~

2 The LOS analysis resulted in the recommended level of service standards and identification of long-range
3 planning needs.

4
5 Appendix 6 also includes a discussion of transportation demand management ~~transportation~~ options and
6 intergovernmental coordination. Lastly, it contains an analysis of the County's transportation funding
7 capability and financing options, and a multi-year financing plan for transportation improvement projects.

8
9 ~~Additional white papers developed by the Community Development and Planning Department and the~~
10 ~~Public Works Department were considered during the development of the transportation goals and~~
11 ~~policies. These papers provided information pertaining to LOS, Washington State Ferries (WSF) LOS,~~
12 ~~impact fees and concurrency, prioritizing trails with road projects, transportation benefit districts and~~
13 ~~Regional Transportation Planning Organizations.~~

14
15 ~~Many state and federal transportation regulations and programs require accommodation of or encourage~~
16 ~~the development of nonmotorized transportation facilities and connections as part of an integrated~~
17 ~~transportation system. Starting with the federal government and working down to state, regional and~~
18 ~~county levels, the acceptance of the need to design facilities to accommodate pedestrians, equestrians,~~
19 ~~bicyclists and hand and wind powered marine vehicles has become a legislative directive for local and~~
20 ~~county government, including San Juan County.~~

21
22 ~~The provision of a safe and efficient network of pedestrian, equestrian, bicycling, and marine trails has~~
23 ~~been an important component of the County's multi-modal transportation system for many years. Since~~
24 ~~1979, the Transportation Element of the Comprehensive Plan has included direction to accommodate safe~~
25 ~~use of bicycles and pedestrian pathways. Based on significant public and Parks and Recreation input, two~~
26 ~~resolutions were passed in the 1990's that sought to develop important bicycle and walking trails.~~

27
28 ~~While the demand for these facilities has been made and recognized repeatedly, in the adopted~~
29 ~~Transportation Improvement Plans and the 1999 – 2004 Parks, Recreation and Preserved Lands Plan for~~
30 ~~San Juan County residents were historically ambivalent about accommodating bicycles and creating new~~
31 ~~paths for walking and riding. On one hand, historic surveys showed that many residents yearned for a~~
32 ~~safer, more tranquil way to get out of their cars. On the other hand, funding and implementation have~~
33 ~~been challenges for the realization of these plans.~~

34
35 ~~The San Juan County Parks, Trails and Natural Areas Plan and Nonmotorized Plan is updated every six~~
36 ~~years. It contains the nonmotorized inventories, strategies, goals, policies, actions, and financial~~
37 ~~components. It is adopted by reference to serve as the County's Nonmotorized Transportation Plan.~~

38
39 ~~The San Juan County Parks, Trails and Natural Areas Plan and Nonmotorized Plan also contains a trails~~
40 ~~classification system (road right-of-way trail, rustic trail and bike trail), and identifies trail corridors for~~
41 ~~development. It identifies nonmotorized facility funding mechanisms and local financing options. Its'~~
42 ~~goals and strategies provide a framework that the community can use to meet its vision of providing safe~~
43 ~~nonmotorized travel on a multi-purpose trail and corridor system designed to provide accessibility to~~
44 ~~community activities and recreational areas.~~

1 The plan is designed to meet the transportation and recreational needs of the community. It is
2 implemented collaboratively by San Juan County Parks and Public Works departments, the San Juan
3 County Land Bank and other partners. It establishes the community's criteria for prioritizing nonmotorized
4 projects. A long range action plan and project list guides community investment in a variety of trail
5 development projects. In addition, a detailed six year plan identifies projects and funding sources for
6 trails development in the near term and inclusion on the capital facilities six year plan. Trail development
7 projects implemented by Public Works in the County road rights-of-way are identified on Public Works'
8 six-year Transportation Improvement Program (TIP).

9
10 Another plan, the 2006 San Juan Islands Trails Plan prepared by the San Juan Island Trails Committee to
11 promote island-wide trail networks provided information for the development of the nonmotorized goals
12 and policies. Another plan, the 2006 San Juan Islands Trails Plan prepared by the San Juan Island Trails
13 Committee to promote island wide trail networks provided information for the development of the
14 nonmotorized goals and policies. Currently, the Lopez Island Community Trails Network is developing a
15 plan. The National Parks Service has provided technical assistance in the development of these plans
16 through its Rivers, Trails, and Conservation Assistance Program.

17
18 In addition, another San Juan County plan referenced in the Transportation Element is the San Juan County
19 Coordinated Human Services Transportation Plan. This plan built upon community efforts to gain a better
20 understanding of the transportation needs of San Juan County residents (especially low income, elderly
21 and disadvantaged persons) and visitors. It explores potential options for creating a new vision of island
22 travel, awareness of transportation needs and issues, and explores public and private transit coordination
23 and transit funding strategies.

24
25 The development of this Transportation Element and related transportation plans have included extensive
26 public participation processes. In addition, the results of the Council on Economic Development's
27 Transportation Summit and subsequent work by the County's Critical Needs Task Force which was
28 organized with the support of the San Juan Community Foundation helped to shape the County's
29 development of recent transportation plans.

30 Organization

31
32 The Transportation Element is organized to first to outline the overriding goals and objectives for all forms
33 of transportation, then to provides specific goals and policies for air, marine, and land transportation
34 systems, and as well as intergovernmental and regional coordination. In addition to providing general
35 guidance for action, these policies are designed to assist the County in determining priorities and assigning
36 responsibilities for plan implementation.

37
38
39 The Air Transportation goals and policies address the long-term management of airports, airport-related
40 operations and services, and other air transportation facilities. The Marine Transportation goals and
41 policies address long-term marine transportation services and development of new facilities. The Land
42 Transportation goals and policies address the development and maintenance of land transportation
43 facilities and provide guidance for County decisions on their funding, scheduling, design and construction.
44 Intergovernmental and regional coordination goals address County transportation system development
45 in relation to adjacent jurisdictions, and other counties, regions and entities.

46 **6.1.B Level of Service Standards and Concurrency**

1
2 Level of Service
3

4 One of the principal criteria for identifying needed capital improvements for transportation systems is the
5 establishment of level of service (LOS) standards. ~~LOS standards to~~ measure the capacity of capital
6 facilities and services ~~which are~~ necessary to support new development and maintain or enhance the
7 quality of life in the community. The LOS standards adopted by San Juan County are based on the
8 community's values and vision of its future. LOS standards serve as a gauge to judge the performance of
9 the transportation systems and ensure that the community:

- 10
11
 - 12 • Has set realistic, measurable and attainable transportation goals;
 - 13 • Accounts for the impacts of growth and development; and
 - 14 • Makes transportation planning and programming decisions based upon community valued
15 policy direction.

16 The LOS standards for ~~the~~ San Juan County's road transportation systems are based on the physical
17 capacity of the facility or service, as well as ~~and~~ development projections. An explanation of the LOS
18 standards is provided in Appendix 6.
19

20 The County prioritizes transportation improvements for roadways, bridges, marine facilities and
21 bicycle/pedestrian accommodations based on capacity, safety, operation, maintenance, and importance
22 to the community. These aspects of the transportation facilities are reviewed in Appendix 6.
23

24 Concurrency
25

26 Consistent with GMA requirements, the County adopted development regulations ~~which~~ that prohibit
27 development approval if a development would causes the level of service on a transportation facility to
28 decline below the adopted standards, unless transportation improvements or strategies to accommodate
29 the impacts of the development are made concurrent with the development.
30

31 **6.1.C Relationship to Plan Elements, Consistency with Adjacent Jurisdictions and Regional Plan**
32 **Coordination**
33

34 Relationship to Plan Elements
35

36 This Element was developed to evaluate existing conditions, and to identify future planning needs. It sets
37 out the goals, policies and preferences of the County for maintaining and improving the quality of
38 transportation facilities and services, and to guide intergovernmental and regional and international
39 coordination while assuring consistent adherence to the general goals and policies regarding the use and
40 development of land and transportation facilities as expressed in the other elements of the
41 Comprehensive Plan, including subarea plans.
42

43 Consistency with Plans of Adjacent Jurisdictions and Regions
44

45 Intergovernmental, regional and international coordination of plans are addressed in this element,
46 including coordinated planning for consistency with jurisdictions with common borders and counties that
47 share common regional issues. The Town of Friday Harbor is the only incorporated city in San Juan County.

\\sjc-wa.us\county\CDP\LAND USE\LONG RANGE PROJECTS\PCOMPL-17-0001 Comp_Plan\Public
Record\Transportation\Drafts\2020-02-10 SectionB6, TransGoal_Policies_Track Changes.docm

1 In 1992, the County and the Town of Friday Harbor jointly adopted Countywide Planning Policies (CPPs)
2 (Resolution No. 120–199, which was updated by the adoption of Ordinance 48-2008). These policies
3 address the need for consistent and coordinated County and Town comprehensive plans. The CPPs are
4 included as Appendix 2 in this Comprehensive Plan. Consistency between this Comprehensive Plan and
5 the Town of Friday Harbor Comprehensive Plan, including Chapter 5, Transportation, Element is required
6 by the GMA. San Juan County is not a member of a Regional Transportation Planning Organization (RTPO);
7 however, the County coordinates with the Whatcom, Island, and Skagit-Island RTPOs Counties on regional
8 planning issues.
9

10 **6.2 GENERAL TRANSPORTATION GOALS AND POLICIES**

11
12 The general goals and policies apply to all transportation modes.

13 **6.2.A General Goals:**

14 1. To develop and maintain a safe, reliable, environmentally responsible, economically feasible, locally,
15 regionally and internationally integrated transportation system that reflects the desires and
16 preferences of County residents, supports economic vitality and preserves the rural character, scenic
17 roadway features and aesthetics of island communities and the natural, social, and economic
18 environment of San Juan County.

19 2. To implement the following principles to guide planning, design and construction of Complete Streets:

- 20 • 23Promote healthy communities by designing walking villages and encouraging walking, bicycling, and use of
21 24public transportation;
- 22 • 25Improve safety by designing roads to accommodate all users;
- 23 • 26Reduce congestion by providing safe alternatives to single-occupancy driving; and
- 24 • 27Preserve the rural character of the community by involving local citizens and stakeholders to participate in
25 28the planning and design of Complete Streets.

26 3. To develop a transportation system that corresponds to and is consistent with patterns of land
27 development envisioned in adopted land use plans and also:

- 28 a. Addresses the complex transportation demands of current land use patterns, and prioritizes
29 service to the Urban Growth Areas, accommodates the needs and priorities of residents and
30 businesses while meeting the basic transportation needs of all islands in the County including non-
31 ferry served islands;
- 32 b. Enhances the character of the County as a single community of islands, while maintaining the
33 individual character of each island;
- 34 c. Directs development of facilities in a manner and at a scale consistent with the capabilities of the
35 site and the community to absorb them and increases the efficiency and safety of existing
36 transportation systems by using demand management strategies to avoid costly capital
37 expenditures;
- 38 d. Minimizes noise generated by transportation facilities and travel modes associated with them;

- e. Provides a variety of transportation modes including air, marine and land (including nonmotorized transportation options), and provides for efficient intermodal connections between the ferry terminals, town centers, and points of interest;
- f. ~~Provides a safe and efficient network of trails for bicyclists, equestrians, pedestrians, nonmotorized marine traffic and encourages nonmotorized transportation as a viable, healthy, non-polluting alternative to single-occupancy vehicles;~~
- ~~g.~~ Supports the promotion and enhancement of tourism, recreation, special events, scenic byway programs and diverse economic activities or opportunities;
- ~~g.h.~~ Facilitates the development of privately and/or publicly funded projects to address specific transportation needs and challenges, where appropriate;
- ~~h.i.~~ Promotes modes of transportation and multi-modal connections that support active and healthy communities and mobility for all users;
- ~~i.j.~~ Encourages energy conservation, greenhouse gas emission reductions, and the use of low-impact development techniques when physically and economically feasible in the development of transportation systems and facilities;
- ~~j.k.~~ Encourages development of transit system facilities and services that can reduce the reliance of visitors and residents on single occupancy vehicles; ~~and~~
- ~~k.l.~~ Coordinates transportation and emergency management services planning.

4. To establish an adaptation planning process to increase the county's long-term resilience to climate change while maintaining or modifying essential services.

General Policies (6.2.A.1-811):

1. Promote active citizen participation in the development and implementation of this Element.
2. Recognize the needs and desires of the residents of each island in making decisions regarding transportation facilities and their operation for that island.
3. Ensure that consistency with the land use goals and policies adopted in the Comprehensive Plan and Shoreline Master Program is a primary consideration in the evaluation of proposed transportation facilities, while encouraging diverse economic opportunities.
4. Anticipate and monitor changes in the use of and demand for transportation facilities, while managing development impacts and seeking ways to avert conflicts generated by increases in demands over time.
5. Explore ways to promote transportation modes that may decrease demands for increased automobile traffic capacities y on roads and ferries.

6. Prevent the consideration and development of bridges and tunnels between islands and/or from the mainland.
7. Identify, develop and implement cross-border transportation routes, in addition to those established by Washington State ~~Ferry Service~~ Ferries.
8. Evaluate transportation system vulnerabilities to climate change and define adaptive strategies to reduce damage and maintenance.
- ~~9.8.~~ Consider the risk of sea level rise in expenditures of public funds for transportation infrastructure.
- ~~109.~~ Support transportation facility design and operational measures that protect the environment, such as energy conservation, greenhouse gas emission reductions, and stormwater management.
- ~~11.~~ Support the electrification of all transportation facilities.

6.2.B Transportation Financing Goals and Policies

Section II in Appendix 6 of this Comprehensive Plan addresses transportation financing strategies for the ~~2012–2032~~ 2018-2036 planning period. It also includes an inventory of funding sources and levels for capital projects, an analysis of the County’s funding capabilities, and a copy of the 2019-2024 six-year Transportation Improvement Program (TIP) prepared by Public Works. The TIP identifies specific projects and funding sources for ~~both~~ road, marine, and nonmotorized trail projects along County roads. Public Works also creates an annual ~~construction~~ road plan (ARP ACP) that includes the Public Works projects budgeted for and approved by the County Council.

Funding and financing options for rustic and bike (non right-of-way) trail developments are addressed in the San Juan County *Parks, Trails, and Natural Areas Plan and Nonmotorized Plan*. Trail projects are selected from a 20-year, long-range project plan for inclusion on the County’s six-year capital facilities plan (CFP) and Parks Department and Land Bank budgets. Financing goals and policies for transit services and mobility coordination are addressed and prioritized in the ~~2010~~ SJC Health and Human Services *Coordinated Transportation Plan* and implemented through inclusion in the Health and Human Service Department’s budget.

As noted above, various County departments share responsibility for transportation planning, prioritizing projects, and managing and developing transportation services and facilities. The following goals and policies are intended to help guide the County as it develops transportation strategies, programs and projects based on community needs, budget capacity, and desire.

Goals:

1. To ~~ensure~~ assure that public transportation facilities provided by the County are within the ability of the County to fund.
2. To develop funding, budgeting and operational strategies that can be implemented over the planning period ~~that~~ in order to create sustainable transportation funds, balance expenses with available revenue, and preserve appropriate cash reserves.

3. To consider the use of appropriate methods of transportation financing, when necessary to meet community transportation needs.
4. To include funding from the Public Works road fund budget for nonmotorized projects in each of the six-year transportation improvement programs.
5. To encourage public-private cooperation and partnerships, in order to reduce barriers to maintaining and improving transportation facilities and services.
6. To coordinate with the Town of Friday Harbor, Port Districts, and the Washington State Department of Transportation to plan fair share financial contributions to any transportation improvements needed to mitigate town, regional, County, or island-wide impacts.
7. To support State legislation that would provide funding for local transportation system improvement, preservation and maintenance, and long-term, sustainable funding of WSF services and facilities.
8. To work with state and federal agencies to increase marine traffic from the Gulf Islands, Canada.
9. To work with state and federal legislatures to create additional international ports of entry on Lopez and Orcas islands.
10. To obtain transportation planning grants for ~~a dock utilization study~~ and the development and adoption of updated engineering and design standards and/or other transportation planning needs.
11. To consider partnering with the Port Districts on future development projects.
12. To consider funding for marine-based projects.

Policies (6.2.B.1-8):

The County should:

1. Prepare a six-year Transportation ~~Facilities~~ Improvement Plan (TIP) in accordance with Chapter 36.81, RCW. The County Engineer should propose which roads, marine facilities, docks, boat ramps, barge landing sites, log dumps, mooring buoys, and road right-of-way trails should be improved, based on priority rating systems established for these facilities (see Appendix 6). Review prioritized projects with the Planning Commission and County Council prior to adoption of the Six-Year TIP.
2. ~~Develop a rating system based upon the Public Works Department in consultation with the Planning, Parks, Land Bank, and Sheriff's departments and other interested parties to rank priorities for County transportation projects other than roads such as (docks, boat ramps, barge landing sites, log dumps, mooring buoys, and pedestrian, equestrian and bicycle trails).~~
3. Organize the six-year TIP Plan in two three-year periods. Consideration of to incorporate all phases of projects to allow for: needed projects and their design should be managed as follows:

- 1 a. ~~Projects should be identified~~ Scheduling time early in the plan period for public discussion and
2 County study of needs and desirability. After project definition, aAdditional public discussion to
3 be held during the project design phase, followed by project construction.
4
5 b. ~~Public discussion and County study of project design should occur in the later Plan period. The~~
6 Public Works Department County Council should submit the six-year TIPPlan to the Planning
7 Department and Planning Commission for review and recommendation regarding its relationship
8 to policies and regulations of adopted County plans at least 45 days before the Council is
9 scheduled to adopt it for review and recommendations regarding its relationship to policies and
10 regulations of adopted County plans. ~~A copy of the recommendation should be provided to the~~
11 Public Works Director for comment before Council action.
12

13 34. Allocate County road funds in the following order of program priority:

- 14 a. Debt service;
15
16 b. Maintenance and preservation of County transportation facilities; and
17
18 c. Engineering and construction of improvements.
19

20
21 4. Rank County transportation facilities and services that require improvements using a priority rating
22 system which allots additional points for projects financed cooperatively. In addition, the County should
23 For improvement of transportation facilities and services, the County should:
24

- 25 a. Allow County roads to be improved by others, with approval from the County Engineer,
26
27 b. Cooperatively finance transportation facility and service improvements with land developers. The
28 amount of financial assistance should be based on a proportionate amount of increase in traffic
29 volumes attributable to the development project.
30
31 c. Consider forming transportation benefit districts and/or local improvement districts, when
32 cumulative land development projects cause transportation problems on County roads or to fund
33 needed transportation improvements.
34
35 d. Coordinate efforts with the Town of Friday Harbor for cooperative funding of road improvements
36 within the Town and its urban growth area.
37
38 e. Seek to minimize regulatory impediments to investment in commercial transportation facilities,
39 by conducting a code review process and making needed code amendments.
40

41 5.6. Require that the estimated cost of providing those public transportation facilities which are the
42 responsibility of the County not exceed conservative estimates of revenues from sources that are
43 available to the County, pursuant to current statutes. Conservative estimates need not be the most
44 pessimistic estimate, but cannot exceed the most likely estimate.
45

46 6.7. Have the costs of needed transportation improvements be borne by both existing and future
47 development. For the purposes of this Comprehensive Plan, "existing development" means

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1 development which has occurred and "future development" means development which has not yet
2 occurred. ~~Financial responsibilities should be implemented as follows:~~

3
4 a. Existing Development

5
6 (1) Financial ~~responsibilities~~ includes:

- 7
8 i. ~~Transportation~~ improvements that reduce or eliminate existing deficiencies; and
9
10 ii. ~~Some~~ or all of the replacement cost of obsolete or worn out facilities, including a portion
11 of the cost of transportation improvements needed by future development.
12

13 (2) Sources of funds should be utilized in the following order of priority: state transportation
14 taxes, grants, and real property taxes. User fees, charges for services, and special assessments
15 should only be utilized if all of the above-listed ~~available~~ sources have been exhausted.
16

17 b. Future Development

18
19 (1) Financial responsibilities include:

- 20
21 i. Providing a fair share of the costs of capital improvements needed to address the impact
22 of future development; and
23
24 ii. Providing a portion of the cost of the replacement of obsolete or worn out facilities.
25

26 (2) Financial responsibilities do not include payment of impact fees for the portion of any public
27 facility that reduces or eliminates existing deficiencies.
28

29 (3) Sources of funds may include, but are not limited to: voluntary contributions for the benefit
30 of any public transportation facility; ~~impact fees~~ (upon adoption of impact fee regulations),
31 capacity fees, dedications of land, provision of public transportation facilities, public or private
32 partnerships and future payment of user fees, charges for services, special assessments and
33 taxes.
34

35 (4) Upon completion of construction, "future" development becomes "existing" development,
36 and will contribute to paying the costs of the replacement of obsolete or worn out facilities
37 as described in Policy ~~76~~.a, above.
38

39 c. Existing and Future Development

40
41 The costs of needed transportation improvements may be paid by grants, entitlements, or public
42 facilities from other levels of government and independent districts.
43

44 ~~7.8. Revise the Comprehensive Plan to adjust for the lack of such revenues in the event that revenues~~
45 ~~identified as necessary for the provision of adequate transportation facilities and services, are but~~
46 ~~unavailable, in any of the following ways:~~
47

- a. Reduce the level of service for one or more public transportation facilities;
- b. Increase the use of other sources of revenue;
- c. Decrease the cost, and possibly the quality, of some types of public transportation facilities, while retaining the quantity of the facilities that is inherent in the standard for the adopted level of service;
- d. Decrease the demand for and subsequent use of the transportation facilities; or
- e. Use a combination of the above alternatives.

8. A portion of the Lodging Tax (or a gasoline carbon tax) will be used to fund clean transportation initiatives that help reduce greenhouse gas emissions.

6.2.C General Level of Service (LOS) Goal and Policies

Goal:

1. To ensure that those public transportation facilities and services necessary to support development, including, but not limited to roads, and docks are adequate to serve the development at the time the development is available for occupancy and use, without decreasing current service levels below locally established minimum standards.
2. To ensure that suitable mitigation measures for addressing the impacts of growth are fair and equitable, and that transportation impacts at the project and system levels are mitigated concurrently with the project.

Policies (6.2.C.1-54):

1. Assign LOS standards to provide a basis for upon which to evaluating the adequacy of public transportation facilities adequacy which over time. The standards shall be are measurable, understandable, and appropriate to the services and/or facilities being considered.
2. Identify transportation LOS standards and response mechanisms that which balance the need for the facility or service with the possible environmental, economic and aesthetic impacts of those facilities and services.
3. Establish a monitoring program for transportation LOS, in which the Public Works Department will annually evaluate the demand and capacity of transportation concurrency facilities and other components of transportation management, and will work cooperatively with the Planning Department to review on a three-year basis the consistency of the six-year TIP transportation facilities plan with this Comprehensive Plan and the Growth Management Act. This monitoring program should include cooperation with the Town of Friday Harbor to analyze the correlation between traffic volume increases on County roads and on town streets.

1 4. Require concurrency, in accordance with the goals and policies of this Element. For the purposes of
2 this Element, "concurrent with development" means that improvements or strategies are in place at
3 the time of development, or that a financial commitment is in place to complete the improvements
4 or strategies within six years.

5
6 ~~5. Encourage County departments to work together and coordinate with other jurisdictions to develop a~~
7 ~~comprehensive level of service standard that includes nonmotorized and transit services.~~
8

9 **6.2.D Communications and Information Technology Goals and Policies**

10 **Goal:**

11
12 To encourage the use of communications and intelligent systems technology to support diverse economic
13 opportunities; facilitate remote work; manage transportation system demands; improve accessibility to
14 services; meetings and work; promote energy conservation; reduce peak-period travel; reduce
15 congestion and reliance on single-occupancy vehicle travel; and reduce the need to provide additional
16 transportation facilities, such as roads, parking and ferry service.
17
18

19 **Policies (6.2.D.1-7):**

- 20
21 1. Promote the use of telecommunications meetings and telecommuting in order to alleviate the need
22 for additional traditional transportation facilities.
- 23
24 2. Evaluate County operations to identify opportunities for enhanced use of telecommuting and
25 teleconferencing.
- 26
27 3. Encourage the development of county-wide, high-speed broadband service, with priority placed on in
28 the Urban Growth areas, Town of Friday Harbor and business centers.
- 29
30 4. Encourage and support the development of, or expansion of, the County's data networking
31 infrastructure, in order to minimize reliance on vehicular travel.
- 32
33 5. Coordinate with local libraries, Skagit Valley College, and other entities to share telecommunication
34 resources.
- 35
36 6. Promote the use of social media, web-based applications, intelligent transportation system
37 development, and state transportation websites to provide information on transportation system
38 scheduling, real-time data, trip reduction, ride sharing, and nonmotorized travel options.
- 39
40 7. Utilize broadband technology and information systems to help create markets for locally produced
41 agriculture, trade, manufactured and intellectual goods, and ~~or~~ services.
42

43 **6.2.E Hazardous Materials Transport Goals and Policies**

44 **Goal:**

1 To limit activities ~~which that~~ encourage the external and internal transportation of hazardous materials
2 or dangerous ~~good goods~~ in a frequency or manner ~~which that~~ could compromise the public health and
3 safety or water quality, and to protect the economy, environment, and citizens by minimizing and
4 mitigating the risks of hazardous materials, dangerous goods, and/or fossil fuel spills.

5
6 **Policies** (6.2.E.1-6):
7

- 8 1. Support strategies that address the increased risk of major fossil fuels and/or material spills that could
9 occur with increases in transport vessel traffic.
- 10
11 2. Discourage the construction of fossil fuels trans-shipment facilities or other facilities and pipelines
12 through San Juan County or its waters that would compromise San Juan County's economy, public
13 health, safety, or water quality.
- 14
15 3. Ensure that transportation of hazardous materials or dangerous goods generated or used within the
16 County will meet established state and federal guidelines, and oppose the transportation of other
17 hazardous materials or dangerous goods that could endanger San Juan County's economy, public
18 health, safety, or water quality.
- 19
20 4. Improve the level of emergency preparedness for fossil fuel and material spills and other disasters, by
21 working with state, federal, and Canadian entities to develop and improve training and emergency
22 response plans, promote the location of response equipment in San Juan County, and support the use
23 of Best Achievable Protection Methods and Best Achievable Technologies.
- 24
25 5. Encourage responsible parties to locate spill response resources in San Juan County and to be
26 prepared to respond to material spills in waters surrounding San Juan County.
- 27
28 6. Advocate for the assignment of permit conditions on bulk shipping facility development project
29 permits, in order to guarantee the mitigation of all potential impacts from accidents that could
30 adversely affect San Juan County's economy, public health and safety, water quality, and fish and/or
31 wildlife habitat.

32
33 **6.3 AIR TRANSPORTATION GOALS AND POLICIES**
34

35 An inventory of aviation facilities and services, along with a ~~and~~ presentation of long-range planning
36 needs, is provided in ~~Section A~~ of Appendix 6 of this Comprehensive Plan. The following goals and policies
37 apply to land- and sea-based air transportation facilities and services.

38
39 **6.3.A Goals:**
40

- 41 1. To recognize the importance of public air transportation facilities to island commerce, as well as to
42 the mobility of island residents.
- 43
44 2. To promote optimum compatibility between air transportation facilities and services and other land
45 uses, in a manner that minimizes the impacts of airstrip, airfield, and airport use while maintaining
46 adequate, safe, efficient, and convenient service.

- 1 3. To explore the establishment of new ports of entry in the Eastsound and Lopez Village Urban Growth
2 Areas.
3

4 **Policies** (6.3.A.1-5):
5

- 6 1. Coordinate with the WSDOT Aviation Division, FAA and port districts to provide and maintain air
7 transportation facilities and services which:
8
9 a. Serve the needs of island residents and visitors;
10
11 b. Are planned in concurrence ~~consistent~~ with the County's adopted land use goals and policies, and
12 ~~that~~ are developed through cooperation, consultation and participation with port districts, ~~and~~
13 airport operators, owners, users and the public; and
14
15 c. Are consistent with state, regional, and international air transportation plans.
16
17 2. Foster recognition by pilots and other airport users of their roles in minimizing air traffic safety
18 hazards, noise, and other immediate impacts of airport activities on surrounding land uses. Cooperate
19 with the port districts and solicit participation from airport operators, owners, and users, as well as
20 the general ~~and the~~ public, in anticipating and responding to land use, safety and noise concerns.
21
22 3. Moderate the impacts of facilities for aircraft uses and facility expansion by:
23
24 a. Applying adopted policies and regulations and the permit systems established in land use plans to
25 private airstrips and airfields, as well as to public airports;
26
27 b. Coordinating with the FAA, WSDOT Aviation Division, port districts, and airport operators to
28 consider airport overlay districts, and airport master plans, and layout plans for public airports;
29
30 c. Encouraging consideration of the effects of noise, light, vibration, and fumes, and the perception
31 of low-flying aircraft; and
32
33 d. Ensuring that location-specific standards for airports will identify and prohibit the siting of
34 incompatible uses adjacent to them.
35
36 4. Consider seaplane use during review of County shoreline permits for docks, marinas, and port
37 developments. The following should be considered for seaplane landing sites:
38
39 a. Give preference to the location of landing sites for regular commercial seaplane service within
40 public or private marinas or established port areas.
41
42 b. Consider flight patterns with regard to noise and navigation impacts in granting shoreline permits
43 for docks for seaplane use associated with residential or commercial use.
44
45 5. Work to ensure that all existing public use airports, including land and sea bases, are identified as
46 essential public facilities.
47

1 **6.4 MARINE TRANSPORTATION GOALS AND POLICIES**

2
3 Marine transportation includes the Washington State Ferry System (WSF) services and facilities, County
4 ~~marine facilities, docks, barge landings sites, ramps, public mooring buoys,~~ log dumps, common landing
5 areas, international transportation routes, facilities to support hand- and wind-powered vessels, and
6 associated parking areas, and private marine transportation services. The following goals and policies
7 apply to marine transportation facilities and services ~~which that~~ are inventoried and analyzed in ~~Section~~
8 ~~1-B of~~ Appendix 6 of this Comprehensive Plan. These goals and policies express the desires of County
9 residents for actions by the County, WSF, and private service providers for the creation, operation,
10 maintenance, and evaluation of marine transportation systems. ~~Policies stated here provide direction for~~
11 ~~County coordination with WSF on operations, review of updates to the WSF Division Long-Range Plan,~~
12 ~~legislative priorities, and for action on applicable development proposals. They also provide direction for~~
13 ~~the development of, and investment in County operated marine transportation facilities including County~~
14 ~~docks, barge landings sites, ramps, public mooring buoys, log dump facilities and associated parking areas.~~

15
16 **Goals:**

- 17
18 1. To recognize that marine transportation systems are essential facilities, which that provide critical
19 functions in maintaining the quality, safety, and character of life in San Juan County and that play a
20 vital role in driving economic development ~~and tourism~~ in island communities, while ~~and~~ providing a
21 major draw for State tourism.
22
23 2. To recognize the environmental, economic, and social conditions of the islands as primary factors in
24 the management of transportation facilities and services.
25
26 3. To ~~establish LOS standards and~~ encourage the use of demand management strategies to contain
27 capital expenditures.
28
29 4. To promote state transportation plans that would provide long-term sustainable funding of state ferry
30 routes ~~that linking~~ the County to the mainland and Canada.
31
32 5. To enhance the County's working relationship with ~~the~~ WSF and other transportation providers.
33
34 6. To inform ~~the~~ WSF and other state entities of the travelling needs of County residents and propose
35 priority solutions.
36
37 7. To encourage the development of public and private-sector marine transportation services and
38 facilities that improve multi-modal transportation options and connectivity.
39
40 8. To increase marine traffic to the Eastsound Urban Growth Area and the Lopez Village Urban Growth
41 Area.
42
43 9. To provide public dock facilities on Shaw Island and other outer islands, if necessary.
44

45 **6.4.A General Marine Policies (6.4.A.1-10):**

- 46
47 1. Encourage appropriate funding, design, and development of facilities and services which:

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- a. Serve the needs of island residents and visitors;
 - b. Ensure the preservation of rural island character, environmental quality, economic development, and individual island identities;
 - c. Provide better access to and among the islands served by County roads and marine facilities.
~~docks, barge landing sites and ramps;~~
 - d. Provide parking and dock facilities on ferry-served islands to meet the needs of outer island residents; and
 - e. Encourage the development of privately owned and operated passenger-only ferries that would provide transportation between the County islands and mainland and Canadian destinations.
2. Establish and maintain a minimum of one barge landing site and facility when essential to the public wellbeing on each island with County roadways, ~~particularly non-ferry served islands,~~ to address the special freight mobility needs of agriculture, forestry, and other essential island businesses.
 3. Support the development of one log dump on each island if needed to address the freight mobility needs of the forestry industry.
 4. ~~Consider~~ Support the need for alternative modes of marine transportation, such as private marine passenger-only service and barges, and encourage the development of direct connections to mainland intermodal transportation hubs.
 5. Promote planning for, and the development of, intermodal connections between marine transportation services and facilities and land-based transportation systems, in order to improve mobility and accessibility.
 6. Update, gather and interpret data on the use characteristics of marine transportation facilities and services, in order to measure changes in level of service capacity, and design and implement demand management strategies as needed.
 7. Support improvements to marine transportation facilities and services that address the non-peak period needs of residents, businesses, and visitors, to improve the economic and social quality of island life.
 8. Encourage delivery of an optimum state of ferry service for County residents and the business community at maximum efficiency and lowest cost.
 9. Prohibit use of personal watercraft, such as jet skis, in the waters around and in San Juan County.
 10. Consider direct marine access or expanded transportation service facilities in Eastsound, Lopez Village, Shaw, Waldron, and other outer ~~additional~~ islands.

6.4.B Policies Related to the Washington State Ferry System. (6.4.B.1-178):

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1
2 San Juan County is highly dependent upon transportation services and facilities provided by the
3 Washington State Department of Transportation Ferries Division (WSF). The Washington State ~~f~~Ferry
4 system is the ~~s~~state highway for the San Juan Islands. Ferry service is the primary mode of
5 transportation to the mainland and the mainstay of social and economic life. Coordination with the WSF
6 and other state entities is integral to maintaining an efficient system of moving people, goods and
7 freight. Moreover, the ferry system is essential in meeting the special transportation needs of residents,
8 businesses, social services, schools, and other public institutions. It also plays a critical role in
9 maintaining and enhancing the state and local tourism sectors.

10
11 The County Council established the San Juan County Ferries Advisory Committee (FAC), under the
12 requirements of RCW 47.60.310 and SJCC 2.44, to work with ~~the~~ WSF to address community needs
13 related to ferry schedules, customer problems, and regional issues. The FAC obtains community input
14 on ferry service issues, advises WSF on those issues, and provides the County Council with information
15 on the condition of facilities, ~~and~~ as well as service and operational matters affecting the San Juan
16 Islands service area. These issues pertain to safety, tariffs, service, scheduling, economic vitality, vessel
17 allocation, terminal facility adequacy, and vessel maintenance.

18
19 With the help of the FAC, the County identifies solutions to on-going funding and service challenges and
20 promotes improvements in the ferry system through interactions with the WSF, the Washington State
21 Transportation Commission, and the State legislature.

22
23 **Policies** (6.4.B.1-178):

- 24
25 1. Consider the following primary factors while planning and developing marine transportation
26 systems:
- 27
 - 28 a. Existing marine terminal facilities and connecting roads are components of the marine
29 transportation system and have significant physical constraints which must be considered in
30 planning for changes to marine facilities and services.
 - 31
 - 32 b. Transportation facilities and activities can have significant direct and indirect impacts on land
33 use and circulation patterns and the economic vitality of the community.
 - 34
 - 35 c. Cost-effective and time-efficient ferry transportation is essential to island commerce.
 - 36
 - 37 d. The County and the State of Washington have separate but complementary responsibilities for
38 inter-island marine transportation.
 - 39
 - 40 e. Washington State ferry routes are the primary economic routes for San Juan County.
 - 41

- 1 2. Work with the state and federal government to encourage:
2
3 a. The long-term, sustainable funding of WSF service levels and capital funding for on-going
4 ferry construction needed to replace the aging fleet;
5
6 b. The construction of a second ferry terminal slip with vehicle access in the Town of Friday
7 Harbor, to improve efficiency, scheduling flexibility and serve as a back-up slip;
8
9 c. The dedication of funding needed to construct a commuter parking lot near the Friday
10 Harbor and Orcas and Lopez Island ferry terminals, including priority funding to expedite
11 development of a lot on Department of Transportation property located in Orcas Village;
12 and
13
14 d. The dedication of funding needed to improve the off-loading of passengers and vehicles, especially at the terminal located in the Town of Friday Harbor.
- 15
16
17 3. Support the work of the FAC in collecting and interpreting data, gathering community input, and
18 providing recommendations to the County Council on ferry service improvement issues requiring
19 coordination with the WSF and the Washington Transportation Commission.
20
21
22 4. Support a local public review process conducted by WSF that seeks comments regarding potential
23 modifications to its administration of the adopted preferential loading policies identified in WAC 468–
24 300–700. This review process should include, but not necessarily be limited to, the Ferry Advisory
25 Committee. The County should support operations and procedures for processing requests for
26 preferential loading ~~which~~ that reflect local needs.
27
28 5. Submit requests to modify WAC 468–300–700 pertaining to preferential ferry loading to the FAC, who
29 will coordinate with WSF. The FAC should review and make recommendations on each request to the
30 San Juan County Council. The Council should make any formal recommendations to amend WAC 468–
31 300–700 to the Washington State Transportation Commission.
32
33 6. Coordinate with WSF, other regional transportation systems entities, and community transportation
34 partners and providers to promote non-vehicular traffic on ferries, in order to spread demand and
35 moderate increased demands on terminal facilities and County roads. To accomplish this, the County
36 should encourage WSF to:
37
38 a. Work with the County and Town to provide traffic control support near ~~t~~The Town of Friday
39 Harbor ferry terminal, and near and around the Orcas parking lot and County road ferry queue;
40
41 b. Consider the impacts of proposed service and facility improvements on traffic circulation at island
42 terminals, as well as ~~and~~ on County roads and Town streets;
43
44 c. Solicit resources to improve transit schedules and ~~transit~~ connections at ferry terminals and
45 coordinate ~~ing~~ with Skagit Transit and other transit providers; and
46

- 1 d. Promote the development of improved pedestrian and bike access at terminals to encourage
2 walk-ons.
3
- 4 7. Coordinate with WSF to adjust operational practices, such as improving the use of information
5 technology to mitigate adverse impacts on safe traffic circulation and safety on island roads. The
6 County should encourage WSF to:
7
- 8 a. Promote operational and/or scheduling changes in preference to expanding terminal facilities;
9
- 10 b. Provide ferry boats in a vessel class that meet the needs of the County.
11
- 12 c. Separate the unloading of bicyclists and pedestrians from motor vehicles at island terminals;
13
- 14 d. Provide information regarding ferry and land transportation schedules at ferry terminals, on fixed
15 displays for regarding scheduled services and costs and on adjustable displays for providing
16 current information on ferry operations, (e.g., overload status) and multimodal and transit
17 options;
18
- 19 e. Enhance user information by developing updated and new social media and mobile information
20 regarding ferry schedules, reservations, overloads, wait-times, and parking lot capacity; and
21
- 22 f. Work with the state legislature and WSF to add one additional ferry to the San Juan summer
23 schedule to service seasonal demand.
24
- 25 8. Encourage the WSF to coordinate with the County and other parties when passenger ferry terminals
26 or transfer floats are proposed by other parties, and on the preservation, expansion or improvement
27 of all terminal facilities consistent with County and Town of Friday Harbor land use plans, including
28 consideration of circulation patterns, potential public transit system connections, and public shoreline
29 access.
30
- 31 9. Identify community needs and desires, and support the following 2040 WSF Long Range Plan
32 strategies to manage growth and improve the customer experience:
33 ~~encourage refinements in the ferry level of service, its methodology and standards and response~~
34 ~~mechanisms to ferry capacity and service issues.~~
- 35 a. Refine existing metrics and define new metrics to offer better data for future system planning
36 that prioritizes the movement of people and improves the customer experience:
37
- 38 • Establish a passenger Level of Service Standard;
 - 39 • Adjust capacity standards on routes with reservations; and
 - 40 • Establish vehicle wait time as a performance metric.
- 41 b. Maximize existing system utilization through the advancement of adaptive management
42 strategies that make operations more efficient, spread out demand beyond peak travel times, and
43 prioritize walk-on and bike-on passengers through better connectivity at the terminal:
- 44 • Expand vehicle reservations
 - 45 • Fare structure and pricing strategies
 - Additional adaptive management strategy areas

1 c. Provide system capacity enhancements through modest increases in service hours and by
2 leveraging new vessel construction, terminal improvements and existing infrastructure
3 modifications:

- 4 • Enhanced service hours
- 5 • Increased carrying capacity (through size of vessels)
- 6 • Terminal operations efficiencies

7
8 10. ~~Adopt WSF's level of service standard, Level 2 for ferry service which is based upon the daily percent~~
9 ~~of sailings at full vehicle capacity and is fully described in Section B of Appendix 6 of this~~
10 ~~Comprehensive Plan. Level 2 LOS indicates whether or not ferry assets are being used efficiently and~~
11 ~~when the LOS is exceeded, additional investment would be considered.~~

12
13 11. ~~Adopt WSF LOS Level 2 for ferry service for consistency with the WSF 2030 Long-Range Plan although~~
14 ~~the WSDOT does not identify the Anacortes to San Juan Islands ferry route as a highway of statewide~~
15 ~~significance and concurrency requirements are not mandated.~~

16
17 12. ~~Work with the WSF and other transportation providers to implement demand management strategies~~
18 ~~outlined in the WSF 2030 Long-Range Plan and other local plans addressing non-motorized~~
19 ~~transportation and take the following steps:~~

20
21 a. ~~Re-evaluate the ferry LOS standard to determine if changes in available data, suggest that~~
22 ~~revisions of the LOS standards are appropriate. If changes are appropriate, amend this Element~~
23 ~~to revise the level of service standards.~~

24
25 b. ~~Work with WSF, the Town of Friday Harbor and other entities to consider and implement adaptive~~
26 ~~demand management strategies, designed to address increases in peak demand and improve the~~
27 ~~operation and efficiency of the ferry system. These strategies may include, but are not limited to,~~
28 ~~those outlined in the WSF 2030-2040 Long-Range Plan and identified by the County, including taking~~
29 ~~steps to:~~

30
31 ~~a.(1) Shift the demand from vehicle traffic to non-vehicular traffic, implement a vehicle~~
32 ~~reservation system, ride-sharing programs, improve passenger and pedestrian handling~~
33 ~~capabilities at terminals, enhance public transit scheduling and real time connection~~
34 ~~information, expand park and ride capabilities, decentralize parking or other parking~~
35 ~~improvements, improve pedestrian and bike connections, and provide new loading/facilities~~
36 ~~and new/expanded services.~~

37
38 ~~b.(2) Promote alternative modes of transportation, such as private ferry systems, barges, air~~
39 ~~transportation, and passenger-only services, especially the location of a passenger ferry~~
40 ~~terminal at Bellingham which offer substantial benefits to island residents and, by~~
41 ~~encouraging passenger traffic, which could reduce need for expanded vehicle terminal~~
42 ~~facilities in the islands, etc.~~

43
44 ~~c.(3) Work with WSF to establish a refine and update the reservation system that will to~~
45 ~~enable users to obtain assured ferry space to and that best meets the needs of residents,~~
46 ~~commercial enterprises, and other users, and to supports economic development. Expand the~~
47 ~~reservation system to include Orcas, Lopez and Shaw islands.~~

1
2 d.(4) Optimize fare collection techniques and explore fare pricing options for different
3 customer types, including fares that address the needs of local residents, frequent users,
4 visitors, and off-peak, off-capacity, and promotional fares.
5

6 e.(5) Explore targeted, route-specific strategies to reduce queuing congestion ~~traffic flow~~ and
7 smooth traffic flow ~~queuing congestion~~ at terminals, such as new traffic and dock space
8 management techniques, parking, holding, and scheduling methods, and/or use of enhanced
9 electronic and mobile user information applications and fare collection strategies that provide
10 better customer service.
11

12 f.(6) Support data gathering and interpretation that provides real information upon which to base
13 ferry operation and scheduling decisions.
14

15 g.(7) Promote and market the use of non-single occupancy vehicles, combined with transit
16 enhancements.
17

18 h.(8) Market tourism events and programs during times of greater ferry capacity, ~~and supporting~~
19 with promotional fares to spread demand to non-capacity sailings.
20

21 11.13. Take the following steps if ferry service level falls below ~~LOS 2~~ community needs and desires:

- 22
- 23 a. ~~Re-evaluate the LOS standard to~~ Determine if whether changes in available data indicate that
24 ferry assets are being used most effectively, and recommend that WSF move towards further
25 system investments.
26
 - 27 b. Evaluate the goals and policies contained in the Land Use Element and Shoreline Master Program
28 that affect the rate and amount of residential, commercial, recreational, and industrial growth
29 allowed.
30

31 12.14. Evaluate development for impacts ~~to~~ on ferry service and terminal parking through the SEPA
32 process, except for single-family residential proposals and other development proposals that do not
33 require SEPA.
34

35 13.15. Work with WSF to evaluate the effects that demand management strategies from the WSF 2030
36 Long Range Plan have on ferry terminal parking issues, and work together to consider the costs,
37 benefits, environmental and land impacts associated with the creation of additional parking capacity,
38 located either on-site at the ferry terminal or at remote locations, if demand management strategies
39 are not effective in reducing parking congestion issues.
40

41 14.16. Work with WSF to develop a meaningful LOS standard for ferry terminal parking that could be used
42 ~~to more effectively gauge the adequacy of~~ ferry terminal parking.
43

44 17. ~~Support public and private transit and other multi-modal transportation system opportunities that~~
45 ~~promote non-vehicular ferry trips and reduce the need for terminal parking.~~
46

1 ~~15.18.~~ Encourage WSF and the State to secure funding to construct adequate commuter or short-term (1-
2 3 days) parking areas at all ferry-served terminals as needed, after demand management strategies
3 have been implemented.
4

5 ~~16.19.~~ Support WSF plans to “Green the Fleet” by reducing fuel consumption, electrification of the fleet,
6 and quiet ferries to reduce impact on orca whales.
7

8 ~~17.20.~~ Support WSF plans to improve resiliency by planning for earthquakes and climate change.
9

10 **6.4.C Policies for County Marine Facilities ~~Docks, Barge Landing Sites, Ramps and Associated Parking~~**
11 **Areas (6.4.C.1- ~~106~~):**
12

13 Public marine facilities serve as extensions of the County road system, provide access for kayaks and
14 other boats, create access to popular water trails and recreation areas, are essential components of a
15 thriving economy and are a significant element of the transportation system in an island community.
16 Appendix 6, Section I.B.4.c of this Comprehensive Plan provides an explanation of marine facility level of
17 service (LOS). Marine facilities as an extension of the County road system shall be constructed on
18 islands with County roads. Proposed marine facilities are based on location, population served, needs of
19 population served, emergency response requirements, and condition of existing facilities. Tables 7 and
20 8 in Appendix 6 provides detailed ~~dock-~~ marine facility demand and capacity assessments, and long
21 range planning recommendations inventories and current LOS information. for three types of docks and
22 dock service areas in the County.
23

24 ~~Type 1 docks are located on ferry-served islands and provide primary access for non-ferry served islands.~~
25 ~~Type 2 docks are located on non-ferry served islands that have County roads. Type 3 docks serve~~
26 ~~recreational uses or provide access between ferry-served islands. Appendix A indicates that the current~~
27 ~~LOS for Types 1, 2 and 3 docks are C, D and F based upon lineal feet per seasonally adjusted dwelling~~
28 ~~unit in a service area. This measurement has not been found to be significantly useful and warrants an~~
29 ~~investigation of alternative methods of determining LOS standards for docks.~~
30

31 ~~The availability of sufficient barge landing sites and storage areas and their safe use, and development~~
32 ~~will be needed through the planning period to accommodate business development and road building~~
33 ~~especially if materials for road building must come from off-island providers. Barge landing sites are also~~
34 ~~critical for emergency situations.~~
35

36 **Policies (6.4.C.1-~~96~~):**
37

- 38 1. County and state responsibilities for inter-island services and marine facilities ~~docks, barge landing~~
39 ~~sites, ramps~~ and their associated parking area facilities differ, but should be coordinated. The County
40 should:
 - 41 a. Work with the port districts, island communities, and WSF when applicable, to coordinate the
42 planning, development, and maintenance of marine facilities ~~docks, barge landing sites, ramps~~
43 ~~and associated parking areas.~~
44
 - 45 b. Provide marine facilities ~~public docks, barge landing sites, ramps~~ and parking areas to facilitate
46 inter-island transport of goods and people, as essential public facilities and components of the
47

1 County road system that are available for public use, ~~to facilitate inter-island transport of goods~~
2 ~~and people~~ and coordinate these facilities with potential passenger-only ferry service operations.
3 ~~Support development of one barge landing site per island when consistent with the Shoreline~~
4 ~~Master Program.~~

5
6 c. Place emphasis on first providing adequate loading/unloading space on floats, and secondly ~~on~~ at
7 short-term tie-up space. Overnight moorage for recreational use should not be allowed, until a
8 feasibility study is conducted that includes an analysis of individual dock usage characteristics,
9 costs and benefits, strategies to minimize user conflicts, implementation and enforcement
10 measures, and a pilot program has been implemented and assessed.

11
12 d. Include freight lifting equipment, where necessary or appropriate to facilitate.

13
14 e. Encourage WSF to install loading/unloading floats or reasonable alternatives to them at all ferry
15 terminals, including the Anacortes terminal, to enhance inter-island travel and promote efficient
16 and convenient use of passenger-only ferry service.

17
18 f. Work with developers of small boat docks (loading/unloading floats) at ferry terminals designed to
19 improve marine access to the terminals from islands not served by ferries.

20
21 g. Work with the local utilities to improve service to all marine locations, where possible.

22
23 2. ~~Locate County docks and ramps only on islands served by County roads. Barge landing sites should be~~
24 ~~located as needed. Preference should be given to locations where public shoreline access is available~~
25 ~~and where there is adequate parking space to serve the type of use anticipated. Potential connection~~
26 ~~to public vehicular transport should also be considered in establishing dock, ramp and barge landing~~
27 ~~site locations. Prioritize the use of existing County owned or private barge landings. Limit barge~~
28 ~~landings in critical areas unless no other option is viable.~~

29
30 Support the development of one public barge landing site per island, consistent with the Shoreline
31 Master Plan and where adequate parking space is available.

32
33 3. Prioritize County dock-marine facilities projects as follows:

34
35 a. Modifications and maintenance necessary for the safe usage of: (1) existing Type 2 County Docks.
36 ~~Type 2 County Docks are those County docks~~ marine facilities located on non-ferry served islands;

37
38 b. ~~Modifications and maintenance necessary for the safe usage of: (2) existing Type 1 County Docks.~~
39 ~~Type 1 County Docks are those County docks~~ marine facilities, located on ferry-served islands,
40 which provide primary access to ferry-served islands from non-ferry served islands;

41
42 c. ~~Modifications and maintenance necessary for the safe usage of existing Type 3 (3) other existing~~
43 ~~County docks~~ marine facilities. ~~Type 3 County Docks are those County docks located on ferry-~~
44 ~~served islands which are primarily used for recreational purposes or are used for access between~~
45 ~~ferry-served islands;~~

1 ~~b.d. New Type 1 County marine facilities docks on non-ferry served islands without existing County~~
2 ~~docks marine facilities, within service areas which have no existing County dock pursuant to the~~
3 ~~LOS policies for County docks;~~

4
5 c.e. Capacity improvements to existing County ~~docks~~ marine facilities located on non-ferry served
6 islands. ~~Type 1 County docks pursuant to the LOS policies for County docks;~~

7
8 ~~d.f. New Type 2 County docks marine facilities located on ferry-served islands, which provide primary~~
9 ~~access to ferry-served islands from non-ferry served islands within service areas which have no~~
10 ~~existing County dock pursuant to the LOS policies for County docks;~~

11
12 ~~e.g. Capacity improvements to other existing Type 2 County docks marine facilities pursuant to the~~
13 ~~LOS policies for County docks; and~~

14
15 ~~f.h. All other new or improved Type 3 County docks marine facilities.~~

16
17 4. ~~Establish LOS C as adequate for existing and new Type 1 County docks and LOS D as adequate for~~
18 ~~existing and new Type 2 County docks. Dock level of service is addressed in section B.4 of Appendix 6~~
19 ~~of this Comprehensive Plan.~~

20
21 5. ~~For islands and locations where no County dock currently exists, establish LOS F as adequate. Annually~~
22 ~~evaluate the condition, demand, and capacity of County docks marine facilities, in order to and review~~
23 ~~the LOS standards and capital needs every three years as part of the development of the six year~~
24 ~~transportation facilities plan, prioritize maintenance and capital improvement projects based on the~~
25 ~~annual evaluation. Evaluate alternative means of increasing capacity or decreasing demand. Include~~
26 ~~in the evaluation the costs, benefits, and environmental impacts of expanding existing dock(s), leasing~~
27 ~~facilities, requiring new development to provide access at private joint moorage facilities, or adding~~
28 ~~additional public docks to serve the service area(s). Implement an appropriate mix of capacity~~
29 ~~improvements and/or demand management strategies to bring the service back to a level identified~~
30 ~~as adequate by this Element.~~

31
32 5.6. Consider the impacts of sea level rise, and accompanying erosion, when evaluating new development
33 and/or maintenance of marine facilities.

34
35 ~~When the level of service for existing and new County docks falls below the LOS standards in Policy 4,~~
36 ~~above, initiate the following response mechanisms:~~

37
38 ~~a. Re-evaluate the LOS standard to determine if changes in available data, and/or community needs~~
39 ~~or desires, make modification of the LOS standards appropriate; and/or re-evaluate the defined~~
40 ~~service areas to determine if they still accurately reflect the majority of the users. If changes are~~
41 ~~appropriate, amend this Element to revise the LOS standards. Identification of how new data,~~
42 ~~changes in community needs or desires, or changes in the designated service areas make changes~~
43 ~~appropriate should accompany any proposal to amend this Element.~~

44
45 ~~b. Evaluate alternative means of increasing capacity or decreasing demand. Include in the evaluation~~
46 ~~the costs, benefits, and environmental impacts of expanding the existing dock(s), leasing facilities,~~

1 requiring new development to provide access at private joint moorage facilities, or adding
2 additional public docks to serve the service area(s).

3
4 c. ~~Implement an appropriate mix of capacity improvements and/or demand management strategies~~
5 ~~to bring the service back to a level identified as adequate by this Element.~~

6
7 7. ~~Adopt and enforce concurrency standards which would prohibit development approval if it can be~~
8 ~~shown that the development would cause the level of service for Type 1 and Type 2 County docks to~~
9 ~~decline below the standards adopted in Policy 4, above, unless transportation improvements or~~
10 ~~strategies to accommodate the impacts of development are made concurrent with the development.~~
11 ~~Transportation improvements or strategies may include, but are not limited to those identified in~~
12 ~~Policy 6 above.~~

13
14 6.8. ~~Provide County parking at Type 1 County docks where appropriate and necessary. In general, the~~
15 ~~number of spaces to be provided should be based on the number of dwelling units in the service area~~
16 ~~or the more detailed parking utilization study proposed in item 10 below.~~

17
18 9. ~~Complete a dock utilization study which considers the availability of private and public dock space and~~
19 ~~other dock use characteristics including typical dwell time, useable dock space, peak period use, dock~~
20 ~~parking amenities, the percentage of non-resident users and other pertinent factors. Use the study~~
21 ~~results to revise the dock LOS methodology and standards and to and to consider the adoption of a~~
22 ~~dock parking LOS.~~

23 24 6.5 LAND TRANSPORTATION GOALS AND POLICIES

25
26 Land transportation facilities and services are inventoried and analyzed in Appendix 6, ~~Section I.C~~ of this
27 Comprehensive Plan. This Element addresses public and private roads, bridges, parking, bicycles,
28 mopeds, and transit service. Levels of service standards for County roads are also established presented
29 in Section I.C.1.b in Appendix 6 of this Comprehensive Plan.

30 31 Goals:

- 32
- 33 1. To maintain a road planning and improvement system that corresponds to the land development
34 goals and policies expressed in the Land Use Element of this Comprehensive *Plan*, and its subarea
35 plans.
 - 36
 - 37 2. To maintain a public road system that is as safe and efficient as possible, while recognizing the
38 importance of conserving the environmental and scenic qualities of island roads.
 - 39
 - 40 3. To facilitate diverse modes of transportation and provide intermodal connectivity and improved
41 accessibility.
 - 42
 - 43 4. To follow the goals and policies adopted in the San Juan County *Parks, Trails and Natural Areas Plan*
44 *and Nonmotorized Plan* for nonmotorized and recreational transportation facilities.
 - 45

5. To increase education and outreach to improve bicycle and pedestrian safety, promote and healthy lifestyles, and facilitate transportation alternatives which conserve energy, reduce greenhouse gas emissions, and reduce reliance on fossil fuels.
6. To encourage transit providers to provide and expand low-emissions transportation services that support the needs of local residents and visitors.
7. To implement the principles of the Complete Streets Program, adopted in Ordinance 24-2018.
8. To establish level of service standards for the County's road system to gauge the performance of the system and determine areas where transportation improvements are required.

6.5.A Policies for Road Classification, Right-of-Way, Design and Construction (6.5.A.1-1517):

Road Classification

1. Classify all County roads as major collectors, minor collectors or local access roads, as shown on the road classification maps adopted as part of this Comprehensive Plan in Appendix 6.
2. ~~Establish~~ Continue the prioritized on going traffic count program for County roads. ~~Local access~~ Road counts should be monitored to ensure that traffic volumes do not exceed road design capacities.

Right-of-Way

3. Make County road rights-of-way widths adequate to accommodate anticipated improvements, including utilities, franchise use options, telecommunications infrastructure, and nonmotorized transportation facilities, and to maintain the roadway. A minimum twenty-year planning period should be used for the purposes of anticipating needed improvements. ~~The County should:~~
 - a. ~~4.~~ Obtain dedications of road rights-of-way when discretionary use permits or land division approvals are sought by property owners, ~~and~~
 - b. ~~Ensure coordination between the County, Planning, Public Works, Parks, Land Bank, trail organizations such as the San Juan Island Trails Committee, Orcas Pathways, Lopez Community Trails Network, and other local, state and federal partners during the planning, development, and maintenance of nonmotorized transportation projects.~~
- ~~5.4.~~ Refrain from vacating public road rights-of-way needed to provide an adequate road system, access to private property, public access to, or a view of water bodies and links to trails systems.
- ~~6.5.~~ Approve parking on County road right-of-way if it will provide a public benefit; however, ~~in~~ rural areas, shoulders of County roads should not be widened or improved to provide parking for residential or commercial uses.
- ~~7.6.~~ Consider the inventory of County road ends ~~which that~~ abut shorelines, that which is included in the ~~2010~~ San Juan County *Parks, Trails and Natural Areas Plan and Nonmotorized Plan*, and evaluate their potential for recreational or other uses.

1
2 Road Design and Construction
3

4 ~~8.7. Develop and adopt County road standards that meet minimum WSDOT and other applicable agency~~
5 ~~requirements and follow Complete Streets Principles. The standards should protect rural character,~~
6 ~~provide for safety, the types and intensities of land uses to be served, volumes of traffic and transportation~~
7 ~~modes to be accommodated, and planning principles contained in the 1995 Scenic Road Manual. These~~
8 ~~principles include the design and planning guidelines addressing the protection of rural character and~~
9 ~~aesthetics.~~

10
11 9. Ensure that County road standards and practices are updated to reflect climate change projections, and
12 that new roads are sited appropriately and protected from sea level rise, increased erosion, and storm
13 surge.
14

15 10.9. Support road designs that follow the goals and guidelines in the 1995 Scenic Road Manual until
16 they are superseded by Council-adopted County road standards, as described in item 7 above. While
17 safety of County roads is a primary concern, the design, construction, and maintenance of roads and
18 right-of-way trails should minimize adverse impacts on the scenic character of roadways that is
19 provided by roadside trees, brush and terrain, the routes themselves and vistas from them.
20

21 11.10. Prevent the construction of public or private roads through areas designated Natural or
22 Conservancy areas in the San Juan County Shoreline Master Program, where a feasible alternative
23 exists.
24

25 12.11. Make use of the procedure provided in Chapter 36.86, RCW, to deviate from state standards for
26 collector roads when necessary to maintain their scenic qualities.
27

28 13.12. Include a thorough public participation program and interdisciplinary teams advisory to the County
29 Engineer, as early as practicable in the planning and design phases of major projects. Adjacent
30 property owners and other affected persons should be represented on interdisciplinary teams.
31

32 14.13. Strive to preserve the significant scenic, rural quality of island roads, including the San Juan Islands
33 Scenic Byway.
34

35 15.14. Establish alternative design standards for roads on non-ferry served islands that meet the specific
36 transportation needs of these islands.
37

38 16.15. Consider the creation of a local improvement district to finance improvements consistent with the
39 applicable activity center or subarea plan, when owners of property in activity centers desire road
40 improvements that exceed County requirements, such as sidewalks and curbs.
41

42 17.16. Consider using low-impact development techniques, when physically and economically feasible.
43

44 **6.5.B Policies for Driveway Approaches to County Roads, Setbacks, and Maintenance (6.5.B.1-3):**
45

46 1. Hold the number of driveway approaches to County roads to a minimum, in order to improve traffic
47 safety and minimize maintenance expenses.

- 1
- 2 2. Ensure that all structures are set back from road rights-of-way, ~~in order to maintain the rural and scenic character of County roads and provide for underground utilities in compliance with county codes.~~
- 3
- 4
- 5
- 6 3. Conduct maintenance of County transportation facilities by:
- 7
- 8 a. Keeping ~~its~~ transportation facilities in a usable and safe condition.
- 9
- 10 b. Assigning first priority to maintaining major and minor collector roads.
- 11
- 12 c. ~~Reducing~~ the number of noxious weeds occurring over the long term by ~~minimizing to the extent that safety allows clearing of vegetation, particularly trees, in road rights of ways. Scheduling clearing should be coordinated with the tourism season in mind.~~ Developing and implementing programs as legally required under Chapter RCW 17.10 and Chapter WAC 16.750 ~~to remove noxious weeds, control the spread of their seeds prior to mowing and reduce the spread of noxious seeds after mowing by sweeping and removing refuse from the roadway.~~
- 13
- 14
- 15
- 16
- 17
- 18
- 19 d. Do not use herbicides, pesticides, toxic substances, or other chemicals for weed control or other purposes in road rights-of-way.
- 20
- 21

22 **6.5.C Policies for Land Transportation Level of Service (LOS) (6.5.C.1-76):**

- 23
- 24 1. Establish LOS standards and response mechanisms for land transportation facilities and services which balance the needs of the community for land transportation with the impacts of those facilities and services.
- 25
- 26
- 27
- 28 2. ~~Establish LOS standards for collector roads and UGA and Activity Center Intersections based upon Average Annual Daily Traffic (AADT) volumes. For San Juan County, the maximum AADT levels for specific LOS standards are provided in Appendix 6, Transportation of this Comprehensive Plan.~~
- 29
- 30
- 31
- 32 3. ~~Adopt~~ Establish LOS D as adequate for County collector roads. LOS D is defined as traffic flows approaching unstable flow and can be described as speeds slightly decreasing and volumes slightly increasing. ~~as that condition during the peak hour when average vehicle operating speeds drop to 35 miles per hour, platoon sizes are typically 5-10 vehicles, and 75 percent of the motorists are delayed by congestion or slower vehicles.~~
- 33
- 34
- 35
- 36
- 37
- 38 3. Adopt UGA intersection LOS () as adequate for Eastsound and Lopez Villae key collector road intersections. Key collector road intersections are defined by the Count Engineer. For Urban Growth Areas and Activity Centers, conduct intersection studies to determine the current
- 39
- 40 —LOS and evaluate future needs,.
- 41
- 42
- 43 4. ~~Initiate the following response mechanism w~~When a County collector road Annual Average Daily Traffic (AADT) exceeds the LOS D standard, perform a traffic study to evaluate alternatives to increase capacity and/or decrease demand and define an implementation schedule.: ~~road falls below LOS-D, based on the AADT:~~
- 44
- 45
- 46
- 47

1 a. ~~Perform a traffic study to evaluate a collector road outside of an activity center by calculating the~~
2 ~~LOS using the methods described in the most current edition of the Highway Capacity Manual,~~
3 ~~and data for the specific section of a collector road outside of an activity center;~~

4
5 ~~b. Re-evaluate the LOS standard to determine if changes in available data, and/or community needs~~
6 ~~or desires, make modification of the LOS standards appropriate. If changes are appropriate,~~
7 ~~amend this Element to revise the LOS standards. Identification of how new data or changes in~~
8 ~~community needs or desires make changes appropriate should accompany any proposal to amend~~
9 ~~this Element;~~

10
11 ~~c. Initiate an evaluation of alternatives for increasing capacity and/or decreasing demand. The~~
12 ~~alternatives considered should:~~

13
14 ~~(1) include demand management strategies and other non-structural improvements,~~

15
16 ~~(2) be cost effective,~~

17
18 ~~(3) not significantly increase adverse impacts of the transportation facility on surrounding land~~
19 ~~uses or the natural environment,~~

20
21 ~~(4) be consistent with the goals and policies of this Element and the other elements of the~~
22 ~~Comprehensive Plan, and~~

23
24 ~~(5) include the evaluation of the goals and policies contained in the Land Use Element and~~
25 ~~Shoreline Master Program that affect the rate and amount of residential, commercial,~~
26 ~~recreational, and industrial growth allowed;~~

27
28 ~~d. Begin implementation of an appropriate mix of capacity improvements and/or demand~~
29 ~~management strategies to bring the facility(s) back to a level identified as adequate by this~~
30 ~~Element within one year.~~

31
32 5. ~~Adopt and enforce concurrency standards which that would prohibit development approval if the~~
33 ~~development causes the AADT level of service to exceed the LOS D standard or exceed intersection~~
34 ~~LOS standards. for the collector roads to exceed the decline below the standard adopted in Policy 3,~~
35 ~~above, unless transportation improvements or strategies to accommodate the impacts of~~
36 ~~development are made concurrent with the development. Transportation improvements or strategies~~
37 ~~may include, but are not limited to those identified in Policy 4, above.~~

38
39 6. ~~Develop specific LOS standards for collector roads when needed inside of urban growth areas or~~
40 ~~activity centers as part of the planning for individual activity centers.~~

41
42 ~~7. Do not require concurrency for any other land transportation facilities.~~

43
44 **6.5.D Policies for Private Roads (6.5.D.1-2):**

45
46 1. Private roads should not be incorporated into the County road system, unless public benefits are
47 substantial and the County's road design standards are met.

- 1
- 2 2. Establish standards for private roads in accordance with the following:
- 3
- 4 a. Establish private road standards to provide adequate vehicular safety, low maintenance, and
- 5 meet anticipated vehicular demand.
- 6
- 7 b. Require private roads to minimize environmental impacts and maintain the scenic character of
- 8 island roads.
- 9
- 10 c. Subject roads developed as part of land development or new subdivisions to develop
- 11 maintenance agreements when necessary.
- 12
- 13 d. Consider adoption of lesser road standards for islands not served by ferries.
- 14
- 15 e. Require improvements to off-site private roads in approving a land development, if these roads
- 16 serve the development and do not meet applicable design standards.
- 17

18 **6.5.E Policies for Parking (6.5.E.1-7):**

- 19
- 20 1. Encourage the development of community parking facilities in all areas designated as activity centers
- 21 in County land use and subarea plans. Shared parking among separate facilities should be provided,
- 22 if other applicable parking requirements allow.
- 23
- 24 2. Provide off-street parking areas open to the public, where they would serve transportation facilities
- 25 or meet community needs.
- 26
- 27 3. Encourage the business community in commercial core areas to provide parking areas in locations
- 28 where they would relieve traffic congestion and accommodate taxi, van, and bus services without
- 29 disrupting traffic circulation. Design and location should be carefully considered in accordance with
- 30 applicable area plans.
- 31
- 32 4. Provide parking areas on the nearest ferry-served island to accommodate residents of non-ferry
- 33 served islands, after considering possible funding mechanisms, costs and benefits, and possible
- 34 parking lot locations.
- 35
- 36 5. Consider the use of local improvement districts or other administrative and financing structures when
- 37 desired to build, operate and maintain community parking areas.
- 38
- 39 6. All major transportation facilities should include adequate off-street parking areas.
- 40
- 41 7. All parking areas associated with new public or private development should:
- 42
- 43 a. Include safe ingress and egress;
- 44
- 45 b. Be screened or well set back from roads;
- 46
- 47 c. Reflect adequate design for ease of use;

- d. Provide for the physically impaired; and
- e. Provide for alternative forms of transportation.

6.5.F Policies for Bicycles and Mopeds. (6.5.F.1-2):

Mopeds are small motorcycles that have less stringent licensing requirements than motorcycles and do not include motorized bicycles. They are important modes of transportation used by residents and visitors to the islands. The use of mopeds, requires planning for the development of transportation facilities and operations that promote safe travelling experiences for all users and benefit the local economy.

1. Promote enforcement of road rules and speed limits, and educate the public how to share the road safely.
2. Evaluate the potential to improve safety by reducing the speed limits on high use or other County road segments with unique characteristics considering the legality, usage, season, events and practicality.
3. Require that moped vendors provide and enforce the use of protective headgear when required by State law and give written and oral instruction regarding safe operation of mopeds as part of a land use project permit approval.
4. Encourage WSF to unload mopeds in a safe and efficient manner.

~~**6.5.F Policies for Bicycles and Mopeds. (6.5.F.1):**~~

~~Bicycles and mopeds are important modes of transportation, used by both residents and visitors to the island. Increases in the number of bicycling enthusiasts and recreational tour groups, as well as the use of mopeds, require planning for the development of transportation facilities and operations that promote safe travel experiences for all users, and also benefits the local economy.~~

1. Safe facilities and programs for use of bicyclists, (standard bicycles, motorized bicycles, and mopeds) should be developed by the County. Bicycle/Moped facility planning should be addressed in updates of the San Juan County *Parks, Trails, and Natural Areas Plan and Nonmotorized Plan* and facility financing should be included in the annual capital facilities and transportation improvement programs.
2. The County and its economic and community development partners should:
 - a. Promote bicycling safety by publicizing the importance of safe riding practices when bicycling in the islands, and provide bicycling safety information to bicycle clubs, tour operators, and those who provide accommodation and services to island visitors.

- b. Require that moped vendors provide and enforce the use of protective headgear when required by State law, and give written and oral instruction regarding the safe operation of mopeds, as part of a land use project permit approval.
 - c. Identify other ways to foster recognition of rights and responsibilities in the use of County roads by both motorists and cyclist.
 - d. Accommodate cyclists on County roads and consider providing separate bicycle paths where practical.
 - e. Sweep road shoulders regularly to facilitate safe use by cyclists.
 - f. Encourage WSF to load and unload bicyclists and mopeds in a safe and efficient manner.
 - g. Include parking facilities for bicycles and mopeds at public transportation facilities, and encourage commercial developments and other traffic generators to provide parking facilities away from pedestrian paths.
 - h. Continue to implement County park user fees for bicycle (and other) tour groups, in order to mitigate their impacts on the county's park infrastructure and services.
 - i. Consider the policies, design guidelines, recommendations, and standards for accommodating bicyclists on County trails adopted in the San Juan County Parks, Trails and Natural Areas Plan and the San Juan Islands Scenic Byway Corridor Management Plan.
 - j. Promote the enforcement of road rules and speed limits and educate the public on how to share the road safely.
 - k. Evaluate the potential to improve safety by implementing road design changes on high-use or other County road segments with unique characteristics, taking into account legality, usage, season, events and practicality.
 - l. Support zoning designations near ferry terminals that allow for the development of bicycle rental shops.
- ~~3. Require that moped vendors provide and enforce the use of protective headgear when required by State law and give written and oral instruction regarding safe operation of mopeds as part of a land use project permit approval.~~
- ~~4. Encourage WSF to unload mopeds in a safe and efficient manner.~~

6.5.G Transit Goals and Policies:

Although San Juan County does not operate a centralized public transit service, many social service, non-profit and private transit providers are working to meet community transportation needs and fill accessibility gaps identified in the 2010 San Juan County Coordinated Human Services Transportation Plan.

Goals

\\sjc-wa.us\county\CDP\LAND USE\LONG RANGE PROJECTS\PCOMPL-17-0001 Comp_Plan\Public Record\Transportation\Drafts\2020-02-10 SectionB6, TransGoal_Policies_Track Changes.docm

- 1
- 2 1. To encourage and support development of public and private transit and shuttle services.
- 3
- 4 2. To improve access to health and human services, employment, social, educational, recreational, and
- 5 tourism destinations.
- 6
- 7 3. To improve mobility and quality of life for residents and workers.
- 8
- 9 4. To increase transportation options for tourists and guests.
- 10
- 11 5. To encourage alternatives to the use of single-occupant vehicles.
- 12
- 13 6. To consider transit operations in roadway designs.
- 14

15 **Policies for Transit** (6.5.G. 1-97):

- 16
- 17 1. Support the development of social service public transit options and the work of nonprofit and private
- 18 community transportation partners to:
- 19
- 20 a. Reduce the isolation of target populations;
- 21 b. Increase accessibility to transportation services; and
- 22 c. Address seasonal tourist travel peaks through the development of transit alternatives; and
- 23 d. Create additional organizational capacity to sustain implementation of community identified
- 24 transportation needs.
- 25
- 26 2. Support the work of community transportation partners ~~such as San Juan Community Services, Senior~~
- 27 ~~Services, Family Resource Centers, San Juan Friends and Neighbors Program, SJ Rideshare, social~~
- 28 ~~service organizations and private transportation providers to evaluate public transit needs, further~~
- 29 ~~identify opportunities for service coordination, and implement actions described in the 2010 San Juan~~
- 30 ~~County Coordinated Human Services Transportation Plan to~~
- 31
- 32 3. ~~Encourage the development of transportation services that~~ meet the needs of the community,
- 33 especially individuals with lower incomes, seniors, persons with disabilities, and veterans.
- 34
- 35 4. ~~Support coordinated human services transportation planning that creates improved access to~~
- 36 ~~transportation information, develops economies of scale, eliminates inefficiencies, and provides greater~~
- 37 ~~visibility of transportation options.~~
- 38
- 39 ~~4.5-Explore and support the collaborative efforts of community organizations, state and federal partners,~~
- 40 ~~and transportation providers to provide cost-effective service delivery, to increase capacity to serve~~
- 41 ~~unmet needs, and to improve mobility and the quality of transportation services.~~
- 42
- 43 ~~5.4-Support community transportation planning efforts focused on gaining a better understanding of the~~
- 44 ~~transportation needs of the San Juan Islands, creating new methods of island travel, raising awareness of~~
- 45 ~~transportation issues, and exploring private and public funding for new public transportation solutions.~~
- 46

1 ~~6.5.~~Leverage community resources to obtain appropriate state and federal funding for transit projects
2 that address both year-round and seasonal transit challenges.

3
4 ~~7.8.~~Coordinate with the WSDOT Public Transportation Division to implement high-priority projects
5 identified by the community, using the ranking criteria for selecting projects established in the San Juan
6 County ~~2010~~ Health and Human Services Transportation Plan.

7
8 ~~9.~~Support private and nonprofit efforts to address seasonal tourism travel peaks through the
9 development of transit alternatives.

11 **6.6 INTERGOVERNMENTAL AND REGIONAL COORDINATION GOALS AND POLICIES**

12 San Juan County and the Town of Friday Harbor have adopted County-wide Planning Policies (CPPs),
13 included in Appendix 2 of this Comprehensive Plan. These CPPs include policies for ~~T~~ransportation
14 ~~F~~acilities and ~~S~~trategies that to foster the alignment of transportation planning priorities and strategies
15 affecting the Town and County. ~~Alignment with the Town of Friday Harbor Comprehensive Plan~~
16 ~~Transportation Element and subarea plans of this Comprehensive Plan is important for intergovernmental~~
17 ~~coordination of transportation services and facilities.~~ Consistency with the transportation goals and
18 policies established in ~~the Whatcom and Skagit adjacent c~~County Comprehensive Plans related to regional
19 transportation service impacts are also considered in this Transportation Element. Lastly, this section
20 provides guidance for alignment with state transportation plans, which is an important component of
21 local and regional transportation planning.

22 Generally, ~~in Washington,~~ regional transportation plans in the State of Washington are developed in
23 conjunction with local plans and County-wide transportation policies. San Juan County does not meet the
24 population requirements for creating its own Regional Transportation Planning Organization (RTPO), but
25 is eligible to join ~~the Skagit Island RTPO or another RTPO from a neighboring region.~~ As of 2018, Skagit
26 County and Island County are separate RTPOs. San Juan County has chosen not to join a local RTPO, but
27 does informally coordinate with the Skagit adjacent counties and regional organizations other RTPOs. ~~and~~
28 ~~the North Sound Connecting Communities Group (i.e., the Farmhouse Gang).~~ San Juan County
29 coordinates with the Town of Friday Harbor and the Port of Friday Harbor as in an informal RTPO, to align
30 transportation plans and share Federal Highway Funds.

31 The following goals and policies address the alignment of transportation plans, and provide guidance on
32 the intergovernmental coordination of local, regional and state planning priorities.

34 **Goals:**

- 36 1. To plan, prioritize, and finance transportation improvements in coordination with portions of local,
37 regional and state transportation plans.
- 38
39 2. To coordinate with multiple agencies and jurisdictions to facilitate the efficient transportation of
40 people, goods, and services, in order to strengthen the local and regional economy.
- 41
42 3. To identify common regional transportation issues and work cooperatively with other agencies,
43 jurisdictions, and regional organizations to develop solutions to transportation system challenges.
- 44

- 1 4. To collaborate with adjacent jurisdictions and regional interests to lobby for legislation and funding
2 ~~that~~ to solves regional transportation issues and for the provision of beneficial state transportation
3 facilities and services.
4

5 **Policies (6.6.A.1-17):**
6

- 7 1. Coordinate with the Town of Friday Harbor to ensure consistency with the County-wide Planning
8 Policies for Transportation Facilities and Strategies adopted in Appendix 2 of this Comprehensive Plan
9 and to facilitate integration of the transportation system.
10
11 ~~2.~~ Coordinate with the Town of Friday Harbor, Port of Friday Harbor and the WSDOT to plan fair share
12 financial contributions to transportation improvements needed to mitigate regional or island-wide
13 transportation impacts consistent with The Town of Friday Harbor Transportation Element Goals. ~~TE-~~
14 ~~16.~~
15
16 3. Coordinate with the Town of Friday Harbor on cooperative funding of road improvements within the
17 Town of Friday Harbor and the Friday Harbor Urban Growth Area Consistent with the Friday Harbor
18 Transportation Element Goals ~~TE 23.~~
19
20 4. Cooperate with WSDOT, ~~t~~The Town of Friday Harbor and the Port of Friday Harbor during the
21 development of aviation facilities ~~and~~ consistent with the Town of Friday Harbor's Comprehensive
22 Plan ~~_ General Air Transportation Policies_ TE 33, plan for facilities that:~~
23
24 ~~a.~~ Are scaled to serve the needs of Town and Island residents;
25
26 ~~b.~~ Are planned in a coordinated and comprehensive manner;
27
28 ~~c.~~ Are planned to protect the character of the Town and its neighborhoods; and
29
30 ~~d.~~ Are consistent with the policies in the Town and County Land Use Elements.
31
32 5. Coordinate with the WSF and the Town of Friday Harbor to support marine transportation ferry
33 system policies that provide optimum ferry system services and facilities.
34
35 6. Encourage the development of transit service, in order to reduce vehicular traffic in downtown Friday
36 Harbor and on County roads and to support conservation goals consistent with Town of Friday Harbor
37 Comprehensive Plan Policy ~~TE 85.~~
38
39 ~~7.~~ Identify and encourage the development of transportation projects that have local and regional
40 benefits and cost-sharing efficiencies, consistent with Whatcom County Policy 6C-11 to:
41
42 *~~"Identify areas and mechanisms for potentially collaborative projects so that~~*
43 *~~multiple jurisdictions can share costs and efficiencies."~~*
44
45 8. Inform the North Sound ~~Connecting Communities Group~~ Transit Alliance-NTSA (aka Farmhouse Gang)
46 and adjacent RTPOs of San Juan County's transportation issues and identify coordination issues.
47

- 1 9. Work with neighboring counties, as well as ~~and~~ the Skagit, Island, and Whatcom RTPOs, ~~and Whatcom~~
2 RTPO to recommend and develop planning goals, policies, and plans that address regional issues.
3
- 4 10. Coordinate with transportation planners in Whatcom and Skagit counties and Canada to develop
5 compatible transportation recommendations that support efficient trade and commerce.
6
- 7 ~~11. Coordinate with the Skagit County -Island RTPO to support the continued provision of ferry service~~
8 ~~between to and from~~ Anacortes-San Juan Islands and -Vancouver Island, B.C. ~~consistent with Skagit~~
9 ~~County Transportation Element Policy SA-5.6 to:~~
10
11 *"Support the State's continued provision of ferry service to and from Anacortes-*
12 *San Juan Islands -Vancouver Island, B.C."*
13
- 14 12. Promote the development of transportation facilities that serve to improve the mobility of goods,
15 services, and people to encourage economic development, and implement ~~compatible~~ transportation
16 plans compatible with those of the County and neighboring RTPOs.
17
- 18 13. Coordinate with other jurisdictions, public transit providers, agencies, and other entities, to promote
19 multimodal travel options and promotions that provide alternatives to the single-use passenger
20 vehicle.
21
- 22 14. Coordinate with ~~the~~ WSF, ~~and~~ the Skagit County RTPO, and the Whatcom RPTO to improve intermodal
23 connectivity between public transit operations on the mainland and WSF ferry-service.
24
- 25 15. Periodically assess the costs and benefits of joining an RTPO.
26
- 27 16. Continue to promote ~~Establish better~~ communications and coordination between the County and the
28 Port Districts within the County.
29
- 30 17. Participate in statewide transportation planning organization teleconferences.
31
32
33

2036 Comprehensive Plan
Transportation Element Briefing

Attachment B

2020-02-10 Transportation Element Clean

COMPREHENSIVE PLAN

SECTION B, ELEMENT 6

TRANSPORTATION

February 10, 2020

“We have water, land, and air transportation systems commensurate with our island culture. Transportation plans carefully consider multimodal transportation and rural character. Expansion or construction of transportation systems, infrastructure, and facilities occurs only based on demonstrated local public need. Advanced communication infrastructure is encouraged.”

ELEMENT 6

TRANSPORTATION

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See APPENDIX 6 for Transportation Facilities Inventory, LOS Analysis, and Financial Analysis

1 **6.1 INTRODUCTION**

2
3 **6.1.A Purpose and Background**

4
5 The purpose of the Transportation Element is to establish goals and policies that will guide the
6 development of air, marine, and land transportation facilities and services in San Juan County, in a manner
7 consistent with the overall goals of the Comprehensive Plan and Vision Statement. It establishes direction
8 for development of regulations for transportation systems, and for facilities and transportation
9 improvement programs now and through the year 2036. The goals and policies in the Transportation
10 Element are based upon community vision, 2036 travel population forecasts, and information provided in
11 Appendix 6 and other applicable transportation plans that address nonmotorized trails development for
12 pedestrians, equestrians and bicyclists.

13
14 The San Juan County *Parks, Trails and Natural Areas Plan and Nonmotorized Plan* was developed to meet
15 the multimodal transportation and recreational needs of the community. It is implemented
16 collaboratively by San Juan County Parks, Public Works, the Land Bank and other partners. It establishes
17 the community’s criteria for prioritizing nonmotorized projects, contains a trails classification system, and
18 identifies trail corridors for development. It identifies nonmotorized facility funding mechanisms and local
19 financing options. Its goals and strategies provide a framework that the community can use to meet its
20 vision of providing safe, nonmotorized travel on a multi-purpose trail and corridor system designed to
21 provide accessibility to community activities and recreational areas.

22
23 Another San Juan County plan referenced in the Transportation Element is the San Juan County
24 *Coordinated Human Services Transportation Plan*. This plan built upon community efforts to gain a better
25 understanding of the transportation needs of San Juan County residents (especially low-income, elderly
26 and disadvantaged persons) and visitors. It explores potential options for creating a new vision of island
27 travel, awareness of transportation needs and issues, and explores public and private transit coordination
28 and transit funding strategies.

29
30 The Transportation Element is a mandatory planning element under the Growth Management Act
31 (GMA) and was developed in accordance with RCW 36.70A.070(6) to be consistent with and implement
32 the Land Use Element. It is based on a systematic planning approach that considers anticipated growth
33 and transportation demand in planning for future transportation system needs.

34
35 The Transportation Element contains the introduction, goals and policies, and is based upon the data
36 and analysis provided in Appendix 6, Transportation, which includes inventories of the existing air,
37 marine and land transportation systems. A consultant, Transpo Group, evaluated the available
38 population and vehicular data to prepare projected growth rates to 2036, which were used to assess
39 transportation facility and service demand and capacity. The transportation analysis includes a forecast
40 of impacts to the transportation system and state-owned transportation facilities, consistent with land
41 use and growth assumptions.

42
43 Appendix 6 also includes a discussion of transportation demand management options and
44 intergovernmental coordination. Lastly, it contains an analysis of the County’s transportation funding
45 capability and financing options, and a multi-year financing plan for transportation improvement projects.

1 The Transportation Element is organized first to outline the overriding goals and objectives for all forms
2 of transportation, then to provide specific goals and policies for air, marine, and land transportation
3 systems, as well as intergovernmental and regional coordination. In addition to providing general
4 guidance for action, these policies are designed to assist the County in determining priorities and assigning
5 responsibilities for plan implementation.

6 7 **6.1.B Level of Service Standards and Concurrency**

8 9 Level of Service

10
11 One of the principal criteria for identifying needed capital improvements for transportation systems is the
12 establishment of level of service (LOS) standards to measure the capacity of capital facilities and services
13 necessary to support new development and maintain or enhance the quality of life in the community. The
14 LOS standards adopted by San Juan County are based on the community's values and vision of its future.
15 LOS standards serve as a gauge to judge the performance of the transportation systems and ensure that
16 the community:

- 17
- 18 • Has set realistic, measurable and attainable transportation goals;
- 19 • Accounts for the impacts of growth and development; and
- 20 • Makes transportation planning and programming decisions based upon community valued
21 policy direction.

22
23 The LOS standards for San Juan County's road transportation systems are based on the physical capacity
24 of the facility or service, as well as development projections. An explanation of the LOS standards is
25 provided in Appendix 6.

26
27 The County prioritizes transportation improvements for roadways, bridges, marine facilities and
28 bicycle/pedestrian accommodations based on capacity, safety, operation, maintenance, and importance
29 to the community. These aspects of the transportation facilities are reviewed in Appendix 6.

30 31 Concurrency

32
33 Consistent with GMA requirements, the County adopted development regulations that prohibit
34 development approval if a development would cause the level of service on a transportation facility to
35 decline below the adopted standards, unless transportation improvements or strategies to accommodate
36 the impacts of the development are made concurrent with the development.

37 38 **6.1.C Relationship to Plan Elements, Consistency with Adjacent Jurisdictions and Regional Plan** 39 **Coordination**

40 41 Relationship to Plan Elements

42
43 This Element was developed to evaluate existing conditions, and to identify future planning needs. It sets
44 out the goals, policies and preferences of the County for maintaining and improving the quality of
45 transportation facilities and services, and to guide intergovernmental and regional and international
46 coordination while assuring consistent adherence to the general goals and policies regarding the use and

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1 development of land and transportation facilities as expressed in the other elements of the
2 Comprehensive Plan, including subarea plans.

3
4
5 Consistency with Plans of Adjacent Jurisdictions and Regions

6
7 Intergovernmental, regional and international coordination of plans are addressed in this element,
8 including coordinated planning for consistency with jurisdictions with common borders and counties that
9 share common regional issues. The Town of Friday Harbor is the only incorporated city in San Juan County.
10 In 1992, the County and the Town of Friday Harbor jointly adopted Countywide Planning Policies (CPPs)
11 (Resolution No. 120–199, which was updated by the adoption of Ordinance 48-2008). These policies
12 address the need for consistent and coordinated County and Town comprehensive plans. The CPPs are
13 included as Appendix 2 in this Comprehensive Plan. Consistency between this Comprehensive Plan and
14 the Town of Friday Harbor Comprehensive Plan, including Chapter 5, Transportation, is required by the
15 GMA. San Juan County is not a member of a Regional Transportation Planning Organization (RTPO);
16 however, the County coordinates with Whatcom, Island, and Skagit Counties on regional planning issues.

17
18 **6.2 GENERAL TRANSPORTATION GOALS AND POLICIES**

19
20 The general goals and policies apply to all transportation modes.

21
22 **6.2.A General Goals:**

- 23
24 1. To develop and maintain a safe, reliable, environmentally responsible, economically feasible, locally,
25 regionally and internationally integrated transportation system that reflects the desires and
26 preferences of County residents, supports economic vitality and preserves the rural character, scenic
27 roadway features and aesthetics of island communities and the natural, social, and economic
28 environment of San Juan County.
- 29
30 2. To implement the following principles to guide planning, design and construction of Complete Streets:
- 31 • Promote healthy communities by designing walking villages and encouraging walking, bicycling,
32 and use of public transportation;
 - 33 • Improve safety by designing roads to accommodate all users;
 - 34 • Reduce congestion by providing safe alternatives to single-occupancy driving; and
 - 35 • Preserve the rural character of the community by involving local citizens and stakeholders to
36 participate in the planning and design of Complete Streets.
- 37
38 3. To develop a transportation system that corresponds to and is consistent with patterns of land
39 development envisioned in adopted land use plans and also:
- 40
41 a. Addresses the complex transportation demands of current land use patterns, prioritizes service
42 to the Urban Growth Areas, accommodates the needs and priorities of residents and businesses
43 while meeting the basic transportation needs of all islands in the County;
 - 44
45 b. Enhances the character of the County as a single community of islands, while maintaining the
46 individual character of each island;

- c. Directs development of facilities in a manner and at a scale consistent with the capabilities of the site and the community to absorb them and increases the efficiency and safety of existing transportation systems by using demand management strategies to avoid costly capital expenditures;
 - d. Minimizes noise generated by transportation facilities and travel modes associated with them;
 - e. Provides a variety of transportation modes including air, marine and land (including nonmotorized transportation options), and provides for efficient intermodal connections between the ferry terminals, town centers, and points of interest;
 - f. Supports the promotion and enhancement of tourism, recreation, special events, scenic byway programs and diverse economic activities or opportunities;
 - g. Facilitates the development of privately and/or publically funded projects to address specific transportation needs and challenges, where appropriate;
 - h. Promotes modes of transportation and multi-modal connections that support active and healthy communities and mobility for all users;
 - i. Encourages energy conservation, greenhouse gas emission reductions, and the use of low-impact development techniques when physically and economically feasible in the development of transportation systems and facilities;
 - j. Encourages development of transit system facilities and services that can reduce the reliance of visitors and residents on single occupancy vehicles, and
 - k. Coordinates transportation and emergency management services planning.
4. To establish an adaptation planning process to increase the county's long-term resilience to climate change while maintaining or modifying essential services.

General Policies (6.2.A.1-11):

1. Promote active citizen participation in the development and implementation of this Element.
2. Recognize the needs and desires of the residents of each island in making decisions regarding transportation facilities and their operation for that island.
3. Ensure that consistency with the land use goals and policies adopted in the Comprehensive Plan and Shoreline Master Program is a primary consideration in the evaluation of proposed transportation facilities, while encouraging diverse economic opportunities.
4. Anticipate and monitor changes in the use of and demand for transportation facilities, while managing

1 Development impacts and seeking ways to avert conflicts generated by increases in demand over
2 time.

- 3
- 4 5. Explore ways to promote transportation modes that may decrease demand for increased automobile
5 traffic capacity on roads and ferries.
- 6
- 7 6. Prevent the consideration and development of bridges and tunnels between islands and/or from the
8 mainland.
- 9
- 10 7. Identify, develop and implement cross-border transportation routes, in addition to those established
11 by Washington Ferries.
- 12
- 13 8. Evaluate transportation system vulnerabilities to climate change and define adaptive strategies to
14 reduce damage and maintenance.
- 15
- 16 9. Consider the risk of sea level rise in expenditures of public funds for transportation infrastructure.
- 17
- 18 10. Support transportation facility design and operational measures that protect the environment, such
19 as energy conservation, greenhouse gas emission reductions, and stormwater management.
- 20
- 21 11. Support the electrification of all transportation facilities.
- 22

23 **6.2.B Transportation Financing Goals and Policies**

24
25 Section II in Appendix 6 of this Comprehensive Plan addresses transportation financing strategies for the
26 2018-2036 planning period. It also includes an inventory of funding sources and levels for capital projects,
27 an analysis of the County’s funding capabilities, and a copy of the 2019-2024 six-year Transportation
28 Improvement Program (TIP) prepared by Public Works. The TIP identifies specific projects and funding
29 sources for road, marine, and nonmotorized trail projects along County roads. Public Works also creates
30 an annual construction plan (ACP) that includes the Public Works projects budgeted for and approved by
31 the County Council.

32
33 Funding and financing options for rustic and bike (non right-of-way) trail developments are addressed in
34 the San Juan County *Parks, Trails, and Natural Areas Plan and Nonmotorized Plan*. Trail projects are
35 selected from a 20-year, long-range project plan for inclusion on the County’s six-year capital facilities
36 plan (CFP) and Parks Department and Land Bank budgets. Financing goals and policies for transit services
37 and mobility coordination are addressed and prioritized in the SJC Health and Human Services *Coordinated*
38 *Transportation Plan* and implemented through inclusion in the Health and Human Service Department’s
39 budget.

40
41 As noted above, various County departments share responsibility for transportation planning, prioritizing
42 projects, and managing and developing transportation services and facilities. The following goals and
43 policies are intended to help guide the County as it develops transportation strategies, programs and
44 projects based on community needs, budget capacity, and desire.

45 **Goals:**

46
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- 1
- 2 1. To ensure that public transportation facilities provided by the County are within the ability of the
- 3 County to fund.
- 4
- 5 2. To develop funding, budgeting and operational strategies that can be implemented over the planning
- 6 period in order to create sustainable transportation funds, balance expenses with available revenue,
- 7 and preserve appropriate cash reserves.
- 8
- 9 3. To consider the use of appropriate methods of transportation financing, when necessary to meet
- 10 community transportation needs.
- 11
- 12 4. To include funding from the Public Works road fund budget for nonmotorized projects in the six-year
- 13 transportation improvement programs.
- 14
- 15 5. To encourage public-private cooperation and partnerships, in order to reduce barriers to maintaining
- 16 and improving transportation facilities and services.
- 17
- 18 6. To coordinate with the Town of Friday Harbor, Port Districts, and the Washington State Department
- 19 of Transportation to plan fair share financial contributions to any transportation improvements
- 20 needed to mitigate town, regional, County, or island-wide impacts.
- 21
- 22 7. To support State legislation that would provide funding for local transportation system improvement,
- 23 preservation and maintenance, and long-term, sustainable funding of WSF services and facilities.
- 24
- 25 8. To work with state and federal agencies to increase marine traffic from the Gulf Islands, Canada.
- 26
- 27 9. To work with state and federal legislatures to create additional international ports of entry on Lopez
- 28 and Orcas islands.
- 29
- 30 10. To obtain transportation planning grants for the development and adoption of updated engineering
- 31 and design standards and/or other transportation planning needs.
- 32
- 33 11. To consider partnering with the Port Districts on future development projects.
- 34
- 35 12. To consider funding for marine-based projects.
- 36

37 **Policies** (6.2.B.1-8):

- 38
- 39 1. Prepare a six-year Transportation Improvement Plan (TIP) in accordance with Chapter 36.81, RCW.
- 40 The County Engineer should propose which roads, marine facilities, and road right-of-way trails should
- 41 be improved, based on priority rating systems established for these facilities (see Appendix 6). Review
- 42 prioritized projects with the Planning Commission and County Council prior to adoption of the Six-
- 43 Year TIP.
- 44
- 45 2. Organize the six-year TIP to incorporate all phases of projects to allow for:
- 46

- 1 a. Scheduling time early in the plan period for public discussion and County study of needs and
2 desirability. After project definition, additional public discussion to be held during the project
3 design phase, followed by project construction.
4
- 5 b. The Public Works Department should submit the six-year *TIP* to the Planning Department and
6 Planning Commission at least 45 days before the Council is scheduled to adopt it for review and
7 recommendations regarding its relationship to policies and regulations of adopted County plans.
8
- 9 3. Allocate County road funds in the following order of program priority:
10
11 a. Debt service;
12
13 b. Maintenance and preservation of County transportation facilities; and
14
15 c. Engineering and construction of improvements.
16
- 17 4. For improvement of transportation facilities and services, the County should:
18
19 a. Allow County roads to be improved by others, with approval from the County Engineer,
20
21 b. Cooperatively finance transportation facility and service improvements with land developers. The
22 amount of financial assistance should be based on a proportionate amount of increase in traffic
23 volumes attributable to the development project.
24
25 c. Consider forming transportation benefit districts and/or local improvement districts, when
26 cumulative land development projects cause transportation problems on County roads or to fund
27 needed transportation improvements.
28
29 d. Coordinate efforts with the Town of Friday Harbor for cooperative funding of road improvements
30 within the Town and its urban growth area.
31
32 e. Seek to minimize regulatory impediments to investment in commercial transportation facilities,
33 by conducting a code review process and making needed code amendments.
34
- 35 5. Require that the estimated cost of providing those public transportation facilities which are the
36 responsibility of the County not exceed conservative estimates of revenues from sources that are
37 available to the County, pursuant to current statutes. Conservative estimates need not be the most
38 pessimistic estimate, but cannot exceed the most likely estimate.
39
- 40 6. Have the costs of needed transportation improvements be borne by both existing and future
41 development. For the purposes of this Comprehensive Plan, "existing development" means
42 development which has occurred and "future development" means development which has not yet
43 occurred.
44
45 a. Existing Development
46

1 (1) Financial responsibilities include:
2

- 3 i. Transportation improvements that reduce or eliminate existing deficiencies; and
- 4
- 5 ii. Some or all of the replacement cost of obsolete or worn out facilities, including a portion
- 6 of the cost of transportation improvements needed by future development.
- 7

8 (2) Sources of funds should be utilized in the following order of priority: state transportation
9 taxes, grants, and real property taxes. User fees, charges for services, and special assessments
10 should only be utilized if all of the above-listed sources have been exhausted.

11
12 b. Future Development

13
14 (1) Financial responsibilities include:

- 15
- 16 i. Providing a fair share of the costs of capital improvements needed to address the impact
- 17 of future development; and
- 18
- 19 ii. Providing a portion of the cost of the replacement of obsolete or worn out facilities.
- 20

21 (2) Financial responsibilities do not include payment of impact fees for the portion of any public
22 facility that reduces or eliminates existing deficiencies.

23
24 (3) Sources of funds may include, but are not limited to: voluntary contributions for the benefit
25 of any public transportation facility impact fees (upon adoption of impact fee regulations),
26 capacity fees, dedications of land, provision of public transportation facilities, public or private
27 partnerships and future payment of user fees, charges for services, special assessments and
28 taxes.

29
30 (4) Upon completion of construction, "future" development becomes "existing" development,
31 and will contribute to paying the costs of the replacement of obsolete or worn out facilities
32 as described in Policy 6.a, above.

33
34 c. Existing and Future Development

35
36 The costs of needed transportation improvements may be paid by grants, entitlements, or public
37 facilities from other levels of government and independent districts.

38
39 7. Revise the Comprehensive Plan to adjust for the lack of revenues identified as necessary for the
40 provision of adequate transportation facilities and services, but unavailable, in any of the following
41 ways:

- 42
- 43 a. Reduce the level of service for one or more public transportation facilities;
- 44
- 45 b. Increase the use of other sources of revenue;
- 46

- c. Decrease the cost, and possibly the quality, of some types of public transportation facilities, while retaining the quantity of the facilities that is inherent in the standard for the adopted level of service;
 - d. Decrease the demand for and subsequent use of the transportation facilities; or
 - e. Use a combination of the above alternatives.
8. A portion of the Lodging Tax (or a gasoline carbon tax) will be used to fund clean transportation initiatives that help reduce greenhouse gas emissions.

6.2.C General Level of Service (LOS) Goal and Policies

Goal:

1. To ensure that those public transportation facilities and services necessary to support development, including but not limited to roads, are adequate to serve development at the time the development is available for occupancy and use, without decreasing current service levels below locally established minimum standards.
2. Ensure that suitable mitigation measures for addressing the impacts of growth are fair and equitable, and that transportation impacts at the project and system levels are mitigated concurrently with the project.

Policies (6.2.C.1-4):

1. Assign LOS standards to provide a basis for evaluating the adequacy of public transportation facilities over time. The standards shall be measurable, understandable, and appropriate to the services and/or facilities being considered.
2. Identify transportation LOS standards and response mechanisms that balance the need for the facility or service with the possible environmental, economic and aesthetic impacts of those facilities and services.
3. Establish a monitoring program for transportation LOS, in which the Public Works Department will evaluate the demand and capacity of transportation concurrency facilities and other components of transportation management, and will work cooperatively with the Planning Department to review on a three-year basis the consistency of the six-year TIP with this Comprehensive Plan and the Growth Management Act. This monitoring program should include cooperation with the Town of Friday Harbor to analyze the correlation between traffic volume increases on County roads and on town streets.
4. Require concurrency, in accordance with the goals and policies of this Element. For the purposes of this Element, "concurrent with development" means that improvements or strategies are in place at the time of development, or that a financial commitment is in place to complete the improvements or strategies within six years.

1
2 **6.2.D Communications and Information Technology Goals and Policies**

3
4 **Goal:**

5
6 To encourage the use of communications and intelligent systems technology to support diverse economic
7 opportunities; facilitate remote work; manage transportation system demands; improve accessibility to
8 services; meetings and work; promote energy conservation; reduce peak-period travel; reduce congestion
9 and reliance on single-occupancy vehicle travel; and reduce the need to provide additional transportation
10 facilities, such as roads, parking and ferry service.

11
12 **Policies** (6.2.D.1-7):

- 13
14 1. Promote the use of telecommunications meetings and telecommuting in order to alleviate the need
15 for additional traditional transportation facilities.
16
17 2. Evaluate County operations to identify opportunities for enhanced use of telecommuting and
18 teleconferencing.
19
20 3. Encourage the development of county-wide, high-speed broadband service, with priority placed on
21 the Urban Growth areas, Town of Friday Harbor and business centers.
22
23 4. Encourage and support the development of, or expansion of, the County's data networking
24 infrastructure, in order to minimize reliance on vehicular travel.
25
26 5. Coordinate with local libraries, Skagit Valley College, and other entities to share telecommunication
27 resources.
28
29 6. Promote the use of social media, web-based applications, intelligent transportation system
30 development, and state transportation websites to provide information on transportation system
31 scheduling, real-time data, trip reduction, ride sharing, and nonmotorized travel options.
32
33 7. Utilize broadband technology and information systems to help create markets for locally produced
34 agriculture, trade, manufactured and intellectual goods, and services.
35

36 **6.2.E Hazardous Materials Transport Goals and Policies**

37
38 **Goal:**

39
40 To limit activities that encourage the external and internal transportation of hazardous materials or
41 dangerous goods in a frequency or manner that could compromise public health and safety or water
42 quality, and to protect the economy, environment, and citizens by minimizing and mitigating the risks of
43 hazardous materials, dangerous goods, and/or fossil fuel spills.
44

45 **Policies** (6.2.E.1-6):
46

- 1 1. Support strategies that address the increased risk of major fossil fuel and/or material spills that could
2 occur with increases in transport vessel traffic.
3
- 4 2. Discourage the construction of fossil fuels trans-shipment facilities or other facilities and pipelines
5 through San Juan County or its waters that would compromise San Juan County's economy, public
6 health, safety, or water quality.
7
- 8 3. Ensure that transportation of hazardous materials or dangerous goods generated or used within the
9 County will meet established state and federal guidelines, and oppose the transportation of other
10 hazardous materials or dangerous goods that could endanger San Juan County's economy, public
11 health, safety, or water quality.
12
- 13 4. Improve the level of emergency preparedness for fossil fuel and material spills and other disasters, by
14 working with state, federal, and Canadian entities to develop and improve training and emergency
15 response plans, promote the location of response equipment in San Juan County, and support the use
16 of Best Achievable Protection Methods and Best Achievable Technologies.
17
- 18 5. Encourage responsible parties to locate spill response resources in San Juan County and to be
19 prepared to respond to material spills in waters surrounding San Juan County.
20
- 21 6. Advocate for the assignment of permit conditions on bulk shipping facility development project
22 permits, in order to guarantee the mitigation of all potential impacts from accidents that could
23 adversely affect San Juan County's economy, public health and safety, water quality, and fish and/or
24 wildlife habitat.
25

26 **6.3 AIR TRANSPORTATION GOALS AND POLICIES**

27
28 An inventory of aviation facilities and services, along with a presentation of long-range planning needs, is
29 provided in Appendix 6 of this Comprehensive Plan. The following goals and policies apply to land- and
30 sea-based air transportation facilities and services.
31

32 **6.3.A Goals:**

- 33
- 34 1. To recognize the importance of public air transportation facilities to island commerce, as well as to
35 the mobility of island residents.
36
- 37 2. To promote optimum compatibility between air transportation facilities and services and other land
38 uses, in a manner that minimizes the impacts of airstrip, airfield, and airport use while maintaining
39 adequate, safe, efficient, and convenient service.
40
- 41 3. To explore the establishment of new ports of entry in the Eastsound and Lopez Village Urban Growth
42 Areas.
43

44 **Policies (6.3.A.1-5):**

- 1 1. Coordinate with the WSDOT Aviation Division, FAA and port districts to provide and maintain air
2 transportation facilities and services which:
3
 - 4 a. Serve the needs of island residents and visitors;
 - 5
 - 6 b. Are planned in concurrence with the County's adopted land use goals and policies, and are
7 developed through cooperation, consultation and participation with port districts, airport
8 operators, owners, users and the public; and
9
 - 10 c. Are consistent with state, regional, and international air transportation plans.
- 11
- 12 2. Foster recognition by pilots and other airport users of their roles in minimizing air traffic safety
13 hazards, noise, and other immediate impacts of airport activities on surrounding land uses. Cooperate
14 with the port districts and solicit participation from airport operators, owners, and users, as well as
15 the general public, in anticipating and responding to land use, safety and noise concerns.
16
- 17 3. Moderate the impacts of facilities for aircraft uses and facility expansion by:
18
 - 19 a. Applying adopted policies and regulations and the permit systems established in land use plans to
20 private airstrips and airfields, as well as to public airports;
 - 21
 - 22 b. Coordinating with the FAA, WSDOT Aviation Division, port districts, and airport operators to
23 consider airport overlay districts, airport master plans, and layout plans for public airports;
 - 24
 - 25 c. Encouraging consideration of the effects of noise, light, vibration, and fumes, and the perception
26 of low-flying aircraft; and
27
 - 28 d. Ensuring that location-specific standards for airports will identify and prohibit the siting of
29 incompatible uses adjacent to them.
- 30
- 31 4. Consider seaplane use during review of County shoreline permits for docks, marinas, and port
32 developments. The following should be considered for seaplane landing sites:
33
 - 34 a. Give preference to the location of landing sites for regular commercial seaplane service within
35 public or private marinas or established port areas.
 - 36
 - 37 b. Consider flight patterns with regard to noise and navigation impacts in granting shoreline permits
38 for docks for seaplane use associated with residential or commercial use.
 - 39
- 40 5. Work to ensure that all existing public use airports, including land and sea bases, are identified as
41 essential public facilities.
42

43 **6.4 MARINE TRANSPORTATION GOALS AND POLICIES**

44 Marine transportation includes the Washington State Ferry System (WSF) services and facilities, County
45 marine facilities, log dumps, common landing areas, international transportation routes, facilities to
46

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1 support hand- and wind-powered vessels, and associated parking areas, and private marine
2 transportation services. The following goals and policies apply to marine transportation facilities and
3 services that are inventoried and analyzed in Appendix 6 of this Comprehensive Plan. These goals and
4 policies express the desires of County residents for actions by the County, WSF, and private service
5 providers for the creation, operation, maintenance, and evaluation of marine transportation systems.
6

7 **Goals:**
8

- 9 1. To recognize that marine transportation systems are essential facilities, which provide critical
10 functions in maintaining the quality, safety, and character of life in San Juan County and that play a
11 vital role in driving economic development in island communities, while providing a major draw for
12 State tourism.
- 13
- 14 2. To recognize the environmental, economic, and social conditions of the islands as primary factors in
15 the management of transportation facilities and services.
- 16
- 17 3. To encourage the use of demand management strategies to contain capital expenditures.
- 18
- 19 4. To promote state transportation plans that would provide long-term sustainable funding of state ferry
20 routes linking the County to the mainland and Canada.
- 21
- 22 5. To enhance the County's working relationship with WSF and other transportation providers.
- 23
- 24 6. To inform WSF and other state entities of the travel needs of County residents and propose priority
25 solutions.
- 26
- 27 7. To encourage the development of public and private-sector marine transportation services and
28 facilities that improve multi-modal transportation options and connectivity.
- 29
- 30 8. To increase marine traffic to the Eastsound Urban Growth Area and the Lopez Village Urban Growth
31 Area.
- 32
- 33 9. To provide public dock facilities on Shaw Island and other outer islands, if necessary.
34

35 **6.4.A General Marine Policies (6.4.A.1-10):**
36

- 37 1. Encourage appropriate funding, design, and development of facilities and services which:
38
 - 39 a. Serve the needs of island residents and visitors;
 - 40
 - 41 b. Ensure the preservation of rural island character, environmental quality, economic
42 development, and individual island identities;
 - 43
 - 44 c. Provide better access to and among the islands served by County roads and marine facilities;
45

- 1 d. Provide parking and dock facilities on ferry-served islands to meet the needs of outer island
2 residents; and
3
- 4 e. Encourage the development of privately owned and operated passenger-only ferries that would
5 provide transportation between the County islands and mainland and Canadian destinations.
6
- 7 2. Establish and maintain a minimum of one barge landing site and facility when essential to public
8 wellbeing on each island with County roadways, to address the special freight mobility needs of
9 agriculture, forestry, and other essential island businesses.
10
- 11 3. Support the development of one log dump on each island if needed to address the freight mobility
12 needs of the forestry industry.
13
- 14 4. Support the need for alternative modes of marine transportation, such as private marine passenger-
15 only service and barges, and encourage the development of direct connections to mainland
16 intermodal transportation hubs.
17
- 18 5. Promote planning for, and the development of, intermodal connections between marine
19 transportation services and facilities and land-based transportation systems, in order to improve
20 mobility and accessibility.
21
- 22 6. Update, gather and interpret data on the use characteristics of marine transportation facilities and
23 services, in order to measure changes in capacity, and design and implement demand management
24 strategies as needed.
25
- 26 7. Support improvements to marine transportation facilities and services that address the non-peak
27 period needs of residents, businesses, and visitors, to improve the economic and social quality of
28 island life.
29
- 30 8. Encourage delivery of an optimum state of ferry service for County residents and the business
31 community at maximum efficiency and lowest cost.
32
- 33 9. Prohibit use of personal watercraft, such as jet skis, in the waters around and in San Juan County.
34
- 35 10. Consider direct marine access or expanded transportation service facilities in Eastsound, Lopez
36 Village, Shaw, Waldron, and other outer islands.
37

38 **6.4.B Policies Related to the Washington State Ferry System. (6.4.B.1-17):**
39

40 San Juan County is highly dependent upon transportation services and facilities provided by the
41 Washington State Department of Transportation Ferries Division (WSF). The Washington State Ferry
42 system is the state highway for the San Juan Islands. Ferry service is the primary mode of transportation
43 to the mainland and the mainstay of social and economic life. Coordination with the WSF and other
44 state entities is integral to maintaining an efficient system of moving people, goods and freight.
45 Moreover, the ferry system is essential in meeting the special transportation needs of residents,

1 businesses, social services, schools, and other public institutions. It also plays a critical role in
2 maintaining and enhancing the state and local tourism sectors.

3
4 The County Council established the San Juan County Ferries Advisory Committee (FAC), under the
5 requirements of RCW 47.60.310 and SJCC 2.44, to work with WSF to address community needs related
6 to ferry schedules, customer problems, and regional issues. The FAC obtains community input on ferry
7 service issues, advises WSF on those issues, and provides the County Council with information on the
8 condition of facilities, as well as service and operational matters affecting the San Juan Islands service
9 area. These issues pertain to safety, tariffs, service, scheduling, economic vitality, vessel allocation,
10 terminal facility adequacy, and vessel maintenance.

11
12 With the help of the FAC, the County identifies solutions to ongoing funding and service challenges and
13 promotes improvements in the ferry system through interactions with the WSF, the Washington State
14 Transportation Commission, and the State legislature.

15
16 **Policies** (6.4.B.1-17):

- 17
18 1. Consider the following primary factors while planning and developing marine transportation
19 systems:
20
21 a. Existing marine terminal facilities and connecting roads are components of the marine
22 transportation system and have significant physical constraints which must be considered in
23 planning for changes to marine facilities and services.
24
25 b. Transportation facilities and activities can have significant direct and indirect impacts on land
26 use and circulation patterns and the economic vitality of the community.
27
28 c. Cost-effective and time-efficient ferry transportation is essential to island commerce.
29
30 d. The County and the State of Washington have separate but complementary responsibilities for
31 inter-island marine transportation.
32
33 e. Washington State ferry routes are the primary economic routes for San Juan County.
34
35 2. Work with the state and federal government to encourage:
36
37 a. The long-term, sustainable funding of WSF service levels and capital funding for ongoing
38 ferry construction needed to replace the aging fleet;
39
40 b. The construction of a second ferry terminal slip with vehicle access in the Town of Friday
41 Harbor, to improve efficiency, scheduling flexibility and serve as a back-up slip;
42
43 c. The dedication of funding needed to construct a commuter parking lot near the Friday
44 Harbor and Lopez Island ferry terminals; and
45

1 d. The dedication of funding needed to improve the off-loading of passengers and vehicles,
2 especially at the terminal located in the Town of Friday Harbor.
3

- 4 3. Support the work of the FAC in collecting and interpreting data, gathering community input, and
5 providing recommendations to the County Council on ferry service improvement issues requiring
6 coordination with WSF and the Washington Transportation Commission.
7
- 8 4. Support a local public review process conducted by WSF that seeks comments regarding potential
9 modifications to its administration of the adopted preferential loading policies identified in WAC 468–
10 300–700. This review process should include, but not necessarily be limited to, the Ferry Advisory
11 Committee. The County should support operations and procedures for processing requests for
12 preferential loading that reflect local needs.
13
- 14 5. Submit requests to modify WAC 468–300–700 pertaining to preferential ferry loading to the FAC, who
15 will coordinate with WSF. The FAC should review and make recommendations on each request to the
16 San Juan County Council. The Council should make any formal recommendations to amend WAC 468–
17 300–700 to the Washington State Transportation Commission.
18
- 19 6. Coordinate with WSF, other regional transportation system entities, and community transportation
20 partners and providers to promote non-vehicular traffic on ferries, in order to spread demand and
21 moderate increased demands on terminal facilities and County roads. To accomplish this, the County
22 should encourage WSF to:
- 23
- 24 a. Work with the County and Town to provide traffic control support near the Town of Friday Harbor
25 ferry terminal, and near and around the Orcas parking lot and County road ferry queue;
26
- 27 b. Consider the impacts of proposed service and facility improvements on traffic circulation at island
28 terminals, as well as on County roads and Town streets;
29
- 30 c. Solicit resources to improve transit schedules and connections at ferry terminals and coordinate
31 with Skagit Transit and other transit providers; and
32
- 33 d. Promote the development of improved pedestrian and bike access at terminals to encourage
34 walk-ons.
35
- 36 7. Coordinate with WSF to adjust operational practices, such as improving the use of information
37 technology to mitigate adverse impacts on safe traffic circulation and safety on island roads. The
38 County should encourage WSF to:
- 39
- 40 a. Promote operational and/or scheduling changes in preference to expanding terminal facilities;
41
- 42 b. Provide ferry boats in a vessel class that meet the needs of the County;
43
- 44 c. Separate the unloading of bicyclists and pedestrians from motor vehicles at island terminals;
45

- 1 d. Provide information regarding ferry and land transportation schedules at ferry terminals, on fixed
2 displays for scheduled services and costs and on adjustable displays for current information on
3 ferry operations (e.g., overload status) and multimodal and transit options;
4
- 5 e. Enhance user information by developing updated and new social media and mobile information
6 regarding ferry schedules, reservations, overloads, wait times, and parking lot capacity; and
7
- 8 f. Work with the state legislature and WSF to add one additional ferry to the San Juan summer
9 schedule to service seasonal demand.
10
- 11 8. Encourage the WSF to coordinate with the County and other parties when passenger ferry terminals
12 or transfer floats are proposed by other parties, and on the preservation, expansion or improvement
13 of all terminal facilities consistent with County and Town of Friday Harbor land use plans, including
14 consideration of circulation patterns, potential public transit system connections, and public shoreline
15 access.
16
- 17 9. Identify community needs and desires, and support the following 2040 WSF Long Range Plan
18 strategies to manage growth and improve the customer experience:
19
- 20 a. Refine existing metrics and define new metrics to offer better data for future system planning
21 that prioritizes the movement of people and improves the customer experience:
22
 - 23 • Establish a passenger Level of Service Standard;
 - 24 • Adjust capacity standards on routes with reservations; and
 - 25 • Establish vehicle wait time as a performance metric.
- 26 b. Maximize existing system utilization through the advancement of adaptive management
27 strategies that make operations more efficient, spread out demand beyond peak travel times, and
28 prioritize walk-on and bike-on passengers through better connectivity at the terminal:
29
 - 30 • Expand vehicle reservations
 - 31 • Fare structure and pricing strategies
 - 32 • Additional adaptive management strategy areas
- 33 c. Provide system capacity enhancements through modest increases in service hours and by
34 leveraging new vessel construction, terminal improvements and existing infrastructure
35 modifications:
36
 - 37 • Enhanced service hours
 - 38 • Increased carrying capacity (through size of vessels)
 - 39 • Terminal operations efficiencies
- 40 10. Work with WSF, the Town of Friday Harbor and other entities to consider and implement adaptive
41 demand management strategies, designed to address increases in peak demand and improve the
42 operation and efficiency of the ferry system. These strategies may include, but are not limited to,
43 those outlined in the WSF 2040 Long-Range Plan and identified by the County, including taking steps
44 to:
45
 - 46 a. Shift the demand from vehicle traffic to non-vehicular traffic, implement ride-sharing
programs, improve passenger and pedestrian handling capabilities at terminals, enhance
public transit scheduling and real time connection information, expand park and ride

1 capabilities, decentralize parking or other parking improvements, improve pedestrian and
2 bike connections, and provide new loading/facilities and new/expanded services.

- 3
- 4 b. Promote alternative modes of transportation, such as private ferry systems, barges, air
5 transportation, and passenger-only services, which could reduce need for expanded vehicle
6 terminal facilities in the islands.
- 7
- 8 c. Work with WSF to refine and update the reservation system to enable users to obtain assured
9 ferry space to best meet the needs of residents, commercial enterprises, and other users, and
10 to support economic development. Expand the reservation system to include Lopez and Shaw
11 islands.
- 12
- 13 d. Optimize fare collection techniques and explore fare pricing options for different customer
14 types, including fares that address the needs of local residents, frequent users, visitors, and
15 off-peak, off-capacity, and promotional fares.
- 16
- 17 e. Explore targeted, route-specific strategies to reduce queuing congestion and smooth traffic
18 flow at terminals, such as new traffic and dock space management techniques, parking,
19 holding, and scheduling methods and/or use of enhanced electronic and mobile user
20 information applications and fare collection strategies that provide better customer service.
- 21
- 22 f. Support data gathering and interpretation that provides real information upon which to base
23 ferry operation and scheduling decisions.
- 24
- 25 g. Promote and market the use of non-single occupancy vehicles, combined with transit
26 enhancements.
- 27
- 28 h. Market tourism events and programs during times of greater ferry capacity, with promotional
29 fares to spread demand to non-capacity sailings.
- 30

31 11. Take the following steps if ferry service level falls below community needs and desires:

- 32
- 33 a. Determine whether changes in available data indicate that ferry assets are being used most
34 effectively, and recommend that WSF move towards further system investments.
- 35
- 36 b. Evaluate the goals and policies contained in the Land Use Element and Shoreline Master Program
37 that affect the rate and amount of residential, commercial, recreational, and industrial growth
38 allowed.
- 39

40 12. Evaluate development for impacts on ferry service and terminal parking through the SEPA process,
41 except for single-family residential proposals and other development proposals that do not require
42 SEPA.

43

44 13. Work with WSF to evaluate the effects that demand management strategies from the WSF Long Range
45 Plan have on ferry terminal parking issues, and work together to consider the costs, benefits,
46 environmental and land impacts associated with the creation of additional parking capacity, located

1 either on-site at the ferry terminal or at remote locations, if demand management strategies are not
2 effective in reducing parking congestion issues.

3
4 14. Work with WSF to develop adequate ferry terminal parking.

5
6 15. Encourage WSF and the State to secure funding to construct adequate commuter or short-term (1-3
7 days) parking areas at all ferry-served terminals as needed, after demand management strategies
8 have been implemented.

9
10 16. Support WSF plans to “Green the Fleet” by reducing fuel consumption, electrification of the fleet, and
11 quiet ferries to reduce impact on orca whales.

12
13 17. Support WSF plans to improve resiliency by planning for earthquakes and climate change.

14
15 **6.4.C Policies for County Marine Facilities and Associated Parking Areas (6.4.C.1-6):**

16
17 Public marine facilities serve as extensions of the County road system, provide access for kayaks and other
18 boats, create access to popular water trails and recreation areas, are essential components of a thriving
19 economy and are a significant element of the transportation system in an island community. Marine
20 facilities as an extension of the County road system shall be constructed on islands with County roads.
21 Proposed marine facilities are based on location, population served, needs of population served,
22 emergency response requirements, and condition of existing facilities. Appendix 6 provides marine facility
23 demand and capacity assessments, and long range planning recommendations.

24
25 **Policies** (6.4.C.1-6):

- 26
27 1. County and state responsibilities for inter-island services and marine facilities and their associated
28 parking area facilities differ, but should be coordinated. The County should:
- 29
30 a. Work with the port districts, island communities, and WSF when applicable, to coordinate the
31 planning, development, and maintenance of marine facilities and associated parking areas.
 - 32
33 b. Provide marine facilities and parking areas to facilitate inter-island transport of goods and people,
34 as essential public facilities and components of the County road system that are available for
35 public use, and coordinate these facilities with potential passenger-only ferry service operations.
 - 36
37 c. Place emphasis on first providing adequate loading/unloading space on floats, and secondly at
38 short-term tie-up space. Overnight moorage for recreational use should not be allowed, until a
39 feasibility study is conducted that includes an analysis of individual dock usage characteristics,
40 costs and benefits, strategies to minimize user conflicts, implementation and enforcement
41 measures, and a pilot program has been implemented and assessed.
 - 42
43 d. Include freight lifting equipment, where necessary or appropriate.
- 44

- e. Encourage WSF to install loading/unloading floats or reasonable alternatives at all ferry terminals, including the Anacortes terminal, to enhance inter-island travel and promote efficient and convenient use of passenger-only ferry service.
 - f. Work with developers of small boat docks (loading/unloading floats) at ferry terminals designed to improve marine access to the terminals from islands not served by ferries.
 - g. Work with the local utilities to improve service to all marine locations, where possible.
2. Support the development of one public barge landing site per island, consistent with the Shoreline Master Plan and where adequate parking space is available.
 3. Prioritize County marine facility projects as follows:
 - a. Modifications and maintenance necessary for the safe usage of:
 - (1) existing County marine facilities located on non-ferry served islands;
 - (2) existing County marine facilities, located on ferry-served islands, which provide primary access to ferry-served islands from non-ferry served islands;
 - (3) other existing County marine facilities.
 - b. New County marine facilities on non-ferry served islands without existing County marine facilities.
 - c. Capacity improvements to existing County marine facilities located on non-ferry served islands.
 - d. New County marine facilities located on ferry-served islands, which provide primary access to ferry-served islands from non-ferry served islands which have no existing County dock;
 - e. Capacity improvements to other existing County marine facilities; and
 - f. All other new or improved County marine facilities.
 4. Annually evaluate the condition, demand, and capacity of County marine facilities, in order to prioritize maintenance and capital improvement projects. Evaluate alternative means of increasing capacity or decreasing demand. Include in the evaluation the costs, benefits, and environmental impacts of expanding existing dock(s), leasing facilities, requiring new development to provide access at private joint moorage facilities, or adding additional public docks to serve the service area(s).
 5. Consider the impacts of sea level rise, and accompanying erosion, when evaluating new development and/or maintenance of marine facilities.
 6. Provide County parking where appropriate and necessary.

6.5 LAND TRANSPORTATION GOALS AND POLICIES

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1
2 Land transportation facilities and services are inventoried and analyzed in Appendix 6 of this
3 Comprehensive Plan. This Element addresses public and private roads, bridges, parking, bicycles, mopeds,
4 and transit service. Levels of service standards for County roads are also presented in Appendix 6.
5

6 **Goals:**
7

- 8 1. To maintain a road planning and improvement system that corresponds to the land development
9 goals and policies expressed in the Land Use Element of this Comprehensive *Plan* and its subarea
10 plans.
11
- 12 2. To maintain a public road system that is as safe and efficient as possible, while recognizing the
13 importance of conserving the environmental and scenic qualities of island roads.
14
- 15 3. To facilitate diverse modes of transportation and provide intermodal connectivity and improved
16 accessibility.
17
- 18 4. To follow the goals and policies adopted in the San Juan County *Parks, Trails and Natural Areas Plan*
19 *and Nonmotorized Plan* for nonmotorized and recreational transportation facilities.
20
- 21 5. To increase education and outreach to improve bicycle and pedestrian safety, promote healthy
22 lifestyles, and facilitate transportation alternatives which conserve energy, reduce greenhouse gas
23 emissions, and reduce reliance on fossil fuels.
24
- 25 6. To encourage transit providers to provide and expand low-emissions transportation services that
26 support the needs of local residents and visitors.
27
- 28 7. To implement the principles of the Complete Streets Program, adopted in Ordinance 24-2018.
29
- 30 8. To establish level of service standards for the County's road system to gauge the performance of the
31 system and determine areas where transportation improvements are required.
32

33 **6.5.A Policies for Road Classification, Right-of-Way, Design and Construction** (6.5.A.1-17):
34

35 **Road Classification**
36

- 37 1. Classify all County roads as major collectors, minor collectors or local access roads, as shown on the
38 road classification maps adopted as part of this Comprehensive Plan in Appendix 6.
39
- 40 2. Continue the prioritized ongoing traffic count program for County roads. Road counts should be
41 monitored to ensure that traffic volumes do not exceed road design capacities.
42

43
44
45
46 **Right-of-Way**

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- 1
- 2 3. Make County road right-of-way widths adequate to accommodate anticipated improvements,
- 3 including utilities, franchise use options, communications infrastructure, and nonmotorized
- 4 transportation facilities, and to maintain the roadway. A minimum twenty-year planning period
- 5 should be used for the purpose of anticipating needed improvements.
- 6
- 7
- 8 4. Obtain dedications of road rights-of-way when discretionary use permits or land division approvals are
- 9 sought by property owners.
- 10
- 11 5. Refrain from vacating public road rights-of-way needed to provide an adequate road system, access
- 12 to private property, public access to, or a view of water bodies and links to trails systems.
- 13
- 14 6. Approve parking on County road right-of-way if it will provide a public benefit; however, in rural areas,
- 15 shoulders of County roads should not be widened or improved to provide parking for residential or
- 16 commercial uses.
- 17
- 18 7. Consider the inventory of County road ends that abut shorelines, which is included in the San Juan
- 19 *County Parks, Trails and Natural Areas Plan and Nonmotorized Plan*, and evaluate their potential for
- 20 recreational or other uses.
- 21

22 Road Design and Construction

- 23
- 24 8. Develop and adopt County road standards that meet minimum WSDOT and other applicable agency
- 25 requirements and follow Complete Streets Principles.
- 26
- 27 9. Ensure that County road standards and practices are updated to reflect climate change projections, and
- 28 that new roads are sited appropriately and protected from sea level rise, increased erosion, and storm
- 29 surge.
- 30
- 31 10. Support road designs that follow the goals and guidelines in the 1995 Scenic Road Manual until they
- 32 are superseded by Council-adopted County road standards, as described above.
- 33
- 34 11. Prevent the construction of public or private roads through designated Natural or Conservancy areas
- 35 in the San Juan County Shoreline Master Program, where a feasible alternative exists.
- 36
- 37 12. Make use of the procedure provided in Chapter 36.86, RCW, to deviate from state standards for
- 38 collector roads when necessary to maintain their scenic qualities.
- 39
- 40 13. Include a thorough public participation program and interdisciplinary teams advisory to the County
- 41 Engineer, as early as practicable in the planning and design phases of major projects. Adjacent
- 42 property owners and other affected persons should be represented on interdisciplinary teams.
- 43
- 44 14. Strive to preserve the significant scenic, rural quality of island roads, including the San Juan Islands
- 45 Scenic Byway.
- 46

- 1 15. Establish alternative design standards for roads on non-ferry served islands that meet the specific
2 transportation needs of these islands.
- 3
- 4 16. Consider the creation of a local improvement district to finance improvements consistent with the
5 applicable activity center or subarea plan, when owners of property in activity centers desire road
6 improvements that exceed County requirements.
- 7
- 8 17. Consider using low-impact development techniques, when physically and economically feasible.
- 9

10 **6.5.B Policies for Driveway Approaches to County Roads, Setbacks, and Maintenance** (6.5.B.1-3):

- 11
- 12 1. Hold the number of driveway approaches to County roads to a minimum, in order to improve traffic
13 safety and minimize maintenance expenses.
- 14
- 15 2. Ensure that all structures are set back from road rights-of-way, in compliance with county codes.
- 16
- 17 3. Conduct maintenance of County transportation facilities by:
18
 - 19 a. Keeping transportation facilities in a usable and safe condition.
 - 20
 - 21 b. Assigning first priority to maintaining major and minor collector roads.
 - 22
 - 23 c. Reducing the number of noxious weeds occurring over the long term by developing and
24 implementing programs as legally required under Chapter RCW 17.10 and Chapter WAC 16.750.
 - 25
 - 26 d. Do not use herbicides, pesticides, toxic substances, or other chemicals for weed control or other
27 purposes in road rights-of-way.
 - 28

29 **6.5.C Policies for Land Transportation Level of Service (LOS)** (6.5.C.1-6):

- 30
- 31 1. Establish LOS standards and response mechanisms for land transportation facilities and services which
32 balance the needs of the community for land transportation with the impacts of those facilities and
33 services.
- 34
- 35 2. Adopt LOS D as adequate for County collector roads. LOS D is defined as traffic flows approaching
36 unstable flow and can be described as speeds slightly decreasing and volumes slightly increasing.
- 37
- 38 3. Adopt UGA intersection **LOS (___)** as adequate for Eastsound and Lopez Village key collector road
39 intersections. Key collector road intersections are defined by the County Engineer.
- 40
- 41 4. When a County collector road Annual Average Daily Traffic (AADT) exceeds the LOS D standard,
42 perform a traffic study to evaluate alternatives to increase capacity and/or decrease demand and
43 define an implementation schedule.
- 44
- 45 5. Adopt and enforce concurrency standards that would prohibit development approval if the
46 development causes the AADT to exceed the LOS D standard or exceed intersection LOS standards.

1
2 6. Do not require concurrency for any other land transportation facilities.
3

4 **6.5.D Policies for Private Roads (6.5.D.1-2):**
5

- 6 1. Private roads should not be incorporated into the County road system, unless public benefits are
7 substantial and the County's road design standards are met.
8
9 2. Establish standards for private roads in accordance with the following:
10
11 a. Establish private road standards to provide adequate vehicular safety, low maintenance, and
12 meet anticipated vehicular demand.
13
14 b. Require private roads to minimize environmental impacts and maintain the scenic character of
15 island roads.
16
17 c. Subject roads developed as part of land development or new subdivisions to develop
18 maintenance agreements when necessary.
19
20 d. Consider adoption of lesser road standards for islands not served by ferries.
21
22 e. Require improvements to off-site private roads in approving a land development, if these roads
23 serve the development and do not meet applicable design standards.
24

25 **6.5.E Policies for Parking (6.5.E.1-7):**
26

- 27 1. Encourage the development of community parking facilities in all areas designated as activity centers
28 in County land use and subarea plans. Shared parking among separate facilities should be provided if
29 other applicable parking requirements allow.
30
31 2. Provide off-street parking areas open to the public, where they would serve transportation facilities
32 or meet community needs.
33
34 3. Encourage the business community in commercial core areas to provide parking areas in locations
35 where they would relieve traffic congestion and accommodate taxi, van, and bus services without
36 disrupting traffic circulation. Design and location should be carefully considered in accordance with
37 applicable area plans.
38
39 4. Provide parking areas on the nearest ferry-served island to accommodate residents of non-ferry
40 served islands, after considering possible funding mechanisms, costs and benefits, and possible
41 parking lot locations.
42
43 5. Consider the use of local improvement districts or other administrative and financing structures when
44 desired to build, operate and maintain community parking areas.
45
46 6. All major transportation facilities should include adequate off-street parking areas.

1
2 7. All parking areas associated with new public or private development should:

- 3
4 a. Include safe ingress and egress;
- 5
6 b. Be screened or well set back from roads;
- 7
8 c. Reflect adequate design for ease of use;
- 9
10 d. Provide for the physically impaired; and
- 11
12 e. Provide for alternative forms of transportation.

13
14 **6.5.F Policies for Bicycles and Mopeds. (6.5.F.1-2):**

15
16 Bicycles and mopeds are important modes of transportation, used by both residents and visitors to the
17 island. Increases in the number of bicycling enthusiasts and recreational tour groups, as well as the use
18 of mopeds, require planning for the development of transportation facilities and operations that promote
19 safe travel experiences for all users, and also benefits the local economy.

- 20
21 1. Safe facilities and programs for use of bicyclists, (standard bicycles, motorized bicycles, and
22 mopeds) should be developed by the County. Bicycle/Moped facility planning should be
23 addressed in updates of the San Juan County *Parks, Trails, and Natural Areas Plan and*
24 *Nonmotorized Plan* and facility financing should be included in the annual capital facilities and
25 transportation improvement programs.
- 26
27 2. The County and its economic and community development partners should:
- 28
29 a. Promote bicycling safety by publicizing the importance of safe riding practices when
30 bicycling in the islands, and provide bicycling safety information to bicycle clubs, tour
31 operators, and those who provide accommodation and services to island visitors.
- 32
33 b. Require that moped vendors provide and enforce the use of protective headgear when
34 required by State law, and give written and oral instruction regarding the safe operation
35 of mopeds, as part of a land use project permit approval.
- 36
37 c. Identify other ways to foster recognition of rights and responsibilities in the use of County
38 roads by both motorists and cyclists.
- 39
40 d. Accommodate cyclists on County roads and consider providing separate bicycle paths
41 where practical.
- 42
43 e. Sweep road shoulders regularly to facilitate safe use by cyclists.
- 44
45 f. Encourage WSF to load and unload bicyclists and mopeds in a safe and efficient manner.
- 46

- 1 g. Include parking facilities for bicycles and mopeds at public transportation facilities, and
2 encourage commercial developments and other traffic generators to provide parking
3 facilities away from pedestrian paths.
- 4
- 5 h. Continue to implement County park user fees for bicycle (and other) tour groups, in order
6 to mitigate their impacts on the county's park infrastructure and services.
- 7
- 8 i. Consider the policies, design guidelines, recommendations, and standards for
9 accommodating bicyclists on County trails adopted in the San Juan County *Parks, Trails*
10 *and Natural Areas Plan* and the San Juan Islands *Scenic Byway Corridor Management Plan*.
- 11
- 12 j. Promote the enforcement of road rules and speed limits and educate the public on how
13 to share the road safely.
- 14
- 15 k. Evaluate the potential to improve safety by implementing road design changes on high-
16 use or other County road segments with unique characteristics, taking into account
17 legality, usage, season, events and practicality.
- 18
- 19 l. Support zoning designations near ferry terminals that allow for the development of
20 bicycle rental shops.
- 21
- 22

23 **6.5.G Transit Goals and Policies:**

24
25 Although San Juan County does not operate a centralized public transit service, many social service, non-
26 profit and private transit providers are working to meet community transportation needs and fill
27 accessibility gaps identified in the San Juan County Coordinated Human Services Transportation Plan.
28

29 **Goals**

- 30
- 31 1. To encourage and support development of public and private transit and shuttle services.
- 32
- 33 2. To improve access to health and human services, employment, social, educational, recreational, and
34 tourism destinations.
- 35
- 36 3. To improve mobility and quality of life for residents and workers.
- 37
- 38 4. To increase transportation options for tourists and guests.
- 39
- 40 5. To encourage alternatives to the use of single-occupant vehicles.
- 41
- 42 6. To consider transit operations in roadway designs.
- 43

44 **Policies for Transit** (6.5.G. 1-7):

- 1 1. Support the development of social service public transit options and the work of nonprofit and private
2 community transportation partners to:
3
4 a. Reduce the isolation of target populations;
5 b. Increase accessibility to transportation services;
6 c. Address seasonal tourist travel peaks through the development of transit alternatives; and
7 d. Create additional organizational capacity to sustain implementation of community identified
8 transportation needs.
9
- 10 2. Support the work of community transportation partners to evaluate public transit needs, further
11 identify opportunities for service coordination, and implement actions described in the San Juan
12 County Coordinated Human Services Transportation Plan to meet the needs of the community,
13 especially individuals with lower incomes, seniors, persons with disabilities, and veterans.
14
- 15 3. Support coordinated human services transportation planning that creates improved access to
16 transportation information, develops economies of scale, eliminates inefficiencies, and provides
17 greater visibility of transportation options.
18
- 19 4. Explore and support the collaborative efforts of community organizations, state and federal partners,
20 and transportation providers to provide cost-effective service delivery, to increase capacity to serve
21 unmet needs, and to improve mobility and the quality of transportation services.
22
- 23 5. Support community transportation planning efforts focused on gaining a better understanding of the
24 transportation needs of the San Juan Islands, creating new methods of island travel, raising awareness
25 of transportation issues, and exploring private and public funding for new public transportation
26 solutions.
27
- 28 6. Leverage community resources to obtain appropriate state and federal funding for transit projects
29 that address both year-round and seasonal transit challenges.
30
- 31 7. Coordinate with the WSDOT Public Transportation Division to implement high-priority projects
32 identified by the community, using the ranking criteria for selecting projects established in the San
33 Juan County Health and Human Services Transportation Plan.
34

35 **6.6 INTERGOVERNMENTAL AND REGIONAL COORDINATION GOALS AND POLICIES**

36 San Juan County and the Town of Friday Harbor have adopted County-wide Planning Policies (CPPs),
37 included in Appendix 2 of this Comprehensive Plan. These CPPs include policies for transportation facilities
38 and strategies to foster the alignment of transportation planning priorities and strategies affecting the
39 Town and County. Consistency with the transportation goals and policies established in adjacent county
40 Comprehensive Plans related to regional transportation service impacts are also considered in this
41 Transportation Element. Lastly, this section provides guidance for alignment with state transportation
42 plans, which is an important component of local and regional transportation planning.

43 Generally, regional transportation plans in the State of Washington are developed in conjunction with
44 local plans and County-wide transportation policies. San Juan County does not meet the population
45 requirements for creating its own Regional Transportation Planning Organization (RTPO), but is eligible to

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1 join another RTPO from a neighboring region. As of 2018, Skagit County and Island County are separate
2 RTPOs. San Juan County has chosen not to join a local RTPO, but does informally coordinate with adjacent
3 counties and regional organizations. San Juan County coordinates with the Town of Friday Harbor and the
4 Port of Friday Harbor in an informal RTPO, to align transportation plans and share Federal Highway Funds.

5 The following goals and policies address the alignment of transportation plans, and provide guidance on
6 the intergovernmental coordination of local, regional and state planning priorities.

7

8 **Goals:**

9

- 10 1. To plan, prioritize, and finance transportation improvements in coordination with portions of local,
11 regional and state transportation plans.
- 12
- 13 2. To coordinate with multiple agencies and jurisdictions to facilitate the efficient transportation of
14 people, goods, and services, in order to strengthen the local and regional economy.
- 15
- 16 3. To identify common regional transportation issues and work cooperatively with other agencies,
17 jurisdictions, and regional organizations to develop solutions to transportation system challenges.
- 18
- 19 4. To collaborate with adjacent jurisdictions and regional interests to lobby for legislation and funding
20 to solve regional transportation issues and for the provision of beneficial state transportation facilities
21 and services.
- 22

23 **Policies (6.6.A.1-17):**

24

- 25 1. Coordinate with the Town of Friday Harbor, to ensure consistency with the County-wide Planning
26 Policies for Transportation Facilities and Strategies adopted in Appendix 2 of this Comprehensive Plan
27 and to facilitate integration of the transportation system.
- 28
- 29 2. Coordinate with the Town of Friday Harbor, the Port of Friday Harbor, and WSDOT to plan fair-share
30 financial contributions to transportation improvements needed to mitigate regional or island-wide
31 transportation impacts consistent with Town of Friday Harbor Transportation Element Goals.
- 32
- 33 3. Coordinate with the Town of Friday Harbor on cooperative funding of road improvements within the
34 Town of Friday Harbor and the Friday Harbor Urban Growth Area consistent with the Friday Harbor
35 Transportation Element Goals.
- 36
- 37 4. Cooperate with WSDOT, the Town of Friday Harbor, and the Port of Friday Harbor during the
38 development of aviation facilities consistent with the Town of Friday Harbor's Comprehensive Plan –
39 Air Transportation Policies.
- 40
- 41 5. Coordinate with WSF and the Town of Friday Harbor to support marine transportation ferry system
42 policies that provide optimum ferry system services and facilities.
- 43

- 1 6. Encourage the development of transit service, in order to reduce vehicular traffic in downtown Friday
2 Harbor and on County roads and to support conservation goals consistent with Town of Friday Harbor
3 Comprehensive Plan Policy.
4
- 5 7. Identify and encourage the development of transportation projects that have local and regional
6 benefits and cost-sharing efficiencies.
7
- 8 8. Inform the North Sound Transit Alliance-NSTA (aka Farmhouse Gang) and adjacent RTPOs of San Juan
9 County's transportation issues and identify coordination issues.
10
- 11 9. Work with neighboring counties, as well as the Skagit, Island, and Whatcom RTPOs, to recommend
12 and develop planning goals, policies, and plans that address regional issues.
13
- 14 10. Coordinate with transportation planners in Whatcom and Skagit counties and Canada to develop
15 compatible transportation recommendations that support efficient trade and commerce.
16
- 17 11. Coordinate with Skagit County to support the continued provision of ferry service between Anacortes-
18 San Juan Islands and Vancouver Island, B.C.
19
- 20 12. Promote the development of transportation facilities that serve to improve the mobility of goods,
21 services, and people to encourage economic development, and implement transportation plans
22 compatible with those of the County and neighboring RTPOs.
23
- 24 13. Coordinate with other jurisdictions, public transit providers, agencies, and other entities, to promote
25 multimodal travel options and promotions that provide alternatives to the single passenger vehicle.
26
- 27 14. Coordinate with WSF, the Skagit County RTPO, and the Whatcom RPTO to improve intermodal
28 connectivity between public transit operations on the mainland and WSF ferry-service.
29
30
31
- 32 15. Periodically assess the costs and benefits of joining an RTPO.
33
- 34 16. Continue to promote communications and coordination between the County and the Port Districts
35 within the County.
36
- 37 17. Participate in statewide transportation planning organization teleconferences.
38
39
40

2036 Comprehensive Plan
Transportation Element Briefing

Attachment C

2016-11-08 Transportation Element Adopted

COMPREHENSIVE PLAN

SECTION B, ELEMENT 6

TRANSPORTATION

October 21, 2016
Adopted November 8, 2016

"We have water, land, and air transportation systems commensurate with our island culture. On-island circulation is by means of a system of scenic rural roads with automobile, bicycle and pedestrian ways functioning without conflict. In some places, the roads are unpaved, narrow, and winding, and care is taken to maintain a rustic quality in public signs. Expansion or new construction of basic public transportation facilities occurs only on the basis of demonstrated local public need. Advanced interactive communication systems are encouraged."

ELEMENT 6

TRANSPORTATION

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See APPENDIX 6 for Transportation Facilities Inventory, LOS Analysis and Financial Analysis

6.1 INTRODUCTION

6.1.A PURPOSE AND BACKGROUND

The purpose of the Transportation Element is to establish goals and policies which will guide the development of air, marine, and land transportation facilities and services in San Juan County in a manner consistent with the overall goals of the Comprehensive Plan and Vision Statement. It establishes direction for development of regulations for transportation systems and for facilities and transportation improvement programs now and through the year 2030. The goals and policies in the Transportation Element are based upon the community vision, the 2021 travel forecasts and other information provided in Appendix 6, and other applicable transportation plans that address nonmotorized trails development for pedestrians, equestrians and bicyclists.

The Transportation Element is a mandatory planning element under the Growth Management Act (GMA) and was developed in accordance with RCW 36.70A.070(6) to be consistent with and implement the Land Use Element. It is based on a systematic planning approach that considers anticipated growth and transportation demand in planning for future transportation system needs.

The Transportation Element contains the introduction, goals and policies and is based upon the data and analysis provided in Appendix 6, Transportation. Appendix 6, Transportation of this Comprehensive Plan includes inventories of the existing air, marine and land transportation system. A consultant, Transpo Group, evaluated the available population and vehicular data to prepare projected growth rates to 2021 which were used to assess transportation facility and service demand and capacity. The transportation analysis includes a ten-year forecast of impacts to the transportation system and state-owned transportation facilities consistent with land use and growth assumptions. Factors affecting the existing level of service (LOS) and recommended LOS for the various facilities was presented by Transpo Group in the following series of memos dated June 16, 2010:

- Memo 1 of 3: San Juan County Transportation Element Growth Rates
- Memo 2 of 3: San Juan County Transportation Level of Service Analysis
- Memo 3 of 3: Potential Transportation Level of Service Refinement

The LOS analysis resulted in the recommended level of service standards and identification of long-range planning needs.

Appendix 6 also includes a discussion of demand management transportation options and intergovernmental coordination. Lastly, it contains an analysis of the County's transportation funding capability and financing options, and a multi-year financing plan for transportation improvement projects.

Additional white papers developed by the Community Development and Planning Department and the Public Works Department were considered during the development of the transportation goals and policies. These papers provided information pertaining to LOS, Washington State Ferries (WSF) LOS, impact fees and concurrency, prioritizing trails with road projects, transportation benefit districts and Regional Transportation Planning Organizations.

Many state and federal transportation regulations and programs require accommodation of or encourage the development of nonmotorized transportation facilities and connections as part of an integrated

transportation system. Starting with the federal government and working down to state, regional and county levels, the acceptance of the need to design facilities to accommodate pedestrians, equestrians, bicyclists and hand and wind powered marine vehicles has become a legislative directive for local and county government, including San Juan County.

The provision of a safe and efficient network of pedestrian, equestrian, bicycling, and marine trails has been an important component of the County's multi-modal transportation system for many years. Since 1979, the Transportation Element of the Comprehensive Plan has included direction to accommodate safe use of bicycles and pedestrian pathways. Based on significant public and Parks and Recreation input, two resolutions were passed in the 1990's that sought to develop important bicycle and walking trails.

While the demand for these facilities has been made and recognized repeatedly in the adopted Transportation Plans and the 1999 – 2004 Parks, Recreation and Preserved Lands Plan for San Juan County, residents were historically ambivalent about accommodating bicycles and creating new paths for walking and riding. On one hand, historic surveys showed that many residents yearned for a safer, more tranquil way to get out of their cars. On the other hand, funding and implementation have been challenges for the realization of these plans.

The San Juan County Parks, Trails and Natural Areas Plan and Nonmotorized Plan is updated every six years. It contains the nonmotorized inventories strategies, goals, policies, actions and financial components. It is adopted by reference to serve as the County's Nonmotorized Transportation Plan.

The San Juan County Parks, Trails and Natural Areas Plan and Nonmotorized Plan contains a trails classification system (road right-of-way trail, rustic trail and bike trail), and identifies trail corridors for development. It identifies nonmotorized facility funding mechanisms and local financing options. Its' goals and strategies provide a framework that the community can use to meet its vision of providing safe nonmotorized travel on a multi-purpose trail and corridor system designed to provide accessibility to community activities and recreational areas.

The plan is designed to meet the transportation and recreational needs of the community. It is implemented collaboratively by San Juan County Parks and Public Works departments, the San Juan County Land Bank and other partners. It establishes the community's criteria for prioritizing nonmotorized projects. A long range action plan and project list guides community investment in a variety of trail development projects. In addition, a detailed six-year plan identifies projects and funding sources for trails development in the near term and inclusion on the capital facilities six-year plan. Trail development projects implemented by Public Works in the County road rights-of-way are identified on Public Works' six-year Transportation Improvement Program (TIP).

Another plan, the 2006 San Juan Islands Trails Plan prepared by the San Juan Island Trails Committee to promote island-wide trail networks provided information for the development of the nonmotorized goals and policies. Another plans, the 2006 San Juan Islands Trails Plan prepared by the San Juan Island Trails Committee provides information for the development of the nonmotorized goals and policies. Currently, the Lopez Island Community Trails Network is developing a plan. The National Park Service has provided technical assistance in the development of these plans through its Rivers, Trails and Conservation Assistance Program.

In addition, another San Juan County plan referenced in the Transportation Element is the San Juan County Coordinated Human Services Transportation Plan. This plan built upon community efforts to gain a better

understanding of the transportation needs of San Juan County residents (especially low income, elderly and disadvantaged persons) and visitors. It explores potential options for creating a new vision of island travel, awareness of transportation needs and issues, and explores public and private transit coordination and transit funding strategies.

The development of this Transportation Element and related transportation plans have included extensive public participation processes. In addition, the results of the Council on Economic Development's Transportation Summit and subsequent work by the County's Critical Needs Task Force which was organized with the support of the San Juan Community Foundation helped to shape the County's development of recent transportation plans.

Organization

The Element is organized to first outline the overriding goals and objectives for all forms of transportation then provides specific goals and policies for air, marine, and land transportation systems, and intergovernmental and regional coordination. In addition to providing general guidance for action, these policies are designed to assist the County in determining priorities and assigning responsibilities for plan implementation.

The Air Transportation goals and policies address the long-term management of airports, airport-related operations and services, and other air transportation facilities. The Marine Transportation goals and policies address long-term marine transportation services and development of new facilities. The Land Transportation goals and policies address the development and maintenance of land transportation facilities and provide guidance for County decisions on their funding, scheduling, design and construction. Intergovernmental and regional coordination goals address County transportation system development in relation to adjacent jurisdictions, and other counties, regions and entities.

6.1.B Level of Service Standards and Concurrency

Level of Service

One of the principal criteria for identifying needed capital improvements for transportation systems is the establishment of level of service (LOS) standards. LOS standards measure the capacity of capital facilities and services which are necessary to support new development and maintain or enhance the quality of life in the community. The LOS standards adopted by San Juan County are based on the community's values and vision of its future. LOS standards serve as a gauge to judge the performance of the transportation systems and ensure that the community:

- Has set realistic, measurable and attainable transportation goals;
- Accounts for the impacts of growth and development; and
- Makes transportation planning and programming decisions based upon community valued policy direction.

The LOS standards for the San Juan County road transportation systems are based on the physical capacity of the facility or service and development projections.

Concurrency

Consistent with GMA requirements, the County adopted development regulations which prohibit development approval if a development causes the level of service on a transportation facility to decline below the adopted standards unless transportation improvements or strategies to accommodate the impacts of the development are made concurrent with the development.

6.1.C Relationship to Plan Elements, Consistency with Adjacent Jurisdictions and Regional Plan Coordination

Relationship to Plan Elements

This Element was developed to evaluate existing conditions, and to identify future planning needs. It sets out the goals, policies and preferences of the County for maintaining and improving the quality of transportation facilities and services and to guide intergovernmental and regional and international coordination while assuring consistent adherence to the general goals and policies regarding the use and development of land and transportation facilities as expressed in the other elements of the Comprehensive Plan including subarea plans.

Consistency with Plans of Adjacent Jurisdictions and Regions

Intergovernmental, regional and international coordination of plans are addressed in this element including coordinated planning for consistency with jurisdictions with common borders and counties that share common regional issues. The Town of Friday Harbor is the only incorporated city in San Juan County. In 1992, the County and the Town of Friday Harbor jointly adopted Countywide Planning Policies (CPPs) (Resolution No. 120–199 which was updated by the adoption of Ordinance 48-2008). These policies address the need for consistent and coordinated County and Town comprehensive plans. The CPPs are included as Appendix 2 in this Comprehensive Plan. Consistency between this Comprehensive Plan and the Town of Friday Harbor Comprehensive Plan including Chapter 5, Transportation Element is required by the GMA. San Juan County is not a member of a RTPO; however, the County coordinates with the Whatcom and Skagit-Island RTPOs on regional planning issues.

6.2 GENERAL TRANSPORTATION GOALS AND POLICIES

The general goals and policies apply to all transportation modes.

6.2.A General Goals:

1. To develop and maintain a safe, reliable, economically feasible, locally, regionally and internationally integrated transportation system that reflects the desires and preferences of County residents, supports economic vitality and preserves the rural character, scenic road way features and aesthetics of island communities and the natural, social, and economic environment of San Juan County.
2. To develop a transportation system that corresponds to and is consistent with patterns of land development envisioned in adopted land use plans and:
 - a. Addresses the complex transportation demands of current land use patterns and prioritizes service to the Urban Growth Areas, accommodates the needs and priorities of residents and

businesses while meeting the basic transportation needs of all islands in the County including non-ferry served islands;

- b. Enhances the character of the County as a single community of islands while maintaining the individual character of each island;
- c. Directs development of facilities in a manner and at a scale consistent with the capabilities of the site and the community to absorb them and increases the efficiency and safety of existing transportation systems by using demand management strategies to avoid costly capital expenditures;
- d. Minimizes noise generated by transportation facilities and travel modes associated with them;
- e. Provides a variety of transportation modes including air, marine and land (including nonmotorized transportation options), and provides for efficient intermodal connections;
- f. Provides a safe and efficient network of trails for bicyclists, equestrians, pedestrians, nonmotorized marine traffic and encourages nonmotorized transportation as a viable, healthy, non-polluting alternative to single-occupancy vehicles;
- g. Supports the promotion and enhancement of tourism, recreation, special events, scenic byway programs and diverse economic activities or opportunities;
- h. Facilitates the development of privately and/or publically funded projects to address specific transportation needs and challenges, where appropriate;
- i. Promotes modes of transportation and multi-modal connections that support active and healthy communities and mobility for all users;
- j. Encourages energy conservation and the use of low impact development techniques when physically and economically feasible in the development of transportation systems and facilities;
- k. Encourages development of transit system facilities and services that can reduce the reliance of visitors and residents on single occupancy vehicles; and
- l. Coordinates transportation and emergency management services planning.

General Policies (6.2.A.1-8):

1. Promote active citizen participation in the development and implementation of this Element.
2. Recognize the needs and desires of residents of each island in making decisions regarding transportation facilities and their operation for that island.
3. Ensure that consistency with the land use goals and policies adopted in the Comprehensive Plan and Shoreline Master Program is a primary consideration in the evaluation of proposed transportation facilities while encouraging diverse economic opportunities.

4. Anticipate and monitor changes in the use of and demand for transportation facilities while managing development impacts and seeking ways to avert conflicts generated by increases in demands over time.
5. Explore ways to promote transportation modes that may decrease demands for increased automobile traffic capacities on roads and ferries.
6. Prevent the consideration and development of bridges and tunnels between islands and from the mainland.
7. Identify, develop and implement cross border transportation routes in addition to those established by Washington State Ferry Service.
8. Consider the risk of sea level rise in expenditures of public funds for transportation infrastructure.

6.2.B Transportation Financing Goals and Policies

Section II in Appendix 6 of this Comprehensive Plan addresses transportation financing strategies for the 2012 - 2032 planning period. It also includes an inventory of funding sources and levels for capital projects, an analysis of the County's funding capabilities and a copy of six-year Transportation Improvement Program (TIP) prepared by Public Works. The TIP identifies specific projects and funding sources for both road and nonmotorized projects. Public Works also creates an annual road plan (ARP) that includes the Public Works projects budgeted for and approved by the County Council.

Funding and financing options for rustic and bike (non right-of-way) trail development are addressed in the San Juan County Parks, Trails, and Natural Areas Plan and Nonmotorized Plan. Trail projects are selected from a 20-year long-range project plan for inclusion on the County's six-year capital facilities plan (CFP) and Parks Department budget. Financing goals and policies for transit services and mobility coordination are addressed and prioritized in the 2010 SJC Health and Human Services Coordinated Transportation Plan and implemented through inclusion in the Health and Human Service Department's budget.

As noted above, various County departments share responsibility for transportation planning, prioritizing projects, and managing and developing transportation services and facilities. The following goals and policies are intended to help guide the County as it develops strategies, programs and projects based on community needs, budget capacity and desire.

Goals:

1. To assure that public transportation facilities provided by the County are within the ability of the County to fund.
2. To develop funding, budgeting and operational strategies that can be implemented over the planning period that create sustainable transportation funds, balance expenses with available revenue and preserve appropriate cash reserves.
3. To consider the use of appropriate methods of transportation financing when necessary to meet community transportation needs.

4. To include funding from the Public Works road fund budget for nonmotorized projects in each of the six-year transportation improvement programs.
5. To encourage public-private cooperation and partnerships to reduce barriers to maintaining and improving transportation facilities and services.
6. To coordinate with the Town of Friday Harbor, Port Districts and the Washington State Department of Transportation to plan fair share financial contributions to transportation improvements needed to mitigate town, regional, County, or island-wide impacts.
7. To support State legislation that would provide funding for local transportation system improvement, preservation and maintenance, and long-term sustainable funding of WSF services and facilities.
8. To work with state and federal agencies to increase marine traffic from the Gulf Islands, Canada.
9. To work with state and federal legislatures to create additional ports of entry on Lopez and Orcas islands.
10. To obtain transportation planning grants for a dock utilization study and the development and adoption of updated engineering and design standards and/or other transportation planning needs.
11. To consider partnering with the Port Districts on future development projects.
12. To consider funding for marine based projects.

Policies (6.2.B.1-8):

The County should:

1. Prepare a six-year Transportation Facilities Plan in accordance with Chapter 36.81, RCW. The County Engineer should propose which roads, docks, boat ramps, barge landing sites, log dumps, mooring buoys, and road right-of-way trails should be improved based on priority rating systems established for these facilities (see Appendix 6).
2. Develop a rating system based upon the Public Works Department in consultation with the Planning, Parks, Land Bank, and Sheriff's departments and other interested parties to rank priorities for County transportation projects other than roads such as (docks, boat ramps, barge landing sites, log dumps, mooring buoys, and pedestrian, equestrian and bicycle trails).
3. Organize the six-year Plan in two three-year periods. Consideration of needed projects and their design should be managed as follows:
 - a. Projects should be identified early in the plan period for public discussion and County study of needs and desirability.
 - b. Public discussion and County study of project design should occur in the later *Plan* period. The County Council should submit the six-year *Plan* to the Planning Department and Planning

Commission for review and recommendation regarding its relationship to policies and regulations of adopted County plans at least 45 days before the Council is scheduled to adopt it. A copy of the recommendation should be provided to the Public Works Director for comment before Council action.

4. Allocate County road funds in the following order of program priority:
 - a. Debt service;
 - b. Maintenance and preservation of County transportation facilities; and
 - c. Engineering and construction of improvements.
5. Rank County transportation facilities and services that require improvements using a priority rating system which allots additional points for projects financed cooperatively. In addition, the County should
 - a. Allow County roads to be improved by others with approval from the County Engineer,
 - b. Cooperatively finance transportation facility and service improvements with land developers. The amount of financial assistance should be based on a proportionate amount of increase in traffic volumes attributable to the development project.
 - c. Consider forming transportation benefit districts and/or local improvement districts when cumulative land development projects cause transportation problems on County roads or to fund needed transportation improvements.
 - d. Coordinate efforts with the Town of Friday Harbor for cooperative funding of road improvements within the Town and its urban growth area.
 - e. Seek to minimize regulatory impediments to investment in commercial transportation facilities by conducting a code review process and making needed code amendments.
6. Require that the estimated cost of providing those public transportation facilities which are the responsibility of the County not exceed conservative estimates of revenues from sources that are available to the County pursuant to current statutes. Conservative estimates need not be the most pessimistic estimate, but cannot exceed the most likely estimate.
7. Have the costs of needed transportation improvements be borne by both existing and future development. For the purposes of this Comprehensive Plan, "existing development" means development which has occurred and "future development" means development which has not yet occurred. Financial responsibilities should be implemented as follows:
 - a. Existing Development
 - (1) Financial responsibility includes:
 - i. transportation improvements that reduce or eliminate existing deficiencies; and

- ii. some or all of the replacement of obsolete or worn out facilities, including a portion of the cost of transportation improvements needed by future development.
 - (2) Sources of funds should be utilized in the following order of priority: state transportation taxes, grants, and real property taxes. User fees, charges for services, and special assessments should only be utilized if all of the above-listed available sources have been exhausted.
- b. Future Development

(1) Financial responsibilities include:

- i. Providing a fair share of the costs of capital improvements needed to address the impact of future development; and
 - ii. Providing a portion of the cost of the replacement of obsolete or worn out facilities.
- (2) Financial responsibilities do not include payment of impact fees for the portion of any public facility that reduces or eliminates existing deficiencies.
- (3) Sources of funds may include, but are not limited to: voluntary contributions for the benefit of any public transportation facility; impact fees (upon adoption of impact fee regulations), capacity fees, dedications of land, provision of public transportation facilities, public or private partnerships and future payment of user fees, charges for services, special assessments and taxes.
- (4) Upon completion of construction, "future" development becomes "existing" development, and will contribute to paying the costs of the replacement of obsolete or worn out facilities as described in Policy 7.a, above.

c. Existing and Future Development

The costs of needed transportation improvements may be paid by grants, entitlements or public facilities from other levels of government and independent districts.

8. Revise the Comprehensive Plan to adjust for the lack of such revenues in the event that revenues identified as necessary for the provision of adequate transportation facilities and services are unavailable, in any of the following ways:
- a. Reduce the level of service for one or more public transportation facilities;
 - b. Increase the use of other sources of revenue;
 - c. Decrease the cost, and possibly the quality of some types of public transportation facilities, while retaining the quantity of the facilities that is inherent in the standard for the adopted level of service;
 - d. Decrease the demand for and subsequent use of the transportation facilities; or

- e. Use a combination of the above alternatives.

6.2.C General Level of Service (LOS) Goal and Policies

Goal:

To ensure that those public transportation facilities and services necessary to support development including, but not limited to roads and docks are adequate to serve the development at the time the development is available for occupancy and use without decreasing current service levels below locally established minimum standards.

Policies (6.2.C.1-5):

1. Assign LOS standards to provide a basis upon which to evaluate public transportation facilities adequacy which over-time are measurable, understandable, and appropriate to the services and/or facilities being considered.
2. Identify transportation LOS standards and response mechanisms which balance the need for the facility or service with the possible environmental, economic and aesthetic impacts of those facilities and services.
3. Establish a monitoring program for transportation LOS, in which the Public Works Department will annually evaluate demand and capacity of transportation concurrency facilities and other components of transportation management, and will work cooperatively with the Planning Department to review on a three-year basis the consistency of the six-year transportation facilities plan with this Comprehensive Plan and the Growth Management Act. This monitoring program should include cooperation with the Town of Friday Harbor to analyze the correlation between traffic volume increases on County roads and on town streets.
4. Require concurrency in accordance with the goals and policies of this Element. For the purposes of this Element, "concurrent with development" means that improvements or strategies are in place at the time of development, or that a financial commitment is in place to complete the improvements or strategies within six years.
5. Encourage County departments to work together and coordinate with other jurisdictions to develop a comprehensive level of service standard that includes nonmotorized and transit services.

6.2.D Communications and Information Technology Goals and Policies

Goal:

To encourage the use of telecommunications and intelligent systems technology to support diverse economic opportunities, manage transportation system demands, improve accessibility to services, meetings and work, promote energy conservation, reduce peak-period travel, congestion and reliance on single-occupancy vehicle travel, and the need to provide additional transportation facilities, such as roads, parking and ferry service.

Policies (6.2.D.1-7):

1. Promote the use of telecommunications meetings and telecommuting to work to alleviate the need for additional traditional transportation facilities.
2. Evaluate County operations to identify opportunities for enhanced use of telecommuting and teleconferencing.
3. Encourage the development of county-wide high speed broadband service with priority in the Urban Growth areas, Town of Friday Harbor and business centers.
4. Encourage and support the development of, or expansion of the County's data networking infrastructure to minimize reliance on vehicular travel.
5. Coordinate with local libraries, Skagit Valley College and other entities to share telecommunication resources.
6. Promote the use of social media, web based applications, intelligent transportation system development and state transportation websites to provide information on transportation system scheduling, real time data, trip reduction, ride sharing and nonmotorized travel options.
7. Utilize broadband technology and information systems to help create markets for locally produced agriculture, trade, manufactured and intellectual goods or services.

6.2.E Materials Transport Goals and Policies

Goal:

To limit activities which encourage the external and internal transportation of hazardous materials or dangerous good in a frequency or manner which could compromise the public health and safety or water quality, and to protect the economy, environment and citizens by minimizing and mitigating the risks of hazardous materials, dangerous goods and/or fossil fuel spills.

Policies (6.2.E.1-6):

1. Support strategies that address the risk of major fossil fuels and/or material spills that could occur with increases in transport vessel traffic.
2. Discourage the construction of fossil fuels trans-shipment facilities or other facilities and pipelines through San Juan County or its waters that would compromise San Juan County's economy, public health, safety, or water quality.
3. Ensure that transportation of hazardous materials or dangerous goods generated or used within the County will meet established state and federal guidelines and oppose the transportation of other hazardous materials or dangerous goods that could endanger San Juan County's economy, public health, safety or water quality.

4. Improve the level of emergency preparedness for fossil fuel and material spills and other disasters by working with state, federal and Canadian entities to develop and improve training and emergency response plans, promote the location of response equipment in San Juan County, and the use of Best Achievable Protection Methods and Best Achievable Technologies.
5. Encourage responsible parties to locate spill response resources in San Juan County and to be prepared to respond to material spills in waters surrounding San Juan County.
6. Advocate for the assignment of permit conditions on bulk shipping facility development project permits to guarantee the mitigation of all potential impacts from accidents that could adversely affect San Juan County's economy, public health and safety, water quality and fish and/or wildlife habitat.

6.3 AIR TRANSPORTATION GOALS AND POLICIES

An inventory of aviation facilities and services and presentation of long-range planning needs is provided in Section A of Appendix 6 of this Comprehensive Plan. The following goals and policies apply to land and sea based transportation facilities and services.

6.3.A Goals:

1. To recognize the importance of public air transportation facilities to island commerce as well as to mobility of island residents.
2. To promote optimum compatibility between air transportation facilities and services and other land uses in a manner that minimizes the impacts of airstrip, airfield, and airport use while maintaining adequate, safe, efficient, and convenient service.
3. To explore the establishment of new ports of entry in the Eastsound and Lopez Village Urban Growth Areas.

Policies (6.3.A.1-5):

1. Coordinate with the WSDOT Aviation Division, FAA and port districts to provide and maintain air transportation facilities and services which:
 - a. Serve the needs of island residents and visitors;
 - b. Are planned consistent with the County's adopted land use goals and policies and that are developed through cooperation, consultation and participation with port districts, and airport operators, owners, users and the public; and
 - c. Are consistent with state, regional and international air transportation plans.
2. Foster recognition by pilots and other airport users of their roles in minimizing air traffic safety hazards, noise, and other immediate impacts of airport activities on surrounding land uses. Cooperate with the port districts and solicit participation from airport operators, owners, and users, and the public, in anticipating and responding to land use, safety and noise concerns.

3. Moderate impacts of facilities for aircraft uses and facility expansion by:
 - a. Applying adopted policies and regulations and the permit systems established in land use plans to private airstrips and airfields as well as to public airports;
 - b. Coordinating with the FAA, WSDOT Aviation Division, port districts and airport operators to consider airport overlay districts and airport master plans and layout plans for public airports;
 - c. Encouraging consideration of the effects of noise, light, vibration, fumes and the perception of low flying aircraft; and
 - d. Ensuring that location-specific standards for airports will identify and prohibit the siting of incompatible uses adjacent to them.
4. Consider seaplane use during review of County shoreline permits for docks, marinas and port developments. The following should be considered for seaplane landing sites:
 - a. Give preference to location of landing sites for regular commercial seaplane service within public or private marinas or established port areas.
 - b. Consider flight patterns with regard to noise and navigation impacts in granting shoreline permits for docks for seaplane use associated with residential or commercial use.
5. Work to ensure that all existing public use airports including land and sea bases are identified as essential public facilities.

6.4 MARINE TRANSPORTATION GOALS AND POLICIES

Marine transportation includes the Washington State Ferry System (WSF) services and facilities, County docks, barge landings sites, ramps, public mooring buoys, log dumps common landing areas, international transportation routes, facilities to support hand and wind powered vessels and associated parking areas, and private marine transportation services. The following goals and policies apply to marine transportation facilities and services which are inventoried and analyzed in Section 1.B of Appendix 6 of this Comprehensive Plan. These goals and policies express the desires of County residents for actions by the County, WSF and private service providers for the creation, operation maintenance and evaluation of marine transportation systems. Policies stated here provide direction for County coordination with WSF on operations, review of updates to the WSF Division Long-Range Plan, legislative priorities, and for action on applicable development proposals. They also provide direction for the development of, and investment in County operated marine transportation facilities including County docks, barge landings sites, ramps, public mooring buoys, log dump facilities and associated parking areas.

Goals:

1. To recognize that marine transportation systems are essential facilities that provide critical functions in maintaining the quality, safety and character of life in San Juan County and that play a vital role in driving economic development and tourism in island communities and providing a major draw for State tourism.

2. To recognize the environmental, economic, and social conditions of the islands as primary factors in the management of transportation facilities and services.
3. To establish LOS standards and encourage the use of demand management strategies to contain capital expenditures.
4. To promote state transportation plans that would provide long-term sustainable funding of state ferry routes that link the County to the mainland and Canada.
5. To enhance the County's working relationship with the WSF and other transportation providers.
6. To inform the WSF and other state entities of the travelling needs of County residents and propose priority solutions.
7. To encourage the development of public and private sector marine transportation services and facilities that improve multi-modal transportation options and connectivity.
8. To increase marine traffic to Eastsound Urban Growth Area and the Lopez Village.
9. To provide public dock facilities on Shaw Island and other outer islands, if necessary.

6.4.A General Policies (6.4.A.1-10):

1. Encourage appropriate funding, design and development of facilities and services which:
 - a. Serve the needs of island residents and visitors;
 - b. Ensure the preservation of rural island character, environmental quality, economic development, and island identities;
 - c. Provide better access to and among the islands served by County roads, docks, barge landing sites and ramps;
 - d. Provide parking and dock facilities on ferry-served islands to meet the needs of outer island residents; and
 - e. Encourage the development of privately owned and operated passenger-only ferries that would provide transportation between the County islands and mainland and Canadian destinations.
2. Establish and maintain a minimum of one barge landing site and facility when essential to the public wellbeing on each island, particularly non-ferry served islands, to address the special freight mobility needs of agriculture, forestry and other essential island businesses.
3. Support the development of one log dump on each island if needed to address the freight mobility needs of the forestry industry.

4. Consider the need for alternative modes of transportation such as private marine passenger-only service and barges and encourage the development of direct connections to mainland intermodal transportation hubs.
5. Promote planning for and the development of intermodal connections between marine transportation services and facilities and land based transportation systems to improve mobility and accessibility.
6. Update, gather and interpret data on the use characteristics of marine transportation facilities and services to measure changes in level of service, and design and implement demand management strategies as needed.
7. Support improvements to marine transportation facilities and services that address the non-peak period needs of residents, businesses and visitors to improve the economic and social quality of island life.
8. Encourage delivery of an optimum state of ferry service for County residents and the business community at maximum efficiency and lowest cost.
9. Prohibit use of personal watercraft such as jet skis in the waters around and in San Juan County.
10. Consider direct marine access or expanded transportation service facilities in Eastsound, Lopez Village, Shaw, Waldron and other additional islands.

6.4.B Policies Related to the Washington State Ferry System. (6.4.B.1-18):

San Juan County is highly dependent upon transportation services and facilities provided by the Washington State Department of Transportation Ferries Division (WSF). The Washington State ferry system is the State highway for the San Juan Islands. Ferry service is the primary mode of transportation to the mainland and the mainstay of social and economic life. Coordination with the WSF and other state entities is integral to maintaining an efficient system of moving people, goods and freight. Moreover, the ferry system is essential in meeting special transportation needs of residents, businesses, social services, schools and other public institutions. It also plays a critical role in maintaining and enhancing state and local tourism sectors.

The County Council established the San Juan County Ferries Advisory Committee (FAC) under the requirements of RCW 47.60.310 and SJCC 2.44 to work with the WSF to address community needs related to ferry schedules, customer problems and regional issues. The FAC obtains community input on ferry service issues, advises the WSF on those issues, and provides the County Council with information on the condition of facilities, and service and operational matters affecting the San Juan Islands service area. These issues pertain to safety, tariffs, service, scheduling, economic vitality, vessel allocation, terminal facility adequacy and vessel maintenance.

With the help of the FAC, the County identifies solutions to on-going funding and service challenges and promotes improvements in the ferry system through interactions with the WSF, the Washington State Transportation Commission and the State legislature.

Policies (6.4.B.1-18):

1. Consider the following primary factors while planning and developing marine transportation systems:
 - a. Existing marine terminal facilities and connecting roads are components of the marine transportation system and have significant physical constraints which must be considered in planning for changes to marine facilities and services.
 - b. Transportation facilities and activities can have significant direct and indirect impacts on land use and circulation patterns and the economic vitality of the community.
 - c. Cost-effective and time-efficient ferry transportation is essential to island commerce.
 - d. The County and the State of Washington have separate but complementary responsibilities for inter-island marine transportation.
 - e. Washington State ferry routes are the primary economic routes for San Juan County.
2. Work with the state and federal government to encourage:
 - a. The long-term, sustainable funding of WSF service levels and capital funding for on-going ferry construction needed to replace the aging fleet;
 - b. The construction of a second ferry terminal slip with vehicle access in the Town of Friday Harbor to improve efficiency, scheduling flexibility and serve as a back-up slip;
 - c. The dedication of funding needed to construct a commuter parking lot near the Friday Harbor and Orcas and Lopez Island ferry terminals including priority funding to expedite development of a lot on Department of Transportation property located in Orcas Village; and
 - d. The dedication of funding needed to improve off-loading of passengers and vehicles especially at the terminal located in the Town of Friday Harbor.
3. Support the work of the FAC in collecting and interpreting data, gathering community input and providing recommendations to the County Council on ferry service improvement issues requiring coordination with the WSF and the Washington Transportation Commission.
4. Support a local public review process conducted by WSF that seeks comments regarding potential modifications to its administration of the adopted preferential loading policies identified in WAC 468–300–700. This review process should include, but not necessarily be limited to, the Ferry Advisory Committee. The County should support operations and procedures for processing requests for preferential loading which reflect local needs.
5. Submit requests to modify WAC 468–300–700 pertaining to preferential ferry loading to the FAC who will coordinate with WSF. The FAC should review and make recommendations on each request to the

San Juan County Council. The Council should make any formal recommendation to amend WAC 468–300–700 to the Washington State Transportation Commission.

6. Coordinate with WSF, other regional transportation systems entities, and community transportation partners and providers to promote non-vehicular traffic on ferries to spread demand and moderate increased demands on terminal facilities and County roads. To accomplish this, the County should encourage WSF to:
 - a. Work with the County and Town to provide traffic control support near The Town of Friday Harbor ferry terminal and near and around the Orcas parking lot and County road ferry queue;
 - b. Consider the impacts of proposed service and facility improvements on traffic circulation at island terminals and on County roads and Town streets;
 - c. Solicit resources to improve schedules and transit connections at ferry terminals and coordinating with Skagit Transit and other transit providers; and
 - d. Promote development of improved pedestrian and bike access at terminals to encourage walk-ons.
7. Coordinate with WSF to adjust operational practices such as improving the use of information technology to mitigate adverse impacts on safe traffic circulation and safety on island roads. The County should encourage WSF to:
 - a. Promote operational and/or scheduling changes in preference to expanding terminal facilities;
 - b. Provide ferry boats in a vessel class that meet the needs of the County;
 - c. Separate the unloading of bicyclists and pedestrians from motor vehicles at island terminals;
 - d. Provide information regarding ferry and land transportation schedules at ferry terminals, on fixed displays regarding scheduled services and costs and on adjustable displays providing current information on ferry operations, (*e.g.*, overload status) and multimodal and transit options;
 - e. Enhance user information by developing updated and new social media and mobile information regarding ferry schedules, reservations, overloads, wait-times parking capacity; and
 - f. Work with the state legislature and WSF to add one additional ferry to the San Juan summer schedule to service seasonal demand.
8. Encourage the WSF to coordinate with the County and other parties when passenger ferry terminals or transfer floats are proposed by other parties, and on the preservation, expansion or improvement of all terminal facilities consistent with County and Town of Friday Harbor land-use plans including consideration of circulation patterns, potential public transit system connections and public shoreline access.

9. Identify community needs and desires, and encourage refinements in the ferry level of service, its methodology and standards and response mechanisms to ferry capacity and service issues.
10. Adopt WSF's level of service standard, Level 2 for ferry service which is based upon the daily percent of sailings at full vehicle capacity and is fully described in Section B of Appendix 6 of this Comprehensive Plan. Level 2 LOS indicates whether or not ferry assets are being used efficiently and when the LOS is exceeded, additional investment would be considered.
11. Adopt WSF LOS Level 2 for ferry service for consistency with the WSF 2030 Long-Range Plan although the WSDOT does not identify the Anacortes to San Juan Islands ferry route as a highway of statewide significance and concurrency requirements are not mandated.
12. Work with the WSF and other transportation providers to implement demand management strategies outlined in the WSF 2030 Long-Range Plan and other local plans addressing non-motorized transportation and take the following steps:
 - a. Re-evaluate the ferry LOS standard to determine if changes in available data, suggest that revisions of the LOS standards are appropriate. If changes are appropriate, amend this Element to revise the level of service standards.
 - b. Work with WSF, the Town of Friday Harbor and other entities to consider and implement adaptive demand management strategies designed to address increases in peak demand and improve the operation and efficiency of the ferry system. These strategies may include, but are not limited to those outlined in the WSF 2030 Long-Range Plan and identified by the County, including taking steps to:
 - (1) Shift the demand from vehicle traffic to non-vehicular traffic, implement a vehicle reservation system, ride-sharing programs, improve passenger and pedestrian handling capabilities at terminals, enhance public transit scheduling and real time connection information, expand park and ride capabilities, decentralize parking or other parking improvements, improve pedestrian and bike connections, provide new loading/facilities and new/expanded services.
 - (2) Promote alternative modes of transportation such as private ferry systems, barges, air transportation, passenger-only service especially the location of a passenger ferry terminal at Bellingham which offer substantial benefits to island residents and, by encouraging passenger traffic, could reduce need for expanded vehicle terminal facilities in the islands, *etc.*
 - (3) Work with WSF to establish a reservation system that will enable users to obtain assured ferry space and that best meets the needs of residents, commercial enterprises, and other users, and supports economic development.
 - (4) Optimize fare collection techniques and explore fare pricing options for different customer types, including fares that address the needs of local residents, frequent users, visitors, and off-peak, off-capacity and promotional fares.
 - (5) Explore targeted, route-specific strategies to reduce traffic flow and smooth queuing congestion at terminals such as new traffic and dock space management techniques, parking,

holding, and scheduling methods, use of enhanced electronic and mobile user information applications and fare collection strategies that provide better customer service.

- (6) Support data gathering and interpretation that provides real information on which to base ferry operation and scheduling decisions.
- (7) Promote and market the use of non-single occupancy vehicles combined with transit enhancements.
- (8) Market tourism events and programs during times of greater ferry capacity and supporting promotional fares to spread demand to non-capacity sailings.

13. Take the following steps if ferry service falls below LOS 2:

- a. Re-evaluate the LOS standard to determine if changes in available data indicate that ferry assets are being used most effectively and recommend that WSF move towards further system investments.
- b. Evaluate the goals and policies contained in the Land Use Element and Shoreline Master Program that affect the rate and amount of residential, commercial, recreational, and industrial growth allowed.

14. Evaluate development for impacts to ferry service and terminal parking through the SEPA process except for single-family residential proposals and other development proposals that do not require SEPA.

15. Work with WSF to evaluate the effects that demand management strategies from the WSF 2030 on ferry terminal parking issues and work together to consider the costs, benefits, environmental and land impacts associated with the creation of additional parking capacity located either on-site at the ferry terminal or at remote locations if demand management strategies are not effective in reducing parking congestion issues.

16. Work with WSF to develop a meaningful LOS standard for ferry terminal parking that could be used to more effectively gauge the adequacy of ferry terminal parking.

17. Support public and private transit and other multi-modal transportation system opportunities that promote non-vehicular ferry trips and reduce the need for terminal parking.

18. Encourage WSF and the State to secure funding to construct adequate commuter or short-term (1-3 days) parking areas at all ferry-served terminals as needed after demand management strategies have been implemented.

6.4.C Policies for County Docks, Barge Landing Sites, Ramps and Associated Parking Areas (6.4.C.1- 10):

Public marine facilities serve as extensions of the County road system, provide access for kayaks and other boats, create access to popular water trails and recreation areas, are essential components of a thriving economy and are a significant element of the transportation system in an island community. Appendix 6, Section I.B.4.c of this Comprehensive Plan provides an analysis of LOS for County docks. Tables 7 and 8 in Appendix 6 provide detailed dock inventories and LOS information for three types of docks and dock service areas in the County.

Type 1 docks are located on ferry-served islands and provide primary access for non-ferry served islands. Type 2 docks are located on non-ferry served islands that have County roads. Type 3 docks serve recreational uses or provide access between ferry-served islands. Appendix A indicates that the current LOS for Types 1, 2 and 3 docks are C, D and F based upon lineal feet per seasonally adjusted dwelling unit in a service area. This measurement has not been found to be significantly useful and warrants an investigation of alternative methods of determining LOS standards for docks.

The availability of sufficient barge landing sites and storage areas and their safe use, and development will be needed through the planning period to accommodate business development and road building especially if materials for road building must come from off-island providers. Barge landing sites are also critical for emergency situations.

Policies (6.4.C.1-9):

1. County and state responsibilities for inter-island services and docks, barge landing sites, ramps and their associated parking area facilities differ but should be coordinated. The County should:
 - a. Work with the port districts, island communities, and WSF when applicable to coordinate the planning, development, and maintenance of docks, barge landing sites, ramps and associated parking areas.
 - b. Provide public docks, barge landing sites, ramps and parking areas as essential public facilities and components of the County road system that are available for public use to facilitate inter-island transport of goods and people and coordinate these facilities with potential passenger-only ferry service operations. Support development of one barge landing site per island when consistent with the Shoreline Master Program.
 - c. Place emphasis on first providing adequate load/unload space, and secondly on short-term tie up space. Overnight moorage for recreational use should not be allowed until a feasibility study is conducted that includes an analysis of individual dock usage characteristics, costs and benefits, strategies to minimize user conflicts, implementation and enforcement measures, and a pilot program has been implemented and assessed.
 - d. Include freight lifting equipment where necessary or appropriate to facilitate.
 - e. Encourage WSF to install load/unload floats or reasonable alternatives to them at all ferry terminals, including the Anacortes terminal, to enhance inter-island travel and promote efficient and convenient use of passenger-only ferry service.

- f. Work with developers of small boat docks (load/unload floats) at ferry terminals designed to improve access to the terminals from islands not served by ferries.
 - g. Work with the local utilities to improve service to all marine locations where possible.
2. Locate County docks and ramps only on islands served by County roads. Barge landing sites should be located as needed. Preference should be given to locations where public shoreline access is available and where there is adequate parking space to serve the type of use anticipated. Potential connection to public vehicular transport should also be considered in establishing dock, ramp and barge landing site locations. Prioritize the use of existing County owned or private barge landings. Limit barge landings in critical areas unless no other option is viable.
 3. Prioritize County dock projects as follows:
 - a. Modifications and maintenance necessary for the safe usage of existing Type 2 County Docks. Type 2 County Docks are those County docks located on non-ferry served islands;
 - b. Modifications and maintenance necessary for the safe usage of existing Type 1 County Docks. Type 1 County Docks are those County docks, located on ferry-served islands, which provide primary access to ferry-served islands from non-ferry served islands;
 - c. Modifications and maintenance necessary for the safe usage of existing Type 3 County Docks. Type 3 County Docks are those County docks located on ferry-served islands which are primarily used for recreational purposes or are used for access between ferry-served islands;
 - d. New Type 1 County docks within service areas which have no existing County dock pursuant to the LOS policies for County docks;
 - e. Capacity improvements to existing Type 1 County docks pursuant to the LOS policies for County docks;
 - f. New Type 2 County docks within service areas which have no existing County dock pursuant to the LOS policies for County docks;
 - g. Capacity improvements to existing Type 2 County docks pursuant to the LOS policies for County docks; and
 - h. New or improved Type 3 County docks.
 4. Establish LOS C as adequate for existing and new Type 1 County docks and LOS D as adequate for existing and new Type 2 County docks. Dock level of service is addressed in section B.4 of Appendix 6 of this Comprehensive Plan.
 5. For islands and locations where no County dock currently exists, establish LOS F as adequate. Annually evaluate demand and capacity of County docks, and review the LOS standards and capital needs every three years as part of the development of the six-year transportation facilities plan.

6. When the level of service for existing and new County docks falls below the LOS standards in Policy 4, above, initiate the following response mechanisms:
 - a. Re-evaluate the LOS standard to determine if changes in available data, and/or community needs or desires, make modification of the LOS standards appropriate; and/or re-evaluate the defined service areas to determine if they still accurately reflect the majority of the users. If changes are appropriate, amend this Element to revise the LOS standards. Identification of how new data, changes in community needs or desires, or changes in the designated service areas make changes appropriate should accompany any proposal to amend this Element.
 - b. Evaluate alternative means of increasing capacity or decreasing demand. Include in the evaluation the costs, benefits, and environmental impacts of expanding the existing dock(s), leasing facilities, requiring new development to provide access at private joint moorage facilities, or adding additional public docks to serve the service area(s).
 - c. Implement an appropriate mix of capacity improvements and/or demand management strategies to bring the service back to a level identified as adequate by this Element.
7. Adopt and enforce concurrency standards which would prohibit development approval if it can be shown that the development would cause the level of service for Type 1 and Type 2 County docks to decline below the standards adopted in Policy 4, above, unless transportation improvements or strategies to accommodate the impacts of development are made concurrent with the development. Transportation improvements or strategies may include, but are not limited to those identified in Policy 6 above.
8. Provide parking at Type 1 County docks where appropriate and necessary. In general, the number of spaces to be provided should be based on the number of dwelling units in the service area or the more detailed parking utilization study proposed in item 10 below.
9. Complete a dock utilization study which considers the availability of private and public dock space and other dock use characteristics including typical dwell time, useable dock space, peak period use, dock parking amenities, the percentage of non-resident users and other pertinent factors. Use the study results to revise the dock LOS methodology and standards and to and to consider the adoption of a dock parking LOS.

6.5 LAND TRANSPORTATION GOALS AND POLICIES

Land transportation facilities and services are inventoried and analyzed in Appendix 6, Section I.C of this Comprehensive Plan. This Element addresses public and private roads, bridges, parking, mopeds, and transit service. Levels of service standards for County roads are established in Section I.C.1.b in Appendix 6 of this Comprehensive Plan.

Goals:

1. To maintain a road planning and improvement system that corresponds to land development goals and policies expressed in the Land Use Element of this Comprehensive *Plan*, its subarea plans.

2. To maintain a public road system that is as safe and efficient as possible while recognizing the importance of conserving environmental and scenic qualities of island roads.
3. To facilitate diverse modes of transportation and provide intermodal connectivity and improved accessibility.
4. To follow the goals and policies adopted in the San Juan County Parks, Trails and Natural Areas Plan and Nonmotorized Plan for nonmotorized and recreational transportation
5. To increase education and outreach to improve bicycle and pedestrian safety and healthy lifestyles.
6. To encourage transit providers to provide and expand transportation services that support the needs of local residents and visitors.

6.5.A Policies for Road Classification, Right-of-Way, Design and Construction (6.5.A.1-15):

Road Classification

1. Classify all County roads as major collectors, minor collectors or local access roads as shown on the road classification maps adopted as part of this Comprehensive Plan in Appendix 6.
2. Establish a prioritized on-going traffic count program for County roads. Local access road counts should be monitored to ensure that traffic volumes do not exceed road design capacities.

Right-of-Way

3. Make County road rights-of-way widths adequate to accommodate anticipated improvements, including utilities, franchise use options, telecommunications infrastructure, and nonmotorized transportation facilities, and to maintain the roadway. A minimum twenty-year planning period should be used for the purposes of anticipating needed improvements. The County should:
 - a. Obtain dedications of road rights-of-way when discretionary use permits or land division approvals are sought by property owners; and
 - b. Ensure coordination between Planning, Public Works, Parks, Land Bank, trail organizations such as the San Juan Island Trails Committee, Orcas Pathways, Lopez Community Trails Network, and other local, state and federal partners during the planning, development, and maintenance of nonmotorized transportation projects.
4. Refrain from vacating public road rights-of-way needed to provide an adequate road system, access to private property, public access to, or a view of water bodies and links to trails systems.
5. Approve parking on County road right-of-way if it will provide a public benefit however; in rural areas, shoulders of County roads should not be widened or improved to provide parking for residential or commercial uses.

6. Consider the inventory of County road ends which abut shorelines that is included in the 2010 San Juan County Parks, Trails and Natural Areas Plan and Nonmotorized Plan and evaluate their potential for recreational or other uses.

Road Design and Construction

7. Develop and adopt County road standards that meet minimum WSDOT and other applicable agency requirements. The standards should protect rural character, provide for safety, the types and intensities of land uses to be served, volumes of traffic and transportation modes to be accommodated, and planning principles contained in the 1995 Scenic Road Manual. These principles include the design and planning guidelines addressing the protection of rural character and aesthetics.
8. Support road designs that follow the goals and guidelines in the 1995 Scenic Road Manual until they are superseded by Council adopted road standards described in item 7 above. While safety of County roads is a primary concern, the design, construction, and maintenance of roads and right-of way trails should minimize adverse impacts on the scenic character of roadways that is provided by roadside trees, brush and terrain, the routes themselves and vistas from them.
9. Prevent the construction of public or private roads through areas designated Natural or Conservancy in the San Juan County Shoreline Master Program where a feasible alternative exists.
10. Make use of the procedure provided in Chapter 36.86, RCW, to deviate from state standards for collector roads when necessary to maintain their scenic qualities.
11. Include a thorough public participation program and interdisciplinary teams advisory to the County Engineer as early as practicable in the planning and design phases of major projects. Adjacent property owners and other affected persons should be represented on interdisciplinary teams.
12. Strive to preserve the significant scenic, rural quality of island roads including the San Juan Island Scenic Byway.
13. Establish alternative design standards for roads on non-ferry served islands that meet the specific transportation needs of these islands.
14. Consider the creation of a local improvement district to finance improvements consistent with the applicable activity center or subarea plan when owners of property in activity centers desire road improvements that exceed County requirements, such as sidewalks and curbs.
15. Consider using low impact development techniques when physically and economically feasible.

6.5.B Policies for Driveway Approaches to County Roads, Setbacks, and Maintenance (6.5.B.1-3):

1. Hold the number of driveway approaches to County roads to a minimum to improve traffic safety and minimize maintenance expenses.
2. Ensure that all structures are setback from road rights-of-way in order to maintain the rural and scenic character of County roads and provide for underground utilities.

3. Conduct maintenance of County transportation facilities by:
 - a. Keeping its transportation facilities in a usable and safe condition.
 - b. Assigning first priority to maintaining major and minor collector roads.
 - c. Reduce the number of noxious weeds occurring over the long-term by minimizing to the extent that safety allows clearing of vegetation, particularly trees, in road rights-of-ways. Scheduling clearing should be coordinated with the tourism season in mind. Develop and implement programs as legally required under Chapter RCW 17.10 and Chapter WAC 16.750 to remove noxious weeds, control the spread of their seeds prior to mowing and reduce the spread of noxious seeds after mowing by sweeping and removing refuse from the roadway.
 - d. Do not use herbicides, pesticides, toxic substances or other chemicals for weed control or other purposes in road rights-of-way.

6.5.C Policies for Land Transportation Level of Service (6.5.C.1-7):

1. Establish LOS standards and response mechanisms for land transportation facilities and services which balance the needs of the community for land transportation with the impacts of those facilities and services.
2. Establish LOS standards for collector roads and UGA and Activity Center Intersections based upon Average Annual Daily Traffic (AADT) volumes. For San Juan County, the maximum AADT levels are provided in Appendix 6, Transportation of this Comprehensive Plan.
3. Establish LOS D as adequate for County collector roads. LOS D can be described as that condition during the peak hour when average vehicle operating speeds drop to 35 miles per hour, platoon sizes are typically 5-10 vehicles, and 75 percent of the motorists are delayed by congestion or slower vehicles. For Urban Growth Areas and Activity Centers, conduct intersection studies to determine the current LOS and evaluate future needs.
4. Initiate the following response mechanism when a County collector road falls below LOS D, based on the AADT:
 - a. Perform a traffic study to evaluate a collector road outside of an activity center by calculating the LOS using the methods described in the most current edition of the Highway Capacity Manual, and data for the specific section of a collector road outside of an activity center;
 - b. Re-evaluate the LOS standard to determine if changes in available data, and/or community needs or desires, make modification of the LOS standards appropriate. If changes are appropriate, amend this Element to revise the LOS standards. Identification of how new data or changes in community needs or desires make changes appropriate should accompany any proposal to amend this Element;
 - c. Initiate an evaluation of alternatives for increasing capacity and/or decreasing demand. The alternatives considered should:

- (1) include demand management strategies and other non-structural improvements,
 - (2) be cost effective,
 - (3) not significantly increase adverse impacts of the transportation facility on surrounding land uses or the natural environment,
 - (4) be consistent with the goals and policies of this Element and the other elements of the Comprehensive Plan, and
 - (5) include the evaluation of the goals and policies contained in the Land Use Element and Shoreline Master Program that affect the rate and amount of residential, commercial, recreational, and industrial growth allowed;
- d. Begin implementation of an appropriate mix of capacity improvements and/or demand management strategies to bring the facility(s) back to a level identified as adequate by this Element within one year.
5. Adopt and enforce concurrency standards which would prohibit development approval if the development causes the level of service for the collector roads to decline below the standard adopted in Policy 3, *above*, unless transportation improvements or strategies to accommodate the impacts of development are made concurrent with the development. Transportation improvements or strategies may include, but are not limited to those identified in Policy 4, *above*.
6. Develop specific LOS standards for collector roads when needed inside of urban growth areas or activity centers as part of the planning for individual activity centers.
7. Do not require concurrency for any other land transportation facilities.

6.5.D Policies for Private Roads (6.5.D.1-2):

- 1. Private roads should not be incorporated into the County road system unless public benefits are substantial and design standards met.
- 2. Establish standards for private roads in accordance with the following:
 - a. Establish private road standards to provide adequate vehicular safety, low maintenance, and meet anticipated vehicular demand.
 - b. Require private roads to minimize environmental impacts and maintain the scenic character of island roads.
 - c. Subject roads developed as part of land development or new subdivisions to maintenance agreements when necessary.
 - d. Consider adoption of lesser road standards for islands not served by ferries.

- e. Require improvements to off-site private roads in approving a land development if these roads serve the development and do not meet applicable design standards.

6.5.E Policies for Parking (6.5.E.1-7):

1. Encourage the development of community parking facilities in all areas designated as activity centers in County land use plans. Shared parking among separate facilities should be provided if other applicable parking requirements allow.
2. Provide off-street parking areas open to the public where they would serve transportation facilities or meet community needs.
3. Encourage the business community in commercial core areas to provide parking areas in locations where they would relieve traffic congestion and accommodate taxi, van and bus services without disrupting traffic circulation. Design and location should be carefully considered in accordance with applicable area plans.
4. Provide parking areas on the nearest ferry-served island to accommodate residents of non-ferry served islands, after considering possible funding mechanisms, costs and benefits, and possible parking lot locations.
5. Consider the use of local improvement districts or other administrative and financing structures when desired to build, operate and maintain community parking areas.
6. All major transportation facilities should include adequate off-street parking areas.
7. All parking areas associated with new public or private development should:
 - a. Include safe ingress and egress;
 - b. Be screened or well setback from roads;
 - c. Reflect adequate design for ease of use;
 - d. Provide for the physically impaired; and
 - e. Provide for alternative forms of transportation.

6.5.F Policies for Mopeds. (6.5.F.1):

Mopeds are small motorcycles that have less stringent licensing requirements than motorcycles and do not include motorized bicycles. They are important modes of transportation used by residents and visitors to the islands. The use of mopeds, requires planning for the development of transportation facilities and operations that promote safe travelling experiences for all users and benefit the local economy.

1. Promote enforcement of road rules and speed limits, and educate the public how to share the road safely.

2. Evaluate the potential to improve safety by reducing the speed limits on high use or other County road segments with unique characteristics considering the legality, usage, season, events and practicality.
3. Require that moped vendors provide and enforce the use of protective headgear when required by State law and give written and oral instruction regarding safe operation of mopeds as part of a land use project permit approval.
4. Encourage WSF to unload mopeds in a safe and efficient manner.

6.5.G Transit Goals and Policies:

Although San Juan County does not operate a centralized public transit service, many social service, non-profit and private transit providers are working to meet community transportation needs and fill accessibility gaps identified in the 2010 San Juan County Coordinated Human Services Plan.

Goals

1. To encourage and support development of public and private transit and shuttle services.
2. To improve access to health and human services, employment, social, educational, recreational and tourism destinations.
3. To improve mobility and the quality of life for residents and workers.
4. To increase transportation options for tourists and guests.
5. To encourage alternatives to the use of single-occupant vehicles.
6. To consider transit operations in roadway designs.

Policies for Transit (6.5.G. 1-9):

1. Support the development of social service public transit options and the work of nonprofit and private community transportation partners to:
 - a. Reduce the isolation of target populations;
 - b. Increase accessibility to transportation services; and
 - c. Create additional organizational capacity to sustain implementation of community identified transportation needs.
2. Support the work of community transportation partners such as San Juan Community Services, Senior Services, Family Resource Centers, San Juan Friends and Neighbors Program, SJ Rideshare, social service organizations and private transportation providers to evaluate public transit needs, further identify opportunities for service coordination and implement actions described in the 2010 San Juan County Coordinated Human Services Transportation Plan.

3. Encourage the development of transportation services that meet the needs of the community, especially individuals with lower incomes, seniors, persons with disabilities, and veterans.
4. Support coordinated human services transportation planning that creates improved access to transportation information, develops economies of scale, eliminates inefficiencies and provides greater visibility of transportation options.
5. Explore and support the collaborative efforts of community organizations, state and federal partners, and transportation providers to provide cost effective service delivery, increase capacity to serve unmet needs, improve mobility and the quality of transportation services.
6. Support community transportation planning efforts focused on gaining a better understanding of the transportation needs of the San Juan Islands, creating new methods of island travel, raising awareness of transportation issues, and exploring private and public funding for new public transportation solutions.
7. Leverage community resources to obtain appropriate state and federal funding for transit projects that address both year-round and seasonal transit challenges.
8. Coordinate with the WSDOT Public Transportation Division to implement high priority projects identified by the community using the ranking criteria for selecting projects established in the San Juan County 2010 Health and Human Services Transportation Plan.
9. Support private and nonprofit efforts to address seasonal tourism travel peaks through the development of transit alternatives.

6.6 INTERGOVERNMENTAL AND REGIONAL COORDINATION GOALS AND POLICIES

San Juan County and the Town of Friday Harbor adopted County-wide Planning Policies (CPPs) in Appendix 2 of this Comprehensive Plan. These CPPs include policies for Transportation Facilities and Strategies that foster alignment of transportation planning priorities and strategies affecting the Town and County. Alignment with the Town of Friday Harbor Comprehensive Plan Transportation Element and subarea plans of this Comprehensive Plan is important for intergovernmental coordination of transportation services and facilities. Consistency with the transportation goals and policies established in the Whatcom and Skagit County Comprehensive Plans related to regional transportation service impacts are also considered in this Transportation Element. Lastly, this section provides guidance for alignment with state transportation plans which is an important component of local and regional transportation planning.

Generally, in Washington, regional transportation plans are developed in conjunction with local plans and County-wide transportation policies. San Juan County does not meet the population requirements for creating its own Regional Transportation Planning Organization (RTPO), but is eligible to join the Skagit-Island RTPO or another RTPO from a neighboring region. The County has chosen not to join a local RTPO but does informally coordinate with the Skagit and other RTPOs and the North Sound Connecting Communities Group (i.e., the Farmhouse Gang).

The following goals and policies address the alignment of transportation plans, and provide guidance on intergovernmental coordination of local, regional and state planning priorities.

Goals:

1. To plan, prioritize, and finance transportation improvements in coordination with portions of local, regional and state transportation plans.
2. To coordinate with multiple agencies and jurisdictions to facilitate the efficient transportation of people, goods and services to strengthen the local and regional economy.
3. To identify common regional transportation issues and work cooperatively with other agencies, jurisdictions and regional organizations to develop solutions to transportation system challenges.
4. To collaborate with adjacent jurisdictions and regional interests to lobby for legislation and funding that solves regional transportation issues and the provision of beneficial state transportation facilities and services.

Policies (6.6.A.1-17):

1. Coordinate with the Town of Friday Harbor to ensure consistency with the County-wide Planning Policies for Transportation Facilities and Strategies adopted in Appendix 2 of this Comprehensive Plan and to facilitate integration of the transportation system.
2. Coordinate with the Town of Friday Harbor, Port of Friday Harbor and the WSDOT to plan fair share financial contributions to transportation improvements needed to mitigate regional or island-wide transportation impacts consistent with The Town of Friday Harbor Transportation Element Goal TE-16.
3. Coordinate with the Town of Friday Harbor on cooperative funding of road improvements within the Town of Friday Harbor and the Friday Harbor Urban Growth Area Consistent with the Friday Harbor Transportation Element Goal TE 23.
4. Cooperate with WSDOT, The Town of Friday Harbor and the Port of Friday Harbor during the development of aviation facilities and consistent with Town of Friday Harbor Comprehensive Plan General Air Transportation Policy TE-33, plan for facilities that:
 - a. Are scaled to serve the needs of Town and Island residents;
 - b. Are planned in a coordinated and comprehensive manner;
 - c. Are planned to protect the character of the Town and its neighborhoods; and
 - d. Are consistent with the policies in the Town and County Land Use Elements.
5. Coordinate with the WSF and Town of Friday Harbor to support marine transportation ferry system policies that provide optimum ferry system services and facilities.
6. Encourage the development of transit service to reduce vehicular traffic in downtown Friday Harbor and on County roads to support conservation goals consistent with Town of Friday Harbor Comprehensive Plan Policy TE-85.

7. Identify and encourage the development of transportation projects that have local and regional benefits and cost sharing efficiencies consistent with Whatcom County Policy 6C-11 to:

“Identify areas and mechanisms for potentially collaborative projects so that multiple jurisdictions can share costs and efficiencies.”

8. Inform the North Sound Connecting Communities Group (aka Farmhouse Gang) and adjacent RTPO of San Juan County’s transportation issues and identify coordination issues.
9. Work with neighboring counties, and the Skagit-Island RTPO and Whatcom RTPO to recommend and develop planning goals, policies and plans that address regional issues.
10. Coordinate with transportation planners in Whatcom and Skagit counties and Canada to develop compatible transportation recommendations that support efficient trade and commerce.
11. Coordinate with the Skagit-Island RTPO to support continued provision of ferry service to and from Anacortes-San Juan Islands-Vancouver Island, B.C. consistent with Skagit County Transportation Element Policy 8A-5.6 to:

“Support the State’s continued provision of ferry service to and from Anacortes-San Juan Islands-Vancouver Island, B.C.”

12. Promote the development of transportation facilities that serve to improve the mobility of goods, services and people to encourage economic development and implement compatible transportation plans of the County and neighboring RTPOs.
13. Coordinate with other jurisdictions, public transit providers, agencies and other entities to promote multimodal travel options and promotions that provide alternatives to the single-use vehicle.
14. Coordinate with the WSF and the Skagit-Island RTPO and Whatcom RPTO to improve intermodal connectivity between public transit operations on the mainland and ferry-service.
15. Periodically assess the costs and benefits of joining an RTPO.
16. Establish better communications and coordination between the County and the Port Districts within the County.
17. Participate in statewide transportation planning organization teleconferences.

2036 Comprehensive Plan
Transportation Element Briefing

Attachment D
2020-02-10 Transportation Element
Appendix 6 Track Changes

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COMPREHENSIVE PLAN

APPENDIX 6
TRANSPORTATION

~~October 10, 2016~~ 02/10/2020



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APPENDIX 6
TRANSPORTATION

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1 **I. TRANSPORTATION FACILITIES INVENTORY AND LOS ANALYSIS**

2 Transportation in San Juan County is a complex, multimodal system dictated by geography. The
3 county is surrounded by water and contains 176 named islands and reefs. The only way to travel
4 between islands or to and from the mainland is via boats or airplanes. There are no land-based state
5 highways; San Juan County's highway is the Washington State Ferry (WSF) ferry route. All residents,
6 visitors and freight are dependent on the marine and air transport systems to support the economics
7 of the area. ~~Once on an island, other modes of travel are available.~~

8 ~~The 2010 Census listed the population of San Juan County as 15,769. The Washington State Office~~
9 ~~of Financial Management (OFM) estimates the County 2016 population as 16,314. This figure soars~~
10 ~~in the summer, with visitors arriving from numerous origins to enjoy the San Juan Islands. Based on~~
11 ~~ferry ridership data presented in a report from the San Juan Islands Scenic Byway, an average of~~
12 ~~over 141,000 people arrived on Orcas Island and more than 209,000 people traveled to San Juan~~
13 ~~Island during the June through September summer months in 2011 and 2012. Based on data~~
14 ~~collected by the San Juan Islands Visitors Bureau (SJIVB) tabulating direct contacts, approximately~~
15 ~~fifteen percent of the visitors to the county come from California and nearly ten percent from Oregon.~~
16 ~~Visitors from around the state of Washington account for approximately twenty percent, but this figure~~
17 ~~is considered to be low; many Washingtonians may not contact the SJIVB before heading to the San~~
18 ~~Juan Islands. SJIVB receives inquiries from interested people in every state of the US, as well as~~
19 ~~dozens of countries worldwide. Based on ferry ridership data presented in the WSF Traffic Statistics~~
20 ~~Rider Segment Report for July 1, 2017 through September 30, 2017; 767,671 people (drivers and~~
21 ~~passengers) travel to the San Juan Islands from Anacortes during this two-month timeframe:~~

- 22
- 23 • 11,331 to Shaw Island;
- 24 • 118,299 to Lopez Island;
- 25 • 254,056 to Orcas Island; and
- 26 • 352,391 to San Juan Island.
- 27

28 ~~To assess level of service needs, updated population projects and demographic data were used to~~
29 ~~assess the consistency of land use assumptions in the County's Comprehensive Plan. It was~~
30 ~~determined that the land use assumptions used in the update of the Transportation Element did not~~
31 ~~impact the land use assumptions provided in the Land Use Element. Travel forecasts were prepared~~
32 ~~for 2010 to 2021. These forecasts predict the estimated demand for new transportation facilities~~
33 ~~based on projected growth and use. Population projects, travel forecast and level of service~~
34 ~~recommendations are included in the Attachment.~~

35

36 The purpose of the Transportation Element is to provide a framework of analysis, goals, policies, and
37 strategies necessary to develop the transportation facilities that will serve San Juan County in the
38 future. The Growth Management Act (GMA) requires a systematic approach for estimating and
39 planning for future transportation needs, based on an analysis of existing conditions and a projection
40 of future needs.

41

42 Appendix 6 to the Transportation Element provides information regarding existing transportation
43 facilities, demand/capacity analysis, expenditure/revenue analysis, and planning recommendations
44 to ensure adequate current and future transportation capacity.

45

46

47 **A. Air Transportation**

48 Aviation is a vital transportation component connecting non-ferry served island to other locations
49 in the island and to the mainland, providing passenger travel, freight and mail transport, medical
50 evacuation to mainland hospitals, disaster staging/relief, and other essential services. Aviation
51 has been an important element of travel in the San Juan Islands for many years. The vast majority

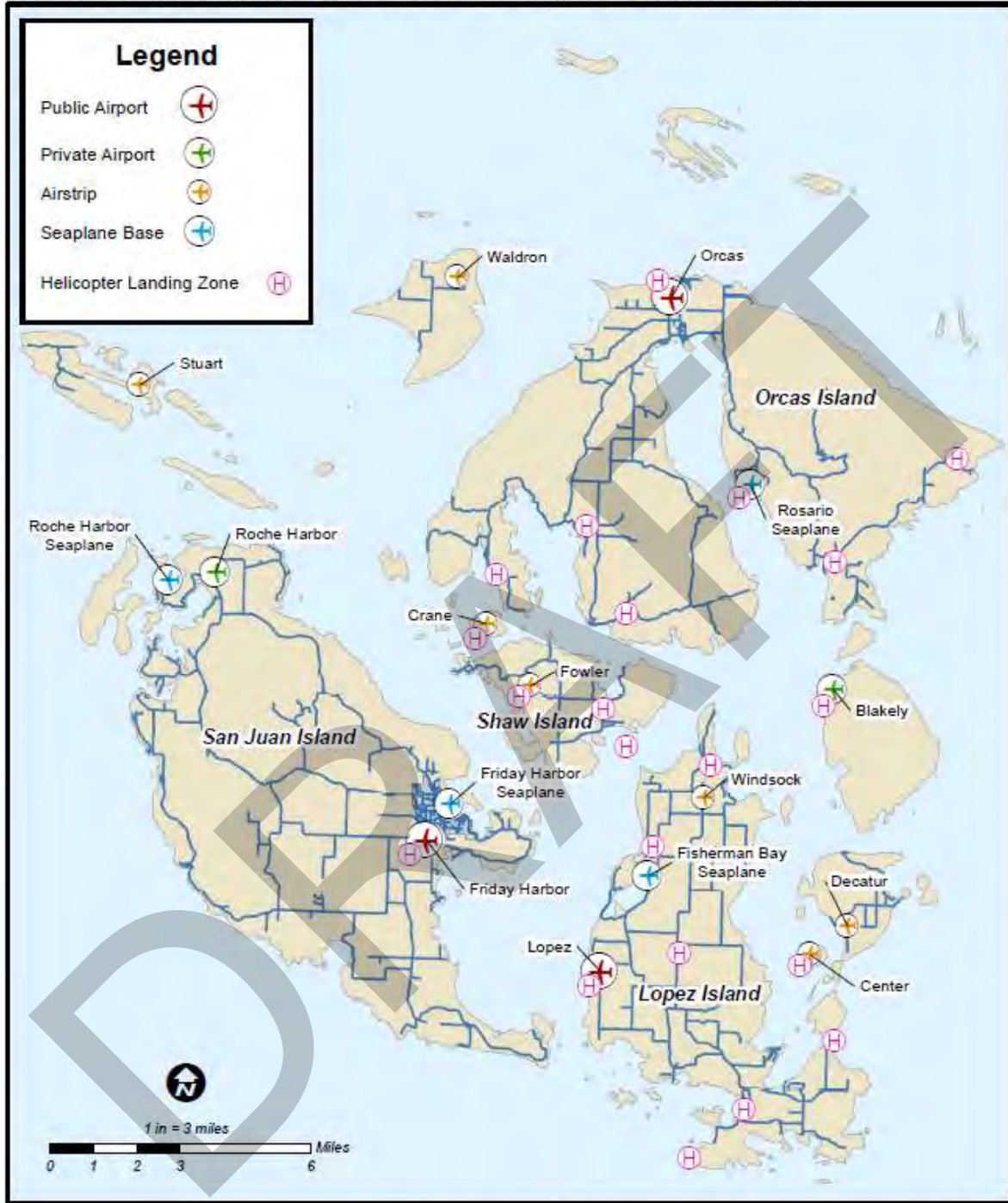
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of air traffic now uses public airports on San Juan, Orcas and Lopez Islands, owned by the port districts, ~~in these areas~~ to reach Seattle, Bellingham, Anacortes, and other mainland destinations. Additional private landing fields exist on many other inhabited islands. Seaplanes use designated harbors in ~~Fisherman Bay, Rosario, Deer Harbor, West Sound, Roche Harbor and Friday Harbor~~ as well as and private docks. The general locations of the public and private various air transportation facilities within San Juan County are presented in Figure 1.

DRAFT

1 Figure 1. Air Transportation

Path: O:\Workspace\Terr\Archived Projects\Comp Plan and Land Use\2013 Transp Element update\Work\Air Transportation\Air Transp.mxd



This map is a graphic representation derived from San Juan County's Geographic Information System. It is designed and intended for reference only, and is not guaranteed to survey accuracy. Information represented in this map is subject to change without notice.

Air Transportation

San Juan County, Washington

Drawn By: TC

Figure

1

1/4/2013

1
2
3 **1. Inventory of Existing Facilities and Services**

4 ~~Friday Harbor, Orcas and Lopez have commercial airline connections to Seattle, Bellingham,~~
5 ~~Anacortes and other mainland destinations, and these services are used by residents as well~~
6 ~~as visitors to the islands. Aviation is a vital transportation component connecting non-ferry~~
7 ~~served islands to other locations in the islands and to the mainland, providing passenger travel~~
8 ~~as well as freight and mail transport, medical evacuation to mainland hospitals, disaster~~
9 ~~staging/relief and other essential services.~~

10 ~~The Ports of Friday Harbor, Orcas and Lopez receive federal funding through the Federal~~
11 ~~Aviation Administration for improvements at the major public island airports. Capital projects~~
12 ~~funding is also available through the Washington State Department of Transportation/Aviation~~
13 ~~Division.~~

14
15 **a. Friday Harbor Airport**

16 Friday Harbor Airport is classified as a commercial service airport, which is owned and
17 operated by the Port of Friday Harbor. Its location spans the Town of Friday Harbor's (Town)
18 boundary with San Juan County. The airport is a "primary service" airport. ~~with more than~~
19 ~~40,000 commercial enplanements each year.~~ Its location adjacent to the Town makes it a
20 destination for recreational pilots from throughout the region.

21
22 Friday Harbor Airport has a 3,400 foot runway that is rated for aircraft of 12,500 pounds. The
23 airport designation is B-1 Small. ~~The largest commercial aircraft serving the airport carry nine~~
24 ~~passengers. The airport facilities include 55 Port owned hangars, 45 private hangars, and 87~~
25 ~~tie-downs of which 45 are reserved for visiting aircraft. As of 2012, the airport has 135 based~~
26 ~~aircraft. A passenger terminal provides a base for commuter airlines to conduct~~
27 ~~business. Other business activities include air freight, air charter, flight training, full-service~~
28 ~~aviation mechanic and medical evacuation to mainland hospitals by helicopter or fixed-wing~~
29 ~~air ambulance. Business activities include passenger terminal, air freight, air charter, flight~~
30 ~~training, full-service aviation mechanic, and medical evacuation to mainland hospitals by~~
31 ~~helicopter or fixed-wing air ambulance.~~ The airport is adjacent to Peace Island Medical Center.
32 Friday Harbor Airport, the Friday Harbor Seaplane Base and the Roche Harbor Seaplane
33 Base are served by U.S. Customs and Border Protection personnel, who clear hundreds of
34 international flights each year. Friday Harbor Airport has an average of 50,000 to 60,000
35 operations each year. ~~Recent years have seen just over 10,000 annual passenger~~
36 ~~enplanements, with the majority of passengers embarking on flights to Seattle.~~
37 Comprehensive airport details are available in the airport master plan on the Port of Friday
38 Harbor website.

39
40 **b. Orcas Island Airport**

41 The Port of Orcas operates the Orcas Island Airport. The facility is classified as a commercial
42 service airport. ~~The taxing district owns approximately 100 acres of land within the Eastsound~~
43 ~~Subarea. Business activities include passenger terminal, air freight, air charter, flight training,~~
44 ~~aviation mechanic, and medical evacuation to mainland hospitals by helicopter or fixed-wing~~
45 ~~air ambulance. Orcas Island Airport has a 2,901 foot runway that is rated for aircraft of 12,500~~
46 ~~pounds. The airport designation is B-1 Small. Comprehensive airport details are available in~~
47 ~~the airport master plan on the Port of Orcas website.~~

48 ~~From Federal Aviation Administration (FAA) form 5010/WSDOT Aviation data, an estimated~~
49 ~~5,000 passenger were enplaned in 2011, accompanying 6,400 commercial operations, with~~
50 ~~an estimated additional 42,000 non-commercial operations. Over 200,000 pounds of freight~~
51 ~~were delivered by air. With an existing capacity of 122,000 operations, there is sufficient~~
52 ~~capacity to meet long-term increased demand.~~

1 The airport has a 1500 sq. foot terminal, recently remodeled passenger waiting area, a public-
2 use/conference room and office space for conducting port operations. There are 53
3 designated aircraft tie-down spaces, including 30 turf spots. The federal aircraft registry
4 counts 70 aircraft using the Orcas Island Airport as their home base, meaning they are either
5 housed on the field or have deeded residential through the fence access.
6

7 **c. Lopez Island Airport**

8 The Port of Lopez operates the Lopez Airport, which is classified as a community service
9 airport. The facility occupies 50 acres and has a 2,900 foot runway. According to Port staff in
10 2018, the 1993 Washington State Continuous Airport System Plan, Volume 1, it is a “general
11 aviation” airport (i.e., public/private facility with general aviation usage). and had
12 approximately 18,250 operations in 2010. The Port of Lopez does not currently have any full-
13 time employees and daily flight operations are not monitored. The airport office and waiting
14 room occupies 500 square feet. There are 11 aircraft tie-down spaces available and 6 private
15 hangars with space for 28 aircraft are located adjacent to the Port of Lopez property.
16 Business activities include the airport office and waiting room. Comprehensive airport details
17 are available in the airport master plan on the Port of Lopez website.
18

19 **d. Seaplane Facilities and Services**

20 Currently, Kenmore Aviation provides the only regularly scheduled seaplane service to San
21 Juan County. Seaplane service is provided at the following locations: Islander/Islands Marine
22 Center on Lopez; West Sound Marina, Deer Harbor Marina, Rosario Resort and West Sound
23 Marina on Orcas Island; and Roche Harbor Resort and Friday Harbor Marina on San Juan
24 Island. Four Three to six flights per day are offered at all island locations, depending on the
25 season.
26

27 **2. Long-Range Planning Needs Demand/Capacity**

28 As stated in the WSDOT/Aviation 2012 Aviation Economic Impact Study, small communities
29 have particular challenges when it comes to the air service access they need to sustain their
30 economic vitality and the mobility of their residents. Each of the ports is assessing the current
31 trends to determine the most effective improvements to meet projected demands. Periodically
32 the ports assess demand and capacity trends to determine the most effective improvements
33 to meet the project demands.
34

35 **a. Friday Harbor Airport**

36 The airport has seen a slower rate of growth in annual operations than was anticipated in the
37 most recently adopted Airport Master Plan (2007). An updated master plan, taking into
38 account reduced forecasts, will be completed by early 2013. The airport’s capacity is
39 projected to be sufficient for anticipated demand over the next ten years.

40 The Port is planning the following improvements within the next five years, and others will be
41 identified in the master planning process.

- 42 ● Update Airport Master Plan
- 43 ● Identify and remove obstructions in runway approaches
- 44 ● Electric system rehabilitation: gate controls, vault, emergency generator (complete)
- 45 ● Rebuild of parallel taxiway, including replacement of signs and lights with energy
46 efficient systems (complete)
- 47 ● Replace runway lighting system for energy efficiency
- 48 ● Construct visiting pilot welcome center
- 49 ● Rehabilitate aprons
- 50 ● Site preparation for t hangars and executive hangars
51

- ~~Replace hangars~~
- ~~Replace or rebuild airport fuel facility~~

Friday Harbor Airport is currently developing an airport master plan that will guide development over the next 20 years. This master plan is being prepared because the airport does not meet current design standards for the B-II(s) category/group of aircraft. The next step in the master plan development process is to arrive at a recommended development concept. Once a consolidated development plan is identified, a 20-year capital improvement program, with a list of prioritized projects tied to aviation demand and/or necessity, will be prepared. Finally, a financial analysis will be prepared to identify potential funding.

b. Orcas Island Airport

~~The latest document regarding the airport is the 2008 Airport Layout Plan (ALP), updated as part of an Airport Improvement Plan, which studied the feasibility of an instrument approach. This document noted that the existing Runway 16/34 remains at 2,900', with a parallel taxiway east of the runway, and 4 connecting taxiways. Wildlife fencing was installed in 2002, a drainage survey and 14 new hangars completed in 2003, along with substantial on-field improvements including new runway lighting, signs, wind cone and beacon replacements, and an emergency generator/electrical building. In 2006, the master plan was updated through the ALP. The next year, 2007, saw an expansion and updated lighting for the emergency medical services (EMS) helipad. A GPS approach to runway 34 was instituted in 2009. In 2010, reconstruction of the south ramp was completed, with 1/3 of the tarmac area replaced by turf tiedowns. A WSDOT/Port grant in 2011 added a 4 view webcam for pilot/public information. 2012 saw purchase of 40 acres on the west side of the airport to protect the airspace, discourage incompatible development and control of access to the airport. By the end of 2017, the following improvements are anticipated:~~

- ~~● Reconstruction/repaving of the runway; movement of the taxiway 6' east; reconfiguration of the 4 runway/taxiway crossovers; stormwater improvements,~~
- ~~● A GPS approach to runway 16~~
- ~~● Wildlife Hazard Assessment~~
- ~~● Environmental Assessment~~
- ~~● Update AWOS (weather reporting instruments) equipment~~

~~These improvements would bring total FAA and the Washington State Department of Transportation (WSDOT) contributions to over \$10,000,000. The Orcas Island Airport is part of NPIAS, and remains protected from incompatible land use by the creation of an airport overlay district created in 2003 and the constant vigilance by its five elected commissioners and paid staff. SJC classifies it as an essential public service.~~

In 2019, Orcas Island Airport completed an airport master plan that will guide development over the next 20 years. This master plan is being prepared because the airport does not meet current design standards for the B-II(s) category/group of aircraft. The next step in the master plan development process is to arrive at a recommended development concept. Once a consolidated development plan is identified, a 20-year capital improvement program, with a list of prioritized projects tied to aviation demand and/or necessity, will be prepared. Finally, a financial analysis will be prepared to identify potential funding.

c. Lopez Island Airport

~~A Capital Improvement Plan submitted to the FAA listed improvements to the Lopez Airport which included land acquisition. Completed projects included taxiway rehabilitation, improved lighting and navigational aids, additional paving, and perimeter fencing.~~

In its 2012 on the "Airport Compliance Inspection Report" the Federal Aviation Administration (FAA) listed both ends of the airport as unsafe for landing aircraft, because of the obstructing trees. In 2013-2014, the Port acquired most of the critical parcels at each end of the airport

and it has removed most of the trees obstructing landing and departing airplanes, making the airport safer and meeting FAA requirements. The critical properties were converted into pasture land for local farming. In 2018, the airport completed an airport master plan that will guide development over the next 20 years. The follow up to the master plan will be the FAA-required environmental assessment of future projects identified in the master plan.

3. Demand/Capacity Analysis Long Range Transportation Planning Recommendations

The 2012 Economic Impact Study developed by the WSDOT Aviation Division and FHWA evaluated all airports within the state to demonstrate how individual airports contribute to the well being of their communities. The study evaluated economic impacts from the perspective of airports, industry and the user.

Table 1 provides the latest data from the 2012 Economic Impact Study on each of the listed airports within San Juan County.

Table 1. Existing Level of Activity

Location	Airport Classification	Based-Aircraft ¹	Emplanements	Total Operations ²	Total Visitor Spending
Friday Harbor Airport	Commercial	447	10,800	50,803	\$ 3,679,400
Orcas Island Airport	Commercial	72	5,066	35,824	\$ 2,279,700
Lopez Airport	Community-Service	34	4,000	28,500	\$ 2,289,600
Friday Harbor Marina	Sea Plane Base	0	2612	-	\$ 807,700
Roche Harbor	Sea Plane Base	0	2977	-	\$ 719,500
Rosario	Sea Plane Base	0	1413	-	\$ 339,200

Source: WSDOT Aviation Division—2012 Economic Impact Study

1. Based aircraft is defined as the number of aircraft stored at a particular airport on an annual basis.

2. Total operations are the total estimated number of takeoffs and landings that occur at an airport.

The premise of the economic study was that airports support a community's economic and transportation needs. "A significant share of aviation system economic contributions are from mobility and connectivity for both people and freight." The study stated that 90% of the economic activity within the county is located within 5 miles of a local airport.

The Ports receive federal funding through the FAA for improvements at the major public island airports. Capital project funding is also available through the Washington State Department of Transportation/Aviation Division. The updated airport master plans and 20-year capital improvement plans will be used to prioritize airport improvements and identify potential funding. The County shall provide support to the Ports in response to community needs.

B. Marine Transportation

Marine transportation services and facilities are the primary means for movement of people and goods among the islands, and between the islands and the mainland; they provide a link that is vital to the existence of every aspect of life within San Juan County. Washington State Ferries (WSF) is the chief service provider and along with airports and public ports, landings and marinas, has a substantial effect on the quality of transportation and also on the type, character and functioning of surrounding land uses. Marine transportation facilities and services are provided by Washington State Ferries (WSF), public ports, public docks and ramps, and private marinas. In addition to public ferry service, private commercial vessels and barges provide transportation opportunities.

1. Washington State Ferry System

The marine linkage between the islands within the county and the 'mainland' of Washington

1 State has supported the economy of the county for over 100 years. In the 1920's when the
2 fruit growing industry in the islands was vibrant, it was the necessary marine connection
3 between the orchards in the island valleys and the markets throughout the state and beyond
4 that made the farmers successful.

5 Washington State Ferries is the principal provider of marine transportation between the
6 islands of San Juan County (San Juan, Orcas, Shaw and Lopez) and the mainland via
7 Anacortes, Washington and Canada through Sidney, B.C.; see Figure 2. Island terminals
8 contain ferry holding lanes, commuter parking lots and waiting areas. Schedules and routes
9 vary from year to year as well as season-to-season, but in general a greater number of larger
10 vessels are employed during the summer months than in the winter.

11
12 Demand for ferry services on the San Juan County route is highly variable. That variability is
13 manifested in substantial differences in demands depending upon the season, the day of the
14 week, and the hour of the day. The complexity of these demand variables contributes to the
15 difficulty in planning for the impacts on ferry service throughout San Juan County. The
16 summer season, between mid-June and mid-September, is the busiest season, with the
17 highest peak demand occurring in July and August. By contrast, the least busy period is the
18 winter, from early January through March.

19 The shoulder seasons in the spring and fall complete the cycle of demand through the year.
20 Total demand for ferry service is a composite of four segments of the traffic volume handled
21 by WSF. The transportation needs of the County residents, commercial companies providing
22 goods and services to those residents, and those visitors/tourists that support the County
23 economy all contribute to the planning matrix that meets those collective demands. The fourth
24 segment is the need to move those same customers within the islands of San Juan County.

25
26 Figure 2. Marine Transportation - Washington State Ferries



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a. Inventory of Existing Facilities and Services

Ferry travel is dependent on the size and frequency of the ferries, the parking available at the ferry landing, and the reservation system. Currently, all ferry facilities are planned to accommodate and handle the highest peak of demand occurring in the summer months.

Ferries: The assignment of ferry vessels during the year is a function of seasonal varies seasonally based on demand. The specific boats vary seasonally and also with maintenance needs and unanticipated repairs. Table 2 provides an inventory of the boats that may ferries that typically serve the San Juan Islands at any one time.



This map is a graphic representation derived from San Juan County's Geographic Information System. It is designed and intended for reference only, and is not guaranteed to survey accuracy. Information represented in this map is subject to change without notice.

Marine Transportation Washington State Ferries (WSF)	Figure
San Juan County, Washington	2
Drawn By: TC	Date: June 2011

11

1
2

Table 2. Inventory of Ferries Serving San Juan County

Ferry/Class	Year Built/Rebuilt	Service Area	Ferry Size (no. cars/no. passengers)
Elwha/Super	1967/1991	San Juan Islands	144/1,076
Yakima/Super	1967	San Juan Islands	144/2,000
Hyak/Super	1967	San Juan Islands	144/2,000
Chelan/Issaquah 130	1981	San Juan Islands / Sidney, B.C.	124/1,076
Sealth/Issaquah	1982	San Juan Islands	90/1,200
Evergreen/Evergreen-State	1954/1988	Inter-island	87/983
Hiyu/Hiyu	1967	San Juan Islands	34/200

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During the summer period there are five vessels assigned to the Anacortes terminal. In general, three of the ferries are Super-class providing service between Anacortes and the four island terminals. ~~One~~ The fourth is an Issaquah-class boat assigned to the international service connection with Sidney, B.C. The fifth ferry is a smaller boat, assigned to interisland service. The five ferries represent 25% 22% of the current WSF fleet, although the San Juan Islands represent about 10% of the total system traffic demand.

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During the shoulder seasons, fall and spring, one Super-class ferry is typically removed. The two remaining Supers continue to provide mainland service and the Issaquah-class ferry divides service between one round-trip per day to Sidney, B.C. and service to the islands on the second work shift. The interisland service remains the same.

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In the winter period, service to Canada is discontinued, and that vessel provides service to the islands. During this season, the interisland ferry is not in service on the weekends, such that for three months there are two different schedules for the weekly period within each week. The four ferries assigned to the islands during the winter period represent 20% 17% of the fleet providing service to while representing about 7% of the system demand.

23
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25

Ferry Parking and Services: WSF provides parking facilities at each of the island ferry terminals and has a contract with San Juan County for maintenance of the parking lots.

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San Juan Island: WSF operates a paved park-and-ride lot for ferry patrons, located south of the intersection of Nichols Avenue and "B" Street, just east of the upper auxiliary holding area. This lot has a capacity of 57 spaces. Some walk-on ferry patrons park in front of the Town of Friday Harbor's Sunken Park, at the intersection of "B" Street and Nichols Avenue, and some park on Nichols Avenue, adjacent to the north boundary of the upper boundary of the upper auxiliary holding area. The Town of Friday Harbor (Town) is within walking distance of the ferry landing and provides a wide range of services and resources. Traffic in Town is significantly impacted by ferry unloading.

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Orcas Island: WSF provides parking in two areas at the Orcas ferry terminal, located in Orcas Village. West of the upper holding lanes are 20 parking spaces along the southern boundary of the entrance to the holding lanes. Parking is available at this location daily excluding Sundays and holidays and is primarily used by commuters and day trippers.

1
2 Just to the south of the upper holding lanes is another parking area, which contains 36
3 parking spaces ~~with and~~ one ADA parking stall. This lot is adjacent to the public restroom
4 and is used by commuters and long-term travelers. This parking lot is posted for a
5 maximum parking limit of 72 hours. This parking lot is typically full, particularly in the
6 summer months.
7

8 Historically, Overflow overflow parking tends tended to occur at various locations within
9 Orcas Village. Overflow parking along road shoulders, particularly along Orcas Road to
10 the north and Killebrew Lake Road to the east, ~~are were~~ the areas most impacted during
11 the summer season. These areas are uncontrolled and unsigned.

12 In 2017, San Juan County constructed a park-and-ride facility on the WF property north of
13 the holding lanes. This facility contains about 80 parking spaces. The unsafe parking
14 areas along Orcas Road have been posted "No Parking" to improve safety.

15 ~~WSF owns a parcel just to the north of the holding lanes. In the past, there was discussion~~
16 ~~of the parcel being developed for additional parking, but there are no current plans to do~~
17 ~~so. To the east of the ferry terminal and adjacent to the Post Office, there are three private~~
18 ~~parking lots. Directly north of the loading ramp is a waiting area with a ferry ticket vending~~
19 ~~machine and newspaper box. Orcas Landing, within walking distance of the ferry landing,~~
20 ~~has a grocery store, hotel, restaurants, post office, retail shops, and rental car services.~~

21
22 In 2017, WSF made safety improvements to the ferry landing, including relocating the
23 ticket booth to enlarge the roadway for large vehicles exiting the ferry, pedestrian/bicycle
24 safety and accessibility improvements, and side upgrades.
25

26
27 **Lopez Island:** Parking for ferry patrons is provided in two areas in close proximity to the
28 Lopez terminal. A WSF-owned, gravel parking lot containing 58 spaces is located 200 feet
29 south of the terminal building and east of the vehicle holding area. The parking lot is posted
30 for a maximum parking limit of 72 hours. This parking lot is usually filled to capacity during
31 the summer months. When the lot is full, overflow traffic parks along the western road
32 shoulder beyond Penny Lane (entrance to Land Bank preserve). The shoulder is posted
33 for no parking from 1 a.m. to 5 a.m.
34

35 A small paved parking lot owned by WSF is located across from the terminal building and
36 contains 44 ~~4~~ spaces, ~~signed posted~~ for 10 minute parking. Four spaces are reserved for
37 ferry employees, and 2 more spaces are labeled for ADA, ~~with and~~ one spot for the local
38 taxi. The total present parking supply in the vicinity of the Lopez Island ferry terminal is
39 approximately ~~79~~ 69 spaces.
40

41 The remoteness of the terminal location means that there is no other alternative to parking
42 or being dropped off at the terminal ~~except for the use of a taxi available on the island.~~
43 There are no park-and-ride lots on Lopez.
44

45 There are four car holding lanes. The easternmost lane (Lane 1) is reserved for
46 Anacortes-bound vehicles. When the number of cars exceeds the lane capacity, cars park
47 and wait along the eastern road shoulder. During the peak summer periods, ~~the~~ this
48 extension of Lane 1 may contain cars backed up in the shoulder nearly to Odlin Park, a
49 distance of one mile to the south.
50

51 Available services within the Lopez terminal include a ferry ticket vending machine, a
52 newspaper box, a community bulletin board, and a display of used books for sale which

1 is stocked by Friends of the Lopez Library. Outside the terminal are three portable toilets,
2 within the small paved parking lot. Two more portable toilets are located on the rise east
3 of the large, gravel parking lot.
4

5 ~~A privately owned espresso stand with vending machines is located adjacent to the small,~~
6 ~~paved parking lot and is typically open during the shoulder and summer seasons with~~
7 ~~limited hours.~~
8

9 **Shaw Island:** The Shaw Island ferry landing was rebuilt in the mid-1990's and currently
10 includes two regular holding lanes, one oversize holding lane, and 6 parking spaces which
11 ~~include~~ including one ADA space. A restroom facility, a small customer waiting room and
12 a ferry office are also located at the dock. A bike rack is located east of the transfer span.
13

14 One holding lane is used exclusively for interisland ferry traffic and can accommodate 11-
15 12 vehicles. The second holding lane is used exclusively for the Anacortes-Shaw route
16 and can accommodate 12-13 vehicles. Capacity of the holding lanes is usually adequate
17 for vehicle queuing, except for busy days and weekends ~~in~~ during the summer when the
18 Anacortes lane is regularly overloaded. Overloading of the ferry holding lanes creates a
19 safety concern as vehicles queued for the ferry extend out into the northbound driving lane
20 of the county road, up a steep hill and around a blind corner.
21

22 In addition to the facilities provided by Washington State Ferries, there is a privately owned
23 store with about 8 parking spots, located just north of the ferry holding lanes. The store is
24 the only commercial retail facility on Shaw Island and is regularly visited during daylight
25 hours throughout the year. The store complex includes the Shaw Island Post Office, which
26 generates a significant number of vehicle trips each day. Traffic visiting the store and/or
27 post office must cross the loading and unloading ferry traffic ~~to reach their destination.~~
28

29 A privately owned gravel parking area, adjacent to and west of the county road between
30 the ferry holding lanes and the oversize vehicle lane, is available for public parking. This
31 area is often filled to, or beyond, capacity during the daytime because it is used by
32 commuters who walk on to the interisland ferry. Approximately 10 parking spaces are
33 available in this location.
34

35 Long-term lease parking is provided by the Shaw General Store to the east of the ferry
36 holding lanes. Approximately 10-12 spaces are available. Several of these spaces are
37 permanently leased by utility service providers, such as OPALCO, Century Tel, and San
38 Juan County.
39

40 **b. Long-Range Planning Needs Demand/Capacity**

41 ~~In 2009, the Washington State legislature adopted the Washington State Department of~~
42 ~~Transportation Ferries Division Final Long Range Plan: 2009-2030 (Long Range Plan).~~
43 ~~The goal of the WSF Long Range Plan was to establish new operational and pricing~~
44 ~~strategies to meet the needs of ferry customers and identify vessel and terminal operations~~
45 ~~and capital requirements into the future. One of the primary challenges since the adoption~~
46 ~~of the Long Range Plan has been to identify a stable source of capital funding. The~~
47 ~~funding source has yet to be identified, thus a number of the projects and programs~~
48 ~~identified in the Long Range Plan have not yet been implemented.~~

49 ~~To provide a frame of reference for the long range planning needs of the ferry system in~~
50 ~~San Juan County, a brief discussion of the history of the ferry system within San Juan~~
51 ~~County is presented below followed by the pertinent sections of the Long Range Plan and~~
52 ~~a discussion of the status today based on current legislation and/or funding.~~

Historical Background: After a long period of service throughout the islands by independent transportation providers, Black Ball Lines of Port Angeles, WA became the primary operator of ferry service from the mainland to the islands of San Juan County. The State of Washington purchased the assets of Black Ball in 1951 with the intention of only running the ferry service until cross sound bridges were constructed. The bridges never materialized and the Washington State Ferries came into existence. During the following fifty years WSF expanded terminals at ferry served communities throughout the Sound including the four within the County, and at Anacortes, WA. The fleet of ferry vessels was also expanded beginning with the construction of the Evergreen Class vessels during the 1950's. Currently, WSF has a fleet of 20 vessels.

In 1937, the motor vehicle excise tax (MVET) was established. During the 1990s, MVET was a major source of revenue for operations and for capital expansion of the ferry system. With the population of Washington State expanding at a significant rate, the MVET provided a substantial revenue stream that allowed for planning of additional expansion of the system to include multi-modal terminals and the next generation of ferries to replace an aging fleet.

That revenue stream collapsed in 1999 with the voter approved Initiative 65 (I-695) and the legislative repeal of the MVET in 2000. WSF lost approximately 20% of its operating support and 75% of its dedicated capital funds. Since that time, the revenue for operations has been replaced by dramatic increases in the tariffs charged to customers through the fare box. During the decade from 2000-2010, tariffs increased dramatically in San Juan County. Historical analysis has shown that for every 5% in fare increases, the traffic volumes have decreased by about two percent.

As a result of this change in the source of funding for WSF operations, and the inaction of the State Legislature to establish a long term funding plan for capital replacement and expansion, the future of marine transportation services as provided by WSF is very much undefined.

Ferries: In the WSF Long-Range Plan, WSF lays out a number of philosophies and techniques to continue to provide service to the various communities by maximizing the efficiency with which it provides service. Demand projections for the San Juan Islands route estimate that this route will represent the second largest projected increase within the WSF system. To accommodate these increased needs with the reduction in funding since 2000, WSF plans to implement operational and pricing strategies. WSF states that the San Juan Island route is primarily affected by growth in population.

Ferry Terminals: In the Long Range Plan, WSF identified terminal preservation and improvements programs. The terminal preservation program focuses on identifying the needs for operating at current service levels and maintaining and preserving existing capital assets. The San Juan Islands route terminals identified for essential preservation projects are shown in Table 3, as listed in the WSF Long Range Plan.

Table 3. Essential Terminal Preservation Projects
(2008, \$ Millions)

Terminal	Slip-Preservation	Trestle	Wingwalls-& Dolphins	Buildings & Overhead-Loading	Other	Total
Anacortes	\$8.0	\$17.7	\$21.4	\$39.7	\$7.5	\$94.3
Friday-Harbor	\$1.5	\$8.4	\$7.9	\$1.6	\$3.1	\$22.4
Orcas	\$4.6	\$2.8	\$7.1	\$1.0	\$1.4	\$17.0
Lopez	\$11.7	\$2.2	\$6.5	\$0.7	\$1.6	\$22.8
Shaw	\$1.3	\$3.2	\$3.1	\$0.1	\$0.3	\$8.1

Source: WSF 2009 Long Range Plan

1 To date in 2011, WSF has repaved the holding lanes and improved the pedestrian bridge
2 at the Anacortes terminal. No other terminal improvements have been initiated and
3 funding sources are yet to be identified.

4 Other types of terminal improvements included transit related improvements such as
5 improved terminal access for pedestrians and transit vehicles. However, funding for these
6 projects was deferred by the Legislator until such time as increased walk-on ridership was
7 realized, additional transit service is available and pre-design studies are received.

8 **Ferry Parking:** The WSF Long Range Plan did not address the issue of ferry parking in
9 the long term.

10
11 In 2019, WSF finalized its 2040 Long Range Plan. The 2040 Long Range Plan (LRP)
12 evaluates the current status of the ferry service and provides a proposal for investment
13 and policy recommendations to support a reliable, sustainable, and resilient ferry service
14 through 2040 and beyond, while managing growth and offering exceptional customer
15 service. Development of the plan began by identifying issues and priorities from public
16 and stakeholder engagement activities. WSF received input from County Council, staff
17 and citizens through advisory groups, public outreach meetings, and internet surveys.
18 From the community engagement activities, four themes emerged: Reliability, Customer
19 Experience, Manage Growth, and Sustainability/Resilience. The LRP establishes goals
20 for meeting customer service needs while improving efficiency and advancing the state's
21 environmental goals. The plan recommends capital investment, service modification and
22 policy changes to achieve these goals. The 2040 LRP is available on the WSF Web Page.
23 The information in the LRP relative to San Juan County is referenced here as background
24 to the County transportation planning recommendations.

25
26 The 2040 LRP reviews the progress made since the 2009 LRP. Elements of note to San
27 Juan County:

- 28
- 29 • Implemented reservation system for Anacortes to Lopez, Orcas, Shaw, San Juan
30 and Sydney. However, reservations to Anacortes are only available from San Juan
31 Orcas, and Sydney (not from Lopez or Shaw).
- 32 • Improved the customer web experience.
- 33 • Implemented pricing strategies to maximize use of vehicle space.
- 34 • Built two new Olympic class vessels; Samish is dedicated to the Anacortes/San
35 Juan Island route.
- 36 • Not noted in the LRPs is that WSF made significant access improvements to the
37 Orcas Landing in 2017.

38
39 The 2040 LRP predicts that the WSF system ridership will increase more than 30% by
40 2040. Anacortes to San Juan Islands ridership is predicted to increase slightly less,
41 26.5%. The LRP notes that the Anacortes/San Juan Island route has low on-time
42 performance, especially during the high-demand summer season, due to challenges with
43 queuing and holding capacity and delays associated with the high pedestrian traffic at the
44 Friday Harbor terminal.

45
46 To address the current situation and the predicted growth, WSF has the following
47 improvement plans for facilities serving the Anacortes/San Juan Island route:

- 48
- 49 • Terminal electrification for Orcas, Friday Harbor, and Anacortes in 2022.
- 50 • Construction of a new terminal building at Anacortes and expansion of vehicle
51 holding at Lopez in 2025-2027.
- 52 • Construction of overhead loading and second slip at Friday Harbor is planned for

1 2035-2027.

- 2 • Preservation of the trestle and bridge structures at Orcas, Lopez and Shaw is
- 3 planned for medium-term and long-term planning horizon.
- 4 • In 2028, add service hours by extending the summer sailing schedule into May
- 5 and October. Restore the winter season weekend interisland service in 2033.
- 6 • Two vessels serving this route will be retired and replaced with two hybrid-electric,
- 7 international certified Olympic Class vessels (144 car) in 2022 and 2023.
- 8 • Replace the 90-car interisland with 114-car all-electric vessel with single deck in
- 9 2036.
- 10 • Replace two additional vessels with 144 car hybrid electric vessels in 2037.
- 11 • Increase entire fleet from 22 vessels to 26 vessels to allow for adequate
- 12 maintenance and have enough spare vessels to maintain reliable service.
- 13 • Relocate all customs processing to Sidney, in order to reduce processing time at
- 14 Anacortes.
- 15 • Establish a workforce development plan to address workforce shortages.
- 16 • Improve customer experience, including upgrades to web site and service alerts,
- 17 automate queue detection and wait time information, real time parking information,
- 18 upgrading ticketing and reservation systems, automatic vehicle length detection, and
- 19 automatic vehicle passenger counting.
- 20 • Reduce carbon emissions by converting to hybrid-electric vessels.
- 21 • Reduce vessel noise to protect marine life.
- 22 • Increase energy efficiencies and waste reduction.
- 23 • Monitor stormwater at terminals.
- 24 • Continue creosote removal.
- 25 • Develop an emergency response plan to enhance preparedness and aid in
- 26 response and recovery efforts.
- 27 • Prioritize terminal maintenance needs with the most seismic risk, vulnerability to
- 28 sea level rise and “lifeline routes” that provide access to major population centers or
- 29 critical facilities.

30
31 To accomplish its goals, the LRP proposes new investments that are not currently included

32 in WSF’s 16 year capital improvement and preservation plan for Fiscal year 2018-2033.

33
34 **c. Level of Service Analysis Long Range Transportation Planning Recommendations**

35 **Ferries:** ~~WSF’s previous LOS measure, adopted in 1994, was based on the number of~~

36 ~~ferry sailings a walk-on, vehicle, or commercial vehicle had to wait before boarding a ferry~~

37 ~~during the peak period. This measure, called “boat-wait”, was generally set at one boat~~

38 ~~wait for vehicles on most ferry routes. However, this measure did not apply to San Juan~~

39 ~~County routes due to the low frequency, complex routing, and non-commute nature of~~

40 ~~routes serving San Juan County. The only San Juan County boat-wait LOS measure~~

41 ~~adopted by WSF was a zero boat wait for all pre-registered commercial vehicles.~~

42 ~~This performance measure was revised in 2009 with the adoption by the State Legislature~~

43 ~~of the WSF Long Range Plan. The Long Range Plan eliminated the wait-based LOS~~

44 ~~measure and moved to a measure of percent of sailing full during a specific month.~~

45 ~~Percent sailings full are measured in the westbound peak direction for the months of~~

46 ~~January, May and August. Two performance thresholds were identified: Level 1, which~~

47 ~~indicates when demand management and peak spreading strategies should be~~

48 ~~implemented and Level 2, which indicates when additional capacity may be needed. The~~

49 ~~intent of the revised LOS measure is to “move [the] ferry system planning away from~~

50 ~~thinking primarily about peaks and more about how to best fit the service to the overall~~

51 ~~demand and filling up the space outside the peaks.”~~

52 ~~To determine where LOS standards might be appropriately set, WSF conducted an~~

analysis using 2006 ridership data adjusted to reflect the 2030 demand forecast, as shown in Table 4. The Anacortes-San Juan Islands route is currently exceeding Level 1 standards in May and August, but is well below the Level 2 standards. This indicates a high level of seasonal travelers, compared with residential and/or commuter travelers. When a large portion of sailings are filled, it indicates congestion and overloaded sailings. Standards for summer months reflect additional recreational ridership and specifically for the San Juan Islands route, it reflects a greater seasonality in recreational ridership. In addition, the San Juan Islands have a unique sailing schedule that accommodates several destinations. The forecasted 2030 percent sailings for the Anacortes-San Juan Islands route will also remain well below Level 2 standards, indicating that no additional ferry capacity is needed in the next 20 years.

Table 4. Estimated Percent Sailing Full by Route

Route	2006 Westbound-Weekly Average			2030 Expected Westbound-Weekly Averages		
	January	May	August	January	May	August
Anacortes-San Juan Islands	10%	31%	36%	24%	48%	45%
Proposed LOS Standards by Route						
	Level 1 Standards (spread demand and improve customer experience)			Level 2 Standards (efficiently used assets, consider additional investment)		
Anacortes-San Juan Islands	25%	30%	35%	65%	75%	85%
Anacortes-Sidney	N/A	50%	50%	N/A	100%	100%

Source: WSF 2009 Long Range Plan

WSF cautions that it important to consider these LOS in conjunction with a vehicle reservation system and other adaptive management strategies so that is not indicative of degradation of service. Also, because of the financial situation faced by WSF, this two-tiered LOS reflects that assets are fully utilized before significant capital investments are considered.

To address exceeding the first level of LOS, WSF is proposing implementation of a vehicle reservation system as the primary demand management tool. A pilot program of the reservation system had been proposed for the Friday Harbor/Anacortes leg of the San Juan Route to begin in the summer of 2010, but the program was delayed and a new estimated date has not been released. WSF maintains that the reservation system would be designed individually for each route. A few common elements of the reservation system are: (1) that a percent of spaces would be reserved for sailing time; (2) preference would be given to emergency vehicles, vanpools and carpools, commuters, local residents and commercial traffic; (3) reservation fees and partial or entire pre-payment of fees, and 4) timing and phase in of the system.

Ferry Parking: Table 5 estimates the level of service for ferry parking facilities based on the estimated number of parking spaces available at the ferry terminals per 100 County residents. The estimated number of available parking spaces was tallied by San Juan County.

Table 5. Level of Service – Ferry Parking Facilities

Ferry Terminal-Location	2010				2021			
	Population	Capacity	Ratio	LOS	Population	Capacity	Ratio	LOS

San Juan	7,581	57	0.75	F	9,537	57	0.60	F
Orcas	5,006	56	1.12	F	6,169	56	0.91	F
Lopez	2,383	79	3.32	D	3,050	79	2.59	D
Shaw	237	25	10.55	A	294	25	8.59	A

Source: WSF 2009 Long Range Plan

As noted earlier, there is nothing in the WSF Long Range Plan to address LOS in ferry parking facilities.

The County shall continue to set a high priority on maintaining and constructing marine facilities that provide non-ferry served island residents with access to WSF ferry landings. The County shall maintain the roadways that provide access to the ferry landing. The County shall continue to collaborate with WSF to establish additional parking at the ferry landings to improve access and safety for the community.

2. Passenger Ferries

Private passenger-only ferries (POF) from Bellingham (San Juan Cruises), Port Townsend (Puget Sound Express), and Seattle (Victoria Clipper) land at the Port of Friday Harbor and Orcas Landing during the summer tourist season.

~~In the winter months of 2005/2006, a passenger-only ferry pilot project was conducted. The study was funded by the US Federal Transit Administration and conducted by the Whatcom Council of Governments (WCOG) and the Port of Bellingham with the intention of identifying data on potential markets and service characteristics for a passenger-only ferry between the City of Bellingham and the Town of Friday Harbor.~~

~~During the pilot study, there were two round trips daily on weekdays for a one-way cost of \$10 for adults and \$5 for youths. The trip took one hour and forty minutes. At the conclusion of the pilot study, it was decided that the results were favorable enough to warrant proceeding to the next step.~~

~~Based on the results of the pilot study, a "Passenger Only Ferry Study and Business Plan" (Passenger Ferry Study) was developed in 2008 to develop an approach to providing high-speed passenger-only ferry service between Bellingham and Friday Harbor. The benefits identified with such a service were many and included stronger regional connections, commuter access and increased tourism commerce. The route was also identified as having the potential for lower seasonality effects (such as is experienced by the WSF system) stemming from its substantial commuter base rather than a pure tourist base.~~

~~The business model proposed a public-private partnership with the Public Partners (WCOG, the Ports of Bellingham and Friday Harbor) and a private vessel operator. The boat was to be a high-speed aluminum catamaran ferry that would provide four daily round trips between Bellingham and Friday Harbor. The one-way fares were to be \$20 each for resident adults, \$25 for non-residents and \$15 for youths. A discount commuter book was also proposed. The estimated crossing time was to be one hour and forty minutes.~~

~~The success of the concept was the ability to serve the interests of a wide variety of stakeholders and the forging of community partnerships and linkages. Another critical element identified was the need for strong intermodal connections at either end to allow riders to leave their personal vehicles and access the destinations needed in a timely, efficient, clean and cost-effective manner. The first year of operation was estimated to cost between \$2.8 and \$3.2 million.~~

~~In the WSF 2009 Long Range Plan, the legislature directed WSF that it is not to provide passenger-only ferry service. Where local providers view that service as a way to improve service or fill potential gaps, it is expected that locally-funded passenger-only ferry service will be evaluated and pursued.~~

~~As of 2013, the concept of the passenger-only ferry has not progressed beyond the Business Plan presented in 2008. It is maintained that with the current communities and the slow economy, there is not enough potential ridership to support such a service, nor is there enough~~

1 funding to initiate the operation or subsidize the on-going financial requirements.—
2 A hospital was recently opened in Friday Harbor, late in 2012. The hospital is a sister to the
3 one in Bellingham. It has been conjectured that many of the employees could come from
4 Bellingham and make use of a passenger only ferry, which would provide a solid commuter
5 base for the ferry.

6 WSF does not currently operate POF service. WSF did provide POF service in the 1990s, but
7 it was discontinued a decade later by legislative restrictions on operating funds after the
8 scaling back of Motor Vehicle Excise Tax (MVET). POF service is not an allowable use for
9 gas tax revenue. King and Kitsap counties both now operate POF service with voter-approved
10 local revenue sources.

11
12 The County does not plan to operate a passenger-only ferry; however, the County would
13 support a passenger-only ferry by providing roadway and marine facility access, as
14 appropriate.

15 16 3. County Marine Facilities

17 Because of the marine orientation of the San Juan Islands, docks, floats, and ramps marine
18 facilities (piers, floats, and ramps) -- both public and private facilities -- are a significant part
19 of the transportation system. Public marine facilities are, in a sense, a continuous contiguous
20 part of the County road system, and therefore thus are, the responsibility of the County. Figure
21 3 presents the location of the various county marine facilities. ~~Private docks are owned,~~
22 ~~maintained and used by the owners and their guests.~~

23 24 a. Inventory of Existing Facilities and Services County Marine Facilities and Services

25 San Juan County Public Works Department currently operates and maintains 9 public
26 docks with floats, 8 boat ramps (7 barge/landing craft capable) and leases with two outer
27 island moorage docks. County Parks operates and maintains 1 boat ramp. All county-
28 owned marine facilities are for limited time day use only. Table 6 provides an inventory of
29 the County Marine Facilities

30 ~~**Roche Harbor Dock and Float, San Juan Island:** A dock and float built in 2011 on~~
31 ~~leased land east of the private boat ramp at the Roche Harbor Resort. The float is~~
32 ~~connected to the dock with a gangway. Dock space is available for outer island residents~~
33 ~~only by permit with parking for vehicles permitted annually by Public Works.~~

34 ~~**Small Pox Bay Ramp, San Juan Island:** Within San Juan County Park on the west side~~
35 ~~of San Juan Island, County Parks owns a concrete launching ramp serving recreational~~
36 ~~boating needs only. The ramp was reconstructed in 1997 and is in good condition, but~~
37 ~~prone to siltation.—~~

38 ~~Parking for ramp and park use is available for up to 7 vehicles with boat/kayak trailers.~~

39 ~~**Jackson Beach, San Juan Island:** This Port of Friday Harbor facility contains a~~
40 ~~recreational dock and ramp with public parking. The County's barge landing site is also~~
41 ~~located at Jackson Beach.~~

42 ~~**Prevost Harbor Dock and Float, Stuart Island:** The facility is located in Prevost Harbor~~
43 ~~on the northeast side of Stuart Island. The drive on pier was constructed in the early~~
44 ~~1950's as a joint County/US Coast Guard pier and later turned over to San Juan County.~~
45 ~~The pier contains a small cantilevered building located midway out on the north side and~~
46 ~~an extension on the north side provides access to a float which is accessed via an~~
47 ~~aluminum gangway.—~~

48 ~~No public parking is available.~~

49 ~~**Reid Harbor Ramp, Stuart Island:** A concrete log boat ramp built in 1993 extends into~~
50 ~~the shallow, flat tidal beach at the head of Reid Harbor in the center of Stuart Island. The~~
51 ~~facility is used as both a boat ramp and a barge landing facility.~~

52 ~~The adjacent state owned parking lot holds 13 vehicles.~~

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Deer Harbor Marina Float, Orcas Island: County Public Works leases float space from Deer Harbor Marina in a 25 year lease. Mooring is by permit only. The facility serves the private and commercial needs of outer island residents, primarily those from Waldron Island. There is a 1000 pound capacity loading crane, owned and maintained by Public Works.

Figure 3. Marine Transportation – County Marine Facilities

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District	Island	Name	Dock	Float	Ramp*	Parking
4	San Juan	Roche Harbor Resort	12' x 45'	8' x 60'		25 by permit only
		Small Pox Bay Ramp			13' x 100'	7 day use
		Jackson Beach			Hard-packed beach*	Port of Friday Harbor
	Stuart	Prevost Dock and Float	12' x 228' 8' x 28'	8' x 60'		None
		Reid Harbor Ramp			16' x 75'	13
2	Orcas	Deer Harbor Marina		120 l.f.		None
		Madrona Point	14 x 112'	8' x 40'		None
		Obstruction Pass	12' x 107'	10' x 40'	16' x 100'*	19-25
		Westsound	7' x 154'	2 floats — 8' x 40' ea		6
		Orcas Landing	3200 sf pier; 2700 sf dock	20' x 29' 18' x 18' 10' x 40' 10' x 150'		4 at pier; 7 above facility
	Waldron	Cowlitz Bay	12' x 184'	14' x 32'	Hard-packed beach*	None
3	Lopez	Hunter Bay	12' x 80'	9'6" x 80'	14' x 120'	At least 9, permit only
		Mackaye Harbor		8' x 60'	12' x 120'*	Numerous unmarked spaces
		Odlin Park	22' x 24' & 11' x 48'	10' x 50'	24' x 110'*	None only for marine facilities
	Shaw	Indian Cove			12' x 28'	None only for marine facilities
		Neck Point Cove			Gravel beach at high tide*	None
	Decatur	Hermitage			16' x 110'*	Limited parking in Co. ROW

1 **Table 6. County Marine Facilities**
2 * barge/landing craft capable

1 Currently, there is no dedicated parking that goes with the public mooring, although some
2 users do park on the south end of Upper Deer Harbor Road approximately 1/8 mile east
3 of the marina. Generally, parking at Deer Harbor is a problem, especially during the
4 summer months. Acquisition of a suitable parking facility is an on-going challenge that
5 has not been resolved.

6 ***Madrona Point Dock and Float, Orcas Island:*** This seasonal dock is located just outside
7 of Eastsound. The dock is connected to a float via a gangway. The float and gangway
8 are removed by November 1 each year and stored in a protected harbor until April 1.
9 Movement during storms could cause damage to the piling and the attachment
10 mechanism.

11 ***Obstruction Pass Dock, Float and Ramp, Orcas Island:*** The marine facility is located
12 at the end of Obstruction Pass Road on the southeastern tip of Orcas Island. The drive-
13 on pier is connected to the float via a gangway. West of the dock and float is the ramp.
14 The ramp is constructed of concrete logs.

15 The facility provides primary commercial and community linkage to Blakely and
16 Obstruction Islands. All gasoline and propane currently delivered to Orcas is offloaded at
17 this ramp. The public paved parking lot provides space for 19-25 cars.

18 ***Orcas Landing Dock and Float, Orcas Island:*** This public marine facility contains a
19 drive-on pier with a small building. To the east, a small float is reserved for the Sheriff's
20 boat. To the east, three floats provide mooring for up to 4 hours. A gangway on each
21 side of the pier provides access to the floats.

22 There is little public parking available at the site. Adjacent to the pier are four spaces—2
23 ADA, one for the sheriff and one for the County. On the northern elevated boundary are
24 seven reserved parking spaces.

25 ***Westsound Dock and Float, Orcas Island:*** This facility is located south of Deer Harbor
26 Road at MP 0.85 on the southwestern portion of Orcas Island. The pier was constructed
27 in 1989, along with two floats. There is a stairway to the beach. The marine facility
28 primarily serves recreational boaters and some light commercial use.

29 There is parking for about 6 cars along Deer Harbor Road; it is often crowded during the
30 summer months.

31 ***Cowlitz Bay Dock, Float and Ramp, Waldron Island:*** The facility consists of a pier with
32 a turning apron leading to a gangway down to a float, also described as a hammerhead
33 dock. There is a small hand-operated jib crane and a small wooden building on the dock
34 but no utilities.

35 The facility is located at the end of Cowlitz Bay Waldron Center Road. There is no parking
36 on the road. The area south of the dock has road access and is popularly used as a ramp
37 for boat launching and also functions as a barge landing. While there is no
38 structure formally built as a boat 'ramp', the site is hard packed and serves the needs of
39 the island for delivery of essential supplies and materials.

40 ***Hunter Bay Dock, Float and Ramp, Lopez Island:*** The Hunter Bay marine facilities are
41 located at the south end of Lopez Island at the end of Crab Island Rd. The pier is
42 connected by a steel and wood gangway leading down to a monolithic timber float on the
43 westerly side of the dock. The facility is the primary dock used by residents of Decatur
44 and Center Islands. The reinforced concrete ramp is located to the east of the dock. The
45 ramp serves both recreational and light commercial needs.

46 While there is some general parking, most of the parking spaces in the area require a
47 County permit.

48 ***MacKaye Harbor Float and Ramp, Lopez Island:*** The grooved timber float was installed
49 in 2000. It is attached by an ADA accessible aluminum gangway to a concrete abutment
50 at the shore. The reinforced concrete plank ramp was replaced in 2009 and is located
51 just to the west of the float. It serves as one of the few commercial loading/unloading
52 facilities on Lopez Island. One third of the float on the shore side is unusable during lower

1 tide conditions.

2 Adjacent to the float and ramp is a large unpaved parking area that has room for numerous
3 cars and boat trailers.

4 **~~Odlin Park Dock, Float and Ramp, Lopez Island:~~** ~~Odlin Park is a popular County Park~~
5 ~~located on the north side of Lopez Island, one mile from the ferry terminal. The dock and~~
6 ~~float are located at the end of Odlin Park Road at MP 0.34 with the final ¼ mile being a~~
7 ~~one lane primitive road behind a locked gate. The facility serves mostly recreational~~
8 ~~boaters, and also light commerce and commercial fishery activities. Occasionally, it is~~
9 ~~used for loading/unloading private passenger ferries and also serves passenger feeder~~
10 ~~boats during emergency outages at the Lopez ferry terminal.~~

11 ~~The drive on pier includes an approach apron with an aluminum gangway that leads to a~~
12 ~~heavy duty timber float. The float was rebuilt in 2006.~~

13 ~~The concrete reinforced log ramp is located within Odlin Park at MP 0.25 at the end of~~
14 ~~Odlin Park Road. The road and all marine facilities are under the jurisdiction of Public~~
15 ~~Works. It is one of the few commercial loading/unloading facilities on Lopez Island. It is~~
16 ~~also used by recreational boaters.~~

17 ~~There is no parking specifically dedicated to the marine facilities. All parking is part of the~~
18 ~~County Park complex.~~

19 **~~Indian Cove Ramp, Shaw Island:~~** ~~The ramp is located within Indian Cove County Park~~
20 ~~at the end of Shaw Park Road. Since it is located on a very flat, shallow beach above +10~~
21 ~~MLLW, the wooden ramp can only be used at high tide to launch small recreational boats.~~
22 ~~Commercial landing craft can often only access it 2 or 3 times per year.~~

23 **~~Shaw Landing Dock, Shaw Island:~~** ~~The small dock and stairway is located adjacent and~~
24 ~~to the southwest of the state ferry loading area. There is currently no float and no beach~~
25 ~~access from the facility.~~

26 **~~Neck Point Cove, Shaw Island:~~** ~~The site is located is located at the County road end.~~
27 ~~At high tides, landing craft barges are able to deliver essential supplies and materials on~~
28 ~~the gravel beach.~~

29 **~~Decatur Head Ramp, Decatur Island:~~** ~~The concrete log ramp was reconstructed in 2009.~~
30 ~~It is located at the end of Davis Beach Road and serves the commercial, transportation~~
31 ~~and recreational needs of island residents as both a ramp and a barge landing site.~~
32 ~~Limited parking is available within the County ROW.~~

33 San Juan County Public Works Department currently operates and maintains 16 public
34 marine facilities:

- 35
- 36 • 9 public piers with floats.
- 37 • 7 boat ramps.
- 38 • 1 barge landing site, at the old gravel pit on San Juan Island.
- 39 • The County leases one moorage dock, at Deer Harbor.
- 40

41 The details of the marine facilities operated by Public Works are provided in the Annual
42 Marine Facility Report. That report includes annual maintenance activities, capital
43 improvements, physical assessment results, and Comprehensive Plan Review. A copy of
44 the annual report is available on the Public Works page of the County website.

45

46 In addition to Public Works, San Juan County Parks operates and maintains boat ramps,
47 at Small Pox Bay on San Juan Island and at Indian Cove on Shaw Island. The Port of
48 Friday Harbor operates the boat ramp and dock at Jackson Beach. The Port also
49 manages a marine fuel dock and public dock at Friday Harbor. The Port has recently
50 purchased Jensen's Shipyard and is in the process of developing a plan for use of the
51 site. Numerous private marine facilities exist on the islands, from large marinas like Roche
52 Harbor, Shipyard Cove, Deer Harbor, Cayou Quay, Rosario, and Fisherman Bay to the

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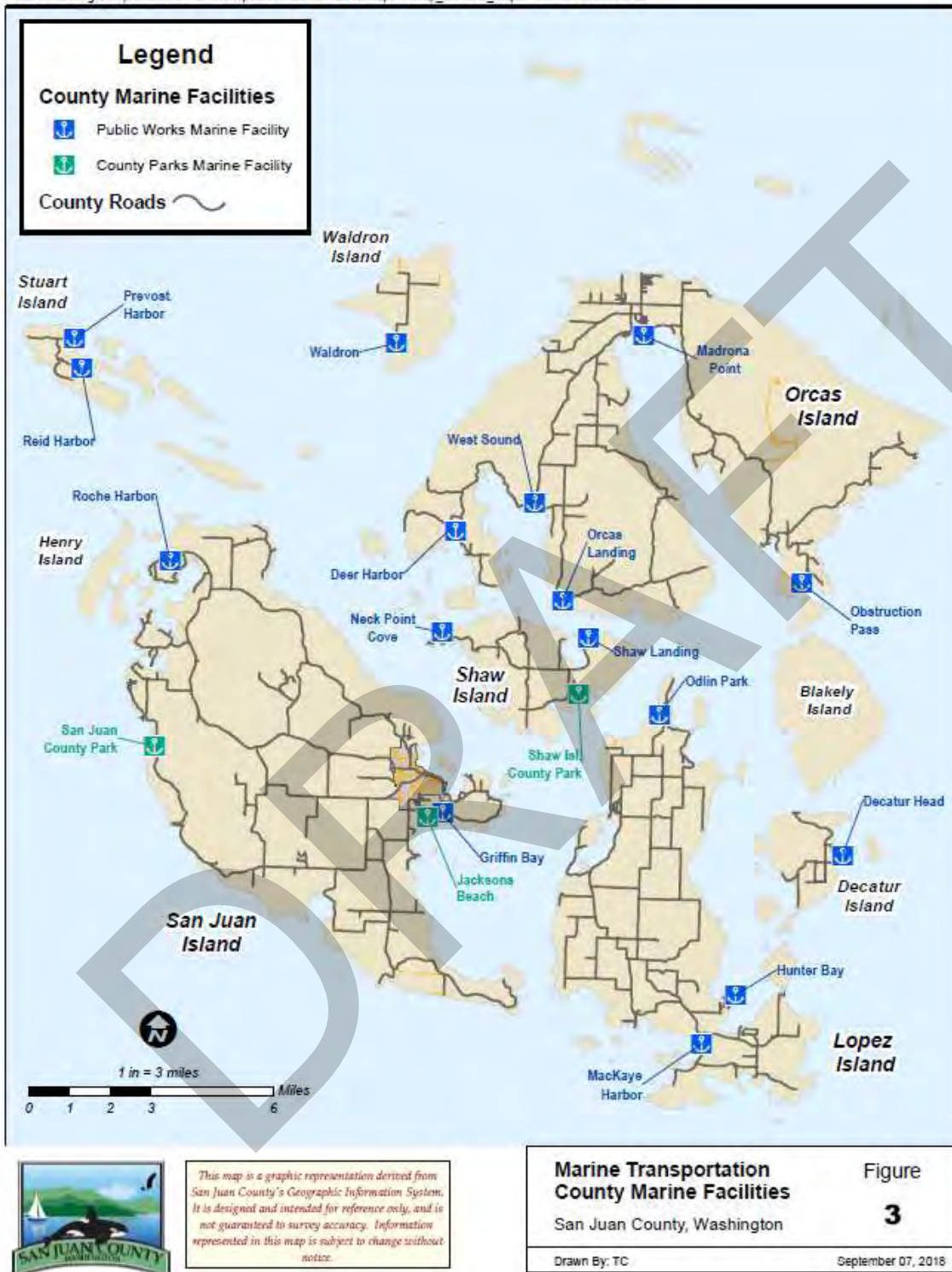
single docks constructed for use by individual or small groups of property owners.

Several private barge companies serve the islands for most freight needs. A number of the County's ramps are routinely used by the barges for delivery of freight and construction materials, including ramps on Orcas, Lopez, Decatur, Stuart, and Waldron.

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1 Figure 3. Marine Transportation – County Marine Facilities

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2 **b. Long-Range Planning Needs Demand/Capacity**

3 The following projects have either been identified and included in the County's Six Year
4 Transportation Improvement Program or the latest Annual Dock Report or identified as
5 concepts worth investigating further.

6 **Small Pox Bay Ramp, San Juan Island:** The ramp is maintained by County Parks and
7 requires silt removal periodically. Based on the 2006 Annual Dock Report, the ramp is
8 anticipated to have a useful life until 2018.

9 **Madrona Point Dock and Float, Orcas Island:** Consider rebuilding or replacing the float
10 to allow year-round day moorage.

11 **Obstruction Pass Dock, Float and Ramp, Orcas Island:** Construct a new Obstruction
12 Pass Boat/Barge Ramp. This ramp was repaired with 8" deep concrete logs in 2004. This
13 ramp is an important water access for Orcas Island. It is the alternative launch site for
14 autos via barge when the state ferry service is interrupted. When Orcas Island has ferry
15 service interruptions, as it did just a few years ago, this new ramp would provide a safe
16 place to land and launch cargo and autos. Ramp replacement is not currently on the Six
17 Year TIP.

18 **Westsound Dock and Float, Orcas Island:** Explore leased, permitted parking with
19 Orcas Island Yacht Club which is located next door.

20 **Orcas Landing Dock and Float, Orcas Island:** Long range improvements were
21 identified in a 2008 Structural Report and through a master plan public process. Marine
22 improvements identified included a lower profile bracket to be installed for small
23 boats/kayaks, replacement of pile caps and decking, and modifications to accommodate
24 ADA facilities. Additional improvements could include installing bollards at the head of the
25 pier, extending guardrails at the top end of the west gangway and add additional guardrails
26 around public access areas.

27 **Hunter Bay Dock, Float and Ramp, Lopez Island:** The concrete ramp at Hunter Bay is
28 deteriorating. The lower portion of the ramp exhibits significant cracking and breaks,
29 which will soon impact the upper portion of the ramp. The logs are too thin to sustain the
30 heavy equipment which is frequently loaded from the ramp. This ramp should be removed
31 and replaced. The design for this facility is scheduled to commence in 2014 with float and
32 dock replacement scheduled for 2017. Applicable grant funding should be evaluated.

33 **Odlin Park Dock, Float and Ramp, Lopez Island:** The Odlin Park Float was removed,
34 inspected, and repaired during the winter of 2005-2006. It was found to be in poor
35 condition. The original design included splicing two sections together at mid-length. This
36 lack of structure continuity causes the float to behave poorly and has led to a shortened
37 useful life. The piling needs to be replaced with steel piling. The design of the float and
38 pile replacement was initiated in 2012. After an anticipated two year permit process,
39 construction is anticipated to occur in 2015 or 2016, depending on funding sources.

40 **Level of Service Analysis**

41 Level of service for County docks is based on the lineal footage of useable dock space
42 per residential dwelling unit within the designated service area. County Code 18.60.200
43 defines the standards as LOS C for Type 1 docks, LOS D for Type 2 and LOS F for Type
44 3 docks. Table 7 identifies the location of the County docks and the areas they serve.

45 **Table 7. County Service Area**

	Service Area	Dock Location
Type 1⁴	Center, Decatur, Frost, Trump	Hunter Bay, Lopez Island
	Blakely, Obstruction	Obstruction Pass, Orcas Island
	Waldron, Wasp	Deer Harbor, Orcas Island

	Stuart, Henry, Pearl, Johns, Cactus, O'Neal, Spieden	Roche Harbor, San Juan Island
Type 2²	Stuart	Prevest
	Waldron	Cowlitz
	Decatur	—
Type 3³	San Juan	—
	Orcas	Eastsound, Westsound, Orcas Landing
	Lopez	Odlin, MacKaye Harbor
	Shaw	—

Notes: ¹**Type 1** – County docks located on ferry-served islands which provide primary access for non-ferry served islands.

²**Type 2** – County dock located on non-ferry served islands with County roads.

³**Type 3** – County docks that provide recreational uses or access between ferry-served islands

Table 8 identifies the estimated existing and projected number of residential dwelling units within each service area. These estimates are then used to calculate the existing and projected LOS based on the LOS policies for County docks.

Table 8. County Dock Level of Service

	2010				2021			
	Demand	Capacity	Ratio	LOS	Demand	Capacity	Ratio	LOS
Type 1								
Center Decatur Frost Trump	129	185	1.43	B	133	185	1.39	B
Blakely Obstruction	40	187	4.68	A	44	187	4.25	A
Waldron Wasp	69	120	1.741	B	69	120	1.74	B
Stuart Henry Pearl, Johns Cactus O'Neal Spieden	62	120	1.94	B	71	120	1.69	B
Type 2								
Stuart	35	376	10.74	A	41	376	9.17	A
Waldron	69	248	3.59	A	69	248	3.59	A
Decatur	67	0	0	F	84	0	0	F
Type 3								
San Juan	76	0	0	F	96	0	0	F
Orcas	76	885	11.64	A	96	885	9.22	A
Lopez	76	238	3.13	A	96	238	2.48	B
Shaw	76	0	0	F	96	0	0	F

Source: Transpo Group, 2011

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1 Capital improvements to the County PW marine facilities are based on several factors:
2 priority of facility, condition of facility, and evidence of inadequate capacity. These factors
3 are evaluated and reported upon in the Marine Facility Annual Report.

4
5 Updated information on completed, in-progress, and planned capital projects for marine
6 facilities are available in the 6-Year TIP and the Annual Marine Facility Report, both of
7 which are available on the County website, Public Works page.

8
9 **c. Long Range Transportation Planning Recommendations**

10 The County has set a high priority on maintaining and constructing marine facilities that
11 provide non-ferry served island residents with access to ferry served islands. Long-range
12 planning needs for County marine facilities are evaluated annually and documented in the
13 Annual Marine Facility Report.

14
15 **4. Barges and Landing Craft**

16 ~~Several private barge companies serve the islands with most freight needs. Humpback~~
17 ~~Hauling is a United States Coast Guard certified barge that can carry up to 49 passengers~~
18 ~~and regularly moves vehicles and freight throughout the islands. In the case of an emergency,~~
19 ~~Humpback Hauling is contracted with the County to provide emergency evacuation services~~
20 ~~from marine access locations. Other private barging businesses provide similar services to~~
21 ~~other outer islands. A number of the County ramps are routinely used for delivery of freight~~
22 ~~and construction materials. Two are located on Lopez Island at Odlin Park and MacKaye~~
23 ~~Harbor and the other is on Orcas Island at Obstruction Pass.~~

24
25 **C. Land Transportation**

26 ~~San Juan County contains 270 miles of roads located on 7 islands. The roads are classified as~~
27 ~~Major Collectors, Minor Collectors, and Local Access Roads. The County currently has four~~
28 ~~bridges, all on Orcas Island. In the past 6 years, the County has made a dedicated commitment~~
29 ~~to non-motorized transportation and has constructed over 8 miles of trails.~~

30 ~~In 2008, county roads on San Juan and Orcas Islands, along with the marine route from Anacortes~~
31 ~~to the Islands, were designated in the San Juan Islands Scenic Byway. Figure 4 shows the official~~
32 ~~route of the byway. The County is a member of the scenic byway stakeholder group and has~~
33 ~~participated in the development of the 2012 Scenic Byway *Corridor Management Plan* and various~~
34 ~~grants. Successful grant projects are included the county's Six-Year Transportation Plan and~~
35 ~~those projects involving the roads are implemented in compliance with county standards and~~
36 ~~safety protocols.~~

37 ~~The Town of Friday Harbor (Town) on San Juan Island developed the Transportation Element of~~
38 ~~their Comprehensive Plan in 2002. The Town operates and maintains approximately 13 miles of~~
39 ~~arterials and local access roads. Traffic circulation within the Town is affected by the~~
40 ~~loading/unloading of the Washington State Ferry at the harbor and the primary access points to~~
41 ~~destinations throughout the island. The Town will soon be updating its Comprehensive Plan.~~

42 San Juan County has approximately 745 miles of roadways spreadover 13 islands. Public Works
43 maintains 270 miles of public roads located on 7 islands (Orcas, Lopez, San Juan, Shaw, Stuart,
44 Waldron, and Decatur). The majority of the roads in the County -- 450 miles -- are privately owned
45 and maintained. In addition, there are Federal park roads, State park roads, and the Town of
46 Friday Harbor has about 16 miles of roads. In 2008, some county roads on San Juan and Orcas
47 Islands, along with the marine route from Anacortes to the Islands, were designated as the San
48 Juan Islands Scenic Byway. Figure 4 shows the official route of the Byway.

49
50 County roads provide transportation corridors for multi-modal access: motor vehicles, transit
51 vehicles, pedestrians, and bicyclists. The County's Parks, Trails and Natural Area Plan and
52 Nonmotorized Plan (Parks Plan) provides goals, policies and plans for the County's pedestrians

1 and bicyclists. These plans include integrating roadway access (shoulder widening), separated
2 trails adjacent to the roadways, and off-road trails to provide multi-modal access in the County.
3 The Parks Plan states:

4
5 “...one of the most pressing issues identified through the community outreach undertaken in
6 preparation for this plan is the need for non-motorized transportation opportunities. There is a
7 need expressed by the community to connect our islands together with a well-planned
8 transportation system of multi-modal trails”.
9

10 In 2018, the County adopted the Complete Streets Program Ordinance to ensure that future
11 planning, design, and construction of motorized and non-motorized transportation facilities
12 incorporate Complete Streets principles. The ordinance directs the County Engineer to prepare
13 an annual report on the recommended application of Complete Streets principles. This report is
14 available on the County website, Public Works page.

15
16 County roads are categorized according to their role and usage in carrying vehicles. These
17 categories are defined by US Department of Transportation, Federal Highway Administration
18 (FHWA) in its roadway functional classification system. The Functional Classification System
19 includes designations for rural and urban roads, including: Interstates, Freeways/Expressways,
20 Principal Arterials, Minor Arterials, Major Collectors, Minor Collectors, and Local Access. San
21 Juan County does not have any Interstate, Freeway, or Arterial roads. San Juan County has
22 roadways in three functional classifications, as shown on Figure 5. The functional classifications
23 are described as follows:

24
25 Rural Major Collectors provide the main access from the ferry landings. These are the highest
26 volume roads, with the highest speeds, and are the primary freight routes.

27
28 Rural Minor Collectors provide connections between the major collectors and the local access
29 roads or provide a secondary access to parts of the island.

30
31 Rural Local Access Roads provide direct access to abutting land uses and carry traffic to the
32 collector roads. Local access roads typically carry low volumes of traffic, traveling at low
33 speeds.

34
35 The functional classifications in San Juan County were established in 1968. In 2018, four road
36 segments on Orcas Island were changed from local access roads to major collectors: Main Street,
37 Crescent Beach Road, Prune Alley, and North Beach Road from School Road to Mount Baker
38 Road.
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Figure 4. San Juan Islands Scenic Byway

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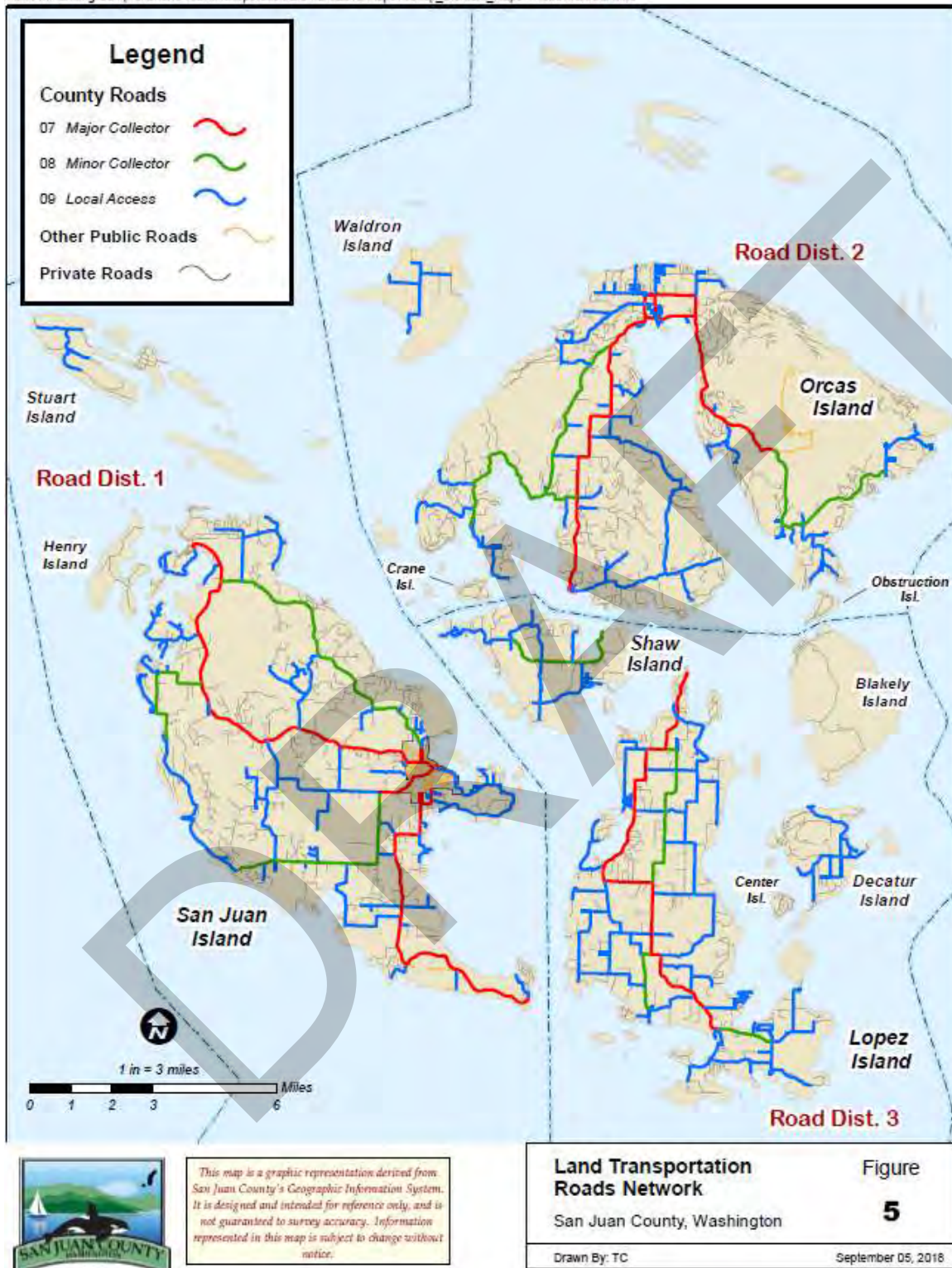


This map is a graphic representation derived from San Juan County's Geographic Information System. It is designed and intended for reference only, and is not guaranteed to survey accuracy. Information represented in this map is subject to change without notice.

San Juan Islands Scenic Byway	Figure
San Juan County, Washington	4
Drawn By: TC	Date: June 2011

1 Figure 5. Roads – San Juan County
 2

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3

The Town of Friday Harbor (Town) on San Juan Island developed the Transportation Element of its Comprehensive Plan in 2002. The plan is amended annually to reflect changes to the Six-Year Transportation Improvement Plan and the Summary of Capital Facility Improvements. Traffic circulation within the Town is affected by the loading/unloading of the Washington State Ferry at the harbor. The County and Town work together to maintain roads that transition from Town to County. In 2019, Town and County worked together to improve Argyle Avenue, as it transitions from Town to County jurisdiction near the Fairgrounds.

1. Roads

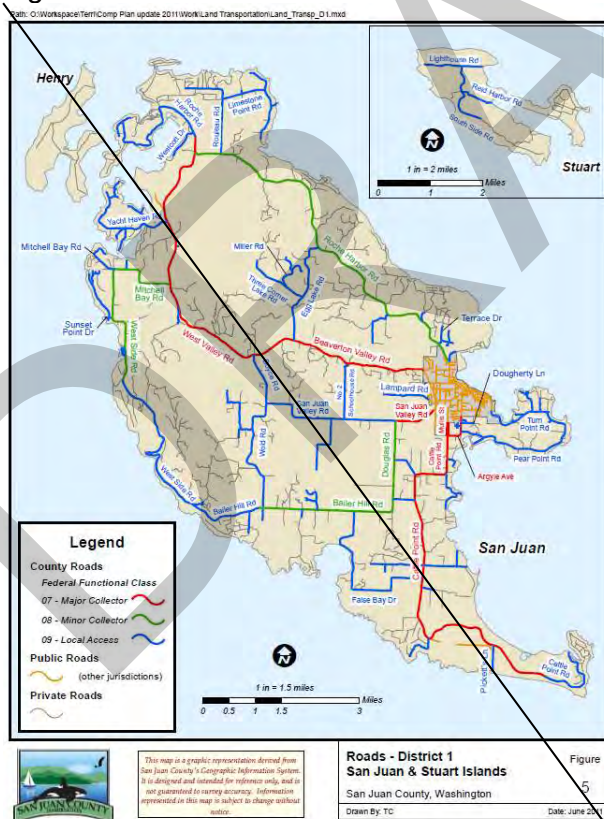
a. Inventory of Existing Facilities and Services – County Roads

The County's 270 miles of public roads are divided into three districts; see Figure 5. The road crew in each district is responsible for the operation and maintenance of the facilities within each of the districts. Roadway maintenance includes mowing and brushing within the road right-of-way to maintain sight distance, sign installation, repairing and paving the roads, and general preservation of the facilities. Figures 5 through 9 present the roads within each of the districts.

b. Level of Service Analysis – County Roads Demand/Capacity

The level of service (LOS) for the County's roadways were updated based on the 2000 Highway Capacity Manual. The updated LOS thresholds for all LOS values are shown below in Table 9.

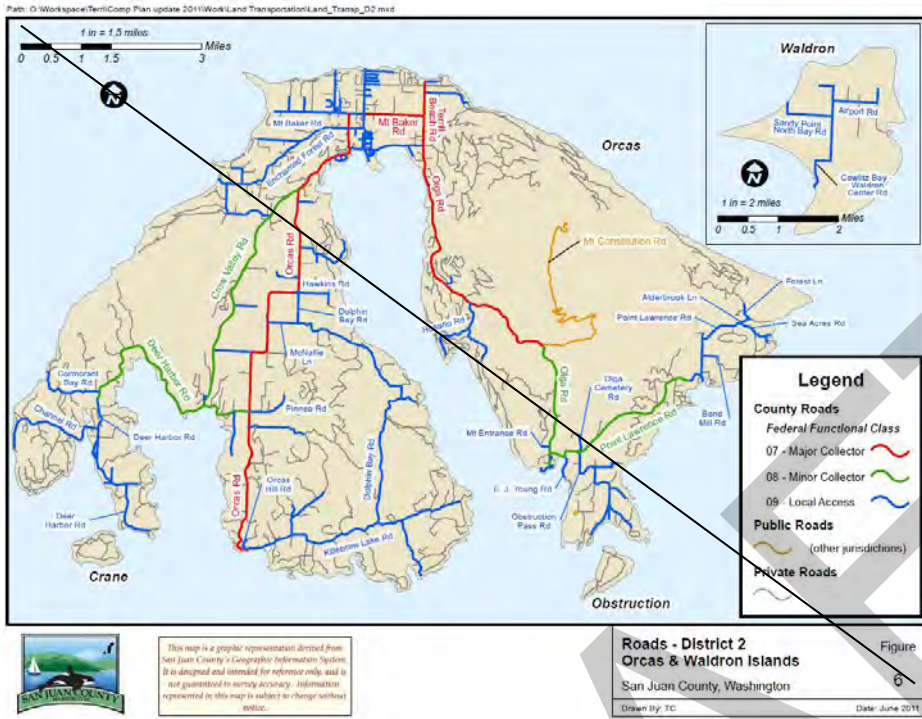
Figure 5. Roads – District 1 – San Juan & Stuart Islands



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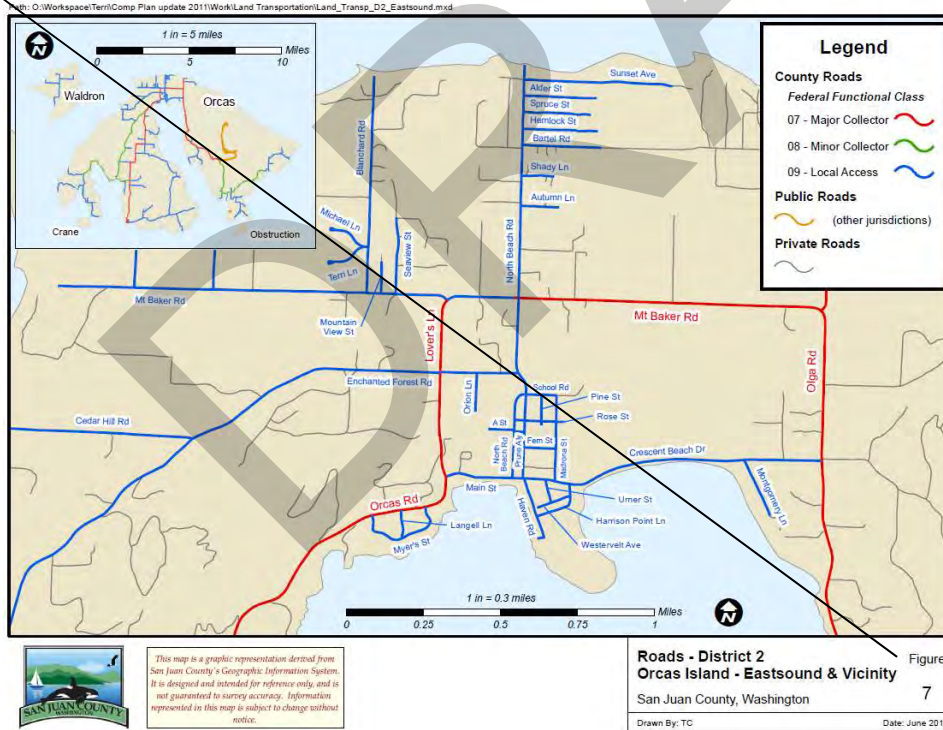
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Figure 6. Roads – District 2 – Orcas & Waldron Islands



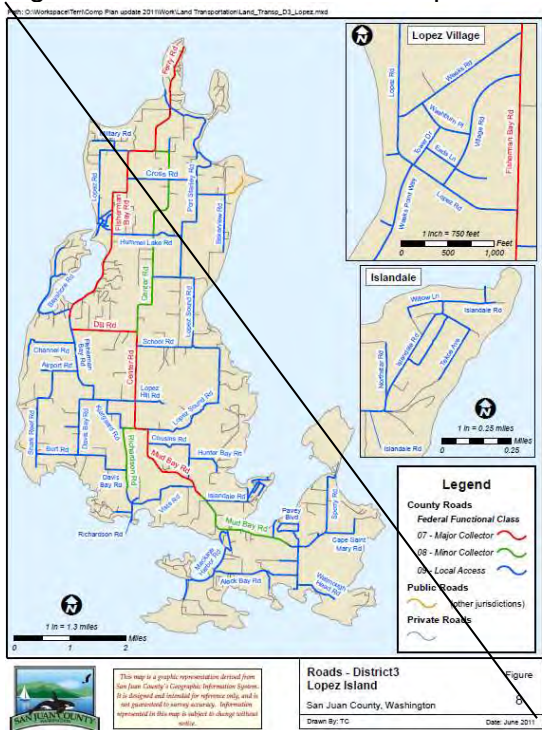
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Figure 7. Roads – District 2 – Eastsound & Vicinity



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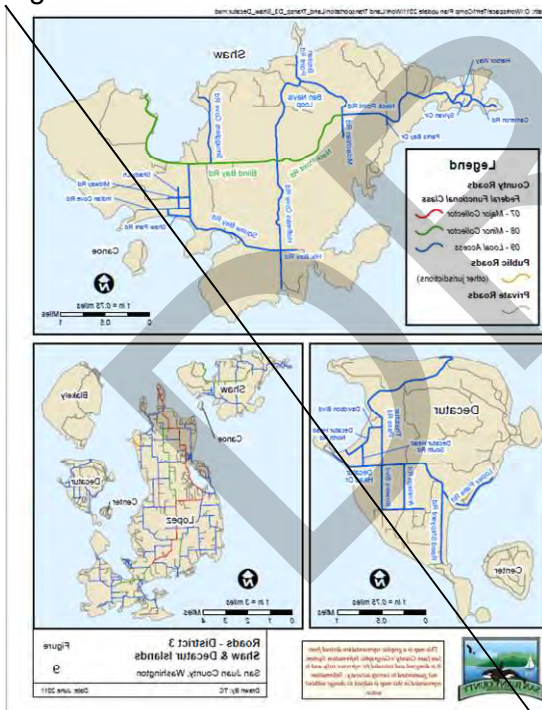
1 **Figure 8. Roads—District 3—Lopez Island**



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4 **Figure 9. Roads—District 3—Shaw & Decatur Islands**



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Table 9. County Collector Roads AADT LOS Standards¹

Terrain	LOS A/B	LOS C	LOS D ²	LOS E	LOS F ³
Rolling Level	<— 1,360 < 2,000	1,360—2,790 2,000—3,500	2,790—4,380 3,500—6,170	4,380—11,670 6,170—14,000	> 11,670 > 14,000

Source: Transpo Group, 2011

Notes:—

1. Proposed Standards from the HCM 2000
2. LOS D is San Juan County's adopted LOS standard for County collector roadways, per County Code 18.60.200.
3. The roadway capacity used to establish the LOS F threshold assumed the following: 10-foot travel lanes, no shoulders, 60/40 directional split, 10-percent trucks, 4-percent recreational vehicles, K-factor of 0.10 to convert peak hour capacity to a daily volume capacity.

Existing and forecast average daily roadway volumes and level of service were calculated for County collector roadways using average annual daily traffic (AADT) counts. AADT is the typical description for the two-way traffic count for a roadway in a 24-hour period. A factor is applied to the AADT to adjust for seasonal variation. The 2021 forecasted volumes were developed by applying a forecast blended growth rates across all islands. The current and projected traffic counts and LOS on San Juan Island are shown in Table 10 and demonstrate that all San Juan Island collector roadways meet the County's standard of LOS D or better. Only one roadway segment operates at LOS D in 2010 and three segments in 2021.

Table 10. San Juan Island – County Roads LOS

County Road #	Mile Post	Road Name	Terrain	2010 or 2012 ¹		2021 ²	
				AADT	LOS	AADT	LOS
Major Collectors							
7	0.46	Argyle Rd	Rolling	2,073	A/B/C	2,507	A/B/C
18	0.65	Mullis Rd	Level	2,691	A/B/C	3,035	A/B/C
18	0.75	Cattle Point Rd	Level	3,160	A/B/C	3,733	D
3	0.83	Roche Harbor Rd	Level	4,014	D	4,527	D
7	0.92	Argyle Road	Flat	1,416	A/B/C	1,597	A/B/C
4	1.00	San Juan Valley Rd	Level	2,651	A/B/C	3,117	A/B/C
2	1.05	Beaverton Valley Rd	Rolling	2,648	A/B/C	1,889	A/B/C
18	1.95	Cattle Point Rd	Level	2,327	A/B/C	2,854	A/B/C
18	2.61	Cattle Point Rd	Rolling	1,923	A/B/C	2,169	A/B/C
2	3.52	Beaverton Valley Rd	Rolling	1,265	A/B/C	1,427	A/B/C
18	3.87	Cattle Point Rd	Rolling	1,163	A/B/C	1,311	A/B/C
2	4.75	West Valley Rd	Rolling	1,612	A/B/C	1,677	A/B/C
18	5.22	Cattle Point Rd	Rolling	947	A/B/C	1,068	A/B/C
18	5.75	Cattle Point Rd	Rolling	698	A/B/C	787	A/B/C
18	6.82	Cattle Point Rd	Rolling	600	A/B/C	676	A/B/C
2	6.94	West Valley Rd	Rolling	813	A/B/C	917	A/B/C
2	9.60	West Valley Rd	Rolling	834	A/B/C	940	A/B/C
2	9.72	Roche Harbor Rd	Level	1,295	A/B/C	1,262	A/B/C
2	10.82	Roche Harbor Rd	Rolling	1,058	A/B/C	1,135	A/B/C
Minor Collectors							
4	2.15	Douglas Rd	Rolling	1,538	A/B/C	1,742	A/B/C
3	2.15	Roche Harbor Rd	Rolling	2,840	D	3,203	D
4	3.52	Bailer Hill Rd	Rolling	1,108	A/B/C	1,250	A/B/C

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3	5.00	Roche Harbor Rd	Rolling	1,905	A/B/C	2,166	A/B/C
4	6.23	Bailer Hill Rd	Rolling	814	A/B/C	883	A/B/C
3	6.53	Roche Harbor Rd	Rolling	2,087	A/B/C	2,354	A/B/C
3	7.63	Roche Harbor Rd	Level	1,720	A/B/C	1,940	A/B/C
4	14.67	Mitchell Bay Rd	Rolling	841	A/B/C	924	A/B/C

¹ San Juan County Public Works

² Transpo Group, 2011

As shown in Table 11, all Orcas Island collector roadways meet the County's standard of LOS D or better. Only one roadway segment operates at LOS D in 2010 and three segments in 2021.

Table 11. Orcas Island – County Roads LOS

County Road #	Mile Post	Road Name	Terrain	2010 or 2012 ¹		2021 ²	
				AADT	LOS	AADT	LOS
Major Collectors							
57	0.03	Terrill Beach Rd	Rolling	1,382	A/B/C	1,525	A/B/C
52	0.08	Lovers Ln	Rolling	2,127	A/B/C	2,617	A/B/C
58	0.10	Mount Baker Rd	Level	1,428	A/B/C	1,875	A/B/C
52	0.46	Lovers Ln	Rolling	1,979	A/B/C	2,434	A/B/C
57	0.68	Terrill Beach Rd	Level	632	A/B/C	778	A/B/C
4	0.75	Orcas Rd	Rolling	1,993	A/B/C	2,338	A/B/C
58	0.79	Mount Baker Rd	Rolling	1,829	A/B/C	1,924	A/B/C
58	1.17	Mount Baker Rd	Rolling	2,283	A/B/C	2,843	D
4	3.92	Orcas Rd	Level	2,167	A/B/C	2,361	A/B/C
4	6.93	Orcas Rd	Rolling	3,116	A/B/C	3,261	D
4	7.00	Orcas Rd	Level	3,514	D	4,650	D
4	9.45	Olga Rd	Rolling	2,674	A/B/C	2,875	D
4	11.50	Olga Rd	Rolling	2,325	A/B/C	2,554	A/B/C
Minor Collectors							
45	0.10	Deer Harbor Rd	Rolling	572	A/B/C	1,261	A/B/C
63	0.10	Point Lawrence Rd	Rolling	939	A/B/C	1,209	A/B/C
51	0.16	Crow Valley Rd	Rolling	745	A/B/C	916	A/B/C
63	0.56	Point Lawrence Rd	Rolling	540	A/B/C	664	A/B/C
45	1.00	Deer Harbor Rd	Rolling	1,060	A/B/C	1,304	A/B/C
51	1.90	Crow Valley Rd	Rolling	931	A/B/C	1,198	A/B/C
63	3.31	Point Lawrence Rd	Rolling	252	A/B/C	310	A/B/C
51	3.59	Crow Valley Rd	Rolling	1,488	A/B/C	1,807	A/B/C

45	3.80	Deer Harbor Rd	Rolling	942	A/B/C	1,159	A/B/C
45	4.36	Deer Harbor Rd	Rolling	884	A/B/C	1,084	A/B/C
4	14.36	Olga Rd	Rolling	1,086	A/B/C	1,388	A/B/C
4	15.94	Olga Rd	Rolling	253	A/B/C	312	A/B/C

¹ San Juan County Public Works

² Transpo Group, 2011

As shown in Table 12, all Lopez and Shaw Island collector roadways meet the County's standard of LOS D or better in both 2010 and 2021.

Table 12. Lopez and Shaw Islands – County Roads LOS

County Road #	Mile Post	Road Name	Terrain	2010 or 2012 ¹		2021 ²	
				AADT	LOS	AADT	LOS
Major Collectors (all on Lopez Island)							
108	0.10	Dill Rd	Level	674	A/B/C	664	A/B/C
114	0.10	Mud Bay Rd	Level	1,114	A/B/C	1,181	A/B/C
5	0.16	Ferry Rd	Level	633	A/B/C	654	A/B/C
103	0.40	Fisherman Bay Rd	Level	689	A/B/C	712	A/B/C
114	0.55	Mud Bay Rd	Rolling	906	A/B/C	937	A/B/C
103	1.75	Fisherman Bay Rd	Level	1,141	A/B/C	1,149	A/B/C
5	1.98	Ferry Rd	Level	1,128	A/B/C	1,144	A/B/C
103	2.26	Fisherman Bay Rd	Level	1,689	A/B/C	1,746	A/B/C
114	2.30	Mud Bay Rd	Level	857	A/B/C	886	A/B/C
103	3.00	Fisherman Bay Rd	Level	2,186	A/B/C	2,259	A/B/C
103	3.76	Fisherman Bay Rd	Level	1,300	A/B/C	1,343	A/B/C
103	4.00	Fisherman Bay Rd	Rolling	1,288	A/B/C	1,348	A/B/C
5	6.17	Center Rd	Level	1,661	A/B/C	1,717	A/B/C
5	7.12	Center Rd	Rolling	1,277	A/B/C	1,369	A/B/C
Minor Collectors – Lopez							
5	2.24	Center Rd	Level	446	A/B/C	461	A/B/C
114	2.94	Mud Bay Rd	Level	508	A/B/C	525	A/B/C
5	3.30	Center Rd	Level	619	A/B/C	535	A/B/C
5	4.85	Center Rd	Level	1,327	A/B/C	1,123	A/B/C
5	8.10	Richardson Rd	Level	269	A/B/C	278	A/B/C
5	9.20	Richardson Rd	Rolling	259	A/B/C	267	A/B/C
Minor Collectors – Shaw							
96	1.00	Blind Bay Rd	Rolling	292	A/B/C	359	A/B/C
96	2.21	Blind Bay Rd	Rolling	207	A/B/C	234	A/B/C

¹ San Juan County Public Works

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² ~~Transpo Group, 2011~~

DRAFT

The County evaluates several factors when prioritizing transportation improvement projects. These factors include: roadway capacity (level of service), safety issues, operational/maintenance elements, and Complete Street principles (bicycle, pedestrian, and public transportation users). Roadway capacity (level of service, LOS) determines the maximum acceptable threshold for traffic volume prior to considering improvements to address potential congestion.

In 2011, the County established LOS thresholds for County roadways. It is the industry standard to define the maximum roadway capacity as LOS F. A roadway operating at LOS F is at or above maximum capacity, resulting in forced or breakdown traffic flow; see the descriptions in Table 1. The maximum roadway capacity for county roads was estimated at an annual daily traffic volume of 11,670 vehicles based the typical roadway characteristics using the 2000 Highway Capacity Manual. Based on this value, the remaining LOS thresholds were scaled by applying a relative percentage of total capacity. In 2011, the County established LOS D as the maximum acceptable threshold for traffic volume, and set LOS D at annual average daily traffic (AADT) <4,380.

In 2018, the County reviewed its LOS standards based on observed traffic flow at measured traffic volumes, in order to revise the LOS standards to more appropriate traffic flow numbers. The maximum roadway capacity was reviewed and kept at 11,670. The highest volume of daily traffic measured during the summer, 5,300 on Roche Harbor Road, was set as LOS C, Stable Flow. The remaining LOS thresholds were scaled by applying a relative percentage of total capacity and adjusted as shown in Table 1. The maximum acceptable threshold for traffic volume remains LOS D, but is now AADT < 7,900 as shown in Table 1.

Table 1. Level of Service (LOS) Description and AADT.

<u>LOS</u>	<u>Description</u>	<u>Annual Average Daily Traffic (AADT)</u>
<u>A</u>	<u>Free Flow-Traffic flows at or above the posted speed limit. Motorists have a high level of physical and psychological comfort.</u>	<u><5,300</u> <u>For both A/B</u>
<u>B</u>	<u>Reasonable Free Flow-Speeds are maintained, maneuvering is slightly restricted. Motorists still have a high level of comfort.</u>	
<u>C</u>	<u>Stable Flow or Near Stable Flow. Ability to maneuver is noticeably restricted and passing requires more drive awareness.</u>	<u>5,300-6,535</u>
<u>D</u>	<u>Approaching Unstable Flow. Speeds slightly decrease as volumes slightly increase.</u>	<u>6,535-7,900</u>
<u>E</u>	<u>Unstable Flow, operating at capacity. Flow becomes irregular and speed varies rapidly. Speeds rarely reach the posted limit. Drivers' level of comfort is poor.</u>	<u>7,900-11,670</u>
<u>F</u>	<u>Forced or Breakdown Flow. Every vehicle moves in lock step with the vehicle in front of it, with frequent slowing required. A road in constant traffic jam is at LOS F.</u>	<u>>11,670</u>

Every two years the County measures traffic volume at specific roadway locations. Daily traffic in San Juan County varies greatly from the wintertime, which is primarily County residents using the roads, to the summertime, when traffic increases significantly due to the large number of tourists. The seasonal factor in traffic volume has been determined and was used to calculate the average annual daily traffic (AADT). The 2036 traffic volumes were forecast based on the Population Projections adopted by the County

Council in 2018. Current and forecasted AADT and LOS for collector road segments in the three road districts are shown in Tables 2, 3 and 4.

All of the County collector road segments are currently operating at LOS A/B, free-flowing traffic volume. The 2036 LOS forecast predicts that all of the County collector roads will operate at or above the established LOS Standard D, as shown below.

Table 2. AADT and LOS for San Juan Island

San Juan Island Collector Roads						
County Road #	Mile Post	Road Name	2018		2036	
			AADT	LOS	AADT	LOS
7	0.46	Argyle Ave	2830	A/B	3663	A/B
7	0.92	Argyle Ave	1916	A/B	2480	A/B
1	3.52	Bailer Hill Rd	1654	A/B	2141	A/B
1	6.23	Bailer Hill Rd	498	A/B	645	A/B
2	1.05	Beaverton Valley Rd	3109	A/B	4024	A/B
2	3.52	Beaverton Valley Rd	2476	A/B	3205	A/B
18	0.75	Cattle Point Rd	3948	A/B	5110	A/B
18	1.95	Cattle Point Rd	3176	A/B	4111	A/B
18	2.61	Cattle Point Rd	2048	A/B	2650	A/B
18	3.87	Cattle Point Rd	1595	A/B	2064	A/B
18	5.22	Cattle Point Rd	961	A/B	1244	A/B
18	5.75	Cattle Point Rd	961	A/B	1244	A/B
18	6.82	Cattle Point Rd	738	A/B	955	A/B
1	2.15	Douglas Rd	1683	A/B	2179	A/B
1	14.6	Mitchell Bay Rd	965	A/B	1249	A/B
18	0.65	Mullis Rd	3275	A/B	4239	A/B
3	0.83	Roche Harbor Rd	4719	A/B	6107	C
3	2.15	Roche Harbor Rd	2796	A/B	3619	A/B
3	5.0	Roche Harbor Rd	2149	A/B	2781	A/B
3	6.53	Roche Harbor Rd	1829	A/B	2367	A/B
3	7.63	Roche Harbor Rd	1257	A/B	1627	A/B
2	9.72	Roche Harbor Rd	1419	A/B	1837	A/B
2	10.82	Roche Harbor Rd	1419	A/B	1837	A/B
1	1.19	San Juan Valley Rd	2716	A/B	3515	A/B
2	4.75	West Valley Rd	1472	A/B	1905	A/B
2	6.91	West Valley Rd	919	A/B	1190	A/B
2	9.6	West Valley Rd	575	A/B	744	A/B

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Table 3. AADT and LOS for Orcas Island

Orcas Island Collector Roads						
County Road #	Mile Post	Road Name	2018		2036	
			AADT	LOS	AADT	LOS
4	8.90	Crescent Beach Rd	4172	A/B	6177	C
51	0.16	Crow Valley Rd	819	A/B	1213	A/B
51	1.9	Crow Valley Rd	1074	A/B	1590	A/B
51	3.59	Crow Valley Rd	1625	A/B	2407	A/B
45	0.1	Deer Harbor Rd	731	A/B	1082	A/B
45	1.0	Deer Harbor Rd	1132	A/B	1677	A/B
45	3.8	Deer Harbor Rd	1132	A/B	1677	A/B
45	4.36	Deer Harbor Rd	866	A/B	1282	A/B
52	0.08	Lovers Ln	2448	A/B	3625	A/B
52	0.46	Lovers Ln	2448	A/B	3625	A/B
4	8.20	Main St	4257	A/B	6303	C
58	0.1	Mount Baker Rd	1952	A/B	2890	A/B
58	0.79	Mount Baker Rd	2818	A/B	4172	A/B
58	1.17	Mount Baker Rd	2953	A/B	4373	A/B
53	0.35	North Beach Rd	4213	A/B	6238	C
4	9.45	Olga Rd	2919	A/B	4322	A/B
4	11.5	Olga Rd	2919	A/B	4322	A/B
4	14.36	Olga Rd	1089	A/B	1613	A/B
4	15.94	Olga Rd	250	A/B	370	A/B
4	0.75	Orcas Rd	2336	A/B	3459	A/B
4	3.92	Orcas Rd	2477	A/B	3667	A/B
4	6.93	Orcas Rd	3828	A/B	5668	C
4	7.0	Orcas Rd	4856	A/B	7190	D
63	0.1	Point Lawrence Rd	1045	A/B	1547	A/B
63	0.56	Point Lawrence Rd	554	A/B	820	A/B
63	3.31	Point Lawrence Rd	332	A/B	491	A/B
54	0.47	Prune Alley	2227	A/B	3298	A/B
57	0.03	Terrill Beach Rd	2157	A/B	3195	A/B
57	0.68	Terrill Beach Rd	1093	A/B	1619	A/B

1 Table 4. AADT and LOS for Lopez and Shaw Islands

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Lopez and Shaw Collector Roads						
<u>County Road #</u>	<u>Mile Post</u>	<u>Road Name</u>	<u>2018</u>		<u>2036</u>	
			<u>AADT</u>	<u>LOS</u>	<u>AADT</u>	<u>LOS</u>
<u>5</u>	<u>2.24</u>	<u>Center Rd</u>	<u>508</u>	<u>A/B</u>	<u>530</u>	<u>A/B</u>
<u>5</u>	<u>3.3</u>	<u>Center Rd</u>	<u>720</u>	<u>A/B</u>	<u>752</u>	<u>A/B</u>
<u>5</u>	<u>4.85</u>	<u>Center Rd</u>	<u>1545</u>	<u>A/B</u>	<u>1614</u>	<u>A/B</u>
<u>5</u>	<u>6.17</u>	<u>Center Rd</u>	<u>1769</u>	<u>A/B</u>	<u>1848</u>	<u>A/B</u>
<u>5</u>	<u>7.12</u>	<u>Center Rd</u>	<u>1415</u>	<u>A/B</u>	<u>1478</u>	<u>A/B</u>
<u>108</u>	<u>0.1</u>	<u>Dill Rd</u>	<u>754</u>	<u>A/B</u>	<u>788</u>	<u>A/B</u>
<u>5</u>	<u>0.16</u>	<u>Ferry Rd</u>	<u>929</u>	<u>A/B</u>	<u>970</u>	<u>A/B</u>
<u>5</u>	<u>1.98</u>	<u>Ferry Rd</u>	<u>1145</u>	<u>A/B</u>	<u>1196</u>	<u>A/B</u>
<u>103</u>	<u>0.4</u>	<u>Fisherman Bay Rd</u>	<u>849</u>	<u>A/B</u>	<u>887</u>	<u>A/B</u>
<u>103</u>	<u>1.75</u>	<u>Fisherman Bay Rd</u>	<u>1167</u>	<u>A/B</u>	<u>1218</u>	<u>A/B</u>
<u>103</u>	<u>2.26</u>	<u>Fisherman Bay Rd</u>	<u>1824</u>	<u>A/B</u>	<u>1905</u>	<u>A/B</u>
<u>103</u>	<u>3.0</u>	<u>Fisherman Bay Rd</u>	<u>1824</u>	<u>A/B</u>	<u>1905</u>	<u>A/B</u>
<u>103</u>	<u>3.76</u>	<u>Fisherman Bay Rd</u>	<u>1304</u>	<u>A/B</u>	<u>1362</u>	<u>A/B</u>
<u>103</u>	<u>4.0</u>	<u>Fisherman Bay Rd</u>	<u>1304</u>	<u>A/B</u>	<u>1362</u>	<u>A/B</u>
<u>114</u>	<u>0.1</u>	<u>Mud Bay Rd</u>	<u>915</u>	<u>A/B</u>	<u>956</u>	<u>A/B</u>
<u>114</u>	<u>0.55</u>	<u>Mud Bay Rd</u>	<u>915</u>	<u>A/B</u>	<u>956</u>	<u>A/B</u>
<u>114</u>	<u>2.3</u>	<u>Mud Bay Rd</u>	<u>720</u>	<u>A/B</u>	<u>752</u>	<u>A/B</u>
<u>114</u>	<u>2.94</u>	<u>Mud Bay Rd</u>	<u>450</u>	<u>A/B</u>	<u>470</u>	<u>A/B</u>
<u>5</u>	<u>8.1</u>	<u>Richardson Rd</u>	<u>226</u>	<u>A/B</u>	<u>236</u>	<u>A/B</u>
<u>5</u>	<u>9.2</u>	<u>Richardson Rd</u>	<u>226</u>	<u>A/B</u>	<u>236</u>	<u>A/B</u>
<u>96</u>	<u>1.0</u>	<u>Shaw Island-Blind Bay Rd</u>	<u>233</u>	<u>A/B</u>	<u>233</u>	<u>A/B</u>
<u>96</u>	<u>2.21</u>	<u>Shaw Island-Blind Bay Rd</u>	<u>233</u>	<u>A/B</u>	<u>233</u>	<u>A/B</u>

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While the roadways are predicted to operate within the established LOS Standards, there is a potential that intersections could be negatively impacted by population growth and changes in land use. Intersection LOS standards may be used to assess the adequacy of the transportation system within Urban Growth Areas (UGAs), such as Eastsound and Lopez Village. As UGAs increase in density, more vehicles (and pedestrians and bicycles) will be competing for the same street space. By setting intersection-based standards and evaluating UGA intersection LOS periodically, the need for intersection improvements can be identified.

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Intersection LOS is based on the vehicular delay traveling through an intersection during the busiest one-hour period. Smaller delays result in better LOS (A, B, C), while longer delays mean worse LOS (D, E, F).

<u>Level of Service</u>	<u>Average Control Delay (seconds/vehicle)</u>
<u>A</u>	<u>0 – 10</u>
<u>B</u>	<u>10 – 15</u>
<u>C</u>	<u>15 – 25</u>
<u>D</u>	<u>25 – 35</u>
<u>E</u>	<u>35 – 50</u>
<u>F</u>	<u>50</u>

Intersection LOS (fill in the blank) has been adopted as the maximum acceptable intersection delay for the key intersections in Eastsound and Lopez Village UGAs. The key intersections are collector road intersections used for moving traffic in and out of the UGA and are listed below.

In 2019, intersection flow was measured for existing conditions and modeled to predict intersection flow in 2036.

<u>LOPEZ UGA INTERSECTIONS</u>	<u>2019 Existing</u>		<u>2036 Projection</u>	
	<u>Delay (sec/veh)</u>	<u>LOS</u>	<u>Delay (sec/veh)</u>	<u>LOS</u>
<u>Weeks Rd/Fisherman Bay Rd</u>	9.1	A		
<u>Lopez Rd/Fisherman Bay Rd</u>	9.1	A		
<u>Fisherman Bay Rd/Hummell Lake Rd</u>	9.6	A		
<u>Weeks Rd/Lopez Rd</u>	9.1	A		

Add summary of 2036 projections and identify intersections that may require improvements.

<u>EASTSOUND UGA INTERSECTIONS</u>	<u>2019 Existing</u>		<u>2036 Projections</u>	
	<u>Delay (sec/veh)</u>	<u>LOS</u>	<u>Delay (sec/veh)</u>	<u>LOS</u>
<u>N Beach Rd/Mt Baker Rd</u>	21.7	C		
<u>Lovers Ln/Mt Baker Rd</u>	11.8	B		
<u>Orcas Rd/Main St</u>	14	B		
<u>Prune Alley/Main St</u>	14.7	B		
<u>Prune Alley/School Rd</u>	11.5	B		
<u>Terrill Beach/Crescent Beach Dr</u>	11.3	B		
<u>Terrill Beach/Mt Baker Rd</u>	8.5	A		

Add summary of 2036 projections and identify intersections that may require improvements

c. Long-Range Planning Needs – County Roads Long Range Transportation Planning Recommendations

Between the early 1970s to early 1990s, traffic volumes increased by about 5%/year. However, growth rates on county collector roadways more recently have slowed and forecasted growth is project to be between 0.3% and 1.9%, depending on the island. These figures are based on 2010 Census figures and the Office of Financial Management projections. This decline is attributed to factors such as the aging County population which tends to drive less, decrease in ferry traffic and inconsistent data collection locations. In most locations, maintenance and gradual upgrading to meet State and County standards are expected to provide adequate capacity and traffic safety to meet anticipated increases in traffic volumes.

Safety for all forms of transportation remains a long term goal for the County. An analysis of accident data from 2001 through mid-2011 was recently conducted. The majority of injury and/or fatal crashes in San Juan County involve a single vehicle (83%). Of the crashes that are classified as road departure accidents, 65% involve collision with a fixed object, such as trees, ditches or earth/rock banks. And 60% of the crashes occurred at a horizontal curve. These crash volumes may be partly attributed to narrow road surfaces, poor or no road shoulders, presence of objects like trees and fences in road right-of-way,

1 and curvy roads. But while these may contribute to local vehicular crashes, they are also
2 elements of scenic, rural character enjoyed by travelers on many island roads. One of the
3 long term planning goals of the County will be to balance the need for increased safety
4 along roadways with recognizing the need to maintain the scenic characteristics.
5 Currently, all county roadways are operating within the established LOS Standard (LOS
6 D) or better and will continue to operate at acceptable traffic volume levels for the next 20
7 years based on estimated traffic growth. County roadways are expected to provide
8 adequate capacity to meet anticipated increases in traffic volumes. Roadway
9 improvements should be focused on reducing collisions and providing multi-modal access,
10 while preserving scenic characteristics.

11
12 The UGA key intersections are currently operating at an adequate LOS. However,
13 modeling of the intersections for 2036 growth projects that some of the intersections will
14 have excessive side street delays. Intersections projected to have excessive delays will
15 be evaluated and intersection improvements such as four way stops, turn lanes, or
16 roundabouts will be considered based on the traffic flow predictions, intersection geometry
17 and available road right of way. Potential intersection improvements will go through the
18 standard county project planning and review process.

19
20 The County shall use the following assessments to develop transportation improvement
21 priority arrays, to guide the county legislative authority in the preparation of the Six Year
22 Transportation Improvement Plans and the Annual Construction Programs:

- 23
- 24 • Roadway condition.
- 25 • Biennial traffic counts and LOS assessments.
- 26 • Annual Complete Streets assessment.
- 27 • Traffic collision assessment for road safety plan.
- 28 • Concurrency evaluation for proposed developments. Developers in the County
29 are not typically required to improve County roads, but they are required to
30 construct private roads and may be required to make improvements to
31 intersections to improve traffic flow or safety.
- 32 • Intersection LOS assessments.
- 33

34 The County shall continue to coordinate with the Town, Ports, and Washington State
35 Ferries to provide roadway continuity with marine and air transportation services.

36 37 2. Bridges

38 a. Inventory of Existing Facilities and Services

39 San Juan County Public Works Department maintains four bridges on Orcas Island. There
40 are no County bridges on the other islands.

41
42 ***Deer Harbor Bridge (Bridge No. 2146A):*** ~~Constructed in late 1970 and early 1971, this~~
43 ~~bridge is Located at milepost 0.22 on Channel Road, this bridge was replaced in 2016-~~
44 ~~2017 with a concrete bridge supported by concrete end walls. It crosses a salt water~~
45 ~~estuary that is nearly dry at low tide. The bridge is a three span timber bridge with an~~
46 ~~overall length of fifty one feet. The bridge originally had a laminated timber deck which~~
47 ~~was replaced earlier and again in 2009 with a new timber plank deck. The bridge has~~
48 ~~thirteen lines of timber stringers supported by transverse timber pile bents, consisting of a~~
49 ~~timber cap and four 12-inch diameter treated timber piles per bent. During removal and~~
50 ~~replacement of the decking in 2009, there was no evidence of "Vee" rot in the top of the~~
51 ~~original stringers. In 2009, the pile caps were reinforced with steel channel sections~~

1 (C12x20.7) and new timber pile bent bracing. The piles are checked for soundness when
2 the bridge is inspected every two years. The bridge is classified but functionally obsolete
3 (FO), because of the narrowness of the bridge. Repair and replacement of the north timber
4 backwall was completed earlier. This required removing and replacing the northerly
5 approach fill.
6

7 **Moran State Park Bridge (Bridge No. 9227A):** Located at milepost 14.35 on Orcas
8 Road, this one lane, earth-filled concrete arch bridge was constructed in 1921 by Robert
9 Moran. The bridge is founded on bedrock, spans Cascade Creek in Moran State Park,
10 and is adequate for current loads. The bridge is not scour critical. In the past, the concrete
11 bridge rails and overhead concrete portal have sustained damage from over-height
12 vehicles. The bridge is inspected every two years by Washington State Department of
13 Transportation (WSDOT) bridge inspectors. The bridge is classified as Functionally
14 Obsolete (FO), because of the narrowness of the bridge and the angle of the road
15 approaches. There is an oversize restriction on the bridge because the bridge is narrow
16 and on a curve; extra wide or long vehicles, such as mobile homes, may strike the supports
17 or the sides of the bridge. In spring 2005, the overhead portal was repaired by Washington
18 State Department of Transportation (WSDOT) maintenance personnel because of a "high-
19 load" hit in September 2004. In the 1990's, the County received grant funding to replace
20 the bridge, but public opinion from residents forced the County to abandon plans for
21 replacing the bridge. Replacement of the bridge will be challenging because of right-of-
22 way issues and agency-wide competition for bridge replacement funds through the
23 Federal/WSDOT BRAC program. A yield sign has been installed on the northbound lane
24 and the Public Works department continues to monitor traffic safety.
25

26 **West Sound Bridge (Bridge No. 9247A):** Located at milepost 0.72 on Deer Harbor
27 Road, this bridge was rebuilt in 2001. by adding new precast pre-stressed concrete deck
28 slabs, two reinforced cast-in-place concrete pile caps supported on four 10-inch diameter
29 piling behind the original "U-shaped" concrete retaining walls, and new timber posts and
30 railing. The original retaining walls are cracked and deteriorating because of age and tidal
31 action. The bridge crosses a small saltwater estuary at West Sound
32

33 **Pt. Lawrence Road Bridge at Buck Bay:** Completed in the fall of 2011, this 43-foot
34 span, pre-stressed concrete bridge spans Cascade Creek at Buck Bay, at milepost 0.3 on
35 Pt. Lawrence Road on the southeast side of Orcas Island, just east of the community of
36 Olga. The bridge replaced two culverts, which were insufficient to pass flood water, and
37 led to overtopping the road. The bridge consists of a reinforced, cast-in-place concrete
38 deck on top of seven 24-inch deep pre-stressed of precast concrete channel beams. The
39 abutments are cast-in-place concrete cap beams, supported on eight 14-inch diameter
40 steel piling per abutment. An 18-foot wide channel was created in place of 30-inch and
41 18-inch culverts. Salmon Recovery Board funds and County Road Funds were used to
42 fund the design and construction
43

44 **b. Long-Range Planning Needs**

45 **Deer Harbor Bridge:** The County has been working with environmental groups to assess
46 the environmental impacts of the existing structure. A federal grant was secured in 2012
47 to replace the existing bridge with a wider span which will allow for recovery of the estuary
48 habitat. Design will begin in 2013 with construction estimated to take place in 2015/16.
49 In the meantime, the approaches have been posted to limit trucks to a single lane on the
50 bridge.
51

52 **Moran State Park Bridge:** The bridge structure is adequate, but the narrow roadway
may require a new bridge within the next 15 years.

1 ~~**Westsound Bridge:** The bridge was replaced in 2001 with new decking and new~~
2 ~~structural support system. The existing concrete retaining walls were left in place, but no~~
3 ~~longer provide structural support for the bridge. Grant funds are being sought for a~~
4 ~~replacement structure that will also allow fish passage.~~
5
6

7 **a. Inventory of Existing Facilities and Services**

8 San Juan County Public Works Department maintains four bridges on Orcas Island. The details
9 of the bridges are provided in the Annual Bridge Report. The report includes annual maintenance
10 activities, capital improvements, and biennial inspection results. A copy of the annual report is
11 available on the Public Works page of the County website.

- 12 • Deer Harbor Bridge on Channel Road
- 13 • Moran State Park Bridge on Olga Road
- 14 • West Sound Bridge on Deer Harbor Road
- 15 • Buck Bay Bridge on Pt Lawrence Road
- 16

17 Figure 6. County Bridges



18

1 **b. Demand/Capacity**

2 The County evaluates two key factors when prioritizing bridge improvement projects:
3 traffic capacity and structural integrity. The capacity of each bridge is evaluated as part
4 of the roadway LOS assessment. The structural integrity of the bridges is evaluated every
5 two years by Washington State Department of Transportation (WSDOT) bridge inspectors
6 from Whatcom County. The condition of the bridges, along with completed and planned
7 maintenance and capital improvements, is updated in the Annual Bridge Report, available
8 on the Public Works page of the County website. Currently, all four bridges provide
9 adequate capacity and are structurally sound.

10
11 **c. Long Range Transportation Planning Recommendations**

12 The County shall continue to inspect and evaluate the structural integrity and traffic
13 capacity of the bridges.

14
15
16 **3. ~~Human Services Transportation Plan~~**

17 ~~In 2010, a *Coordinated Human Services Transportation Plan* (HSTP) was completed for San~~
18 ~~Juan County. The purpose of the plan was to: (a) create a local assessment that identified~~
19 ~~the varied transportation services available for individuals with lower incomes, seniors and~~
20 ~~persons with disabilities; (b) identify gaps in accessing services and community, and (c)~~
21 ~~develop and recommend strategies to meet those needs.~~

22 ~~In general, San Juan County contains a larger percentage of people aged 65 or over than in~~
23 ~~Washington State. However, a slightly less percentage of people with disabilities or in poverty~~
24 ~~reside in the islands based on 2000 Census and updates, and the State Office of Financial~~
25 ~~Management data.~~

26 ~~Transportation can be challenging for individuals without access to a personal vehicle. Unique~~
27 ~~strategies are employed on each island to assist residents to getting to services on the island~~
28 ~~or on the mainland.~~

29 ~~Most community activities are located in the Town of Friday Harbor, Lopez Village or~~
30 ~~Eastsound, while the majority of people needing access live in a widely scattered pattern~~
31 ~~across each of the islands. In addition, many residents must travel to the mainland for work,~~
32 ~~medical appointments and for access to some government program offices.~~

33 ~~In developing the HSTP, input was sought from the public utilizing a number of different~~
34 ~~venues, including surveys, personal interviews and public workshops. The top priorities for~~
35 ~~unmet transportation needs among individuals with lower incomes, seniors and persons with~~
36 ~~disabilities were identified.~~

37 ~~With the data collected, San Juan County was successful in securing three grants to begin~~
38 ~~meeting the primary three identified transportation needs:~~

- 39 1. ~~An on-demand accessible taxi service with voucher program for eligible individuals,~~
40 2. ~~Capital assistance to replace three aging Senior Services vans, and~~
41 3. ~~Funding for a Mobility Manager to coordinate services for more efficient use of available~~
42 ~~public and private resources.~~

43 ~~In 2012, a Mobility Manager was hired, the successful Transportation Voucher Program (TVP)~~
44 ~~was launched, and two out of three Senior Service vehicles were acquired and put into~~
45 ~~service. 2013 will see the remaining vehicle replaced and TVP closed out, having provided~~
46 ~~increased community access to over 135 San Juan County community members. In 2013,~~
47 ~~San Juan County applied for continued funding to continue the TVP, as well as study the role~~
48 ~~of public transportation in San Juan County's future.~~

49
50 **D. Demand Management Transportation Options**

51 The availability of other modes of transportation to provide services and provide demand

1 management benefits is limited in San Juan County. Public transit is available on the mainland
2 to transport people to the ferry in Anacortes. ~~Otherwise on-island transportation options are~~
3 primarily privately owned. Figure 11 shows the various routes of the public and private
4 transportation routes within San Juan County. San Juan County transit options are privately
5 owned.

7 **1. Public Transit Inventory of Transportation Services**

9 **a. Human Services Transportation Plan**

10 The 2018 San Juan County Human Services Transportation Plan (HSTP) update builds on
11 the work completed in the 2010 HSTP and the 2014 plan update. It examines strategies for
12 the unique and diverse needs of an isolated and rural population. It identifies ways to facilitate
13 access to essential services and community opportunities not otherwise accessible to some
14 county residents. It also explores means to improve services and other needs, such as
15 coordinating transportation services between island-based and mainland transportation. With
16 the overlapping descriptions of individual transportation needs, San Juan County Human
17 Services Transportation programs have found that the most useful criteria to identify the
18 transportation-vulnerable and underserved populations in San Juan County are: low income,
19 people with disabilities, and seniors. These three criteria most frequently accompany lack of
20 access to a vehicle, which is a significant factor in this county with no public transportation
21 service.

22
23 The plan describes the methods used to determine public needs and service gaps, and makes
24 recommendations for strategies, actions, and projects to meet the needs and close the gaps.

25
26 San Juan County was successful in securing three grants to meet its primary transportation
27 needs:

- 28
- 29 1. An on-demand, accessible taxi service with voucher program for eligible individuals;
- 30 2. Capital assistance to replace three aging Senior Services vans; and
- 31 3. Funding and hiring for a Mobility Manager to coordinate services for more efficient use of
32 available public and private resources.
- 33

34 The 2018 HSTP presents the following priority projects for 2019-2021:

- 35
- 36 • Increasing access to San Juan County's Transportation Voucher Program, exploring
37 partnership with non-profit providers, and supporting drivers to operate the San Juan
38 County Senior Center vehicles.
- 39 • Coordination with adjacent counties' human service transportation is currently limited,
40 but opportunities for enhancement are noted.
- 41 • Education and outreach are approached through a network of public and private
42 service providers. Interviews indicate that casual or organized community discussions
43 are also an important means of distributing information about services.
- 44 • Reliable funding for organizational capacity is identified as a key to pursuing other
45 funding, communications and networking, and the continued success of human
46 services transportation in San Juan County.
- 47

48 The HSTP is available on the Health and Community Services Page of the County website.,
49

50 **b. Skagit Transit (SKAT)**

51 SKAT Provides mainland connecting service from the ferries via Route 410 with a stop at the

1 Anacortes ferry terminal. Accessible SKAT buses take San Juan County residents to March
2 Point, where they can transfer to the Tri-County Connector service going to the Skagit Transit
3 Center (which hosts Greyhound Bus, Amtrak, or buses northbound to Bellingham) or south via
4 Island Transit, to Whidbey Island. Students attending one of the campuses of Skagit Valley
5 College use SKAT, as do people who work in the Mt. Vernon or Burlington areas.
6

7 **2. Private Transportation Services**
8

9 **c. Airport Shuttle Service:-**

10 Shuttle bus service to SeaTac Airport is provided by one San Juan Island-based provider, the
11 Island Airporter. They provide scheduled ground service six days a week, offering both
12 passenger and package service. San Juan County is also served by a private airport shuttle
13 service located on the mainland; Bellair Airporter Shuttle meets the ferry at the Anacortes
14 terminal and connects to Mt. Vernon, Bellingham, Seattle and SeaTac.
15

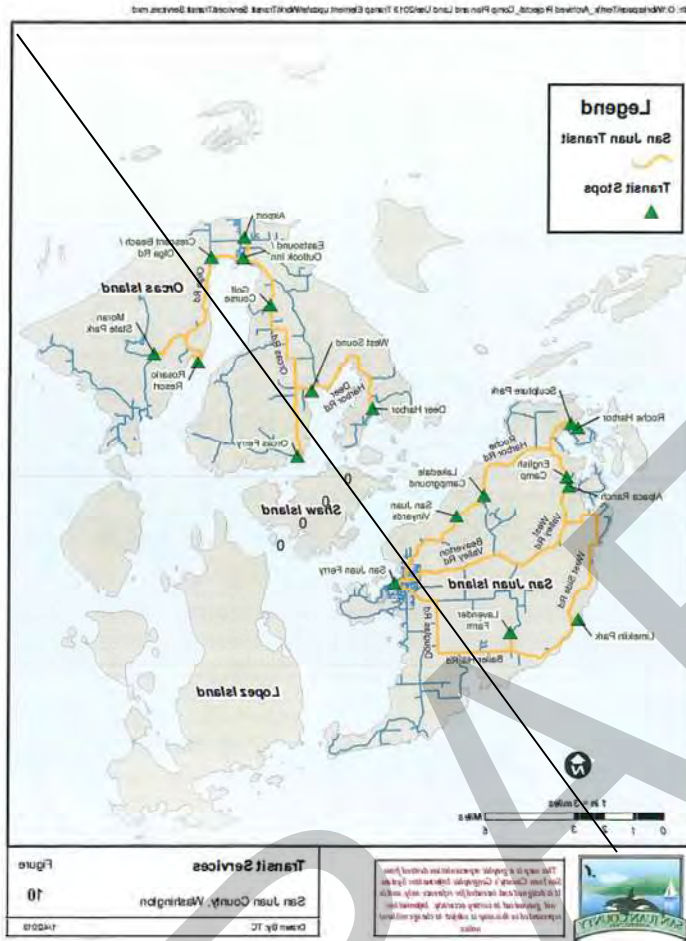
16 **d. Island Summer Shuttle Services:**

17 ~~San Juan Transit operates buses on a seasonal basis to transport tourists from the ferry terminal
18 in Friday Harbor to service hubs and visitor attractions on San Juan Island. San Juan Transit
19 offers fixed route service, stopping at locations that are of interest to visitors. It offers a limited
20 number of local discount cards for commuters going to work through a punch card system.
21 Several of the larger employers, such as Roche Harbor Resort, contract with San Juan Transit
22 for their summer employees or guests. The buses generally operate between Memorial Day and
23 Labor Day. San Juan Transit has a lift equipped van. Orcas Island Shuttle provided seasonal
24 service to destinations on Orcas Island until early in 2012. Beginning in the summer of 2012,
25 San Juan Transit expanded service to include Orcas Island as a part of the Scenic Byway Shuttle
26 Pilot Program for 2012/2013.~~
27

28 As of 2018, there are two shuttle bus services on a seasonal basis to transport tourists from the
29 ferry terminal in Friday Harbor to service hubs and visitor attractions on San Juan Island. San
30 Juan Transit offers fixed-route service, stopping at locations that are of interest to visitors. It
31 offers a limited number of local discount cards for commuters going to work, through a punch
32 card system. Several of the larger employers, such as Roche Harbor Resort, contract with San
33 Juan Transit for their summer employees and/or guests. The buses generally operate between
34 Memorial Day and Labor Day. San Juan Transit has a lift-equipped van that provides weekend
35 service to Orcas Island and Lopez Island. The Jolly Trolley provides shuttle service from the
36 ferry to designated locations on San Juan Island.
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38

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Figure 11. Transit Services



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e. Taxi Services

San Juan Island is the only island that has had stable taxi services at present. Currently, San Juan Island and Orcas Island have licensed providers. Three out of the five licensed providers operate year-round. On Orcas and Lopez, taxi services have been tried sporadically but have not yet demonstrated the ability to survive long-term. Alternatives to taxis such as UBER or Lyft are not providing services on the islands.

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7

3. Other Transportation Options

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f. sjRIDESHARE

Islanders without cars often walk onto ferries, hoping to find someone they know or a “friend of a friend” who is willing to get them to their off-island destinations. Electronic ridesharing is available to a limited extent, through island-specific websites like lopezrocks.org and an Orcas-oriented Facebook site. Along county roadways, there are a series of signs that designate ridesharing opportunities. sjRIDESHARE is the state’s only sanctioned hitchhiking system. and It provides designated safe, accessible sites for potential riders to stand and wait for a ride. It also provides guidelines for both riders and drivers. ~~sjRIDESHARE is in the process of~~

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1 ~~developing a web-based bulletin board to connect those needing rides with those who are~~
2 ~~available to provide them.~~

3
4 **g. Senior Service Vans**

5 The Senior Services Council is a non-profit corporation, with a mission to assist seniors in
6 remaining independent and in their own homes as long as possible. ~~They~~ The Council operates
7 a fleet of vans for the primary purpose of transporting seniors and people living with disabilities
8 to the group meals held at the senior centers on the three major islands. ~~San Juan and Orcas~~
9 ~~program also offer periodic medical trips to the mainland and occasional social and mainland~~
10 ~~shopping outings.~~ The program also offers periodic trips to the mainland from San Juan and
11 Orcas islands, for medical visits and occasionally for social outings or shopping trips.

12
13 **2. Demand/Capacity**

14 San Juan County is the only county in Washington State that has no public transit system other
15 than a ferry. No island has bus service, other than intermittent private bus services that operate
16 during the summer months. San Juan and Orcas are the only islands that currently have reliable
17 taxi service.

18
19 The Transportation Voucher Program (TVP) for human services transportation is available in San
20 Juan County, and the TVP has substantially improved access to transportation services for many.
21 However, the TVP program does not have secure funding, and further, longer term needs of a
22 large number of transportation-vulnerable members of the community remain to be met.

23
24 **3. Long Range Transportation Planning Recommendations**

25 The County does not plan to operate public transit services; however, the County shall continue
26 to support existing public and private transportation services. County roadways and marine
27 facilities provide access for transit systems, and the roadways in the urban growth areas support
28 the mobility of seniors and persons with disabilities. The County shall continue to upgrade
29 roadways in urban growth areas, to provide better accessibility for persons with disabilities.

30
31 **E. Freight Mobility**

32 The ability to move goods and services within the county, as well as ~~back to~~ and ~~forth~~ from the
33 mainland, is essential to the economic vitality of San Juan County. The county is unique among
34 other areas in the state, in that there are no roads that lead to San Juan County. The only ways
35 to get to and from the county are via air or water. This fact raises challenges in developing reliable
36 methods for moving freight to and from the region.

37 As stated in the WSF Long-Range Plan, WSF is an essential part of the highway network in
38 Western Washington, and for communities on the San Juan Islands. WSF is the only link from
39 ferry-served islands to the mainland for personal and commercial vehicles. ~~Additionally, that~~ The
40 commercial vehicle connection is essential; San Juan County communities depend on ferries as
41 the primary means to transport goods – including basic supplies and local products – to and from
42 -- the wider market.

43
44 Ferries are designed to allow “tall” vehicles; i.e., commercial trucks over 7’6” in height, to be
45 loaded in the center of the boat. The available space is limited and during high demand periods,
46 commercial vehicles may be delayed. WSF ~~instituted~~ has a “preferred loading” program for
47 commercial vehicles nearly 30 years ago. ~~This program allowed~~ allows qualifying businesses to
48 reserve space on the ferries, provided that the company has met certain requirements as to
49 frequency of travel and timely arrival at the ferry terminal. ~~Each vehicle must travel on the same~~
50 ~~ferry at the same time at least twice each week in order to apply for space under this program.~~
51 ~~This represented essentially the first “reservation” program and is only in effect on the San Juan~~
52 ~~Islands run. Companies not able to meet the requirements vie for available “tall” space on a first-~~

1 ~~come, first served basis.~~

2
3 For those islands not served by WSF ferries, local barges and ferries transport a limited number
4 of people and goods between the islands. ~~These facilities are discussed in more detail in Section~~
5 ~~I.B.5. Barges.~~

6
7 Another essential freight transport link is represented by the airports on the islands, which provide
8 critical support to the economic well-being of each community. The ferry-served islands have
9 airports owned and operated by a public Port District. Other islands have airstrips and private
10 landing strips that can be used to transport freight, as well as passengers. The airports on both
11 San Juan and Orcas Islands are located close to the main town and village, ~~which facilitate~~
12 facilitating the ability to move goods to the commercial centers. Air facilities in San Juan County
13 provide critical mobility and connectivity for people and freight in the region.

14 15 **F. Intergovernmental Coordination**

16 ~~To date, San Juan County has acted~~ acts as its own Transportation Planning Organization,
17 together with the Ports of Friday Harbor, ~~Orcas and Lopez~~ and the Town of Friday Harbor.
18 Meetings on coordination of transportation issues are held on an ~~infrequent~~ as-needed basis,
19 primarily when funding is available or there are common projects between entities. ~~However,~~
20 ~~while~~ San Juan County is geographically isolated, but it is dependent on the facilities of adjacent
21 jurisdictions to ensure the effective transportation of freight and people to and from the county.
22 Therefore, there have been discussions with other Counties in the past ~~with other counties~~ as to
23 the benefits of joining an existing adjacent Regional Transportation Planning Organization
24 (RTPO) ~~such as Skagit/Island~~ or a Municipal Planning Organization (MPO), ~~such as Whatcom~~
25 ~~County.~~

26
27 Common interests and goals with Skagit County primarily concern ~~transit; the ability to coordinate~~
28 ~~transportation—the~~ the coordination of the ferry in Anacortes ~~with the~~ Skagit Area Transit (SKAT)
29 system and the Anacortes ferry, to ensure that people island residents are able to efficiently travel
30 between Anacortes and the I-5 corridor. With the ferry schedule changing seasonally,
31 coordination of transit schedules has been a challenge.

32
33 With the Whatcom MPO, past discussions on the viability of a passenger ferry, ~~particularly now~~
34 ~~with the new medical facility in Friday Harbor~~, has been the focal point of discussions, with transit
35 connections as an ancillary topic.

36
37 ~~To date, there have been no formal discussions with either Skagit/Island RTPO or Whatcom MPO~~
38 ~~for a number of years. It has been acknowledged that participation in a formal setting would~~
39 ~~require additional time and resources and the tangible benefits of doing so have not been~~
40 ~~quantified. San Juan County has been participating actively in regional informational and~~
41 ~~coordination meetings to assess the regional transportation issues and developing projects to~~
42 ~~better position the county to respond in a cooperative manner with other agencies. The~~
43 ~~Northsound Connecting Communities Group (aka Farmhouse Gang) is a nonprofit group that~~
44 ~~gathers regional transportation providers and legislators together and facilitates discussions to~~
45 ~~foster support for regional projects. is a coalition of concerned citizens, elected officials and~~
46 ~~professional staff of transportation agencies from Washington's five northwestern-most counties:~~
47 ~~Whatcom, Skagit, Island, San Juan, and northern Snohomish. The NSTA strives to develop better~~
48 ~~ways for people to travel in the region. San Juan County attends the general meetings and has~~
49 ~~participated in subcommittees and presentations. San Juan County attends the general meetings~~
50 ~~and has participated in subcommittees and presentations. San Juan County has also been~~
51 regularly attending periodically attended the quarterly MPO/RTPO/WSDOT Committee meetings.

52 This attendance has allowed the county to remain current on funding opportunities and

1 requirements, as well as to stay informed on state transportation planning efforts.

2
3 **II. TRANSPORTATION FINANCING (2012 – 2032)**

4 Appendix 6 addresses transportation funding for transportation projects maintained, preserved,
5 improved and constructed by San Juan County Public Works. Transportation funding sources and
6 financing strategies and plans for nonmotorized transportation projects managed by the San Juan
7 County Parks Department are included in the *Parks, Trails and Natural Areas Plan* and the *Capital*
8 *Facilities Plan*. The *2010 Coordinated Human Services Transportation Plan* addresses transit
9 funding and financing.

10
11 **A. County Transportation Improvement Expenditures**

12 San Juan County has been in a period of diminishing financial resources for several years and if this
13 trend continues revenues for major transportation-related capital projects will be limited. Future
14 expenditures on transportation-related improvements within the county will depend on the availability
15 of local funding and, to a greater extent, the availability of state and Federal grant revenues. Planned
16 projects are primarily targeted at safety improvements with few projects that add new capacity. Table
17 14 provides a summary of estimated transportation expenditures by major program type expected to
18 be made by the county during the 2013-2032 timeframe.

19
20 **Table 14.6. Summary of Planned Transportation Expenditures – 2013 through 2032**

Estimated Expenditures	2013–2018 (\$ Thousands)	2019–2032 (\$ Thousands)	Total (\$ Thousands)
Operations & Maintenance	21,807	54,418	76,225
Asset Preservation Activities	8,839	23,814	32,653
Safety Related Projects	9,440	19,258	28,698
Marine Access	913	1,863	2,776
Capacity Projects	30	61	91
Non-Motorized Projects	408	832	1,240
Other Projects	2,355	4,804	7,159
Sheriff Patrol	4,101	11,699	15,800
Total	47,893	116,749	164,642

21 **1. Operations and Maintenance**

22 In 2010, under the direction of the County Administrator, the County Public Works Department
23 prepared a strategic budget plan for fiscal years 2011 through 2016. The strategic budget plan
24 identified significant reductions in maintenance and operations staffing resulting in a decrease
25 in level of service for some non-essential maintenance and engineering activities. Reductions
26 are driven by the projected gap between level or decreasing resources and increasing future
27 costs. Despite planned reductions in maintenance services, this category is projected to
28 remain the largest single category of local transportation spending over the twenty-year
29 planning period.

30 **2. Asset Preservation Activities**

31 Asset preservation activities are non-construction project investments in existing infrastructure
32 that add useful life to the asset, but do not add additional capacity. The primary activities
33 anticipated over the twenty year planning period are pavement reclamations, section
34 rehabilitations, dock pile and float replacements, and the applications of thin overlays such as
35 seal coats or chip seals.

36 **3. Safety Related Projects**

1 Safety related transportation improvement capital construction projects will be designed and
2 built to correct known or potential safety issues. Typical safety issues include: (1) poor road
3 alignment; (2) narrow roadways without adequate shoulders for safe pedestrian travel; (3)
4 roadside hazards; and (4) installation of guardrails and other spot improvements.

5 **4. Marine Access**

6 Marine access projects will be designed and constructed to add new capacity to existing
7 marine highway structures such as docks and ramps, and to correct existing deficiencies with
8 the GMA requirement for concurrency.

9 **5. Capacity projects**

10 Capacity projects are investments in construction of new or substantially redesigned
11 infrastructure that creates availability for more traffic. Evaluations are being conducted to
12 determine if relief and/or capacity infrastructure is required during the planning period.
13 Currently, traffic volumes are deemed to be acceptable on the county roads.

14 **6. Other Projects**

15 This category represents a range of transportation improvements that are not safety related.
16 Projects in this category include those that improve drainage and environmental conditions.

17 **7. Sheriff Patrol**

18 It is anticipated that a transfer of significant funding from the county road fund to the sheriff
19 for traffic patrol will continue during the planning period.

20
21 Table 15 is the County's 6 Year Transportation Improvement Program (TIP) which presents a
22 listing of the upcoming projects from planning through construction phases with identified funding
23 sources. The County Council approves and adopts the 6 Year TIP each year.

24
25 **B. County Transportation Revenues**

26 The short range to mid range (2-6 year) revenue forecast calls for flat to declining revenue growth
27 across most major sources of transportation funds. There are five primary traditional sources, of
28 revenue for the county roads fund. Of these five sources only the local road levy is projected to
29 show slight growth over the 6-year planning period. The revenue trends are summarized below:

- 30 ● Local Property Tax Road Levy (RL): Slight growth
- 31 ● Motor Vehicle Fuel Excise Tax (MVFT): Flat
- 32 ● Capron Refund (Capron): Flat to decreasing
- 33 ● County Arterial Preservation Account (CAPP): Flat
- 34 ● State and Federal Grants: Flat to slight growth
- 35 ●

36
37 Overall revenue growth from stable major sources of revenue for the county roads fund is
38 projected to be between 1.5% and 2.5% per year, for the planning period 2013—2032.

39
40 **1. County's Existing Sources of Transportation Revenue**

41 San Juan County relies on a number of revenue sources (federal, state, and local) in order
42 to design, build and operate transportation facilities and services within unincorporated areas
43 of the County. Descriptions of the primary revenue sources follow.

44
45 **a. Property Taxes**

46 The authority to levy property tax is codified in RCW 84.52.043 and the county road fund
47 levy is specifically authorized in RCW 36.82.040. State law limits the annual allowable
48 increase in the road levy to one percent. Property taxes are levied for many state and local
49 purposes and are arranged in a complex hierarchy. The basic limits of the senior county
50 levies are \$1.80 per \$1,000 assessed valuation for general government (current expense)
51 and \$2.25 per \$1,000 assessed valuation for roads. The sum of the two senior county

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6

~~levies cannot exceed \$4.05 per \$1,000 assessed valuation.~~
~~The county council has traditionally increased the local road levy by one percent annually,~~
~~and revenue forecasts for this source are based on an annual one percent increase~~
~~throughout the planning period 2013 – 2032.~~

DRAFT

1 Table 6. Planned Transportation Improvement Projects—2013 through 2018

RESOLUTION -2012 SIX YEAR TRANSPORTATION IMPROVEMENT PROGRAM (2013-2018)

Costs are in 2013 thousands of dollars. Projects shown in bold include outside (state & federal) funding. Shaded cells indicate proposed construction year for projects yet to receive outside funding.

Item No.	LOC	PROJECT	PROJECT SCHEDULE (in thousands of dollars)										Grant Funding	COMMENTS		
			Total	13	14	15	16	17	18	19	20	21				
CAPITAL PROGRAM			\$410	\$350	\$10	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
1	S	RFS Castle Park Road Realignment (MP 7.4 - 8.5)	\$2,875	\$450	\$350	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$212	(Need \$1.2 million Federal Funding & 20% Outside Fund Match)	
2	O	Orest Road Improvements (MP 3.6 - 4.5)	\$350	\$10	\$25	\$140	\$188	\$208	\$208	\$208	\$208	\$208	\$208	\$1,588	Pending County REET fund 2013 allocation	
3	S	San Juan Valley Road Realignment (MP 0.08 - 0.1)	\$350	\$10	\$25	\$140	\$188	\$208	\$208	\$208	\$208	\$208	\$208	\$1,588	Pending \$2,587,500 RATA Grant Application (90%)	
4	ALL	Guardrail Safety Projects	\$355	\$355										\$0	Pending County REET fund 2013 allocation	
5	ALL	Sign Replacement Program	\$270	\$270										\$0	Secured State Road Safety Grant Fed (200%)	
6	ALL	Roadside Hazard Mitigation Program	\$220	\$220										\$0	Secured State Road Safety Grant Fed (200%)	
7	O	West Beach Road Culvert Replacement (MP 1.21 - 1.25)	\$359	\$300	\$50									\$0	Secured Rural Road Safety Grant Fed (200%)	
8	L	Griffin Road and PM Replacement	\$148											\$148	Pending County REET fund 2013 allocation	
9	O	Construction Trail Foot and PM Replacement	\$220	\$220										\$0	Secured State Road Safety Grant Fed (200%)	
10	ALL	Mount Baker Road Trail (MP 6.3-1.0)	\$233	\$233										\$0	Secured State Road Safety Grant Fed (200%)	
11	O	Mount Baker Road Improvements (MP 0.0 - 1.1)	\$1,625	\$1,600	\$10	\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$1,980	Secured \$88,000 Fed + \$145,000 STP funds	
12	L	Melby Harbor Road Realignment at Courts Park (MP 1.1 - 1.9)	\$230	\$10	\$100									\$10	Secured \$2,316,000 RATA (CRABY + \$500,000 STP funds)	
13	O	Deer Harbor Bridge Replacement (BR No 2116A)	\$2,855	\$140	\$375	\$2,400	\$240	\$240	\$240	\$240	\$240	\$240	\$240	\$0	Pending County REET fund 2013 allocation	
14	O	A Street Reconstruction	\$210	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$1,284	Pending \$2,855,000 WSDOT BRAC Grant Application (80%)	
15	S	Kourou Road Reconstruction	\$380	\$30	\$30	\$320	\$320	\$320	\$320	\$320	\$320	\$320	\$320	\$0	Pending County REET fund 2013 allocation	
16	O	Enclaved Forest Road Trail - East	\$300											\$300	Pending County REET fund 2013 allocation	
17	L	Munter Bay Dock, Boat Ramp Replacement	\$360											\$360	Pending County REET fund 2013 allocation	
18	S	Griffin Bay Marine Access	\$210											\$210	Pending County REET fund 2013 allocation	
19	O	San Juan Islands Scenic Byway Bypass Bypass and Wayside	\$10	\$10										\$10	State Source \$10,000 grant - 50% match, \$10,000 other revenues	
20	S	Fear Point Road to Turn Point Road Connector	\$30	\$30										\$30	Pending County REET fund 2013 allocation	
21	O	Prune Alley Complete Street	\$535	\$385	\$150									\$150	Use local funds for part and 50% Curative Funds for rest	
22	S	Recreation Valley Road Culvert Replacement (MP 4.2)	\$240	\$10	\$100									\$100	Use local funds for part and 50% Curative Funds for rest	
23	ALL	BOULEVARD / Baller Hill Road Improvements (MP 3.15 - 5.95)	\$320	\$140	\$180	\$40	\$40	\$40	\$40	\$40	\$40	\$40	\$40	\$200	Use local funds for part and 50% Curative Funds for rest	
24	ALL	GRAVEL ROAD CONVERSION	\$320	\$140	\$180	\$40	\$40	\$40	\$40	\$40	\$40	\$40	\$40	\$200	Use local funds for part and 50% Curative Funds for rest	
25	ALL	SHORE ACCESS	\$75	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15
26	ALL	NON-MOTORIZED SAFETY IMPROVEMENTS	\$75	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15
27	ALL	INTERSECTION GEOMETRY IMPROVEMENTS	\$150	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30
TOTAL FUNDS			\$12,805	\$4,913	\$2,055	\$4,223	\$2,365	\$2,365	\$2,365	\$2,365	\$2,365	\$2,365	\$2,365	\$2,365	\$2,365	\$2,365
OUTSIDE FUNDS			\$8,961	\$4,714	\$2,255	\$3,219	\$4,511	\$4,511	\$4,511	\$4,511	\$4,511	\$4,511	\$4,511	\$4,511	\$4,511	\$4,511
COUNTY ROAD FUNDS			\$3,846	\$607	\$400	\$914	\$914	\$914	\$914	\$914	\$914	\$914	\$914	\$914	\$914	\$914

San Juan County Public Works Department
Post Office Box 728
Friday Harbor, Washington 98250
360.370.6500

9/3/2013 1:21 PM

(5) Planning / Transportation / year Transportation Improvement Plan / 2013-2018 TIP / 2012-11-01

2
3

1
2
3 **b. Reimbursable Services**

4 San Juan County routinely provides transportation-related services, such as engineering,
5 and construction and maintenance projects, to other agencies and local governments
6 through the provisions of intergovernmental agreements. Typical clients for these services
7 include the Town of Friday Harbor, Port Districts, Fire Districts, School Districts and
8 County Parks. The county is reimbursed for these expenditures based on actual costs.
9 This source of revenue is highly variable from year to year, depending on the needs of the
10 local agencies and the capacity of the county to provide needed services.
11

12 **c. Motor Vehicle Fuel Taxes (MVFT)**

13 The state motor vehicle fuel excise tax is collected as a tax per gallon of gasoline sold at
14 the pump statewide, and generates over 1.3 billion dollars annually. The current state “gas
15 tax” is 37.5 cents per gallon. Counties receive a portion of the total tax based on a formula
16 that uses population, road miles and road expenses, among other factors, to distribute the
17 funds.—
18

19 It should be noted that of the 37.5 cents per gallon, 14.5 cents is dedicated to capital
20 construction projects. San Juan County receives none of the 14.5 cents because there
21 are no state gas tax funded capital projects in the county.—
22

23 Motor vehicle fuel tax revenues in San Juan County grew at a slow to moderate rate
24 between 1980 and 2000 slow rate from 2012-2017. Since 2000, the rate of growth has
25 slowed. Receipts from 2009 were less than 2008. This source of revenue will continue to
26 be an important component of overall road fund revenues between 2011 and 2016, but
27 the rate of growth is projected to remain flat.—
28

29 Motor vehicle fuel tax currently accounts for about 12-10 percent of road fund annual
30 revenue.—
31

32 **d. State and Federal Grants**

33 State and federal grant funding have become an increasingly larger portion of the overall
34 transportation improvement investment in the county. The most significant source of state
35 transportation grants over the past 15 years has been the Rural Arterial Trust Account
36 (RATA). The County Road Administration Board (CRAB) administers this competitive
37 grant program for counties in Washington. San Juan County has been awarded over
38 \$4,000,000 in RATA funding over the past 10 years.—
39

40 Federal grant funding has increased in recent years due to economic stimulus programs
41 and road safety programs, with increased support from the Federal Highway
42 Administration (FHWA).—
43

44 There is significant uncertainty regarding the level of funding that may be available for the
45 long term. Conservative estimates have been used to project future revenue from these
46 sources for the planning period.
47

48 **e. County Arterial Preservation Program**

49 Counties receive an annual distribution of funds from CRAB, through the county arterial
50 preservation account (CAPA) for the preservation of local arterial and collector roadways.
51 The source of the money is motor vehicle fuel tax, and a distribution formula is used to
52 allocate monies to the various counties. These funds can only be used on certain

1 functional class roads and cannot be used on roads that are designated as local access
2 roads. For San Juan County, which has no classified arterial roads, this means the money
3 must be spent on major and minor collector routes.
4

5 This source of revenue accounts for a little less than 2% of annual road revenues. The
6 CAPP revenues the county receives have been flat for the past 10 years or so. This
7 funding is projected to remain flat or show slow growth during the planning period.
8

9 **f. Capron Refund**

10 The Capron refund is a special transfer payment to San Juan and Island Counties which
11 pays the counties money from the motor vehicle fuel account in lieu of providing state
12 highways and maintenance facilities. The Capron Act was originally made law in 1919, as
13 a means to ensure equitable distribution of the State portion of Motor Vehicle Fuel Tax
14 (MVFT) revenues. Without the Capron Act, San Juan County would be the only county in
15 the state to receive no local benefit from state investment in state and federal highways.
16 The most significant event with respect to the Capron Act was a legislative change in 2006
17 that significantly reduced Capron revenue to San Juan County. ESSB 6839, passed by
18 the 2006 Washington Legislature, amends the Motor Vehicle Fuel Tax (MVFT) and
19 License Fee refund to island counties authorized by RCW 46.68.80 (Capron Act). This
20 amendment of the Capron Act transfers a portion of the San Juan County refund to the
21 Washington State Ferries (WSF) operating account. ESSB 6839 resulted in the loss of
22 significant existing and future CAPRON Act refund dollars by transferring all of the Nickel
23 Account and all of the Transportation Partnership Account (TPA) revenues to the
24 Washington State Ferries (WSF) Operating Account. Both the Nickel Account and the TPA
25 revenues were to be used by the Washington State Department of Transportation
26 (WSDOT) for a specific set of projects set forth by the state legislature in 2003 and 2005.
27 The WSF operating account is not a specific project approved by the legislature. San Juan
28 County is currently the only county in Washington receiving no direct benefit or local
29 investment from the Nickel and TPA revenues. This change resulted in the loss of one to
30 two million dollars annually for San Juan County.
31

32 Capron refund revenues currently account for about 35% of annual road fund revenues.
33 The projected trend for this source is flat or downward. Capron revenues decreased every
34 year between 2005 and 2010, and have remained steady since then. The revenues
35 fluctuate depending on levels of annual grant funding. The long range growth forecast for
36 this important source of revenue is relatively flat.
37

38 **g. Real Estate Excise Taxes**

39 Real Estate Excise Taxes (REET) are collected on the sale of residential and commercial
40 real property in Washington State. San Juan County collects both authorized one quarter
41 percent REET for a total of one half percent REET for local capital projects. The 2013-
42 2018 2019-2025 Six Year TIP contains pending REET fund allocations for enhancement
43 projects.
44

45 **h. Developer Contributions**

46 This de facto revenue source entails dedicated right-of-way and construction that
47 proponents of development contribute to county road system improvements.
48 -

49 **i. Other Revenues**

50 The County receives other revenues in any given year that include private timber harvest
51 taxes, federal forest yield, inter-departmental service fees, interest income, and
52 miscellaneous review fees.

1
2 The various sources of revenue described above make up the county road fund, from
3 which funds are drawn for operations, maintenance, and capital programs as described
4 under the prior section on county expenditures.
5

6 **2. County's Potential Sources of Transportation Revenue** 7

8 **a. Transportation Benefit Districts**

9 A Transportation Benefit District (TBD) is a special taxation district for transportation
10 purposes, created by cities and/or counties. It allows more than one jurisdiction to join
11 together for the purpose of acquiring, constructing, improving, providing, and funding any
12 city street, county road, or state highway improvement within the district. With voter
13 approval, a TBD has the authority to levy property tax, implement a vehicle license fee,
14 and/or issue general obligation bonds.
15

16 **b. Transportation Impact Fees**

17 The County is authorized to collect impact mitigation fees, based on daily vehicle trips
18 generated by new residential and commercial developments. Fees generated from impact
19 fees may be used to fund selected capacity improvements that are related to the impacts
20 caused by the development. San Juan County has not adopted regulations to allow the
21 implementation of impact fees on development.
22

23 **c. Public Transportation Benefit Areas**

24 RCW 36.75A allows for the creation of Public Transportation Benefit Areas (PTBA), for
25 the express purpose of providing transit and special-needs transportation services.
26 Revenues collected under the authority of a PTBA may not be used for the improvement
27 or maintenance of public roads or highways.
28

29 **d. Local Improvement District**

30 Local Improvement Districts (LIDs) are special assessment districts. These districts are
31 formed as a means of assisting benefitting properties in the financing of and payment for
32 needed capital improvements. LIDs are formed to permit the improvements to be financed
33 and paid for over a period of time through assessments on the benefitting properties.
34

35 **e. Federal Programs**

36 **~~FTA Urban Mass Transit (Sections 3 and 9):~~** This program is intended for transit
37 agencies from the federal government. Section 3 is for new rail projects, improvement of
38 existing rail systems, and the rehabilitation of bus systems. Section 9 provides transit
39 capital and operating assistance to urbanized areas.
40

41 **~~FTA Urban Mass Transit (Section 16):~~** This program is for private, nonprofit agencies
42 from the federal government through the state. It provides capital assistance for
43 transportation services to elderly persons and persons with disabilities.
44

45 **~~FTA Urban Mass Transit (Section 18):~~** Transit agencies, cities and counties in rural
46 areas from the federal government through the state benefit from this program. It provides
47 transit capital and operating assistance to non-urbanized areas.
48

49 **~~Community Development/Development Block Grant (CDBG):~~** Federal funds are
50 made available to cities and counties for a variety of public facilities, as well as housing
51 and economic development projects that benefit low to moderate income households.

Land and Water Conservation Fund (LWCF): This fund is available to cities, counties, and the state to provide funds for trail development. Projects must create or expand trail development.

f. Public Works Trust Funds (PWTF)

PWTF are available to cities, counties, and special purpose districts from the state in the form of low-interest loans for public works improvements. Agencies must be compliant with the Growth Management Act in order to apply for funds from this program.

3. Summary of Projected Revenues

Table 16 provides an estimate of revenues available for transportation infrastructure improvements for the planning period, which are balanced against estimated expenditures for the same planning period. Some revenue sources, such as motor vehicle fuel tax, Capron, and real estate excise tax, are not certain for the long-range period and may vary significantly from current long-range estimates.

Table 16. Summary of Transportation Revenues – 2013 through 2032
(2011 Adjusted Dollars)

Revenue Category	Short-Range 2013–2018 (\$ Thousands)	Long-Range 2019 – 2032 (\$ Thousands)	Total (\$ Thousands)
Road Property Tax	25,838	66,641	92,749
Diverted Road Property Tax	Shown in Expenditure Table 14 for Sheriff Dept.		
Reimbursable Services	170	420	590
Motor Vehicle Fuel Tax	5,290	12,320	17,610
Real Estate Excise Tax	149	Unknown	–
CAPRON	15,000	35,000	50,000
State/Federal Grants	3,701	Unknown	–
CAPP	630	1,470	2,100
Other Revenue	1,092	2,730	3,822
TOTAL REVENUE	51,870	approx. 118,581	approx. 170,451

4. Non-County Transportation Investments

a. Air Transportation

The Transportation Element does not include a Level of Service standard for air transportation facilities. However, the inventory does note that existing airport capacity should be sufficient to meet the projected air travel demand of the county. Air transportation facilities are provided by the port districts on San Juan, Orcas and Lopez islands. Approximately 2.31 percent of the local Property tax dollar is collected by the port districts to support port operations. Most funding for airports is provided through the Federal Aviation Administration which apportions funds from the Aviation Trust Fund. Aviation trust funds are authorized to be spent through the Airport and Airway Improvement Safety and Capacity Expansion Act of 1987. The monies are allocated to airports on a priority basis.

b. Marine Transportation

With the repeal of the MVET, a major source of funding for the Washington State Ferries was lost. Now the principal source of operating revenue is from the fare box. During the past ten years, the tariffs for travel throughout the ferry system have increased with the largest increases occurring in the San Juan Islands route. That higher percentage

1 increase was the result of an equalization procedure that balanced the tariffs throughout
2 the WSF system as a function of the length of the trip between ports, so that all tariffs are
3 now proportionate. An indicator known as "fare box recovery" now provides an
4 approximation as to the degree that route revenues pay for the costs of service on each
5 route. Fare box recovery on the San Juan Islands route is estimated at 50%.
6

7 **III. Public Outreach Process**

8 A variety of techniques and resources were used to inform, consult and involve the community during
9 the Transportation element update. Input was solicited from the general public stakeholder
10 committees and organizations. Community comments have been obtained in writing and through
11 interviews and public testimony. Public participation was early and continuous as many opportunities
12 for community input were provided during different stages of product development.

13 In 2011, input from the community during development of the draft Transportation Element Update of
14 the County's Comprehensive Plan was solicited in the following venues:

- 15 ● Stakeholder development of text for the Inventory
- 16 ● A series of County Council workshops
- 17 ● Presentation to the Critical Needs Task Force Transportation Group
- 18 ● A booth at the Farmer's Market on each of the islands

19 In 2012, input for further updates to the Transportation Element was sought from the following
20 organizations:

- 21 ● County-wide Community Transportation Meeting
- 22 ● WSF San Juan County Ferry Advisory Committee

23 In 2013, public outreach efforts and presentation of information intensified and the following
24 organizations and venues were included:

- 25 ● Workshops and hearings with the Planning Commission
- 26 ● WSF San Juan County Ferry Advisory Committee
- 27 ● San Juan Island Trails Group
- 28 ● Town of Friday Harbor
- 29 ● Economic Development Council
- 30 ● Public Community Meetings on Lopez, Orcas and San Juan Islands
- 31 ● County Council Briefings and Public Hearing

32 In addition, written and telephone comments were received prior to the issuance of the State
33 Environmental Policy Act (SEPA) determination, documents were sent to the Washington Department of
34 Commerce and the SEPA determination was publicized on the Washington State Department of
35 Ecology's SEPA register (#201301568).

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23
24 Add TranspoGroup Intersection Memos when they are finalized

25
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34 Washington State Department of Transportation, Ferries Division; Washington State Ferries
35 Summer Service Plan 2018

36
37 Whatcom Council of Governments (WCOG) Website; <http://wcoq.org>

38
39 **IV. Attachments**

40 ~~Transportation Element Growth Rates~~

41
42 ~~Transportation Level of Service Analysis and Recommendations~~

1 **Level of Service: General Overview**

2 ~~The Growth Management Act requires that San Juan County regionally coordinate establishment of~~
3 ~~Level of Service (LOS) standards for locally owned arterial roads (aka county collector roads) and~~
4 ~~public transit routes (none in San Juan islands). As extension of County roads, San Juan County also~~
5 ~~establishes LOS for County docks which are considered extensions of the County road system.~~

6 ~~The Washington State Department of Transportation Ferries division (WSF) establishes LOS standards~~
7 ~~for state owned ferry route facilities and services that are considered highways of statewide~~
8 ~~significance. These LOS standards help the state to gauge the performance of the state transportation~~
9 ~~system and monitor performance, analyze proposed improvement strategies and facilitate coordination~~
10 ~~between local planned improvements and the state's ten-year investment program. After local~~
11 ~~consultant, LOS standards for the Washington State ferry service were established in the 2009~~
12 ~~Washington State Ferries Long Range Strategic Plan by WSDOT. These standards are based on~~
13 ~~projected ferry use to the year 2030. LOS standards for ferry related docks and parking have yet to be~~
14 ~~developed by WSF.~~

15 **Concurrency**

16 ~~Transportation concurrency is required by the GMA pursuant to RCW 36.70A.070. Concurrency means~~
17 ~~that public transportation facilities or management strategies necessary to ensure that transportation~~
18 ~~facilities and services are available to serve a development in accordance with established LOS~~
19 ~~standards when a development is ready for occupancy or use. Concurrency requirements also apply to~~
20 ~~transportation facilities and services of statewide significance. WSF has determined that the~~
21 ~~Anacortes-Friday Harbor ferry route is not designated as a highway of statewide significance.~~

22 ~~Concurrency requirements are established for county collectors and docks in San Juan County Code~~
23 ~~18.60.200.~~

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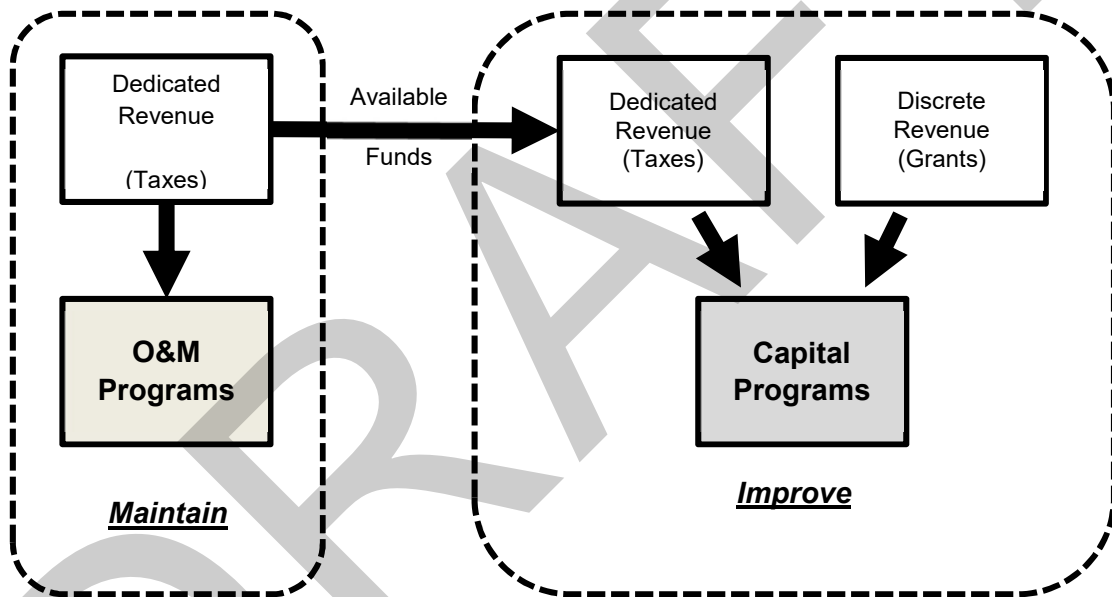
1 **II. TRANSPORTATION FINANCING (2020-2036)**

2
3 This section addresses transportation funding for transportation projects funded by the County road
4 fund and administrated by the Public Works Department.

5
6 **A. Overview**

7 The County road fund receives revenue in two general categories: dedicated revenue (taxes) and
8 discrete revenue (grants). Taxes are the most reliable and predictable source of transportation
9 funds and are used primarily to support the County’s operation and maintenance (O&M) programs
10 (those necessary to maintain the existing level of service). They are also used to support, if
11 available, the County’s capital programs (those developed to improve the level of service, multi
12 modal access, and/or safety), see Figure 7.

13
14 Figure 7. Operation and Maintenance Programs vs Capital Programs



16
17 The ability of the County to self-fund its capital programs enables the County to best prioritize
18 transportation improvements in accordance with the recommendations of the Comprehensive
19 Plan. When capital programs become grant-dependent, individual capital projects must be
20 developed to be grant eligible. Developing grant eligible capital projects requires the expenditure
21 of staff time and funds with no certainty of award. Further, grant compliance may surrender the
22 County’s desire to have full authority over project design elements reflective of local conditions
23 and social values.

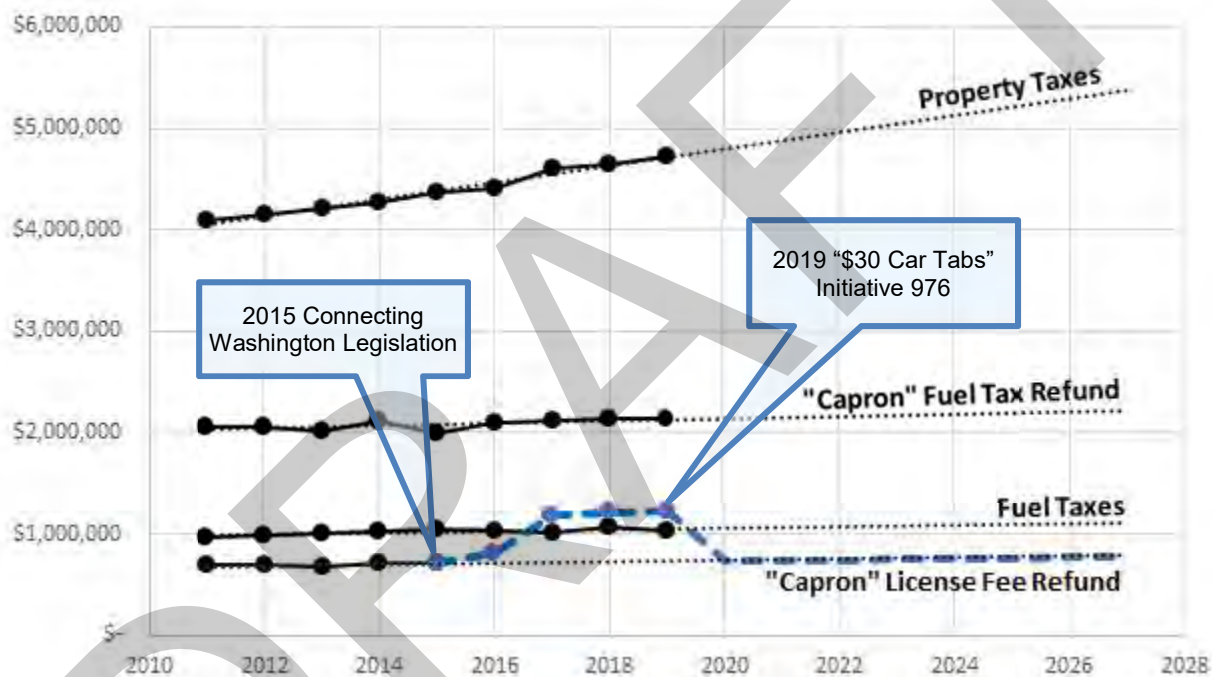
24
25 Overall, San Juan County has been in a period of diminishing financial resources for several years
26 and this trend is projected to continue. The recent decrease in Capron revenue and increase in
27 employee and goods and services costs has accelerated the need to make strategic
28 organizational decisions to reduce costs or increase revenue, or some combination thereof, in
29 order to prevent transportation level of service reductions in the County.

1 **B. Transportation Revenues**

2 Revenue sources include property taxes, fuel taxes, and Capron refunds. Property taxes are
3 authorized by the County legislative authority and are subject to deductions from levy shifts and
4 levy diversions. Fuel taxes are collected by the State and are distributed to the County by
5 programs administered by both the State ("10-30-30-30" distribution) and CRAB (CAPP
6 distribution). The 1929 Capron Act (RCW 46.68.080) provides additional revenue to the County
7 consisting of motor vehicle license fees and motor vehicle fuel taxes.

8
9 As shown in Figure 8, while tax revenue is normally stable and predictable, the license fee portion
10 of Capron refunds increased significantly in 2015 (approximately \$500,000/year) due to the
11 passage of the 2015 Connecting Washington legislation. The recent passage of Initiative 976
12 (which is currently contested) may reduce this revenue to 2015 projections pending final court
13 action.

14 Figure 8. Revenue Projections



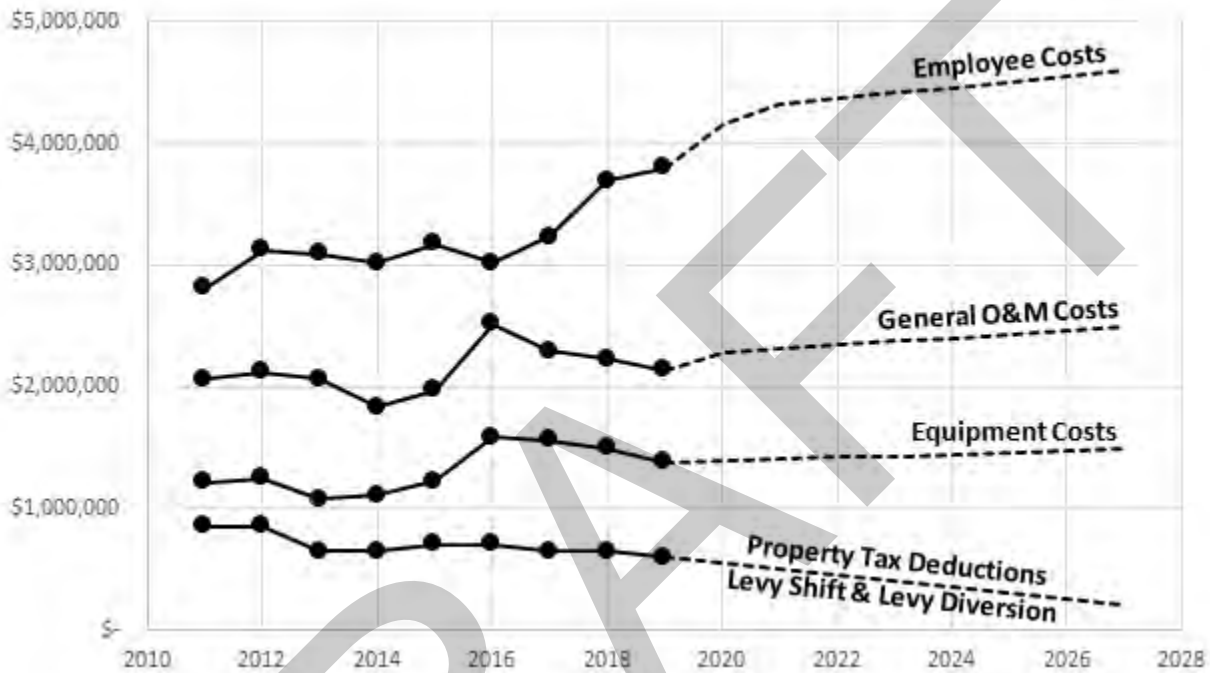
16
17 **C. Transportation Expenditures**

18 Expenditures have been categorized into four groups to facilitate annual projections and assist in
19 strategic organizational decisions: employee costs, O&M costs, equipment costs, and property
20 tax deductions. Some of the many factors that complicate the ability to predict these costs include
21 collective bargaining agreements, employee benefit programs, raw material costs (rock and oil),
22 and inclement weather response (snow, ice, and wind).

23
24 Property tax deductions due to a levy shift or levy diversion are discretionary actions authorized
25 by the County legislative authority each year. They are shown as an expenditure so that property
26 tax revenue can be projected in accordance with the authorized county road levy.

1 The last levy shift occurred in 2016 when \$50,000 was allocated to the Parks, Recreation, and
 2 Fair Department by Ordinance 12-2015. A levy diversion has occurred every year since 2002.
 3 Beginning in 2017, the County Council has programmatically reduced the levy diversion by
 4 \$50,000 each year with a \$550,000 and \$500,000 levy diversion budgeted for 2020 and 2021.
 5 Figure 9 shows the projected in these four groups.
 6

7 Figure 9. Expenditure Projections

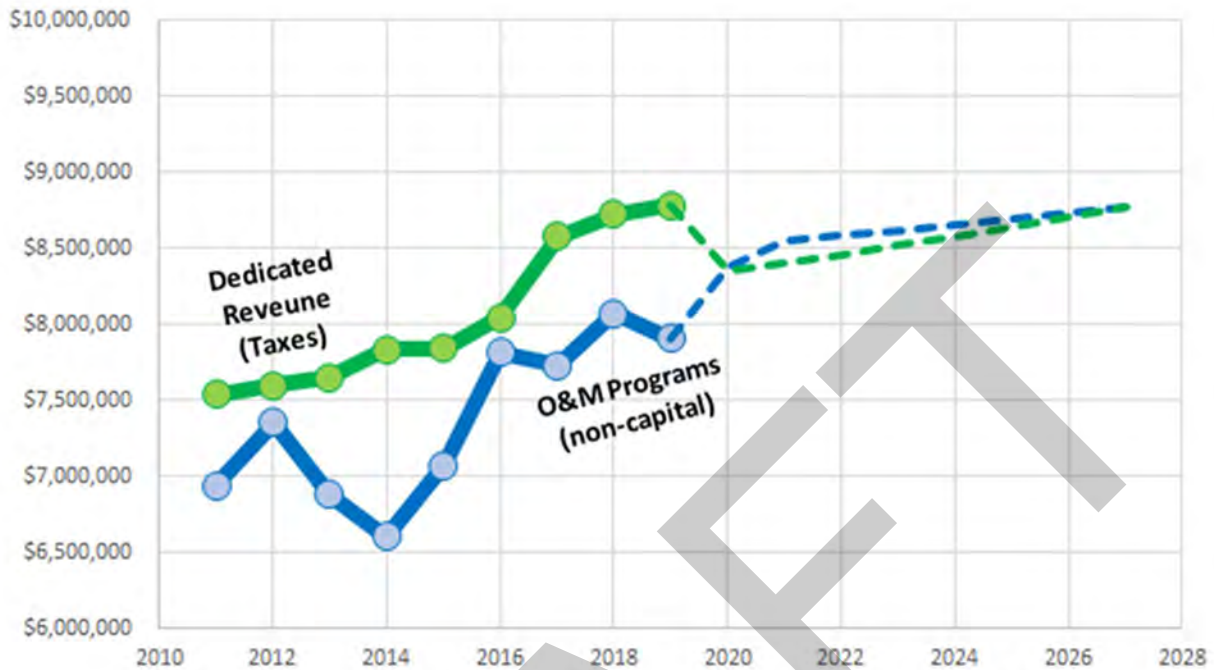


8

9 **D. Analysis and Projections**

10 A comparison of dedicated revenues (taxes) and O&M programs (non-capital) is necessary to
 11 determine the remaining availability of dedicated revenue for capital programs. In 2020 the County
 12 will need to implement cost saving or revenue increasing measures to preserve an ability to self-
 13 fund capital projects. Without these changes, the County's capital program may be entirely
 14 dependent on granting programs for construction (see Figure 10).
 15

1 Figure 10. Road Fund Projections



2

3 Table 5, a summary of planned transportation expenditures and revenues, indicates that in the
 4 2020 – 2025 period O&M programs will need to be funded by County road fund reserves (cash) and
 5 that construction for planned capital programs may be entirely dependent on grant funds. This
 6 projection will need to be continually revised as necessary cost cutting and/or revenue increase
 7 measures are implemented.

8 Table 5. 2020-2037 Projections

	<u>3x 6-Year Projections (in millions)</u>		
	<u>2020 - 2025</u>	<u>2026 - 2031</u>	<u>2032 - 2037</u>
<u>Dedicated Revenue (taxes)</u>	<u>\$50.1</u>	<u>\$53.2</u>	<u>\$57.0</u>
<u>O&M Program Expenditures</u>	<u>\$51.5</u>	<u>\$52.8</u>	<u>\$54.3</u>
<u>Balance</u>	<u>(- \$1.4)</u>	<u>\$0.4</u>	<u>\$2.7</u>
<u>Planned Capital Program</u>	<u>\$18.0</u>	<u>\$22.0</u>	<u>\$27.0</u>
<u>Local Funds</u>		<u>\$0.4</u>	<u>\$2.7</u>
<u>Grant Funds</u>	<u>\$18.0</u>	<u>\$21.6</u>	<u>\$24.3</u>

9

1 **E. Potential Options for Reducing O&M Expenses**

2 The Public Works Department has two basic options to consider to reduce O&M expenses:

- 3
- 4 • Accelerate process improvement strategies to decrease costs by increasing operational
5 efficiencies. While process improvement is continually evaluated for cost saving measures,
6 it is most effective when strategically implemented over time when opportunities arise. For
7 example, an opportunity for fleet optimization may present itself when advances in the
8 industry allow for combining equipment or sharing equipment between islands.
 - 9 • Implement level of service reductions by cutting back on maintenance programs. This may
10 include reductions to the County's chip seal overlay program, which will adversely affect
11 the quality of County roads. Over time, deferred maintenance is typically more expensive
12 as the scope and scale of repairs exceeds what can be performed under routine operations.

13

14

15 **F. Potential Source of Transportation Revenue**

16 The State's Transportation Resource Manual (reference provided herein) includes the complete
17 listing of options that local governments may consider to increase dedicated revenues (taxes) for
18 transportation. The two most practical options are:

- 19
- 20 • Property Taxes
21 Any county may impose a road levy up to \$2.25 per \$1,000 assessed value for the county
22 road district. In 2019 the San Juan County's road levy was approximately \$0.62 per
23 \$1,000. The road levy is subject to the 1% annual "levy lid" (RCW 84.55.010 and WAC
24 458-19-020).
 - 25 • Transportation Benefit Districts
26 Chapter 36.73 RCW authorizes counties to form transportation benefit districts that can
27 raise revenue for specific transportation projects, usually through vehicle license fees or
28 sales taxes.

29

30

31 **G. References for Section II Update**

32 **CRAB - County Engineers' and Public Works Directors' Desk Reference**

33 Updated regularly by the Washington State County Road Administration Board (CRAB), a general
34 resource to support the work performed within the Office of the County Engineer.

35

36 **Transportation Committee - Transportation Resource Manual**

37 Produced annually by the Transportation Committee (House Transportation Committee & Senate
38 Transportation Committee) and includes a comprehensive list of transportation taxes that have
39 been authorized by the Legislature for use by local governments.

40

41 **Office of Financial Management (OFM) – Transportation Revenue Forecast Council**

42 Each quarter, technical staff of the Department of Licensing, Department of Transportation,
43 Washington State Patrol and the Office of Forecast Council produce forecasts. The revenue
44 forecasts agreed upon by the Transportation Revenue Forecast Council members become the
45 official estimated revenues under RCW 43.88.020 21

1 WSDOT - Fuel and Vehicle Trends Report - Summary of articles appearing in popular, business
2 and technical media referring to the impact of fuel costs and fuel efficiency on vehicle technology,
3 development and markets. It also compares the latest monthly actual vehicle registrations, fuel
4 prices, consumption and revenues to the current forecast.

5
6 Department of Revenue – Property Tax Levies “Levy Manual”
7 Designed for the convenience of the 39 county assessors and the Department of Revenue. It is
8 also a useful tool for other county officials, taxing district officials, legislators, and, of course,
9 taxpayers.

DRAFT

2036 Comprehensive Plan
Transportation Element Briefing

Attachment E
2020-02-10 Transportation Element
Appendix 6 Clean

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COMPREHENSIVE PLAN

APPENDIX 6
TRANSPORTATION

~~October 10, 2016~~ 02/10/2020



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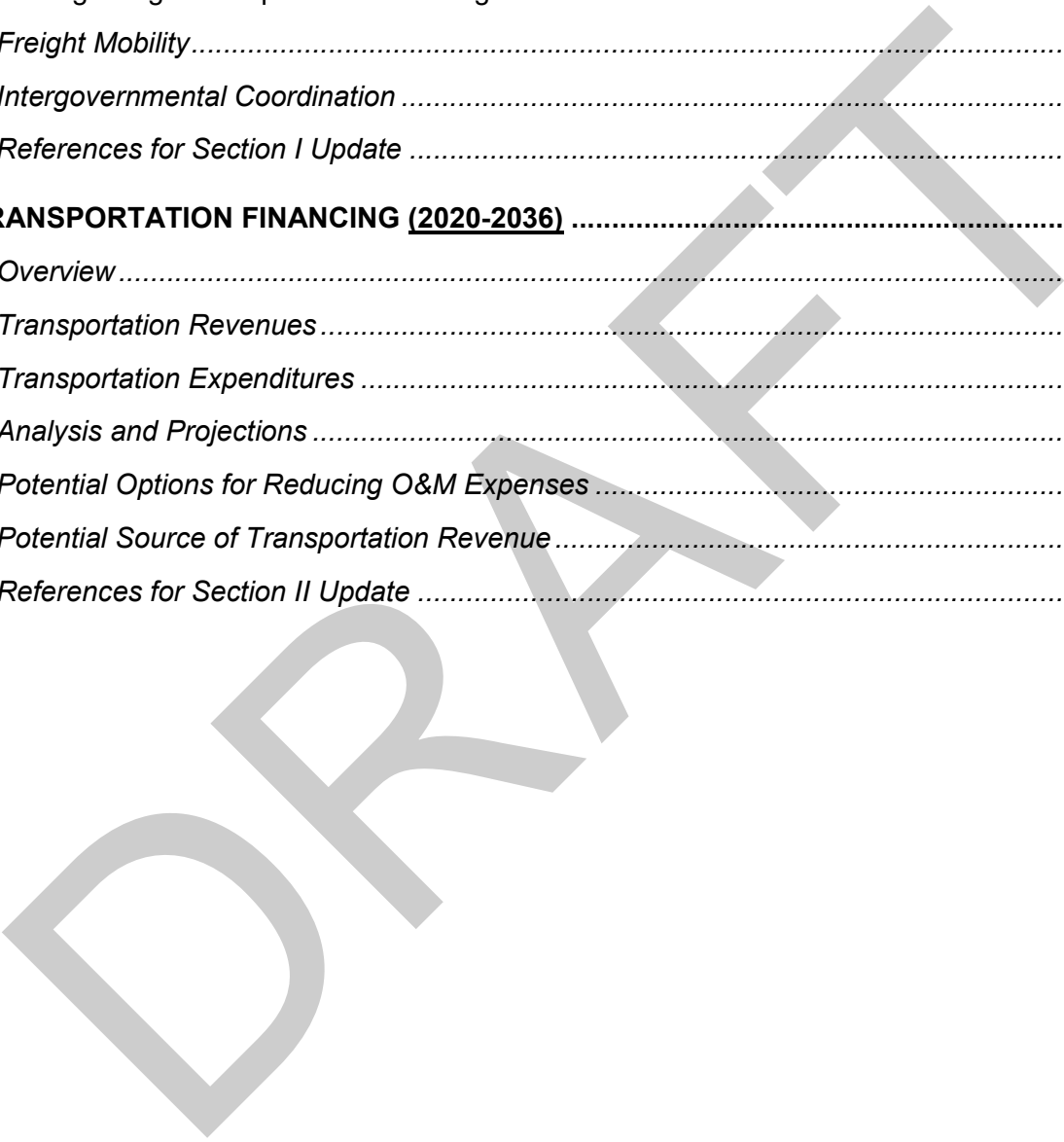
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1 **I. TRANSPORTATION FACILITIES**

2
3 Transportation in San Juan County is a complex, multimodal system dictated by geography. The
4 county is surrounded by water and contains 176 named islands and reefs. The only way to travel
5 between islands or to and from the mainland is via boats or airplanes. There are no land-based state
6 highways; San Juan County's highway is the Washington State Ferry (WSF) route. All residents,
7 visitors and freight are dependent on the marine and air transport systems to support the economics
8 of the area.
9

10 The Washington State Office of Financial Management (OFM) estimates the County 2016 population
11 as 16,314. This figure soars in the summer, with visitors arriving from numerous origins to enjoy the
12 San Juan Islands. Based on ferry ridership data presented in the WSF Traffic Statistics Rider
13 Segment Report for July 1, 2017 through September 30, 2017; 767,671 people (drivers and
14 passengers) traveled to the San Juan Islands from Anacortes during this two month timeframe:

- 15 • 11,331 to Shaw Island;
- 16 • 118,299 to Lopez Island;
- 17 • 254,056 to Orcas Island; and
- 18 • 352,391 to San Juan Island.

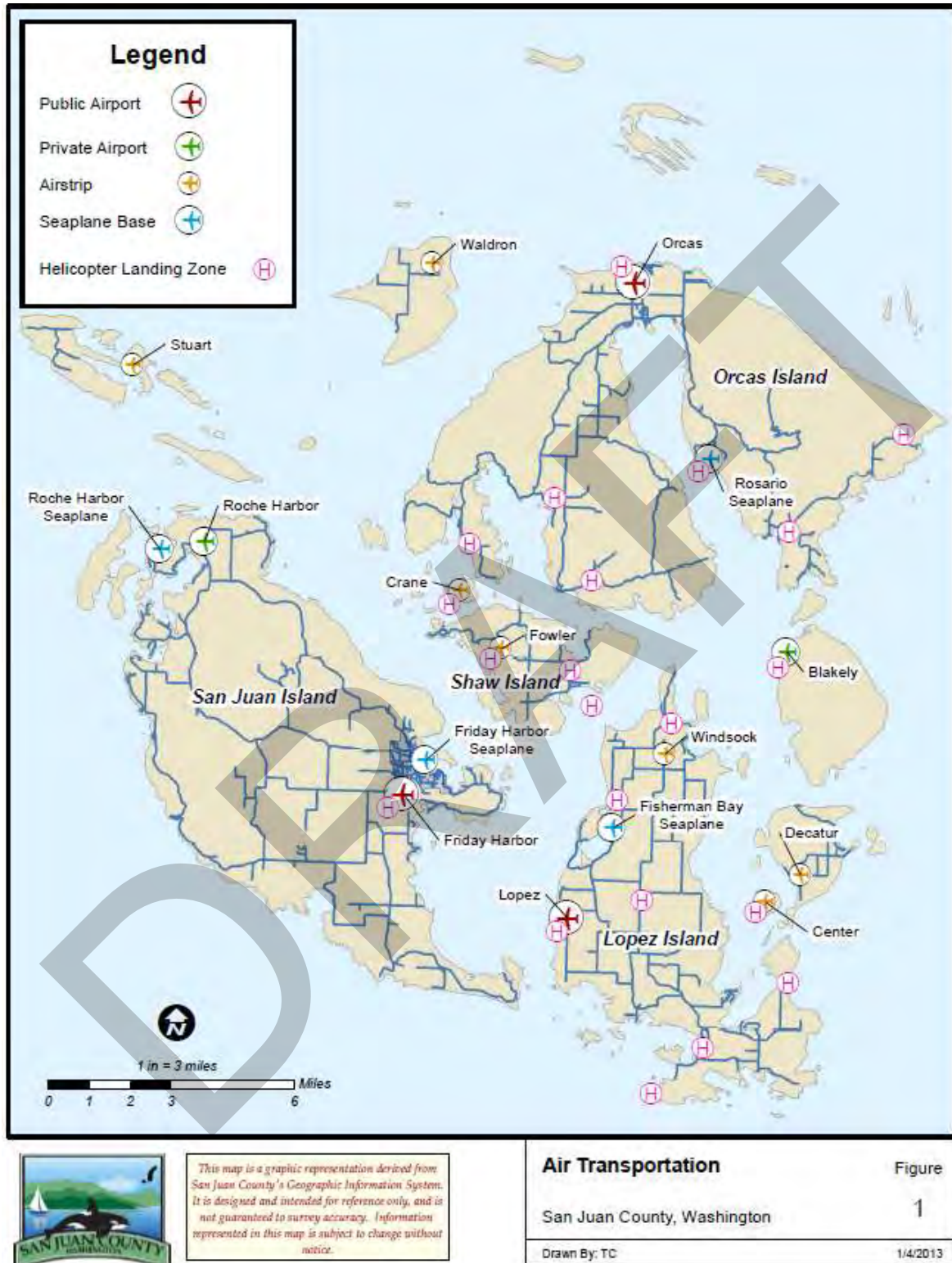
19
20
21 The purpose of the Transportation Element is to provide a framework of analysis, goals, policies, and
22 strategies necessary to develop the transportation facilities that will serve San Juan County in the
23 future. The Growth Management Act (GMA) requires a systematic approach for estimating and
24 planning for future transportation needs, based on an analysis of existing conditions and a projection
25 of future needs.
26

27 Appendix 6 to the Transportation Element provides information regarding existing transportation
28 facilities, demand/capacity analysis, expenditure/revenue analysis, and planning recommendations
29 to ensure adequate current and future transportation capacity.
30

31 **A. Air Transportation**

32 Aviation is a vital transportation component connecting non-ferry served islands to other locations
33 in the islands and to the mainland, providing passenger travel, freight and mail transport, medical
34 evacuation to mainland hospitals, disaster staging/relief, and other essential services. The vast
35 majority of air traffic now uses public airports on San Juan, Orcas and Lopez, owned by the Port
36 Districts, to reach Seattle, Bellingham, Anacortes and other mainland destinations. Additional
37 private landing fields exist on many other inhabited islands. Seaplanes use designated harbors
38 and private docks. The general location, of the public and private air transportation facilities within
39 San Juan County are presented in Figure 1.
40

Figure 1. Air Transportation



1 **2. Demand/Capacity**

2 Periodically the ports assess demand and capacity trends to determine the most effective
3 improvements to meet projected demands.
4

5 **a. Friday Harbor Airport**

6 Friday Harbor Airport is currently developing an airport master plan that will guide
7 development over the next 20 years. This master plan is being prepared because the
8 airport does not meet current design standards for the B-II(s) category/group of aircraft.
9 The next step in the master plan development process is to arrive at a recommended
10 development concept. Once a consolidated development plan is identified, a 20-year
11 capital improvement program, with a list of prioritized projects tied to aviation demand
12 and/or necessity, will be prepared. Finally, a financial analysis will be prepared to identify
13 potential funding.
14

15 **b. Orcas Island Airport**

16 In 2019, Orcas Island Airport completed an airport master plan that will guide development
17 over the next 20 years. This master plan is being prepared because the airport does not
18 meet current design standards for the B-II(s) category/group of aircraft. The next step in
19 the master plan development process is to arrive at a recommended development
20 concept. Once a consolidated development plan is identified, a 20-year capital
21 improvement program, with a list of prioritized projects tied to aviation demand and/or
22 necessity, will be prepared. Finally, a financial analysis will be prepared to identify potential
23 funding.
24

25 **c. Lopez Island Airport**

26 In 2012 on the "Airport Compliance Inspection Report" the Federal Aviation Administration
27 (FAA) listed both ends of the airport as unsafe for landing aircraft, because of the
28 obstructing trees. In 2013-2014, the Port acquired most of the critical parcels at each end
29 of the airport and have removed most trees obstructing landing and departing airplanes,
30 making the airport safer and meeting FAA requirements. The critical properties were
31 converted into pasture land for local farming. In 2018, the Airport completed an airport
32 master plan that will guide development over the next 20 years. The follow up to the
33 master plan will be the FAA required environmental assessment of future projects
34 identified in the master plan.
35

36 **3. Long Range Transportation Planning Recommendations**

37 The Ports receive federal funding through the FAA for improvements at the major public island
38 airports. Capital project funding is also available through the Washington State Department of
39 Transportation/Aviation Division. The updated airport master plans and 20-year capital
40 improvement plans will be used to prioritize airport improvements and identify potential
41 funding. The County shall provide support to the Ports in response to community needs.
42

1 **B. Marine Transportation**

2 Marine transportation services and facilities are the primary means for movement of people and
3 goods among the islands, and between the islands and the mainland. Marine transportation
4 facilities and services are provided by Washington State Ferries (WSF), public ports, public docks
5 and ramps, and private marinas. In addition to public ferry service, private commercial vessels
6 and barges provide transportation services.
7

8 **1. Washington State Ferry System**

9 Washington State Ferries is the principal provider of marine transportation between the
10 islands of San Juan County (San Juan, Orcas, Shaw and Lopez) and the mainland via
11 Anacortes, Washington and Canada through Sidney, B.C.; see Figure 2. Island terminals
12 contain ferry holding lanes, commuter parking lots, and waiting areas. Schedules and routes
13 vary from year to year as well as season-to-season, but in general a greater number of larger
14 vessels are employed during the summer months than in the winter.
15

16 Demand for ferry services on the San Juan County route is highly variable. That variability is
17 manifested in substantial differences in demands depending upon the season, the day of the
18 week, and the hour of the day. The complexity of these demand variables contributes to the
19 difficulty in planning for the impacts on ferry service throughout San Juan County. The
20 summer season, between mid-June and mid-September, is the busiest season, with the
21 highest peak demand occurring in July and August. By contrast, the least busy period is the
22 winter, from early January through March.
23
24

Figure 2. Marine Transportation - Washington State Ferries



25

1 **a. Inventory of Existing Facilities and Services**

2 Ferry travel is dependent on the size and frequency of the ferries, the parking available at
3 the ferry landing, and the reservation system. Currently, all ferry facilities are planned to
4 accommodate and handle the highest peak demand occurring in the summer months.
5

6 **Ferries:** The assignment of ferry vessels throughout the year varies seasonally based on
7 demand. The specific boats vary seasonally, and also with maintenance needs and
8 unanticipated repairs. During the summer period there are five vessels assigned to the
9 Anacortes terminal. In general, three of the ferries are Super-class providing service
10 between Anacortes and the four island terminals. A fourth is an Issaquah-class boat
11 assigned to the international service connection with Sidney, B.C. A Super-class ferry is
12 assigned as a substitute to be used if needed. The fifth ferry is a smaller boat, assigned
13 to interisland service. The five ferries represent 22% of the current WSF fleet, although
14 the San Juan Islands represent about 10% of the total system traffic demand.
15

16 During the shoulder seasons, fall and spring, one Super-class ferry is typically removed.
17 The two remaining Supers continue to provide mainland service and the Issaquah-class
18 ferry divides service between one round-trip per day to Sidney, B.C. and service to the
19 islands on the second work shift. The interisland service remains the same.
20

21 In the winter period, service to Canada is discontinued, and that vessel provides service
22 to the islands. During this season, the interisland ferry is not in service on the weekends,
23 such that for three months there are two different schedules within each week. The four
24 ferries assigned to the islands during the winter period represent 17% of the fleet, while
25 representing about 7% of the total system demand.
26

27 **Ferry Parking and Services:** WSF provides parking facilities at each of the island ferry
28 terminals and has a contract with San Juan County for maintenance of the parking lots.
29

30 **San Juan Island:** WSF operates a paved park-and-ride lot for ferry patrons, located south
31 of the intersection of Nichols Avenue and "B" Street just east of the upper auxiliary holding
32 area. This lot has a capacity of 57 spaces. Some walk-on ferry patrons park in front of the
33 Town of Friday Harbor's Sunken Park, at the intersection of "B" Street and Nichols
34 Avenue, and some park on Nichols Avenue, adjacent to the north boundary of the upper
35 boundary of the upper auxiliary holding area. The Town of Friday Harbor (Town) is within
36 walking distance of the ferry landing and provides a wide range of services and resources.
37 Traffic in Town is significantly impacted by ferry unloading.
38

39 **Orcas Island:** WSF provides parking in two areas at the Orcas ferry terminal, located in
40 Orcas Village. West of the upper holding lanes are 20 parking spaces along the southern
41 boundary of the entrance to the holding lanes. Parking is available at this location daily,
42 excluding Sundays and holidays, and is primarily used by commuters and day trippers.
43

44 Just to the south of the upper holding lanes is another parking area which, contains 36
45 parking spaces and one ADA parking stall. This lot is adjacent to the public restroom and
46 is used by commuters and long-term travelers. This parking lot is posted for a maximum
47 parking limit of 72 hours. This parking lot is typically full, particularly in the summer
48 months.
49

50
51 Historically, overflow parking tended to occur at various locations within Orcas Village.

1 Overflow parking along road shoulders, particularly along Orcas Road to the north and
2 Killebrew Lake Road to the east, were the areas most impacted during the summer
3 season. These areas are uncontrolled and unsigned.
4

5 In 2017, San Juan County constructed a park-and-ride facility on the WSF property north
6 of the holding lanes. This facility contains about 80 parking spaces. The unsafe parking
7 areas along Orcas Road have been posted "No Parking" to improve safety.
8

9 To the east of the ferry terminal and adjacent to the Post Office, there are three private
10 parking lots. Orcas Landing, within walking distance of the ferry landing, has a grocery
11 store, hotel, restaurants, post office, retail shops, and rental car services.
12

13 In 2017, WSF made safety improvements to the ferry landing, including relocating the
14 ticket booth to enlarge the roadway for large vehicles exiting the ferry, pedestrian/bicycle
15 safety and accessibility improvements, and site upgrades.
16

17 **Lopez Island:** Parking for ferry patrons is provided in two areas in close proximity to the
18 Lopez terminal. A WSF-owned, gravel parking lot containing 58 spaces is located 200 feet
19 south of the terminal building and east of the vehicle holding area. The parking lot is posted
20 for a maximum parking limit of 72 hours. This parking lot is usually filled to capacity during
21 the summer months. When the lot is full, overflow traffic parks along the western road
22 shoulder beyond Penny Lane (entrance to Land Bank preserve). The shoulder is posted
23 for no parking from 1 a.m. to 5 a.m.
24

25 A small paved parking lot owned by WSF is located across from the terminal building and
26 contains 4 spaces, posted for 10-minute parking. Four spaces are reserved for ferry
27 employees, 2 more spaces are labeled for ADA, and one spot for the local taxi. The total
28 present parking supply in the vicinity of the Lopez Island ferry terminal is approximately
29 69 spaces.
30

31 The remoteness of the terminal location means that there is no other alternative to parking
32 or being dropped off at the terminal. There are no park-and-ride lots on Lopez.
33

34 There are four car holding lanes. The easternmost lane (Lane 1) is reserved for
35 Anacortes-bound vehicles. When the number of cars exceeds the lane capacity, cars park
36 and wait along the eastern road shoulder. During the peak summer periods, this extension
37 of Lane 1 may contain cars backed up in the shoulder nearly to Odlin Park, a distance of
38 one mile to the south.
39

40 Available services within the Lopez terminal include a ferry ticket vending machine,
41 newspaper box, and community bulletin board and a display of used books for sale,
42 stocked by Friends of the Lopez Library. Outside the terminal are three portable toilets,
43 within the small paved parking lot. Two more portable toilets are located on the rise east
44 of the large, gravel parking lot.
45

46 **Shaw Island:** The Shaw Island ferry landing was rebuilt in the mid-1990's and currently
47 includes two regular holding lanes, one oversize holding lane, and 6 parking spaces which
48 including one ADA space. A restroom facility, a small customer waiting room, and a ferry
49 office are also located at the dock. A bike rack is located east of the transfer span.
50
51

1
2 One holding lane is used exclusively for interisland ferry traffic and can accommodate 11-
3 12 vehicles. The second holding lane is used exclusively for the Anacortes-Shaw route
4 and can accommodate 12-13 vehicles. Capacity of the holding lanes is usually adequate
5 for vehicle queuing, except for busy days and weekends during the summer, when the
6 Anacortes lane is regularly overloaded. Overloading of the ferry holding lanes creates a
7 safety concern as vehicles queued for the ferry extend out into the northbound driving lane
8 of the county road, up a steep hill and around a blind corner.
9

10 In addition to the facilities provided by Washington State Ferries, there is a privately owned
11 store with about 8 parking spots, located just north of the ferry holding lanes. The store is
12 the only commercial retail facility on Shaw Island and is regularly visited during daylight
13 hours throughout the year. The store complex includes the Shaw Island Post Office, which
14 generates a significant number of vehicle trips each day. Traffic visiting the store and/or
15 post office must cross the loading and unloading ferry traffic.
16

17 A privately owned gravel parking area, adjacent to and west of the county road between
18 the ferry holding lanes and the oversize vehicle lane, is available for public parking. This
19 area is often filled to, or beyond, capacity during the daytime because it is used by
20 commuters who walk on the interisland ferry. Approximately 10 parking spaces are
21 available in this location.
22

23 Long term lease parking is provided by the Shaw General Store to the east of the ferry
24 holding lanes. Approximately 10 – 12 spaces are available. Several of these spaces are
25 permanently leased by utility service providers such as OPALCO, Century Tel, and San
26 Juan County.
27

28 **b. Demand/Capacity**

29 In 2019, WSF finalized its 2040 Long Range Plan. The 2040 Long Range Plan (LRP)
30 evaluates the current status of the ferry service and provides a proposal for investment
31 and policy recommendations to support a reliable, sustainable, and resilient ferry service
32 through 2040 and beyond, while managing growth and offering exceptional customer
33 service. Development of the plan began by identifying issues and priorities from public
34 and stakeholder engagement activities. WSF received input from County Council, staff
35 and citizens through advisory groups, public outreach meetings, and internet surveys.
36 From the community engagement activities, four themes emerged: Reliability, Customer
37 Experience, Manage Growth, and Sustainability/Resilience. The LRP establishes goals
38 for meeting customer service needs while improving efficiency and advancing the state's
39 environmental goals. The plan recommends capital investment, service modification and
40 policy changes to achieve these goals. The 2040 LRP is available on the WSF Web Page.
41 The information in the LRP relative to San Juan County is referenced here as background
42 to the County transportation planning recommendations.
43

44 The 2040 LRP reviews the progress made since the 2009 LRP. Elements of note to San
45 Juan County:
46

- 47 • Implemented reservation system for Anacortes to Lopez, Orcas, Shaw, San Juan
48 and Sydney. However, reservations to Anacortes are only available from San
49 Juan Orcas, and Sydney (not from Lopez or Shaw).
- 50 • Improved the customer web experience.

- Implemented pricing strategies to maximize use of vehicle space.
- Built two new Olympic class vessels; the Samish is dedicated to the Anacortes/San Juan Island route.
- Not noted in the LRPs is that WSF made significant access improvements to the Orcas Landing in 2017.

The 2040 LRP predicts that the WSF system ridership will increase more than 30% by 2040. Anacortes to San Juan Islands ridership is predicted to increase slightly less, 26.5%. The LRP notes that the Anacortes/San Juan Island route has low on-time performance, especially during the high-demand summer season, due to challenges with queuing and holding capacity and delays associated with the high pedestrian traffic at the Friday Harbor terminal.

To address the current situation and the predicted growth, WSF has the following improvement plans for facilities serving the Anacortes/San Juan Island route:

- Terminal electrification for Orcas, Friday Harbor, and Anacortes in 2022.
- Construction of a new terminal building at Anacortes and expansion of vehicle holding at Lopez in 2025-2027.
- Construction of overhead loading and second slip at Friday Harbor is planned for 2025-2027.
- Preservation of the trestle and bridge structures at Orcas, Lopez and Shaw is planned for medium-term and long-term planning horizon.
- In 2028, add service hours by extending the summer sailing schedule into May and October. Restore the winter season weekend interisland service in 2033.
- Two vessels serving this route will be retired and replaced with two hybrid-electric, international certified Olympic Class vessels (144 car) in 2022 and 2023.
- Replace the 90-car interisland with 114-car all-electric vessel with single deck in 2036.
- Replace two additional vessels with 144-car hybrid electric vessels in 2037.
- Increase entire fleet from 22 vessels to 26 vessels, to allow for adequate maintenance and have enough spare vessels to maintain reliable service.
- Relocate all customs processing to Sidney, in order to reduce processing time at Anacortes.
- Establish a workforce development plan to address workforce shortages.
- Improve customer experience, including upgrades to web site and service alerts, automate queue detection and wait time information, real time parking information, upgrading ticketing and reservation systems, automatic vehicle length detection, and automatic vehicle passenger counting.
- Reduce carbon emissions by converting to hybrid-electric vessels.
- Reduce vessel noise to protect marine life.
- Increase energy efficiencies and waste reduction.
- Monitor stormwater at terminals.
- Continue creosote removal.
- Develop an emergency response plan to enhance preparedness and aid in response and recovery efforts.
- Prioritize terminal maintenance needs with the most seismic risk, vulnerability to sea level rise and "lifeline routes" that provide access to major population centers or critical facilities.

1
2 To accomplish its goals, the LRP proposes new investments that are not currently included
3 in WSF's 16 year capital improvement and preservation plan for Fiscal year 2018-2033.
4 Furthermore, the LRP was completed before the voters passed Initiative 976 which sets
5 limits and annual license fee. WSF funding will be impacted by this initiative.
6

7 **c. Long Range Transportation Planning Recommendations**

8 The County shall continue to set a high priority on maintaining and constructing marine
9 facilities that provide non-ferry served island residents with access to WSF ferry landings.
10 The County shall maintain the roadways that provide access to the ferry landing. The
11 County shall continue to collaborate with WSF to establish additional parking at the ferry
12 landings to improve access and safety for the community.
13

14 **2. Passenger Ferries**

15 Private passenger-only ferries (POF) from Bellingham (San Juan Cruises), Port Townsend
16 (Puget Sound Express), and Seattle (Victoria Clipper) land at the Port of Friday Harbor and
17 Orcas Landing during the summer tourist season.
18

19 WSF does not currently operate POF service. WSF did provide POF service in the 1990s, but
20 it was discontinued a decade later by legislative restrictions on operating funds after the
21 scaling back of Motor Vehicle Excise Tax (MVET). POF service is not an allowable use for
22 gas tax revenue. King and Kitsap counties both now operate POF service with voter-approved
23 local revenue sources.
24

25 The County does not plan to operate a passenger-only ferry; however, the County would
26 support a passenger-only ferry by providing roadway and marine facility access as
27 appropriate.
28

29 **3. County Marine Facilities**

30 Because of the marine orientation of the San Juan Islands, marine facilities (piers, floats and
31 ramps) -- both public and private facilities -- are a significant part of the local transportation
32 system. Public marine facilities are, in a sense, a contiguous part of the County road system,
33 and thus are the responsibility of the County. Figure 3 presents the location of the marine
34 facilities owned and maintained by the County.
35

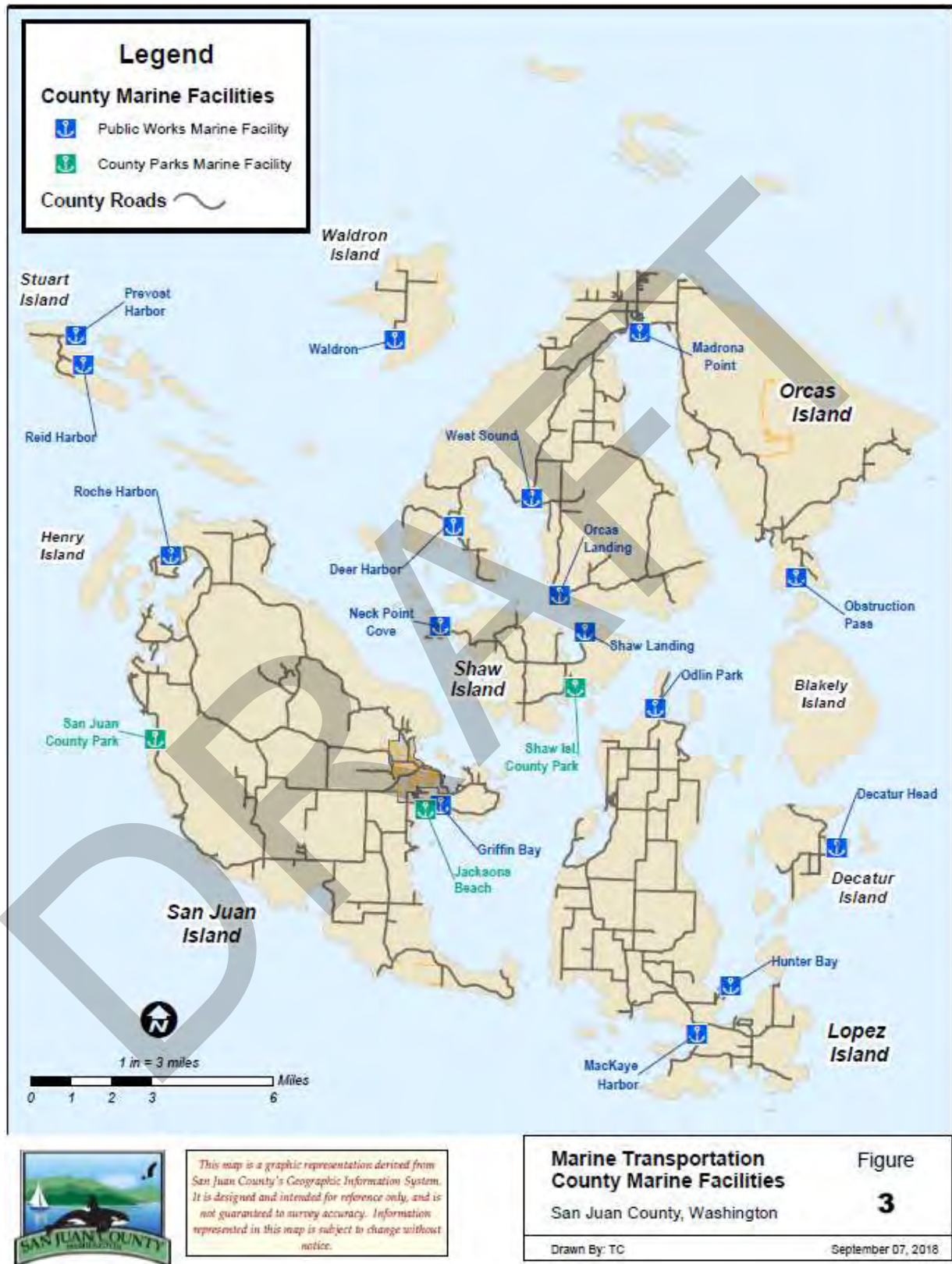
36 **a. Inventory of Existing County Marine Facilities and Services**

37 San Juan County Public Works Department currently operates and maintains 16 public
38 marine facilities:
39

- 40 • 9 public piers with floats.
- 41 • 7 boat ramps.
- 42 • 1 barge landing site, at the old gravel pit on San Juan Island.
- 43 • The County leases one moorage dock, at Deer Harbor.
44

45 The details of the marine facilities operated by Public Works are provided in the Annual
46 Marine Facility Report. That report includes annual maintenance activities, capital
47 improvements, physical assessment results, and Comprehensive Plan Review. A copy of
48 the annual report is available on the Public Works page of the County website.
49

1 **Figure 3. Marine Transportation – County Marine Facilities**



2

1 In addition to Public Works, San Juan County Parks operates and maintains boat ramps,
2 at Small Pox Bay on San Juan Island and at Indian Cove on Shaw Island. The Port of
3 Friday Harbor operates the boat ramp and dock at Jackson Beach. The Port also manage
4 a marine fuel dock and public dock at Friday Harbor. The Port recently purchased
5 Jensen's Shipyard and is in the process of developing a plan for use of the site. Numerous
6 private marine facilities exist on the islands, from large marinas like Roche Harbor,
7 Shipyard Cove, Deer Harbor, Cayou Quay, Rosario, and Fisherman Bay to the single
8 docks constructed for use by individual or small groups of property owners.
9

10 Several private barge companies serve the islands for most freight needs. A number of
11 the County's ramps are routinely used by barges for delivery of freight and construction
12 materials, including ramps on Orcas, Lopez, Decatur, Stuart, and Waldron.
13

14 **b. Demand/Capacity**

15 Capital improvements to the County PW marine facilities are based on several factors;
16 priority of facility, condition of facility, and evidence of inadequate capacity. These factors
17 are evaluated and reported upon in the Marine Facility Annual Report.
18

19 Updated information on completed, in-progress, and planned capital projects for marine
20 facilities are available in the 6-Year TIP and the Annual Marine Facility Report, both of
21 which are available on the County website, Public Works page.
22

23 **c. Long Range Transportation Planning Recommendations**

24 The County has set a high priority on maintaining and constructing marine facilities that
25 provide non-ferry served island residents with access to ferry served islands. Long-range
26 planning needs for County marine facilities are evaluated annually and documented in the
27 Annual Marine Facility Report.
28

29 **C. Land Transportation**

30 San Juan County has approximately 745 miles of roadways spreadover 13 islands. Public Works
31 maintains 270 miles of public roads located on 7 islands (Orcas, Lopez, San Juan, Shaw, Stuart,
32 Waldron, and Decatur). The majority of the roads in the county -- 450 miles -- are privately owned
33 and maintained. In addition, there are Federal park roads, State park roads, and the Town of
34 Friday Harbor has about 16 miles of roads. In 2008, some county roads on San Juan and Orcas
35 Islands, along with the marine route from Anacortes to the Islands, were designated as the San
36 Juan Islands Scenic Byway. Figure 4 shows the official route of the Byway.
37

38 County roads provide transportation corridors for multi-modal access: motor vehicles, transit
39 vehicles, pedestrians, and bicyclists. The County's Parks, Trails and Natural Area Plan and
40 Nonmotorized Plan (Parks Plan) provides goals, policies and plans for the County's pedestrians
41 and bicyclists. These plans include integrating roadway access (shoulder widening), separated
42 trails adjacent to the roadways, and off-road trails to provide multi-modal access in the County.
43 The Parks Plan states:

44
45 "...one of the most pressing issues identified through the community outreach undertaken in
46 preparation for this plan is the need for non-motorized transportation opportunities. There is
47 a need expressed by the community to connect our islands together with a well-planned
48 transportation system of multi-modal trails".
49
50

1 In 2018, the County adopted the Complete Streets Program Ordinance to ensure that future
2 planning, design, and construction of motorized and non-motorized transportation facilities
3 incorporate Complete Streets principles. The ordinance directs the County Engineer to prepare
4 an annual report on the recommended application of Complete Streets principles. This report is
5 available on the County website, Public Works page.
6

7 County roads are categorized according to their role and usage in carrying vehicles. These
8 categories are defined by US Department of Transportation, Federal Highway Administration
9 (FHWA) in its roadway functional classification system. The Functional Classification System
10 includes designations for rural and urban roads, including: Interstates, Freeways/Expressways,
11 Principal Arterials, Minor Arterials, Major Collectors, Minor Collectors, and Local Access. San
12 Juan County does not have any Interstate, Freeway, or Arterial roads. San Juan County has
13 roadways in three functional classifications, as shown on Figure 5. The functional classifications
14 are described as follows:
15

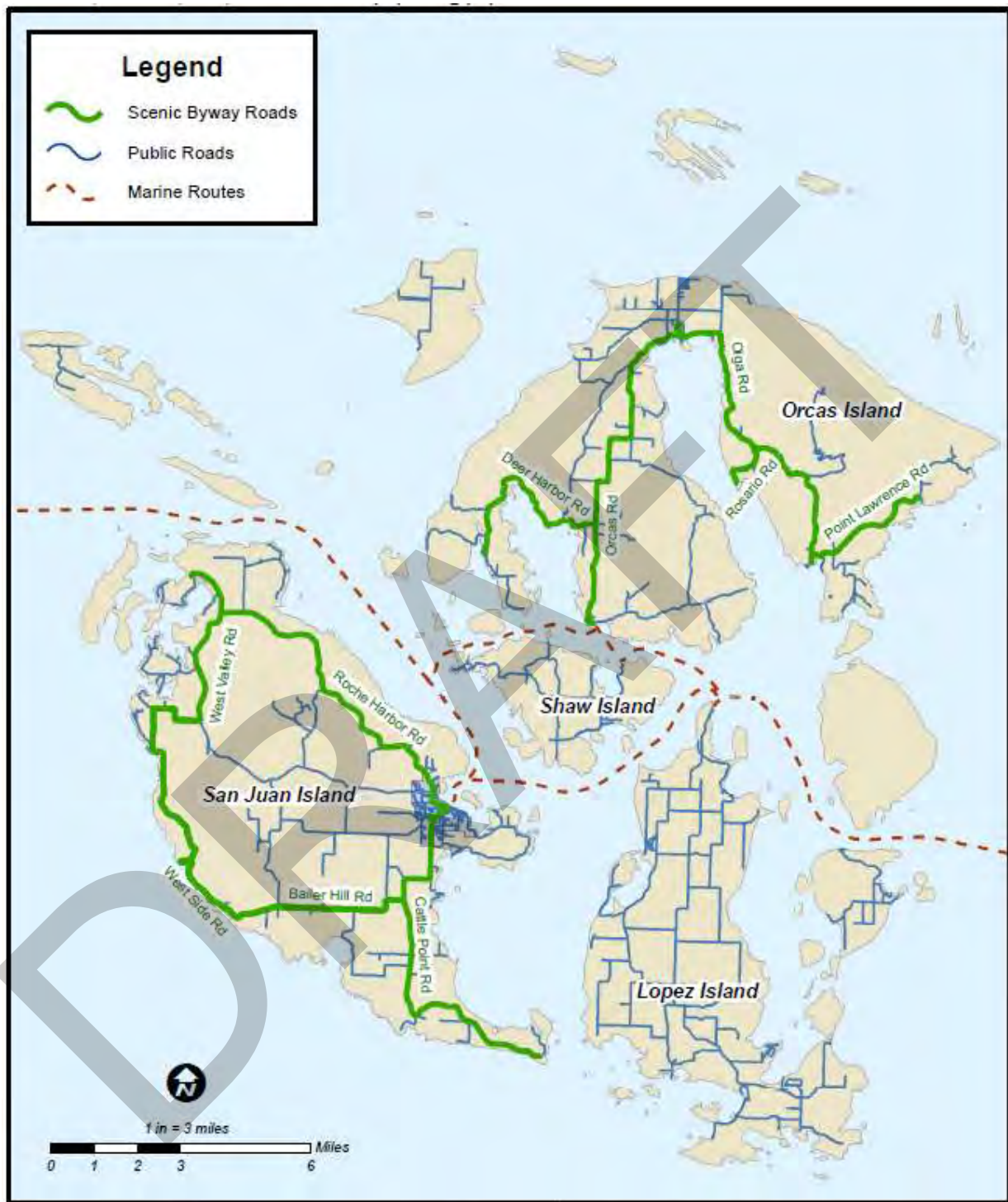
16 Rural Major Collectors provide the main access from the ferry landings. These are the highest
17 volume roads, with the highest speeds, and are the primary freight routes.
18

19 Rural Minor Collectors provide connections between the major collectors and the local access
20 roads or provide a secondary access to parts of the island.
21

22 Rural Local Access Roads provide direct access to abutting land uses and carry traffic to the
23 collector roads. Local access roads typically carry low volumes of traffic, traveling at low
24 speeds.
25

26 Functional classifications in San Juan County were established in 1968. In 2018, four road
27 segments on Orcas Island were changed from local access roads to major collectors: Main Street,
28 Crescent Beach Road, Prune Alley, and North Beach Road from School Road to Mount Baker
29 Road.

Figure 4. San Juan Islands Scenic Byway



This map is a graphic representation derived from San Juan County's Geographic Information System. It is designed and intended for reference only, and is not guaranteed to survey accuracy. Information represented in this map is subject to change without notice.

San Juan Islands Scenic Byway

Figure

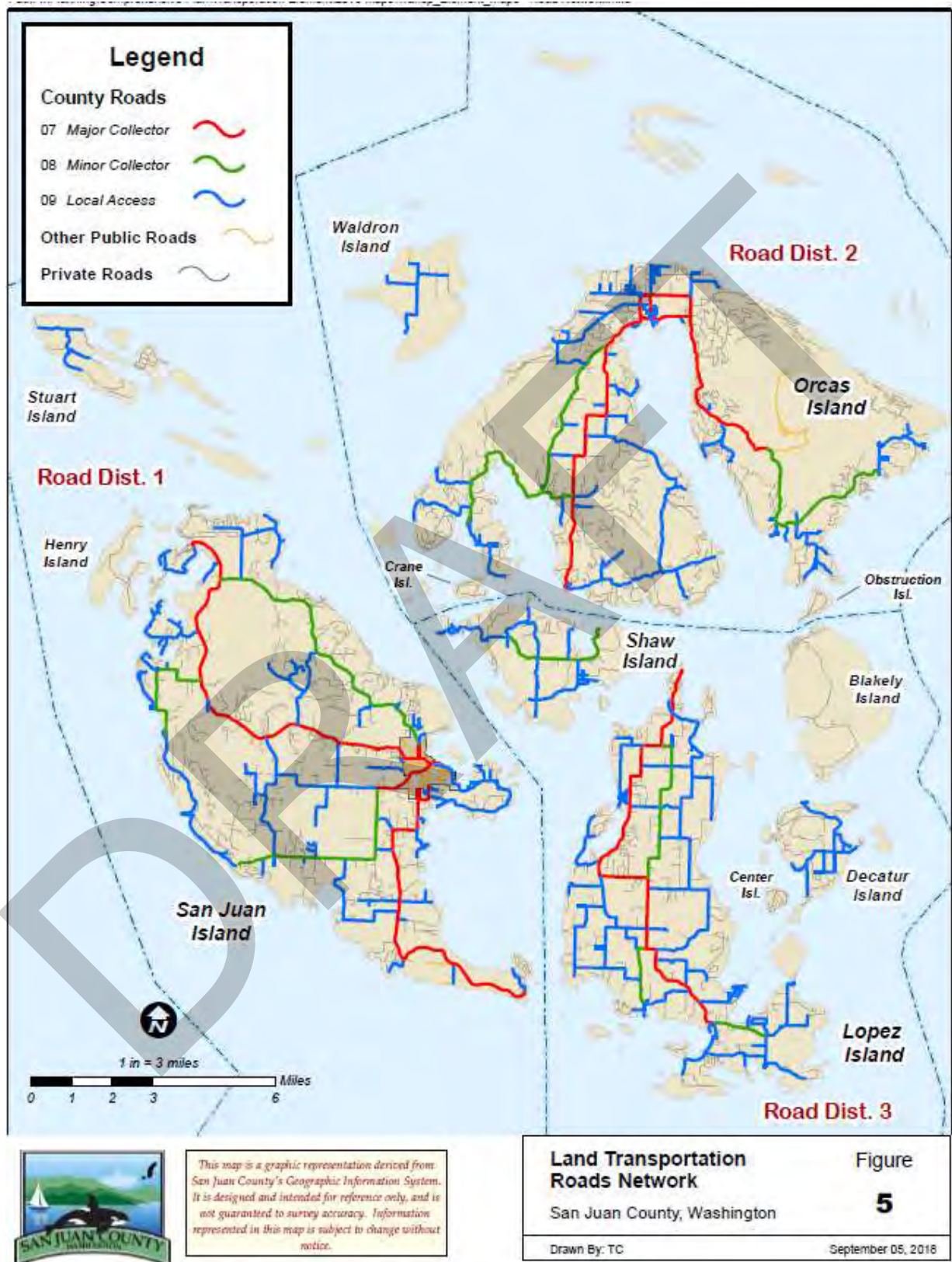
San Juan County, Washington

4

Drawn By: TC

Date: June 2011

Figure 5. Roads – San Juan County



1 The Town of Friday Harbor (Town) on San Juan Island developed the Transportation Element of
2 its Comprehensive Plan in 2002. The plan is amended annually to reflect changes to the Six-Year
3 Transportation Improvement Plan and the Summary of Capital Facility Improvements. Traffic
4 circulation within the Town is affected by the loading/unloading of the Washington State Ferry at
5 the harbor. The County and Town work together to maintain roads that transition from Town to
6 County. In 2019, Town and County worked together to improve Argyle Avenue, as it transitions
7 from Town to County jurisdiction near the Fairgrounds.

8 9 **1. Roads**

10 11 **a. Inventory of Existing Facilities and Services – County Roads**

12 The County's 270 miles of public roads are divided into three districts; see Figure 5. The
13 road crew in each district is responsible for the operation and maintenance of the facilities
14 within each of the districts. Roadway maintenance includes mowing and brushing within
15 the road right-of-way to maintain sight distance, sign installation, repairing and paving the
16 roads, and general preservation of the facilities.

17 18 **b. Demand/Capacity**

19 The County evaluates several factors when prioritizing transportation improvement
20 projects. These factors include: road way capacity (level of service), safety issues,
21 operational/maintenance elements, and Complete Street principles (bicycle, pedestrian,
22 and public transportation users). Roadway capacity (level of service, LOS) determines the
23 maximum acceptable threshold for traffic volume prior to considering improvements to
24 address potential congestion.

25
26 In 2011, the County established LOS thresholds for County roadways. It is the industry
27 standard to define the maximum roadway capacity as LOS F. A roadway operating at LOS
28 F is at or above maximum capacity, resulting in forced or breakdown traffic flow; see the
29 descriptions in Table 1. The maximum roadway capacity for county roads was estimated
30 at an annual daily traffic volume of 11,670 vehicles per day based the typical roadway
31 characteristics using the 2000 Highway Capacity Manual. Based on this value, the
32 remaining LOS thresholds were scaled by applying a relative percentage of total capacity.
33 In 2011, the County established LOS D as the maximum acceptable threshold for traffic
34 volume, and set LOS D at annual average daily traffic (AADT) <4,380.

35
36 In 2018, the County reviewed its LOS standards, based on observed traffic flow at
37 measured traffic volumes, to revise the LOS standards to more appropriate traffic flow
38 numbers. The maximum roadway capacity was reviewed and kept at 11,670. The highest
39 volume of daily traffic measured during the summer, 5,300 on Roche Harbor Road, was
40 set as LOS C, Stable Flow. The remaining LOS thresholds were scaled by applying a
41 relative percentage of total capacity and adjusted as shown in Table 1. The maximum
42 acceptable threshold for traffic volume remains LOS D, but is now AADT < 7,900 as shown
43 in Table 1.
44

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Table 1. Level of Service (LOS) Description and AADT.

LOS	Description	Annual Average Daily Traffic (AADT)
A	Free Flow-Traffic flows at or above the posted speed limit. Motorists have a high level of physical and psychological comfort.	<5,300 For both A/B
B	Reasonable Free Flow-Speeds are maintained, maneuvering is slightly restricted. Motorists still have a high level of comfort.	
C	Stable Flow or Near Stable Flow. Ability to maneuver is noticeably restricted and passing requires more drive awareness.	5,300-6,535
D	Approaching Unstable Flow. Speeds slightly decrease as volumes slightly increase.	6,535-7,900
E	Unstable Flow, operating at capacity. Flow becomes irregular and speed varies rapidly. Speeds rarely reach the posted limit. Drivers' level of comfort is poor.	7,900-11,670
F	Forced or Breakdown Flow. Every vehicle moves in lock step with the vehicle in front of it, with frequent slowing required. A road in constant traffic jam is at LOS F.	>11,670

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Every two years the County measures traffic volume at specific roadway locations. Daily traffic in San Juan County varies greatly from the wintertime, when it is primarily County residents using the roads, to the summertime, when traffic increases significantly due to the large number of tourists. The seasonal factor in traffic volume has been determined and was used to calculate the average annual daily traffic (AADT). The 2036 traffic volumes were forecast based on the Population Projections adopted by the County Council in 2018. Current and forecasted AADT and LOS for collector road segments in the three road districts are shown in Tables 2, 3, and 4.

All of the County collector road segments are currently operating at LOS A/B, free-flowing traffic volume. The 2036 LOS forecast predicts that all of the County collector roads will operate at or above the established LOS Standard D, as shown below.

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2
3

Table 2. AADT and LOS for San Juan Island

San Juan Island Collector Roads						
County Road #	Mile Post	Road Name	2018		2036	
			AADT	LOS	AADT	LOS
7	0.46	Argyle Ave	2830	A/B	3663	A/B
7	0.92	Argyle Ave	1916	A/B	2480	A/B
1	3.52	Bailer Hill Rd	1654	A/B	2141	A/B
1	6.23	Bailer Hill Rd	498	A/B	645	A/B
2	1.05	Beaverton Valley Rd	3109	A/B	4024	A/B
2	3.52	Beaverton Valley Rd	2476	A/B	3205	A/B
18	0.75	Cattle Point Rd	3948	A/B	5110	A/B
18	1.95	Cattle Point Rd	3176	A/B	4111	A/B
18	2.61	Cattle Point Rd	2048	A/B	2650	A/B
18	3.87	Cattle Point Rd	1595	A/B	2064	A/B
18	5.22	Cattle Point Rd	961	A/B	1244	A/B
18	5.75	Cattle Point Rd	961	A/B	1244	A/B
18	6.82	Cattle Point Rd	738	A/B	955	A/B
1	2.15	Douglas Rd	1683	A/B	2179	A/B
1	14.6	Mitchell Bay Rd	965	A/B	1249	A/B
18	0.65	Mullis Rd	3275	A/B	4239	A/B
3	0.83	Roche Harbor Rd	4719	A/B	6107	C
3	2.15	Roche Harbor Rd	2796	A/B	3619	A/B
3	5.0	Roche Harbor Rd	2149	A/B	2781	A/B
3	6.53	Roche Harbor Rd	1829	A/B	2367	A/B
3	7.63	Roche Harbor Rd	1257	A/B	1627	A/B
2	9.72	Roche Harbor Rd	1419	A/B	1837	A/B
2	10.82	Roche Harbor Rd	1419	A/B	1837	A/B
1	1.19	San Juan Valley Rd	2716	A/B	3515	A/B
2	4.75	West Valley Rd	1472	A/B	1905	A/B
2	6.91	West Valley Rd	919	A/B	1190	A/B
2	9.6	West Valley Rd	575	A/B	744	A/B

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Table 3. AADT and LOS for Orcas Island

Orcas Island Collector Roads						
County Road #	Mile Post	Road Name	2018		2036	
			AADT	LOS	AADT	LOS
4	8.90	Crescent Beach Rd	4172	A/B	6177	C
51	0.16	Crow Valley Rd	819	A/B	1213	A/B
51	1.9	Crow Valley Rd	1074	A/B	1590	A/B
51	3.59	Crow Valley Rd	1625	A/B	2407	A/B
45	0.1	Deer Harbor Rd	731	A/B	1082	A/B
45	1.0	Deer Harbor Rd	1132	A/B	1677	A/B
45	3.8	Deer Harbor Rd	1132	A/B	1677	A/B
45	4.36	Deer Harbor Rd	866	A/B	1282	A/B
52	0.08	Lovers Ln	2448	A/B	3625	A/B
52	0.46	Lovers Ln	2448	A/B	3625	A/B
4	8.20	Main St	4257	A/B	6303	C
58	0.1	Mount Baker Rd	1952	A/B	2890	A/B
58	0.79	Mount Baker Rd	2818	A/B	4172	A/B
58	1.17	Mount Baker Rd	2953	A/B	4373	A/B
53	0.35	North Beach Rd	4213	A/B	6238	C
4	9.45	Olga Rd	2919	A/B	4322	A/B
4	11.5	Olga Rd	2919	A/B	4322	A/B
4	14.36	Olga Rd	1089	A/B	1613	A/B
4	15.94	Olga Rd	250	A/B	370	A/B
4	0.75	Orcas Rd	2336	A/B	3459	A/B
4	3.92	Orcas Rd	2477	A/B	3667	A/B
4	6.93	Orcas Rd	3828	A/B	5668	C
4	7.0	Orcas Rd	4856	A/B	7190	D
63	0.1	Point Lawrence Rd	1045	A/B	1547	A/B
63	0.56	Point Lawrence Rd	554	A/B	820	A/B
63	3.31	Point Lawrence Rd	332	A/B	491	A/B
54	0.47	Prune Alley	2227	A/B	3298	A/B
57	0.03	Terrill Beach Rd	2157	A/B	3195	A/B
57	0.68	Terrill Beach Rd	1093	A/B	1619	A/B

1 **Table 4. AADT and LOS for Lopez and Shaw Islands**

2

3

4

Lopez and Shaw Collector Roads						
County Road #	Mile Post	Road Name	2018		2036	
			AADT	LOS	AADT	LOS
5	2.24	Center Rd	508	A/B	530	A/B
5	3.3	Center Rd	720	A/B	752	A/B
5	4.85	Center Rd	1545	A/B	1614	A/B
5	6.17	Center Rd	1769	A/B	1848	A/B
5	7.12	Center Rd	1415	A/B	1478	A/B
108	0.1	Dill Rd	754	A/B	788	A/B
5	0.16	Ferry Rd	929	A/B	970	A/B
5	1.98	Ferry Rd	1145	A/B	1196	A/B
103	0.4	Fisherman Bay Rd	849	A/B	887	A/B
103	1.75	Fisherman Bay Rd	1167	A/B	1218	A/B
103	2.26	Fisherman Bay Rd	1824	A/B	1905	A/B
103	3.0	Fisherman Bay Rd	1824	A/B	1905	A/B
103	3.76	Fisherman Bay Rd	1304	A/B	1362	A/B
103	4.0	Fisherman Bay Rd	1304	A/B	1362	A/B
114	0.1	Mud Bay Rd	915	A/B	956	A/B
114	0.55	Mud Bay Rd	915	A/B	956	A/B
114	2.3	Mud Bay Rd	720	A/B	752	A/B
114	2.94	Mud Bay Rd	450	A/B	470	A/B
5	8.1	Richardson Rd	226	A/B	236	A/B
5	9.2	Richardson Rd	226	A/B	236	A/B
96	1.0	Shaw Island-Blind Bay Rd	233	A/B	233	A/B
96	2.21	Shaw Island-Blind Bay Rd	233	A/B	233	A/B

5

6 While the roadways are predicted to operate within the established LOS Standards, there

7 is a potential that intersections could be negatively impacted by population growth and

8 changes in land use. Intersection LOS standards may be used to assess the adequacy

9 of the transportation system within Urban Growth Areas (UGAs), such as Eastsound and

10 Lopez Village. As UGAs increase in density, more vehicles (and pedestrians and bicycles)

11 will be competing for the same street space. By setting intersection-based standards and

12 evaluating UGA intersection LOS periodically, the need for intersection improvements can

13 be identified.

14

15 Intersection LOS is based on the vehicular delay traveling through an intersection during

16 the busiest one-hour period. Smaller delays result in better LOS (A, B, C), while long

17 delays mean worse LOS (D, E, F).

18

Level of Service	Average Control Delay (seconds/vehicle)
A	0 – 10
B	10 – 15
C	15 – 25
D	25 – 35
E	35 – 50
F	50

Intersection LOS (fill in the blank) has been adopted as the maximum acceptable intersection delay for the key intersections in Eastsound and Lopez Village UGAs. The key intersections are collector road intersections used for moving traffic in and out of the UGA and are listed below.

In 2019, intersection flow was measured for existing conditions and modeled to predict intersection flow in 2036.

LOPEZ UGA INTERSECTIONS	2019 Existing		2036 Projection	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Weeks Rd/Fisherman Bay Rd	9.1	A		
Lopez Rd/Fisherman Bay Rd	9.1	A		
Fisherman Bay Rd/Hummell Lake Rd	9.6	A		
Weeks Rd/Lopez Rd	9.1	A		

Add summary of 2036 projections and identify intersections that may require improvements.

EASTSOUND UGA INTERSECTIONS	2019 Existing		2036 Projections	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
N Beach Rd/Mt Baker Rd	21.7	C		
Lovers Ln/Mt Baker Rd	11.8	B		
Orcas Rd/Main St	14	B		
Prune Alley/Main St	14.7	B		
Prune Alley/School Rd	11.5	B		
Terrill Beach/Crescent Beach Dr	11.3	B		
Terrill Beach/Mt Baker Rd	8.5	A		

Add summary of 2036 projections and identify intersections that may require improvements

c. Long Range Transportation Planning Recommendations

Currently, all county roadways are operating within the established LOS Standard (LOS D) or better and will continue to operate at acceptable traffic volume levels for the next 20 years based on estimated traffic growth. County roadways are expected to provide adequate capacity to meet anticipated increases in traffic volumes. Roadway improvements should be focused on reducing collisions and providing multi-modal access, while preserving scenic characteristics.

The UGA key intersections are currently operating at an adequate LOS. However, modeling of the intersections for 2036 growth projects that some of the intersections will have excessive side street delays. Intersections projected to have excessive delays will be evaluated and intersection improvements such as four way stops, turn lanes, or roundabouts will be considered based on the traffic flow predictions, intersection geometry and available road right of way. Potential intersection improvements will go through the standard county project planning and review process.

1 The County shall use the following assessments to develop transportation improvement
2 priority arrays, to guide the county legislative authority in the preparation of the Six Year
3 Transportation Improvement Plans and the Annual Construction Programs:
4

- 5 • Roadway condition.
- 6 • Biennial traffic counts and LOS assessments.
- 7 • Annual Complete Streets assessment.
- 8 • Traffic collision assessment for road safety plan.
- 9 • Concurrency evaluation for proposed developments. Developers in the County
10 are not typically required to improve County roads, but they are required to
11 construct private roads and may be required to make improvements to
12 intersections to improve traffic flow or safety.
- 13 • Intersection LOS assessments.

14
15 The County shall continue to coordinate with the Town, Ports, and Washington State
16 Ferries to provide roadway continuity with marine and air transportation services.
17

18 2. Bridges

19 a. Inventory of Bridges

20 San Juan County Public Works Department maintains four bridges on Orcas Island. The
21 details of the bridges are provided in the Annual Bridge Report. The report includes annual
22 maintenance activities, capital improvements, and biennial inspection results. A copy of the
23 annual report is available on the Public Works page of the County website.
24

- 25 • Deer Harbor Bridge on Channel Road
- 26 • Moran State Park Bridge on Olga Road
- 27 • West Sound Bridge on Deer Harbor Road
- 28 • Buck Bay Bridge on Pt Lawrence Road
- 29
- 30

31 **Figure 6. County Bridges**



1 **b. Demand/Capacity**

2 The County evaluates two key factors when prioritizing bridge improvement projects:
3 traffic capacity and structural integrity. The capacity of each bridge is evaluated as part
4 of the roadway LOS assessment. The structural integrity of the bridges is evaluated every
5 two years by Washington State Department of Transportation (WSDOT) bridge inspectors
6 from Whatcom County. The condition of the bridges, along with completed and planned
7 maintenance and capital improvements, is updated in the Annual Bridge Report, available
8 on the Public Works page of the County website. Currently, all four bridges provide
9 adequate capacity and are structurally sound.

10
11 **c. Long Range Transportation Planning Recommendations**

12 The County shall continue to inspect and evaluate the structural integrity and traffic
13 capacity of the bridges.

14
15 **D. Demand Management Transportation Options**

16 The availability of other modes of transportation to provide demand management benefits is
17 limited in San Juan County. Public transit is available on the mainland to transport people to the
18 ferry in Anacortes. San Juan County transit options are privately owned.

19
20 **1. Inventory of Transportation Services**

21
22 **a. Human Services Transportation Plan**

23 The 2018 San Juan County Human Services Transportation Plan (HSTP) update builds on
24 the work completed in the 2010 HSTP and the 2014 plan update. It examines strategies for
25 the unique and diverse needs of an isolated and rural population. It identifies ways to facilitate
26 access to essential services and community opportunities not otherwise accessible to some
27 county residents. It also explores means to improve services and other needs, such as
28 coordinating transportation services between island-based and mainland transportation. With
29 the overlapping descriptions of individual transportation needs, San Juan County Human
30 Services Transportation programs have found that the most useful criteria to identify the
31 transportation-vulnerable and underserved populations in San Juan County are: low income,
32 people with disabilities, and seniors. These three criteria most frequently accompany lack of
33 access to a vehicle, which is a significant factor in this county with no public transportation
34 service.

35
36 The plan describes the methods used to determine public needs and service gaps, and makes
37 recommendations for strategies, actions, and projects to meet the needs and close the gaps.

38
39 San Juan County was successful in securing three grants to meet its primary transportation
40 needs:

- 41
42 1. An on-demand, accessible taxi service with voucher program for eligible individuals;
43 2. Capital assistance to replace three aging Senior Services vans; and
44 3. Funding and hiring for a Mobility Manager to coordinate services for more efficient use of
45 available public and private resources.

1 The 2018 HSTP presents the following priority projects for 2019-2021:

- 2 • Increasing access to San Juan County's Transportation Voucher Program, exploring
3 partnership with non-profit providers, and supporting drivers to operate the San Juan
4 County Senior Center vehicles.
- 5 • Coordination with adjacent counties' human service transportation is currently
6 limited, but opportunities for enhancement are noted.
- 7 • Education and outreach are approached through a network of public and private
8 service providers. Interviews indicate that casual or organized community
9 discussions are also an important means of distributing information about services.
- 10 • Reliable funding for organizational capacity is identified as a key to pursuing other
11 funding, communications and networking, and the continued success of human
12 services transportation in San Juan County.

13 The HSTP is available on the Health and Community Services page of the County website,.
14

15 **b. Skagit Transit (SKAT)**

16 SKAT Provides mainland connecting service from the ferries via Route 410, with a stop at the
17 Anacortes ferry terminal. Accessible SKAT buses take San Juan County residents to March
18 Point, where they can transfer to the Tri-County Connector service going to the Skagit Transit
19 Center (which hosts Greyhound Bus, Amtrak, or buses northbound to Bellingham) or south
20 via Island Transit, to Whidbey Island. Students attending one of the campuses of Skagit
21 Valley College use SKAT, as do people who work in the Mt. Vernon or Burlington areas.
22

23 **c. Airport Shuttle Service**

24 Shuttle bus service to SeaTac Airport is provided by one San Juan Island-based provider, the
25 Island Airporter. They provide scheduled ground service six days a week, offering both
26 passenger and package service. San Juan County is also served by a private airport shuttle
27 service located on the mainland; Bellair Airporter Shuttle meets the ferry at the Anacortes
28 terminal and connects to Mt. Vernon, Bellingham, Seattle and SeaTac.
29

30 **d. Island Summer Shuttle Services**

31 As of 2018, there are two shuttle bus services on a seasonal basis to transport tourists from
32 the ferry terminal in Friday Harbor to service hubs and visitor attractions on San Juan Island.
33 San Juan Transit offers fixed-route service, stopping at locations that are of interest to visitors.
34 It offers a limited number of local discount cards for commuters going to work, through a punch
35 card system. Several of the larger employers, such as Roche Harbor Resort, contract with
36 San Juan Transit for their summer employees and/or guests. The buses generally operate
37 between Memorial Day and Labor Day. San Juan Transit has a lift-equipped van that provides
38 weekend service to Orcas Island and Lopez Island. The Jolly Trolley provides shuttle service
39 from the ferry to designated locations on San Juan Island.
40

41 **e. Taxi Services**

42 San Juan Island is the only island that currently has stable taxi services. Three out of the five
43 licensed providers operate year round. Currently, San Juan Island and Orcas Island have
44 licensed providers. On Orcas and Lopez, taxi services have been tried sporadically but have
45 not yet demonstrated the ability to survive long-term. Currently, alternatives to taxis such as
46 UBER and LYFT are not providing service on the islands.
47

1 **f. sjRIDESHARE**

2 Islanders without cars often walk onto ferries, hoping to find someone they know or a “friend
3 of a friend” who is willing to get them to their off-island destinations. Electronic ridesharing is
4 available to a limited extent, through island-specific websites like lopezrocks.org and an
5 Orcas-oriented Facebook site. Along county roadways, there are a series of signs that
6 designate ridesharing opportunities. sjRIDESHARE is the state’s only sanctioned hitchhiking
7 system. It provides designated safe, accessible sites for potential riders to stand and wait for
8 a ride. It also provides guidelines for both riders and drivers.
9

10 **g. Senior Service Vans**

11 The Senior Services Council is a non-profit corporation, with a mission to assist seniors in
12 remaining independent and in their own homes as long as possible. The Council operates a
13 fleet of vans for the primary purpose of transporting seniors and people with disabilities to the
14 group meals held at the senior centers on the three major islands. The program also offers
15 periodic medical trips to the mainland from San Juan and Orcas islands, for medical visits and
16 occasionally for social, or mainland shopping outings.
17

18 **2. Demand/Capacity**

19 San Juan County is the only county in Washington State that has no public transit system
20 other than a ferry. No island has bus service, other than intermittent private bus services that
21 operate during the summer months. San Juan and Orcas are the only islands that currently
22 have reliable taxi service.
23

24 The Transportation Voucher Program (TVP) for human services transportation is available in
25 San Juan County, and the TVP has substantially improved access to transportation services
26 for many. However, the TVP program does not have secure funding, and further, longer-term
27 needs of a large number of transportation-vulnerable members of the community remain to
28 be met.
29

30 **3. Long Range Transportation Planning Recommendations**

31 The County does not plan to operate public transit services; however, the County shall
32 continue to support existing public and private transportation services. County roadways and
33 marine facilities provide access for transit systems, and the roadways in the urban growth
34 areas support the mobility of seniors and persons with disabilities. The County shall continue
35 to upgrade roadways in urban growth areas, to provide better accessibility for persons with
36 disabilities.
37

38 **E. Freight Mobility**

39 The ability to move goods and services within the county, as well as to and from the mainland, is
40 essential to the economic vitality of San Juan County. The county is unique among other areas
41 in the state, in that there are no roads that lead to San Juan County. The only ways to get to and
42 from the county are via air or water. This fact raises challenges in developing reliable methods
43 for moving freight to and from the region.
44

45 As stated in the WSF Long-Range Plan, WSF is an essential part of the highway network in
46 Western Washington and for communities on the San Juan Islands. WSF is the only link from the
47 ferry-served islands to the mainland for personal and commercial vehicles. The commercial
48 vehicle connection is essential; San Juan County communities depend on ferries as the primary
49 means to transport goods – including basic supplies and local products – to and from the wider
50 market.

1
2 Ferries are designed to allow “tall” vehicles; i.e., commercial trucks over 7’6” in height, to be
3 loaded in the center of the boat. The available space is limited and during high demand periods,
4 commercial vehicles may be delayed. WSF has a “preferred loading” program for commercial
5 vehicles. This allows qualifying businesses to reserve space on the ferries, provided the company
6 has met certain requirements as to frequency of travel and timely arrival at the ferry terminal.
7 Commercial reservations are now part of the overall ferry reservation system.
8

9 For those islands not served by WSF ferries, local barges and ferries transport a limited number
10 of people and goods between the islands.
11

12 Another essential freight transport link is represented by the airports on the islands, which provide
13 critical support to the economic well-being of each community. The ferry-served islands have
14 airports owned and operated by a public Port District. Other islands have airstrips and private
15 landing strips that can be used to transport freight, as well as passengers. The airports on both
16 San Juan and Orcas Islands are located close to the main town and village, facilitating the ability
17 to move goods to the commercial centers. Air facilities in San Juan County provide critical mobility
18 and connectivity for people and freight in the region.
19

20 **F. Intergovernmental Coordination**

21 San Juan County acts as its own Transportation Planning Organization, together with the Port of
22 Friday Harbor and the Town of Friday Harbor. Meetings on coordination of transportation issues
23 are held on an as-needed basis, primarily when funding is available or there are common projects
24 between entities. San Juan County is geographically isolated, but it is dependent on the facilities
25 of adjacent jurisdictions to ensure the effective transportation of freight and people to and from
26 the county. Therefore, there have been discussions with other counties in the past as to the
27 benefits of joining an existing adjacent Regional Transportation Planning Organization (RTPO) or
28 a Municipal Planning Organization (MPO).
29

30 Common interests and goals with Skagit County primarily concern the coordination of Skagit Area
31 Transit (SKAT) and the Anacortes ferry, to ensure that island residents are able to efficiently travel
32 between Anacortes and the I-5 corridor. With the ferry schedule changing seasonally,
33 coordination of transit schedules has been a challenge.
34

35 With the Whatcom MPO, past discussions on the viability of a passenger ferry has been the focal
36 point of discussions, with transit connections as an ancillary topic.
37

38 San Juan County has been participating actively in regional informational and coordination
39 meetings to assess the regional transportation issues and developing projects to better position
40 the county to respond in a cooperative manner with other agencies. The North Sound
41 Transportation Alliance (NSTA), formerly known as the Farmhouse Gang, is a coalition of
42 concerned citizens, elected officials and professional staff of transportation agencies from
43 Washington’s five northwestern-most counties: Whatcom, Skagit, Island, San Juan, and northern
44 Snohomish. The NSTA strives to develop better ways for people to travel in the region. San Juan
45 County attends the general meetings and has participated in subcommittees and presentations.
46 San Juan County has periodically attended the quarterly MPO/RTPO/WSDOT Committee
47 meetings. This attendance has allowed the county to remain current on funding opportunities and
48 requirements, as well as to stay informed on state transportation planning efforts.
49

1 **G. References for Section I Update**

2
3 Cosgrove, Helen; Port Administrator, Port of Lopez

4
5 Confluence Research and Consulting for Terrestrial Managers Group; *San Juan Island Visitor*
6 *Study. June 2018*

7
8 Hopkins Buchanan, Deborah; San Juan Islands Visitors Bureau

9
10 Hansen, Stuart; Airport Manager, Port of Friday Harbor

11
12 San Juan County Resolution 09-2019, adopting San Juan County Coordinated Human Services
13 Transportation Plan

14
15 *Parks, Trails, and Natural Area Plan and Nonmotorized Plan 2017-2022. Ordinance 12-2016*

16
17 San Juan County Department of Public Works; *Annual Marine Facility Report 2018*

18
19 San Juan County Department of Public Works; *Annual Bridge Report 2018*

20
21 San Juan County Department of Public Works; *Annual Complete Streets Program Report, 2018*

22
23 San Juan County Resolution 27-2017, Adopting a Population Projection for 2018 Update to the San
24 Juan County Comprehensive Plan.

25
26 Simpson, Anthony; Airport Manager, Port of Orcas

27
28 SJC Comp Plan Workgroup; *Transportation and Land Use Elements*, 10 October 2018

29
30 Town of Friday Harbor; *Transportation – Chapter 5 of Comprehensive Plan*, 2002 with 2018
31 updates

32
33 TranspoGroup Memoranda September 26, 2018; *San Juan County Level of Service Analysis –*
34 *2018 -Update.*

35
36 **Add TranspoGroup Intersection Memos when they are finalized**

37
38 US Census Bureau QuickFacts Washington; San Juan County, Washington

39
40 Washington State Department of Transportation, Ferries Division; *Washington State Ferries 2040*
41 *Long-Range Plan January 2019*

42
43 Washington State Department of Transportation, Ferries Division; *Traffic Rider Segment Report*
44 *July 1, 2017 thru September 30, 2017*

45
46 Washington State Department of Transportation, Ferries Division; *Washington State Ferries*
47 *Summer Service Plan 2018*

48
49 Whatcom Council of Governments (WCOG) Website; <http://wcoq.org>

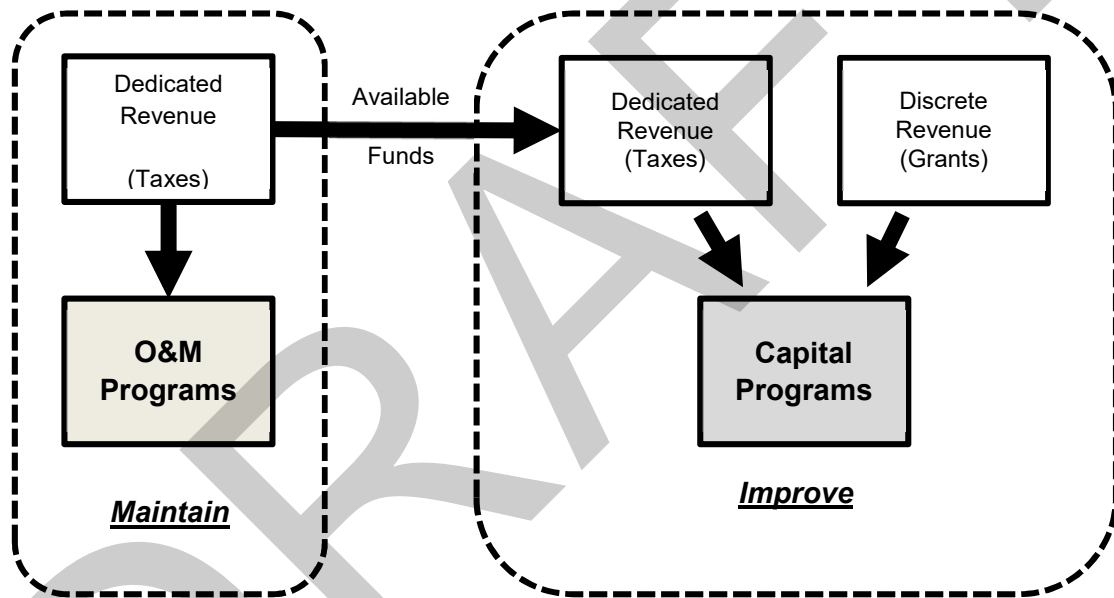
1 **II. TRANSPORTATION FINANCING (2020-2036)**

2
3 This section addresses transportation funding for transportation projects funded by the County road
4 fund and administrated by the Public Works Department.
5

6 **A. Overview**

7 The County road fund receives revenue in two general categories: dedicated revenue (taxes) and
8 discrete revenue (grants). Taxes are the most reliable and predictable source of transportation
9 funds and are used primarily to support the County’s operation and maintenance (O&M) programs
10 (those necessary to maintain the existing level of service). They are also used to support, if
11 available, the County’s capital programs (those developed to improve the level of service, multi
12 modal access, and/or safety), see Figure 7.
13

14 **Figure 7. Operation and Maintenance Programs vs Capital Programs**



16
17 The ability of the County to self-fund its capital programs enables the County to best prioritize
18 transportation improvements in accordance with the recommendations of the Comprehensive
19 Plan. When capital programs become grant-dependent, individual capital projects must be
20 developed to be grant eligible. Developing grant eligible capital projects requires the expenditure
21 of staff time and funds with no certainty of award. Further, grant compliance may surrender the
22 County’s desire to have full authority over project design elements reflective of local conditions
23 and social values.
24

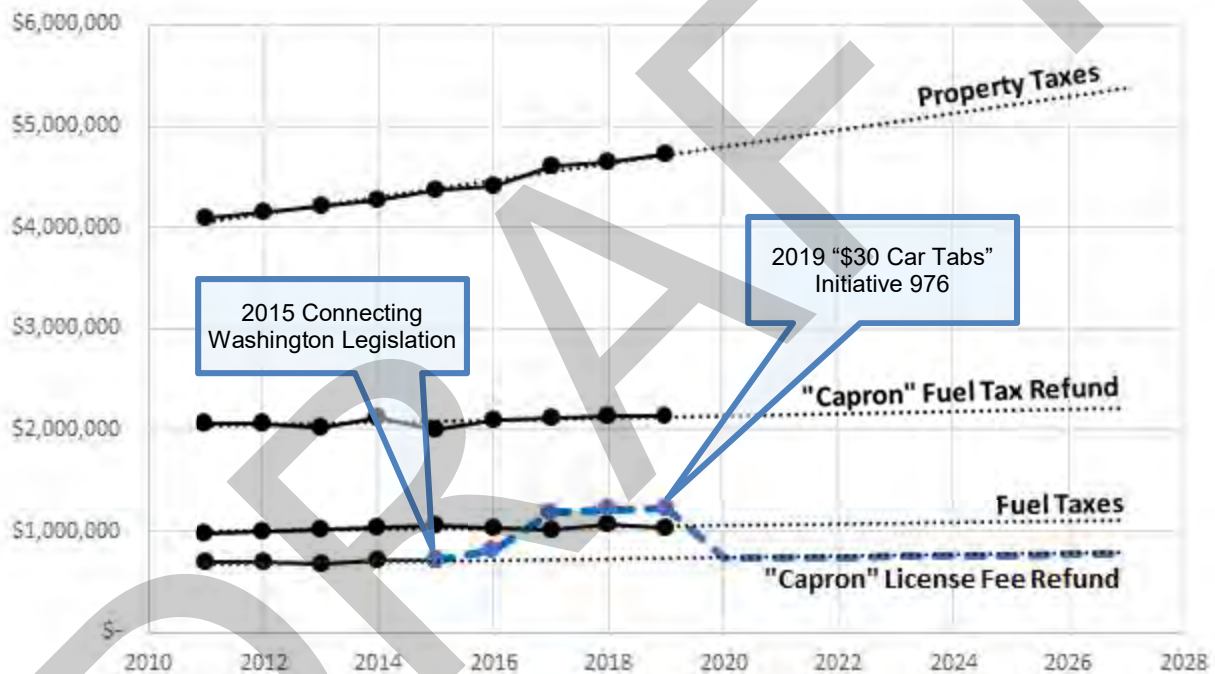
25 Overall, San Juan County has been in a period of diminishing financial resources for several years
26 and this trend is projected to continue. The recent decrease in Capron revenue and increase in
27 employee and goods and services costs has accelerated the need to make strategic
28 organizational decisions to reduce costs or increase revenue, or some combination thereof, in
29 order to prevent transportation level of service reductions in the County.
30

1 **B. Transportation Revenues**

2 Revenue sources include property taxes, fuel taxes, and Capron refunds. Property taxes are
3 authorized by the County legislative authority and are subject to deductions from levy shifts and
4 levy diversions. Fuel taxes are collected by the State and are distributed to the County by
5 programs administered by both the State ("10-30-30-30" distribution) and CRAB (CAPP
6 distribution). The 1929 Capron Act (RCW 46.68.080) provides additional revenue to the County
7 consisting of motor vehicle license fees and motor vehicle fuel taxes.
8

9 As shown in Figure 8, while tax revenue is normally stable and predictable, the license fee portion
10 of Capron refunds increased significantly in 2015 (approximately \$500,000/year) due to the
11 passage of the 2015 Connecting Washington legislation. The recent passage of Initiative 976
12 (which is currently contested) may reduce this revenue to 2015 projections pending final court
13 action.
14

15 **Figure 8. Revenue Projections**



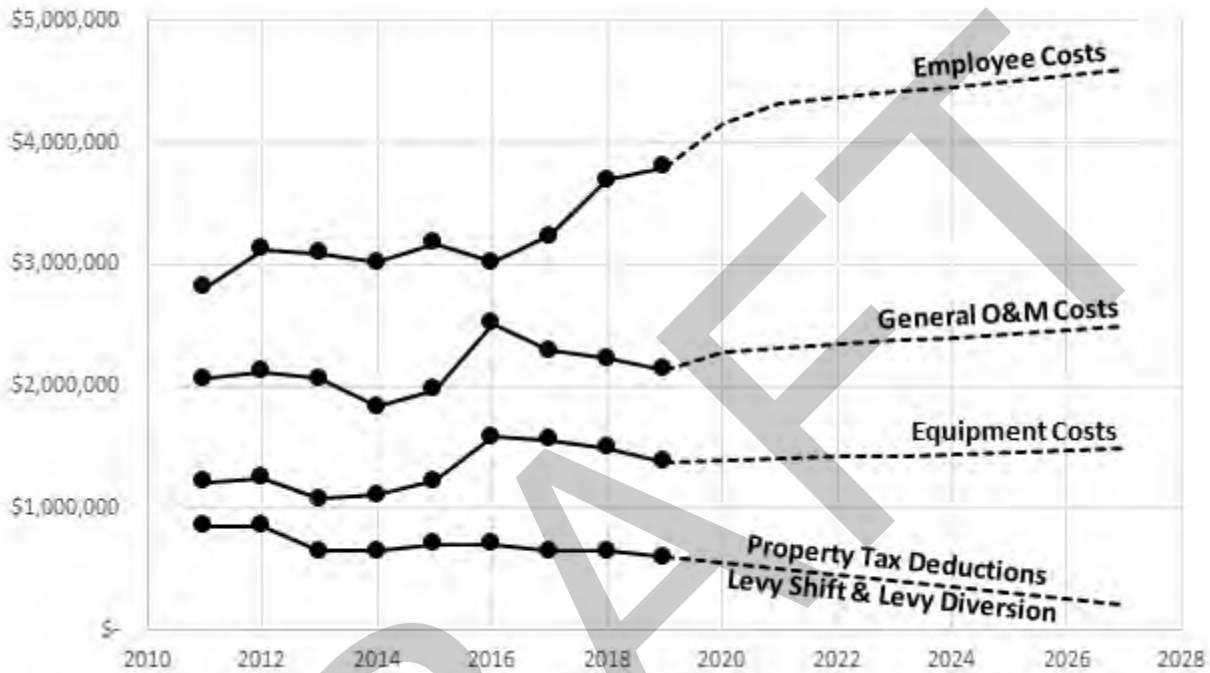
16
17 **C. Transportation Expenditures**

18 Expenditures have been categorized into four groups to facilitate annual projections and assist in
19 strategic organizational decisions: employee costs, O&M costs, equipment costs, and property
20 tax deductions. Some of the many factors that complicate the ability to predict these costs include
21 collective bargaining agreements, employee benefit programs, raw material costs (rock and oil),
22 and inclement weather response (snow, ice, and wind).
23

24 Property tax deductions due to a levy shift or levy diversion are discretionary actions authorized
25 by the County legislative authority each year. They are shown as an expenditure so that property
26 tax revenue can be projected in accordance with the authorized county road levy.
27

1 The last levy shift occurred in 2016 when \$50,000 was allocated to the Parks, Recreation, and
 2 Fair Department by Ordinance 12-2015. A levy diversion has occurred every year since 2002.
 3 Beginning in 2017, the County Council has programmatically reduced the levy diversion by
 4 \$50,000 each year with a \$550,000 and \$500,000 levy diversion budgeted for 2020 and 2021.
 5 Figure 9 shows the projected in these four groups.
 6
 7

Figure 9. Expenditure Projections



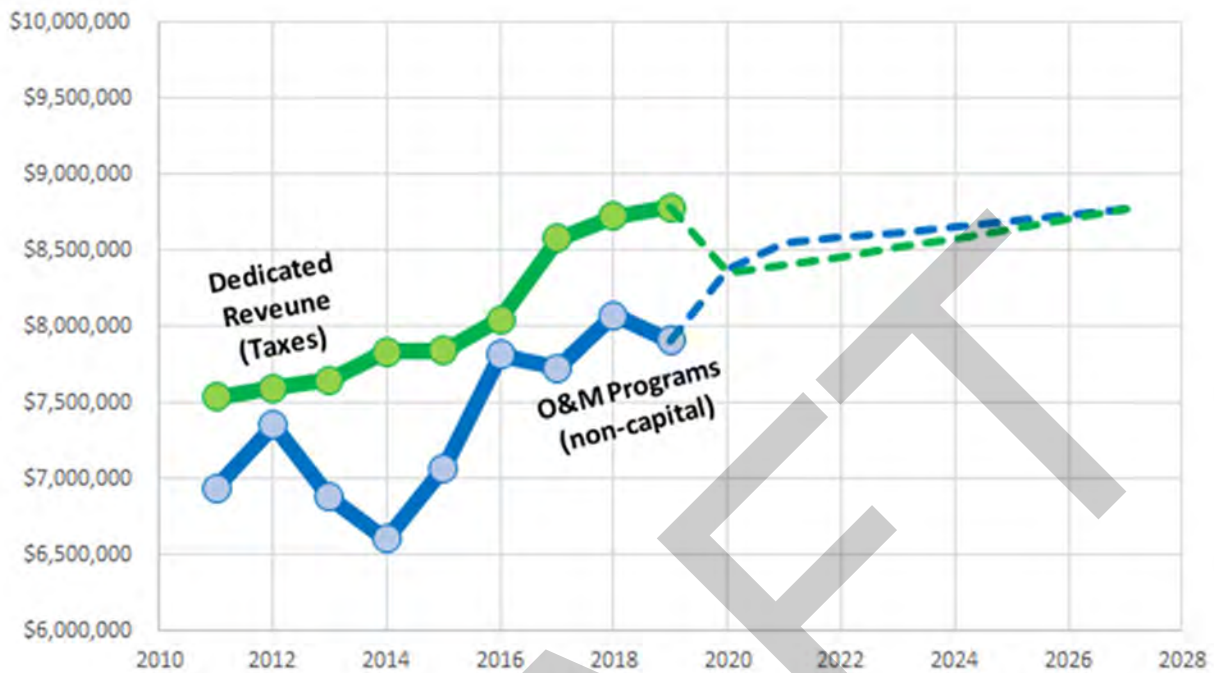
8

D. Analysis and Projections

9 A comparison of dedicated revenues (taxes) and O&M programs (non-capital) is necessary to
 10 determine the remaining availability of dedicated revenue for capital programs. In 2020 the County
 11 will need to implement cost saving or revenue increasing measures to preserve an ability to self-
 12 fund capital projects. Without these changes, the County's capital program may be entirely
 13 dependent on granting programs for construction (see Figure 10).
 14
 15

1

Figure 10. Road Fund Projections



2

3 Table 5, a summary of planned transportation expenditures and revenues, indicates that in the
 4 2020 – 2025 period O&M programs will need to be funded by County road fund reserves (cash) and
 5 that construction for planned capital programs may be entirely dependent on grant funds. This
 6 projection will need to be continually revised as necessary cost cutting and/or revenue increase
 7 measures are implemented.

8

Table 5. 2020-2037 Projections

	3x 6-Year Projections (in millions)		
	2020 - 2025	2026 - 2031	2032 - 2037
Dedicated Revenue (taxes)	\$50.1	\$53.2	\$57.0
O&M Program Expenditures	\$51.5	\$52.8	\$54.3
Balance	(- \$1.4)	\$0.4	\$2.7
Planned Capital Program	\$18.0	\$22.0	\$27.0
Local Funds	-	\$0.4	\$2.7
Grant Funds	\$18.0	\$21.6	\$24.3

9

1 **E. Potential Options for Reducing O&M Expenses**

2 The Public Works Department has two basic options to consider to reduce O&M expenses:

- 3
- 4 • Accelerate process improvement strategies to decrease costs by increasing operational
5 efficiencies. While process improvement is continually evaluated for cost saving measures,
6 it is most effective when strategically implemented over time when opportunities arise. For
7 example, an opportunity for fleet optimization may present itself when advances in the
8 industry allow for combining equipment or sharing equipment between islands.
 - 9
 - 10 • Implement level of service reductions by cutting back on maintenance programs. This may
11 include reductions to the County's chip seal overlay program, which will adversely affect
12 the quality of County roads. Over time, deferred maintenance is typically more expensive
13 as the scope and scale of repairs exceeds what can be performed under routine operations.
 - 14

15 **F. Potential Source of Transportation Revenue**

16 The State's Transportation Resource Manual (reference provided herein) includes the complete
17 listing of options that local governments may consider to increase dedicated revenues (taxes) for
18 transportation. The two most practical options are:

- 19
- 20 • Property Taxes
21 Any county may impose a road levy up to \$2.25 per \$1,000 assessed value for the county
22 road district. In 2019 the San Juan County's road levy was approximately \$0.62 per
23 \$1,000. The road levy is subject to the 1% annual "levy lid" (RCW 84.55.010 and WAC
24 458-19-020).
 - 25
 - 26 • Transportation Benefit Districts
27 Chapter 36.73 RCW authorizes counties to form transportation benefit districts that can
28 raise revenue for specific transportation projects, usually through vehicle license fees or
29 sales taxes.
 - 30

31 **G. References for Section II Update**

32 **CRAB - County Engineers' and Public Works Directors' Desk Reference**

33 Updated regularly by the Washington State County Road Administration Board (CRAB), a general
34 resource to support the work performed within the Office of the County Engineer.

35

36 **Transportation Committee - Transportation Resource Manual**

37 Produced annually by the Transportation Committee (House Transportation Committee & Senate
38 Transportation Committee) and includes a comprehensive list of transportation taxes that have
39 been authorized by the Legislature for use by local governments.

40

41 **Office of Financial Management (OFM) – Transportation Revenue Forecast Council**

42 Each quarter, technical staff of the Department of Licensing, Department of Transportation,
43 Washington State Patrol and the Office of Forecast Council produce forecasts. The revenue
44 forecasts agreed upon by the Transportation Revenue Forecast Council members become the
45 official estimated revenues under RCW 43.88.020 21

1 WSDOT - **Fuel and Vehicle Trends Report** - Summary of articles appearing in popular, business
2 and technical media referring to the impact of fuel costs and fuel efficiency on vehicle technology,
3 development and markets. It also compares the latest monthly actual vehicle registrations, fuel
4 prices, consumption and revenues to the current forecast.
5

6 Department of Revenue – **Property Tax Levies “Levy Manual”**

7 Designed for the convenience of the 39 county assessors and the Department of Revenue. It is
8 also a useful tool for other county officials, taxing district officials, legislators, and, of course,
9 taxpayers.
10
11

DRAFT

2036 Comprehensive Plan
Transportation Element Briefing

Attachment F
2016-11-08 Transportation Element
Appendix 6 Adopted

COMPREHENSIVE PLAN

APPENDIX 6

TRANSPORTATION

October 10, 2016
Adopted November 8, 2016



APPENDIX 6

TRANSPORTATION

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I. TRANSPORTATION FACILITIES INVENTORY AND LOS ANALYSIS

Transportation in San Juan County is a complex, multimodal system dictated by geography. The county is surrounded by water and contains 176 named islands and reefs. The only way to travel between islands or to and from the mainland is via boats or airplanes. There are no land based state highways; San Juan County's highway is the state ferry route. All residents, visitors and freight are dependent on the marine and air transport systems to support the economics of the area. Once on an island, other modes of travel are available.

The 2010 Census listed the population of San Juan County as 15,769. This figure soars in the summer with visitors arriving from numerous origins to enjoy the San Juan Islands. Based on ferry ridership data presented in a report from the San Juan Islands Scenic Byway, an average of over 141,000 people arrived on Orcas Island and more than 209,000 people traveled to San Juan Island during the June through September summer months in 2011 and 2012. Based on data collected by the San Juan Islands Visitors Bureau (SJIVB) tabulating direct contacts, approximately fifteen percent of the visitors to the county come from California and nearly ten percent from Oregon. Visitors from around the state of Washington account for approximately twenty percent, but this figure is considered to be low; many Washingtonians may not contact the SJIVB before heading to the San Juan Islands. SJIVB receives inquiries from interested people in every state of the US, as well as dozens of countries worldwide.

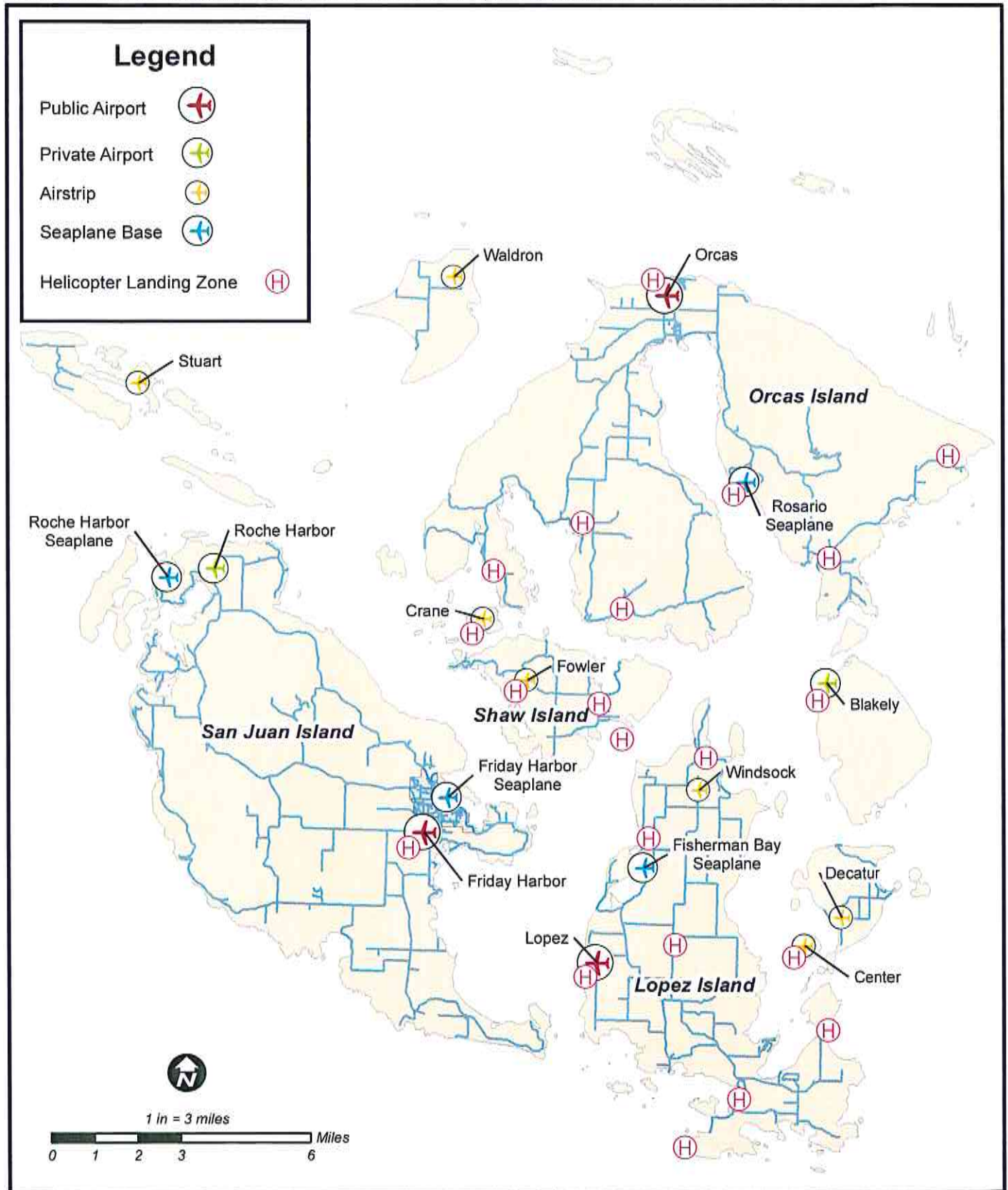
To assess level of service needs, updated population projects and demographic data were used to assess the consistency of land use assumptions in the County's Comprehensive Plan. It was determined that the land use assumptions used in the update of the Transportation Element did not impact the land use assumptions provided in the Land Use Element. Travel forecasts were prepared for 2010 to 2021. These forecasts predict the estimated demand for new transportation facilities based on projected growth and use. Population projects, travel forecast and level of service recommendations are included in the Attachment.

A. Air Transportation

Aviation has been an important element of travel in the San Juan Islands for many years. The vast majority of air traffic now uses public airports on San Juan, Orcas and Lopez Islands, owned by the port districts in those areas. Additional landing fields exist on many other inhabited islands. Seaplanes use designated harbors in Fisherman Bay, Rosario, Deer Harbor, West Sound, Roche Harbor and Friday Harbor as well as private docks. The general location of the various air transportation facilities within San Juan County are presented in Figure 1.

1. Inventory of Existing Facilities and Services

Friday Harbor, Orcas and Lopez have commercial airline connections to Seattle, Bellingham, Anacortes and other mainland destinations, and these services are used by residents as well as visitors to the islands. Aviation is a vital transportation component connecting non-ferry served islands to other locations in the islands and to the mainland, providing passenger travel as well as freight and mail transport, medical evacuation to mainland hospitals, disaster staging/relief and other essential services.



This map is a graphic representation derived from San Juan County's Geographic Information System. It is designed and intended for reference only, and is not guaranteed to survey accuracy. Information represented in this map is subject to change without notice.

Air Transportation

San Juan County, Washington

Drawn By: TC

Figure

1

1/4/2013

The Ports of Friday Harbor, Orcas and Lopez receive federal funding through the Federal Aviation Administration for improvements at the major public island airports. Capital projects funding is also available through the Washington State Department of Transportation/Aviation Division.

a. Friday Harbor Airport

Friday Harbor Airport is classified as a commercial service airport which is owned and operated by the Port of Friday Harbor. Its location spans the Town of Friday Harbor's (Town) boundary with San Juan County. The airport is a "primary service" airport, with more than 10,000 commercial enplanements each year. Its location adjacent to the Town makes it a destination for recreational pilots from throughout the region.

Friday Harbor Airport has a 3,400 foot runway that is rated for aircraft of 12,500 pounds. The airport designation is "B-1 Small". The largest commercial aircraft serving the airport carry nine passengers.

The airport facilities include 55 Port-owned hangars, 45 private hangars, and 87 tie-downs of which 45 are reserved for visiting aircraft. As of 2012, the airport has 135 based aircraft. A passenger terminal provides a base for commuter airlines to conduct business. Other business activities include air freight, air charter, flight training, full-service aviation mechanic and medical evacuation to mainland hospitals by helicopter or fixed-wing air ambulance. The airport is adjacent to Peace Island Medical Center.

Friday Harbor Airport, the Friday Harbor Seaplane Base and the Roche Harbor Seaplane Base are served by U.S. Customs and Border Protection personnel who clear hundreds of international flights each year. Friday Harbor Airport has an average of 50,000 to 60,000 operations each year. Recent years have seen just over 10,000 annual passenger enplanements, with the majority of passengers embarking on flights to Seattle.

b. Orcas Island Airport

The Port of Orcas operates the Orcas Island Airport. The facility is classified as a commercial service airport. The taxing district owns approximately 100 acres of land within the Eastsound Subarea.

From Federal Aviation Administration (FAA) form 5010/WSDOT Aviation data, an estimated 5,000 passenger were enplaned in 2011, accompanying 6,400 commercial operations, with an estimated additional 42,000 non-commercial operations. Over 200,000 pounds of freight were delivered by air. With an existing capacity of 122,000 operations, there is sufficient capacity to meet long-term increased demand.

The airport has a 1500 sq. foot terminal, recently remodeled passenger waiting area, a public-use/conference room and office space for conducting port operations. There are 53 designated aircraft tie-down spaces, including 30 turf spots. The federal aircraft registry counts 70 aircraft using the Orcas Island Airport as their home base, meaning they are either housed on the field or have deeded residential through-the-fence access.

c. Lopez Island Airport

The Port of Lopez operates the Lopez Airport which is classified as a community service airport. The facility occupies 50 acres and has a 2,900 foot runway. According to the 1993 Washington State Continuous Airport System Plan, Volume 1, it is a "general aviation" airport (i.e., public/private facility with general aviation usage) and had approximately 18,250 operations in 2010. The Port of Lopez does not currently have any full-time employees and daily flight operations are not monitored. The airport office and waiting room occupies 500 square feet. There are 11 aircraft tie-down spaces available and 6 private hangars with space for 28 aircraft are located adjacent to the Port of Lopez property.

d. Seaplane Facilities and Services

Currently, Kenmore Aviation provides the only regularly scheduled seaplane service to San Juan County. Seaplane service is provided at the following locations: Islander/Islands Marine Center on Lopez, West Sound Marina, Deer Harbor Marina, Rosario Resort and West Sound Marina on Orcas Island, Roche Harbor Resort and Friday Harbor Marina on San Juan Island. Four flights per day are offered at all island locations.

2. Long-Range Planning Needs

As stated in the *WSDOT/Aviation 2012 Aviation Economic Impact Study*, small communities have particular challenges when it comes to the air service access they need to sustain their economic vitality and the mobility of their residents. Each of the ports is assessing the current trends to determine the most effective improvements to meet projected demands.

a. Friday Harbor Airport

The airport has seen a slower rate of growth in annual operations than was anticipated in the most recently adopted Airport Master Plan (2007). An updated master plan, taking into account reduced forecasts, will be completed by early 2013. The airport's capacity is projected to be sufficient for anticipated demand over the next ten years.

The Port is planning the following improvements within the next five years, and others will be identified in the master planning process.

- Update Airport Master Plan
- Identify and remove obstructions in runway approaches
- Electric system rehabilitation: gate controls, vault, emergency generator (complete)
- Rebuild of parallel taxiway, including replacement of signs and lights with energy efficient systems (complete)
- Replace runway lighting system for energy efficiency
- Construct visiting pilot welcome center
- Rehabilitate aprons
- Site preparation for t-hangars and executive hangars

- Replace hangars
- Replace or rebuild airport fuel facility

b. Orcas Island Airport

The latest document regarding the airport is the 2008 Airport Layout Plan (ALP), updated as part of an Airport Improvement Plan, which studied the feasibility of an instrument approach. This document noted that the existing Runway 16/34 remains at 2,900', with a parallel taxiway east of the runway, and 4 connecting taxiways. Wildlife fencing was installed in 2002, a drainage survey and 14 new hangars completed in 2003, along with substantial on-field improvements including new runway lighting, signs, wind cone and beacon replacements, and an emergency generator/electrical building. In 2006, the master plan was updated through the ALP. The next year, 2007, saw an expansion and updated lighting for the emergency medical services (EMS) helipad. A GPS approach to runway 34 was instituted in 2009. In 2010, reconstruction of the south ramp was completed, with 1/3 of the tarmac area replaced by turf tiedowns. A WSDOT/Port grant in 2011 added a 4-view webcam for pilot/public information. 2012 saw purchase of 40 acres on the west side of the airport to protect the airspace, discourage incompatible development and control of access to the airport.

By the end of 2017, the following improvements are anticipated:

- Reconstruction/repaving of the runway; movement of the taxiway 6' east; reconfiguration of the 4 runway/taxiway crossovers; stormwater improvements,
- A GPS approach to runway16
- Wildlife Hazard Assessment
- Environmental Assessment
- Update AWOS (weather reporting instruments) equipment

These improvements would bring total FAA and the Washington State Department of Transportation (WSDOT) contributions to over \$10,000,000.

The Orcas Island Airport is part of NPIAS, and remains protected from incompatible land use by the creation of an airport overlay district created in 2003 and the constant vigilance by its five elected commissioners and paid staff. SJC classifies it as an essential public service.

c. Lopez Island Airport

A Capital Improvement Plan submitted to the FAA listed improvements to the Lopez Airport which included land acquisition. Completed projects included taxiway rehabilitation, improved lighting and navigational aids, additional paving, and perimeter fencing.

3. Demand/Capacity Analysis

The 2012 *Economic Impact Study* developed by the WSDOT Aviation Division and FHWA evaluated all airports within the state to demonstrate how individual airports contribute to the well being of their communities. The study evaluated economic impacts from the perspective of airports, industry and the user.

Table 1 provides the latest data from the 2012 *Economic Impact Study* on each of the listed airports within San Juan County.

Table 1. Existing Level of Activity

Location	Airport Classification	Based Aircraft ¹	Emplanements	Total Operations ²	Total Visitor Spending
Friday Harbor Airport	Commercial	147	10,800	50,803	\$ 3,679,400
Orcas Island Airport	Commercial	72	5,066	35,824	\$ 2,279,700
Lopez Airport	Community Service	34	4,000	28,500	\$ 2,289,600
Friday Harbor Marina	Sea Plane Base	0	2612	-	\$ 807,700
Roche Harbor	Sea Plane Base	0	2977	-	\$ 719,500
Rosario	Sea Plane Base	0	1413	-	\$ 339,200

Source: WSDOT Aviation Division – 2012 *Economic Impact Study*

1. Based aircraft is defined as the number of aircraft stored at a particular airport on an annual basis.
2. Total operations are the total estimated number of takeoffs and landings that occur at an airport.

The premise of the economic study was that airports support a community's economic and transportation needs. "A significant share of aviation system economic contributions are from mobility and connectivity for both people and freight." The study stated that 90% of the economic activity within the county is located within 5 miles of a local airport.

B. Marine Transportation

Marine transportation services and facilities are the primary means for movement of people and goods among the islands and between the islands and the mainland; they provide a link that is vital to the existence of every aspect of life within San Juan County. Washington State Ferries (WSF) is the chief service provider and along with airports and public ports, landings and marinas, has a substantial effect on the quality of transportation and also on the type, character and functioning of surrounding land uses. In addition to public ferry service, private commercial vessels and barges provide transportation opportunities.

1. Washington State Ferry System

The marine linkage between the islands within the county and the 'mainland' of Washington State has supported the economy of the county for over 100 years. In the 1920's when the fruit growing industry in the islands was vibrant, it was the necessary marine connection

between the orchards in the island valleys and the markets throughout the state and beyond that made the farmers successful.

Washington State Ferries is the principal provider of marine transportation between the islands of San Juan County (San Juan, Orcas, Shaw and Lopez) and the mainland via Anacortes, Washington and Canada through Sidney, B.C., see Figure 2. Island terminals contain ferry holding lanes, commuter parking lots and waiting areas. Schedules and routes vary from year-to-year as well as season-to-season, but in general a greater number of larger vessels are employed in summer months than in winter.

Demand for ferry services on the San Juan County route is highly variable. That variability is manifested in substantial differences between the seasons, the day-of-the-week, and the hour of the day. The complexity of the demand variables contributes to the difficulty in planning for the impacts of ferry service throughout San Juan County.

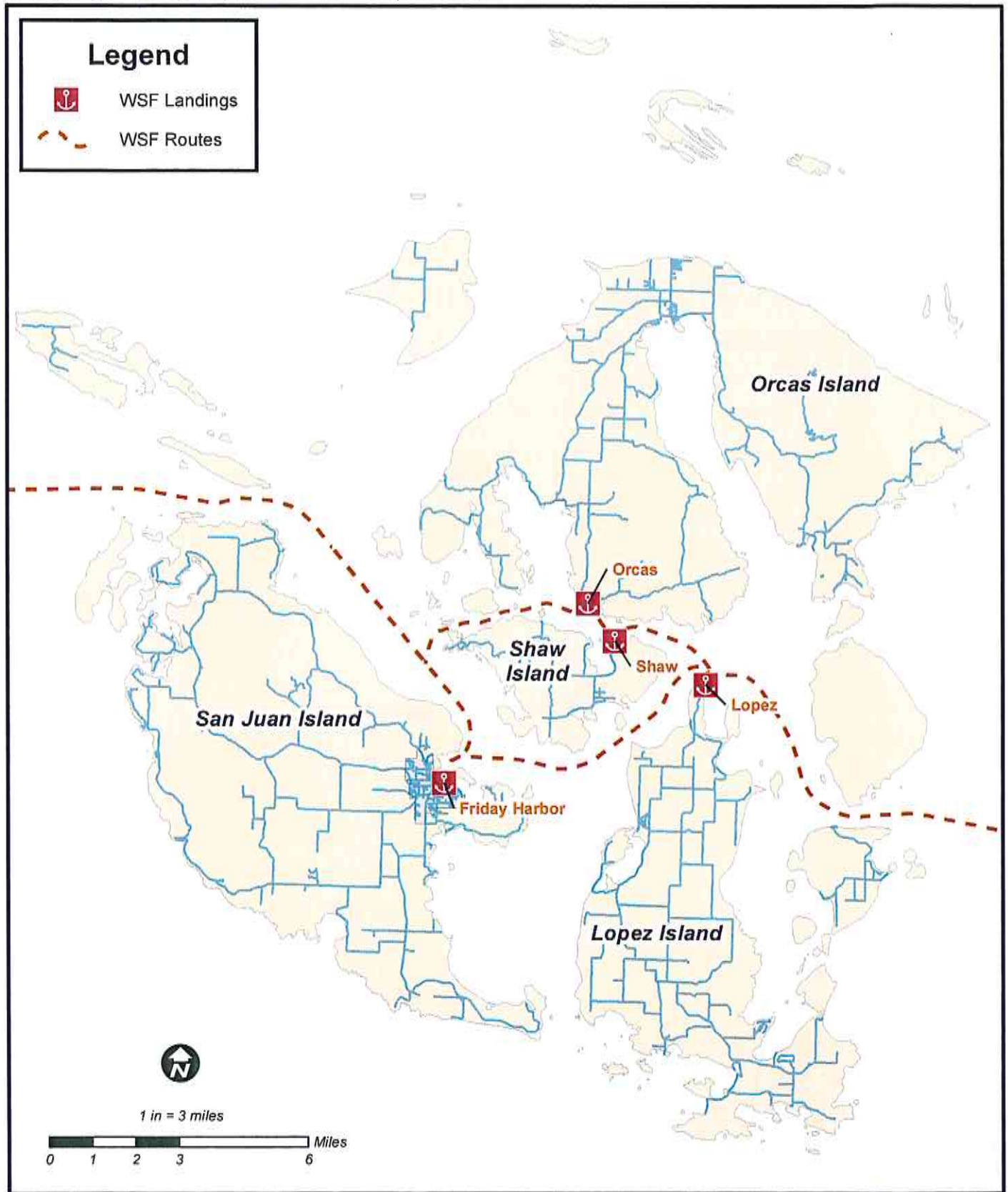
The summer season between mid-June and mid-September is the busiest season with the highest peak demands occurring in July and August. By contrast, the least busy period is the deep winter from early January through March. The shoulder seasons in the spring and fall complete the cycle of demand through the year.

Total demand for ferry service is a composite of four segments of the traffic volume handled by WSF. The transportation needs of the County residents, commercial companies providing goods and services to those residents, and those visitors/tourists that support the County economy all contribute to the planning matrix that meets those collective demands. The fourth segment is the need to move those same customers within the islands of San Juan County.

a. Inventory of Existing Facilities and Services

Currently, all ferry facilities are planned to accommodate and handle the highest peak of demand occurring in the summer months.

Ferries: The assignment of ferry vessels during the year is a function of seasonal demand. The specific boats vary seasonally and also with maintenance needs and unanticipated repairs. Table 2 provides an inventory of the boats that may serve the San Juan Islands at any one time.



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**Marine Transportation
Washington State Ferries (WSF)**

San Juan County, Washington

Drawn By: TC

Figure

2

Date: June 2011

Table 2. Inventory of Ferries Serving San Juan County

Ferry/Class	Year Built/Rebuilt	Service Area	Ferry Size (no. cars/no. passengers)
Elwha/Super	1967/1991	San Juan Islands	144/1,076
Yakima/Super	1967	San Juan Islands	144/2,000
Hyak/Super	1967	San Juan Islands	144/2,000
Chelan/Issaquah 130	1981	San Juan Islands / Sidney, B.C.	124/1,076
Sealth/Issaquah	1982	San Juan Islands	90/1,200
Evergreen/Evergreen State	1954/1988	Inter-island	87/983
Hiyu/Hiyu	1967	San Juan Islands	34/200

During the summer period there are five vessels assigned to the Anacortes terminal. In general, three of the ferries are 'super-class' providing service between Anacortes and the four island terminals. One is an Issaquah-class boat assigned to the International service connection with Sidney, B.C. The fifth ferry is a smaller boat assigned to inter-island service. The five ferries represent 25% of the current WSF fleet, although the San Juan Islands represent 10% of the total system traffic demand.

During the shoulder seasons, fall and spring, one Super class ferry is typically removed. The two remaining Supers continue to provide mainland service and the Issaquah-class ferry divides service with one round-trip per day to Sidney, B.C. and service to the islands on the second work shift. The inter-island service remains the same.

In the winter period, service is discontinued to Canada, and that vessel provides service to the islands. During this season, the inter-island ferry is not in service on the weekends such that for three months there are two different schedules for the weekly period. The four ferries assigned to the islands represent 20% of the fleet providing service to about 7% of the system demand.

Ferry Parking: WSF provides parking facilities at each of the island ferry terminals and has a contract with San Juan County for maintenance of the parking lots.

San Juan Island: WSF operates a paved park and ride lot for ferry patrons located south of the intersection of Nichols Avenue and "B" Street just east of the upper auxiliary holding area. This lot has a capacity of 57 spaces. Some walk-on ferry patrons park in front of the Town of Friday Harbor's Sunken Park at the intersection of "B" Street and Nichols Avenue and some park on Nichols Avenue adjacent to the north boundary of the upper boundary of the upper auxiliary holding area.

Orcas Island: WSF provides parking in two areas at the Orcas ferry terminal located in Orcas Village. West of the upper holding lanes are 20 parking spaces along the southern boundary of the entrance to the holding lanes. Parking is available at this location daily excluding Sundays and holidays and is primarily used by commuters and day trippers.

Just to the south of the upper holding lanes is another parking area which contains 36 parking spaces with one ADA parking stall. This lot is adjacent to the public restroom and is used by commuters and long-term travelers. This parking lot is posted for a maximum parking limit of 72 hours. This parking lot is typically full, particularly in the summer months. Overflow parking tends to occur at various locations within Orcas Village. Overflow parking along road shoulders, particularly along Orcas Road to the north and Killebrew Lake Road to the east, are the areas most impacted during the summer season. These areas are uncontrolled and unsigned.

WSF owns a parcel just to the north of the holding lanes. In the past, there was discussion of the parcel being developed for additional parking, but there are no current plans to do so. To the east of the ferry terminal and adjacent to the Post Office, there are three private parking lots. Directly north of the loading ramp is a waiting area with a ferry ticket vending machine and newspaper box.

Lopez Island: Parking is provided for ferry patrons in two areas in close proximity to the Lopez terminal. A WSF-owned, gravel parking lot containing 58 spaces is located 200 feet south of the terminal building and east of the vehicle holding area. The parking lot is posted for a maximum parking limit of 72 hours. This parking lot is usually filled to capacity during the summer months. When the lot is full, overflow traffic parks along the western road shoulder beyond Penny Lane (entrance to Land Bank preserve). The shoulder is posted for no parking from 1 a.m. to 5 a.m.

A small paved parking lot owned by WSF is located across from the terminal building and contains 14 spaces signed for 10 minute parking. Four spaces are reserved for ferry employees and 2 more spaces are labeled for ADA with one spot for the local taxi. The total present parking supply in the vicinity of the Lopez Island ferry terminal is approximately 79 spaces.

The remoteness of the terminal location means that there is no other alternative to parking or being dropped off at the terminal except for the use of a taxi available on the island. There are no park and ride lots on Lopez.

There are four car holding lanes. The easternmost lane (Lane 1) is reserved for Anacortes-bound vehicles. When the number of cars exceeds the lane capacity, cars park and wait along the eastern road shoulder. During the peak summer periods, the extension of Lane 1 may contain cars backed up in the shoulder nearly to Odlin Park, a distance of one mile to the south.

Available services within the Lopez terminal include a ferry ticket vending machine, newspaper box, community bulletin board and used books for sale which is stocked by Friends of the Lopez Library. Outside the terminal are three portable toilets within the small paved parking lot. Two more portable toilets are located on the rise east of the large, gravel parking lot.

A privately-owned espresso stand with vending machines is located adjacent to the small, paved parking lot and is typically open during the shoulder and summer seasons with limited hours.

Shaw Island: The Shaw Island ferry landing was rebuilt in the mid-1990's and currently includes two regular holding lanes, one oversize holding lane, and 6 parking spaces which include one ADA space. A restroom facility, small customer waiting room and ferry office are also located at the dock. A bike rack is located east of the transfer span.

One holding lane is used exclusively for inter-island ferry traffic and can accommodate 11 – 12 vehicles. The second holding lane is used exclusively for the Anacortes-Shaw route and can accommodate 12 – 13 vehicles. Capacity of the holding lanes is usually adequate for vehicle queuing, except for busy days and weekends in the summer when the Anacortes lane is regularly overloaded. Overloading of the ferry holding lanes creates a safety concern as vehicles queued for the ferry extend out into the northbound driving lane of the county road up a steep hill and around a blind corner.

In addition to the facilities provided by Washington State Ferries, there is a privately owned store with about 8 parking spots located just north of the ferry holding lanes. The store is the only commercial retail facility on Shaw Island and is regularly visited during daylight hours throughout the year. The store complex includes the Shaw Island Post Office which generates a significant number of vehicle trips each day. Traffic visiting the store and/or post office must cross the loading and unloading ferry traffic to reach their destination.

A privately owned gravel parking area, adjacent to and west of the county road between the ferry holding lanes and the oversize vehicle lane, is available for public parking. This area is often filled to, or beyond, capacity during the daytime because it is used by commuters who walk on the interisland ferry. Approximately 10 parking spaces are available in this location.

Long term lease parking is provided by the Shaw General Store to the east of the ferry holding lanes. Approximately 10 – 12 spaces are available. Several of these spaces are permanently leased by utility service providers such as OPALCO, Century Tel, and San Juan County.

b. Long-Range Planning Needs

In 2009, the Washington State legislature adopted the Washington State Department of Transportation Ferries Division Final Long-Range Plan: 2009-2030 (Long-Range Plan). The goal of the WSF Long-Range Plan was to establish new operational and pricing

strategies to meet the needs of ferry customers and identify vessel and terminal operations and capital requirements into the future. One of the primary challenges since the adoption of the Long-Range Plan has been to identify a stable source of capital funding. The funding source has yet to be identified, thus a number of the projects and programs identified in the Long-Range Plan have not yet been implemented.

To provide a frame of reference for the long-range planning needs of the ferry system in San Juan County, a brief discussion of the history of the ferry system within San Juan County is presented below followed by the pertinent sections of the Long-Range Plan and a discussion of the status today based on current legislation and/or funding.

Historical Background: After a long period of service throughout the islands by independent transportation providers, Black Ball Lines of Port Angeles, WA became the primary operator of ferry service from the mainland to the islands of San Juan County. The State of Washington purchased the assets of Black Ball in 1951 with the intention of only running the ferry service until cross-sound bridges were constructed. The bridges never materialized and the Washington State Ferries came into existence. During the following fifty years WSF expanded terminals at ferry served communities throughout the Sound including the four within the County, and at Anacortes, WA. The fleet of ferry vessels was also expanded beginning with the construction of the Evergreen Class vessels during the 1950's. Currently, WSF has a fleet of 20 vessels.

In 1937, the motor vehicle excise tax (MVET) was established. During the 1990s, MVET was a major source of revenue for operations and for capital expansion of the ferry system. With the population of Washington State expanding at a significant rate, the MVET provided a substantial revenue stream that allowed for planning of additional expansion of the system to include multi-modal terminals and the next generation of ferries to replace an aging fleet.

That revenue stream collapsed in 1999 with the voter approved Initiative 65 (I-695) and the legislative repeal of the MVET in 2000. WSF lost approximately 20% of its operating support and 75% of its dedicated capital funds. Since that time, the revenue for operations has been replaced by dramatic increases in the tariffs charged to customers through the fare box. During the decade from 2000-2010, tariffs increased dramatically in San Juan County. Historical analysis has shown that for every 5% in fare increases, the traffic volumes have decreased by about two percent.

As a result of this change in the source of funding for WSF operations, and the inaction of the State Legislature to establish a long-term funding plan for capital replacement and expansion, the future of marine transportation services as provided by WSF is very much undefined.

Ferries: In the WSF Long-Range Plan, WSF lays out a number of philosophies and techniques to continue to provide service to the various communities by maximizing the efficiency with which it provides service. Demand projections for the San Juan Islands route estimate that this route will represent the second largest projected increase within

the WSF system. To accommodate these increased needs with the reduction in funding since 2000, WSF plans to implement operational and pricing strategies. WSF states that the San Juan Island route is primarily affected by growth in population.

Ferry Terminals: In the Long Range Plan, WSF identified terminal preservation and improvements programs. The terminal preservation program focuses on identifying the needs for operating at current service levels and maintaining and preserving existing capital assets. The San Juan Islands route terminals identified for essential preservation projects are shown in Table 3, as listed in the WSF Long-Range Plan.

Table 3. Essential Terminal Preservation Projects
(2008, \$ Millions)

Terminal	Slip Preservation	Trestle	Wingwalls & Dolphins	Buildings & Overhead Loading	Other	Total
Anacortes	\$8.0	\$17.7	\$21.4	\$39.7	\$7.5	\$94.3
Friday Harbor	\$1.5	\$8.4	\$7.9	\$1.6	\$3.1	\$22.4
Orcas	\$4.6	\$2.8	\$7.1	\$1.0	\$1.4	\$17.0
Lopez	\$11.7	\$2.2	\$6.5	\$0.7	\$1.6	\$22.8
Shaw	\$1.3	\$3.2	\$3.1	\$0.1	\$0.3	\$8.1

Source: WSF 2009 Long Range Plan

To date in 2011, WSF has repaved the holding lanes and improved the pedestrian bridge at the Anacortes terminal. No other terminal improvements have been initiated and funding sources are yet to be identified.

Other types of terminal improvements included transit-related improvements such as improved terminal access for pedestrians and transit vehicles. However, funding for these projects was deferred by the Legislator until such time as increased walk-on ridership was realized, additional transit service is available and pre-design studies are received.

Ferry Parking: The WSF Long-Range Plan did not address the issue of ferry parking in the long-term.

c. **Level of Service Analysis**

Ferries: WSF's previous LOS measure, adopted in 1994, was based on the number of ferry sailings a walk-on, vehicle, or commercial vehicle had to wait before boarding a ferry during the peak period. This measure, called "boat-wait", was generally set at one boat wait for vehicles on most ferry routes. However, this measure did not apply to San Juan County routes due to the low frequency, complex routing, and non-commute nature of routes serving San Juan County. The only San Juan County boat-wait LOS measure adopted by WSF was a zero-boat wait for all pre-registered commercial vehicles.

This performance measure was revised in 2009 with the adoption by the State Legislature of the WSF Long-Range Plan. The Long-Range Plan eliminated the wait based LOS measure and moved to a measure of percent of sailing full during a specific month. Percent sailings full are measured in the westbound peak direction for the months of January, May and August. Two performance thresholds were identified: Level 1, which indicates when demand management and peak spreading strategies should be implemented and Level 2, which indicates when additional capacity may be needed. The intent of the revised LOS measure is to "move [the] ferry system planning away from thinking primarily about peaks and more about how to best fit the service to the overall demand and filling up the space outside the peaks."

To determine where LOS standards might be appropriately set, WSF conducted an analysis using 2006 ridership data adjusted to reflect the 2030 demand forecast, as shown in Table 4. The Anacortes-San Juan Islands route is currently exceeding Level 1 standards in May and August, but is well below the Level 2 standards. This indicates a high level of seasonal travelers, compared with residential and/or commuter travelers. When a large portion of sailings are filled, it indicates congestion and overloaded sailings. Standards for summer months reflect additional recreational ridership and specifically for the San Juan Islands route, it reflects a greater seasonality in recreational ridership. In addition, the San Juan Islands have a unique sailing schedule that accommodates several destinations. The forecasted 2030 percent sailings for the Anacortes-San Juan Islands route will also remain well below Level 2 standards, indicating that no additional ferry capacity is needed in the next 20 years.

Table 4. Estimated Percent Sailing Full by Route

Route	2006 Westbound Weekly Average			2030 Expected Westbound Weekly Averages		
	January	May	August	January	May	August
Anacortes-San Juan Islands	10%	31%	36%	24%	48%	45%
Proposed LOS Standards by Route						
	Level 1 Standards (spread demand and improve customer experience)			Level 2 Standards (efficiently used assets, consider additional investment)		
Anacortes-San Juan Islands	25%	30%	35%	65%	75%	85%
Anacortes-Sidney	N/A	50%	50%	N/A	100%	100%

Source: WSF 2009 Long Range Plan

WSF cautions that it important to consider these LOS in conjunction with a vehicle reservation system and other adaptive management strategies so that is not indicative of

degradation of service. Also, because of the financial situation faced by WSF, this two-tiered LOS reflects that assets are fully utilized before significant capital investments are considered.

To address exceeding the first level of LOS, WSF is proposing implementation of a vehicle reservation system as the primary demand management tool. A pilot program of the reservation system had been proposed for the Friday Harbor/Anacortes leg of the San Juan Route to begin in the summer of 2010, but the program was delayed and a new estimated date has not been released. WSF maintains that the reservation system would be designed individually for each route. A few common elements of the reservation system are: (1) that a percent of spaces would be reserved for sailing time; (2) preference would be given to emergency vehicles, vanpools and carpools, commuters, local residents and commercial traffic; (3) reservation fees and partial or entire pre-payment of fees, and 4) timing and phase-in of the system.

Ferry Parking: Table 5 estimates the level of service for ferry parking facilities based on the estimated number of parking spaces available at the ferry terminals per 100 County residents. The estimated number of available parking spaces was tallied by San Juan County.

Table 5. Level of Service – Ferry Parking Facilities

Ferry Terminal Location	2010				2021			
	Population	Capacity	Ratio	LOS	Population	Capacity	Ratio	LOS
San Juan	7,581	57	0.75	F	9,537	57	0.60	F
Orcas	5,006	56	1.12	F	6,169	56	0.91	F
Lopez	2,383	79	3.32	D	3,050	79	2.59	D
Shaw	237	25	10.55	A	291	25	8.59	A

Source: WSF 2009 Long Range Plan

As noted earlier, there is nothing in the WSF Long Range Plan to address LOS in ferry parking facilities.

2. Passenger Ferries

Passenger ferries from Bellingham (San Juan Cruises), Port Townsend (Puget Sound Express) and Seattle (Victoria Clipper) land at the Port of Friday Harbor and Orcas Landing during the summer tourist season.

In the winter months of 2005/2006, a passenger-only ferry pilot project was conducted. The study was funded by the US Federal Transit Administration and conducted by the Whatcom Council of Governments (WCOG) and the Port of Bellingham with the intention of identifying data on potential markets and service characteristics for a passenger-only ferry between the City of Bellingham and the Town of Friday Harbor.

During the pilot study, there were two round-trips daily on weekdays for a one-way cost of \$10 for adults and \$5 for youths. The trip took one hour and forty minutes. At the conclusion of the pilot study, it was decided that the results were favorable enough to warrant proceeding to the next step.

Based on the results of the pilot study, a "Passenger-Only Ferry Study and Business Plan" (Passenger Ferry Study) was developed in 2008 to develop an approach to providing high-speed passenger-only ferry service between Bellingham and Friday Harbor. The benefits identified with such a service were many and included stronger regional connections, commuter access and increased tourism commerce. The route was also identified as having the potential for lower seasonality effects (such as is experienced by the WSF system) stemming from its substantial commuter base rather than a pure tourist base.

The business model proposed a public-private partnership with the Public Partners (WCOG, the Ports of Bellingham and Friday Harbor) and a private vessel operator. The boat was to be a high-speed aluminum catamaran ferry that would provide four daily round-trips between Bellingham and Friday Harbor. The one-way fares were to be \$20 each for resident adults, \$25 for non-residents and \$15 for youths. A discount commuter book was also proposed. The estimated crossing time was to be one hour and forty minutes.

The success of the concept was the ability to serve the interests of a wide variety of stakeholders and the forging of community partnerships and linkages. Another critical element identified was the need for strong intermodal connections at either end to allow riders to leave their personal vehicles and access the destinations needed in a timely, efficient, clean and cost-effective manner. The first year of operation was estimated to cost between \$2.8 and \$3.2 million.

In the WSF 2009 Long-Range Plan, the legislature directed WSF that it is not to provide passenger-only ferry service. Where local providers view that service as a way to improve service or fill potential gaps, it is expected that locally-funded passenger-only ferry service will be evaluated and pursued.

As of 2013, the concept of the passenger-only ferry has not progressed beyond the Business Plan presented in 2008. It is maintained that with the current communities and the slow economy, there is not enough potential ridership to support such a service, nor is there enough funding to initiate the operation or subsidize the on-going financial requirements.

A hospital was recently opened in Friday Harbor, late in 2012. The hospital is a sister to the one in Bellingham. It has been conjectured that many of the employees could come from Bellingham and make use of a passenger-only ferry, which would provide a solid commuter base for the ferry.

3. County Marine Facilities

Because of the marine orientation of the San Juan Islands docks, floats and ramps, both public and private facilities are a significant part of the transportation system. Public marine facilities are, in a sense, a continuous part of the County road system, and therefore, the

responsibility of the County. Figure 3 presents the location of the various county marine facilities. Private docks are owned, maintained and used by the owners and their guests.

a. **Inventory of Existing Facilities and Services**

San Juan County Public Works Department currently operates and maintains 9 public docks with floats, 8 boat ramps (7 barge/landing craft capable) and leases with two outer island moorage docks. County Parks operates and maintains 1 boat ramp. All county-owned marine facilities are for limited-time day use only. Table 6 provides an inventory of the County Marine Facilities

Roche Harbor Dock and Float, San Juan Island: A dock and float built in 2011 on leased land east of the private boat ramp at the Roche Harbor Resort. The float is connected to the dock with a gangway. Dock space is available for outer island residents only by permit with parking for vehicles permitted annually by Public Works.

Small Pox Bay Ramp, San Juan Island: Within San Juan County Park on the west side of San Juan Island, County Parks owns a concrete launching ramp serving recreational boating needs only. The ramp was reconstructed in 1997 and is in good condition, but prone to siltation.

Parking for ramp and park use is available for up to 7 vehicles with boat/kayak trailers.

Jackson Beach, San Juan Island: This Port of Friday Harbor facility contains a recreational dock and ramp with public parking. The County's barge landing site is also located at Jackson Beach.

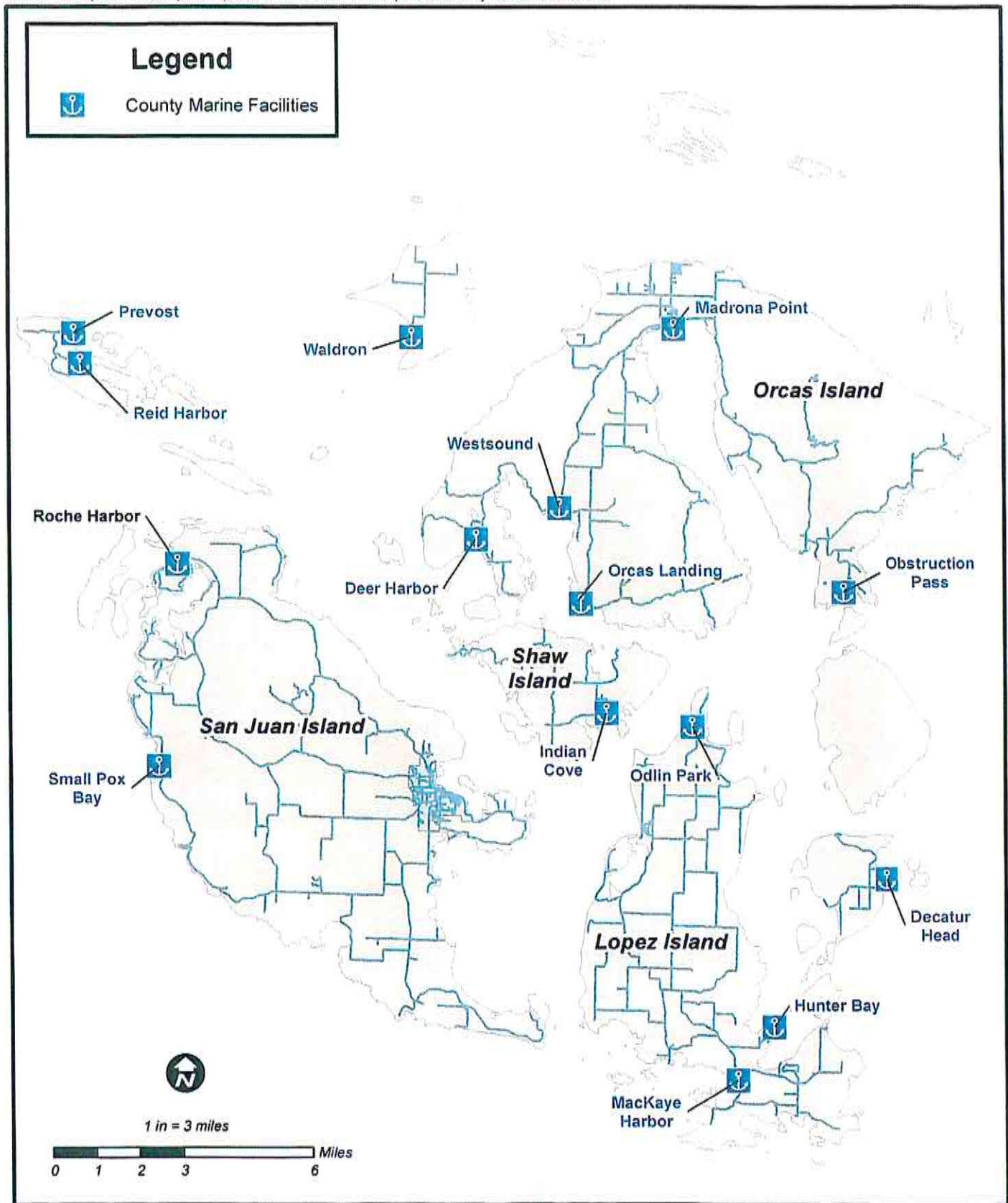
Prevost Harbor Dock and Float, Stuart Island: The facility is located in Prevost Harbor on the northeast side of Stuart Island. The drive-on pier was constructed in the early 1950's as a joint County/US Coast Guard pier and later turned over to San Juan County. The pier contains a small cantilevered building located midway out on the north side and an extension on the north side provides access to a float which is accessed via an aluminum gangway.

No public parking is available.

Reid Harbor Ramp, Stuart Island: A concrete log boat ramp built in 1993 extends into the shallow, flat tidal beach at the head of Reid Harbor in the center of Stuart Island. The facility is used as both a boat ramp and a barge landing facility.

The adjacent state owned parking lot holds 13 vehicles.

Deer Harbor Marina Float, Orcas Island: County Public Works leases float space from Deer Harbor Marina in a 25 year lease. Mooring is by permit only. The facility serves the private and commercial needs of outer island residents, primarily those from Waldron Island. There is a 1000-pound capacity loading crane, owned and maintained by Public Works.



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**Marine Transportation
County Marine Facilities**

San Juan County, Washington

Figure

3

Drawn By: TC

Date: June 2011

Table 6. County Marine Facilities

District	Island	Name	Dock	Float	Ramp*	Parking
1	San Juan	Roche Harbor Resort	12' x 45'	8' x 60'		25 by permit only
		Small Pox Bay Ramp			13' x 100'	7 day use
		Jackson Beach			Hard packed beach*	Port of Friday Harbor
	Stuart	Prevost Dock and Float	12' x 228' 8' x 28'	8' x 60'		None
		Reid Harbor Ramp			16' x 75'	13
2	Orcas	Deer Harbor Marina		120 l.f.		None
		Madrona Point	14 x 112'	8' x 40'		None
		Obstruction Pass	12' x 107'	10' x 40'	16'x 100**	19-25
		Westsound	7' x 154'	2 floats – 8' x 40' ea		6
		Orcas Landing	3200 sf pier; 2700 sf dock	20' x 29' 18' x 18' 10' x 40' 10' x 150'		4 at pier; 7 above facility
	Waldron	Cowlitz Bay	12' x 184'	14' x 32'	Hard packed beach*	None
3	Lopez	Hunter Bay	12'x 80'	9'6" x 80'	14' x 120'	At least 9, permit only
		MacKaye Harbor		8' x 60'	12' x 120**	Numerous unmarked spaces
		Odlin Park	22' x 24' & 11' x 48'	10' x 50'	24' x 110**	None only for marine facilities
	Shaw	Indian Cove			12' x 28'	None only for marine facilities
		Neck Point Cove			Gravel beach at high tide*	None
	Decatur	Hermitage			16' x 110**	Limited parking in Co. ROW

* barge/landing craft capable

Currently, there is no dedicated parking that goes with the public mooring, although some users do park on the south end of Upper Deer Harbor Road approximately 1/8 mile east of the marina. Generally, parking at Deer Harbor is a problem, especially during the summer months. Acquisition of a suitable parking facility is an on-going challenge that has not been resolved.

Madrona Point Dock and Float, Orcas Island: This seasonal dock is located just outside of Eastsound. The dock is connected to a float via a gangway. The float and gangway are removed by November 1 each year and stored in a protected harbor until April 1. Movement during storms could cause damage to the piling and the attachment mechanism.

Obstruction Pass Dock, Float and Ramp, Orcas Island: The marine facility is located at the end of Obstruction Pass Road on the southeastern tip of Orcas Island. The drive-on pier is connected to the float via a gangway. West of the dock and float is the ramp. The ramp is constructed of concrete logs.

The facility provides primary commercial and community linkage to Blakely and Obstruction Islands. All gasoline and propane currently delivered to Orcas is offloaded at this ramp. The public paved parking lot provides space for 19-25 cars.

Orcas Landing Dock and Float, Orcas Island: This public marine facility contains a drive-on pier with a small building. To the east, a small float is reserved for the Sheriff's boat. To the east, three floats provide mooring for up to 4 hours. A gangway on each side of the pier provides access to the floats.

There is little public parking available at the site. Adjacent to the pier are four spaces – 2 ADA, one for the sheriff and one for the County. On the northern elevated boundary are seven reserved parking spaces.

Westsound Dock and Float, Orcas Island: This facility is located south of Deer Harbor Road at MP 0.85 on the southwestern portion of Orcas Island. The pier was constructed in 1989, along with two floats. There is a stairway to the beach. The marine facility primarily serves recreational boaters and some light commercial use.

There is parking for about 6 cars along Deer Harbor Road; it is often crowded during the summer months.

Cowlitz Bay Dock, Float and Ramp, Waldron Island: The facility consists of a pier with a turning apron leading to a gangway down to a float, also described as a hammerhead dock. There is a small hand-operated jib crane and a small wooden building on the dock but no utilities.

The facility is located at the end of Cowlitz Bay-Waldron Center Road. There is no parking on the road. The area south of the dock has road access and is popularly used as a ramp for boat launching and also functions as a barge landing. While there is no

structure formally built as a boat 'ramp', the site is hard packed and serves the needs of the island for delivery of essential supplies and materials.

Hunter Bay Dock, Float and Ramp, Lopez Island: The Hunter Bay marine facilities are located at the south end of Lopez Island at the end of Crab Island Rd. The pier is connected by a steel and wood gangway leading down to a monolithic timber float on the westerly side of the dock. The facility is the primary dock used by residents of Decatur and Center Islands. The reinforced concrete ramp is located to the east of the dock. The ramp serves both recreational and light commercial needs.

While there is some general parking, most of the parking spaces in the area require a County permit.

MacKaye Harbor Float and Ramp, Lopez Island: The grooved timber float was installed in 2000. It is attached by an ADA accessible aluminum gangway to a concrete abutment at the shore. The reinforced concrete plank ramp was replaced in 2009 and is located just to the west of the float. It serves as one of the few commercial loading/unloading facilities on Lopez Island. One-third of the float on the shore side is unusable during lower tide conditions.

Adjacent to the float and ramp is a large unpaved parking area that has room for numerous cars and boat trailers.

Odlin Park Dock, Float and Ramp, Lopez Island: Odlin Park is a popular County Park located on the north side of Lopez Island, one mile from the ferry terminal. The dock and float are located at the end of Odlin Park Road at MP 0.34 with the final ¼-mile being a one lane primitive road behind a locked gate. The facility serves mostly recreational boaters, and also light commerce and commercial fishery activities. Occasionally, it is used for loading/unloading private passenger ferries and also serves passenger feeder boats during emergency outages at the Lopez ferry terminal.

The drive-on pier includes an approach apron with an aluminum gangway that leads to a heavy-duty timber float. The float was rebuilt in 2006.

The concrete reinforced log ramp is located within Odlin Park at MP 0.25 at the end of Odlin Park Road. The road and all marine facilities are under the jurisdiction of Public Works. It is one of the few commercial loading/unloading facilities on Lopez Island. It is also used by recreational boaters.

There is no parking specifically dedicated to the marine facilities. All parking is part of the County Park complex.

Indian Cove Ramp, Shaw Island: The ramp is located within Indian Cove County Park at the end of Shaw Park Road. Since it is located on a very flat, shallow beach above +10 MLLW, the wooden ramp can only be used at high tide to launch small recreational boats. Commercial landing craft can often only access it 2 or 3 times per year.

Shaw Landing Dock, Shaw Island: The small dock and stairway is located adjacent and to the southwest of the state ferry loading area. There is currently no float and no beach access from the facility.

Neck Point Cove, Shaw Island: The site is located is located at the County road end. At high tides, landing craft barges are able to deliver essential supplies and materials on the gravel beach.

Decatur Head Ramp, Decatur Island: The concrete log ramp was reconstructed in 2009. It is located at the end of Davis Beach Road and serves the commercial, transportation and recreational needs of island residents as both a ramp and a barge landing site. Limited parking is available within the County ROW.

b. Long-Range Planning Needs

The following projects have either been identified and included in the County's Six-Year Transportation Improvement Program or the latest Annual Dock Report or identified as concepts worth investigating further.

Small Pox Bay Ramp, San Juan Island: The ramp is maintained by County Parks and requires silt removal periodically. Based on the 2006 Annual Dock Report, the ramp is anticipated to have a useful life until 2018.

Madrona Point Dock and Float, Orcas Island: Consider rebuilding or replacing the float to allow year-round day moorage.

Obstruction Pass Dock, Float and Ramp, Orcas Island: Construct a new Obstruction Pass Boat/Barge Ramp. This ramp was repaired with 8" deep concrete logs in 2004. This ramp is an important water access for Orcas Island. It is the alternative launch site for autos via barge when the state ferry service is interrupted. When Orcas Island has ferry service interruptions, as it did just a few years ago, this new ramp would provide a safe place to land and launch cargo and autos. Ramp replacement is not currently on the Six Year TIP.

Westsound Dock and Float, Orcas Island: Explore leased, permitted parking with Orcas Island Yacht Club which is located next door.

Orcas Landing Dock and Float, Orcas Island: Long range improvements were identified in a 2008 Structural Report and through a master plan public process. Marine improvements identified included a lower profile bracket to be installed for small boats/kayaks, replacement of pile caps and decking, and modifications to accommodate ADA facilities. Additional improvements could include installing bollards at the head of the pier, extending guardrails at the top end of the west gangway and add additional guardrails around public access areas.

Hunter Bay Dock, Float and Ramp, Lopez Island: The concrete ramp at Hunter Bay is deteriorating. The lower portion of the ramp exhibits significant cracking and breaks, which will soon impact the upper portion of the ramp. The logs are too thin to sustain the

heavy equipment which is frequently loaded from the ramp. This ramp should be removed and replaced. The design for this facility is scheduled to commence in 2014 with float and dock replacement scheduled for 2017. Applicable grant funding should be evaluated.

Odlin Park Dock, Float and Ramp, Lopez Island: The Odlin Park Float was removed, inspected, and repaired during the winter of 2005-2006. It was found to be in poor condition. The original design included splicing two sections together at mid-length. This lack of structure continuity causes the float to behave poorly and has led to a shortened useful life. The piling needs to be replaced with steel piling. The design of the float and pile replacement was initiated in 2012. After an anticipated two year permit process, construction is anticipated to occur in 2015 or 2016, depending on funding sources.

Level of Service Analysis

Level of service for County docks is based on the lineal footage of useable dock space per residential dwelling unit within the designated service area. County Code 18.60.200 defines the standards as LOS C for Type 1 docks, LOS D for Type 2 and LOS F for Type 3 docks. Table 7 identifies the location of the County docks and the areas they serve.

Table 7. County Service Area

	Service Area	Dock Location
Type 1¹	Center, Decatur, Frost, Trump	Hunter Bay, Lopez Island
	Blakely, Obstruction	Obstruction Pass, Orcas Island
	Waldron, Wasp	Deer Harbor, Orcas Island
	Stuart, Henry, Pearl, Johns, Cactus, O'Neal, Spieden	Roche Harbor, San Juan Island
Type 2²	Stuart	Prevost
	Waldron	Cowlitz
	Decatur	-
Type 3³	San Juan	-
	Orcas	Eastsound, Westsound, Orcas Landing
	Lopez	Odlin, MacKaye Harbor
	Shaw	-

Notes: ¹*Type 1 – County docks located on ferry-served islands which provide primary access for*

non-ferry served islands.

²Type 2 – County dock located on non-ferry served islands with County roads.

³Type 3 – County docks that provide recreational uses or access between ferry-served islands

Table 8 identifies the estimated existing and projected number of residential dwelling units within each service area. These estimates are then used to calculate the existing and projected LOS based on the LOS policies for County docks.

Table 8. County Dock Level of Service

	2010				2021			
	Demand	Capacity	Ratio	LOS	Demand	Capacity	Ratio	LOS
Type 1								
Center Decatur Frost Trump	129	185	1.43	B	133	185	1.39	B
Blakely Obstruction	40	187	4.68	A	44	187	4.25	A
Waldron Wasp	69	120	1.741	B	69	120	1.74	B
Stuart Henry Pearl, Johns Cactus O'Neal Spieden	62	120	1.94	B	71	120	1.69	B
Type 2								
Stuart	35	376	10.74	A	41	376	9.17	A
Waldron	69	248	3.59	A	69	248	3.59	A
Decatur	67	0	0	F	81	0	0	F
Type 3								
San Juan	76	0	0	F	96	0	0	F
Orcas	76	885	11.64	A	96	885	9.22	A
Lopez	76	238	3.13	A	96	238	2.48	B
Shaw	76	0	0	F	96	0	0	F

Source: Transpo Group, 2011

4. Barges and Landing Craft

Several private barge companies serve the islands with most freight needs. Humpback

Hauling is a United States Coast Guard certified barge that can carry up to 49 passengers and regularly moves vehicles and freight throughout the islands. In the case of an emergency, Humpback Hauling is contracted with the County to provide emergency evacuation services from marine access locations. Other private barging businesses provide similar services to other outer islands. A number of the County ramps are routinely used for delivery of freight and construction materials. Two are located on Lopez Island at Odlin Park and MacKaye Harbor and the other is on Orcas Island at Obstruction Pass.

C. Land Transportation

San Juan County contains 270 miles of roads located on 7 islands. The roads are classified as Major Collectors, Minor Collectors, and Local Access Roads. The County currently has four bridges, all on Orcas Island. In the past 6 years, the County has made a dedicated commitment to non-motorized transportation and has constructed over 8 miles of trails.

In 2008, county roads on San Juan and Orcas Islands, along with the marine route from Anacortes to the Islands, were designated in the San Juan Islands Scenic Byway. Figure 4 shows the official route of the byway. The County is a member of the scenic byway stakeholder group and has participated in the development of the 2012 Scenic Byway *Corridor Management Plan* and various grants. Successful grant projects are included the county's Six-Year Transportation Plan and those projects involving the roads are implemented in compliance with county standards and safety protocols.

The Town of Friday Harbor (Town) on San Juan Island developed the Transportation Element of their Comprehensive Plan in 2002. The Town operates and maintains approximately 13 miles of arterials and local access roads. Traffic circulation within the Town is affected by the loading/unloading of the Washington State Ferry at the harbor and the primary access points to destinations throughout the island. The Town will soon be updating its Comprehensive Plan.

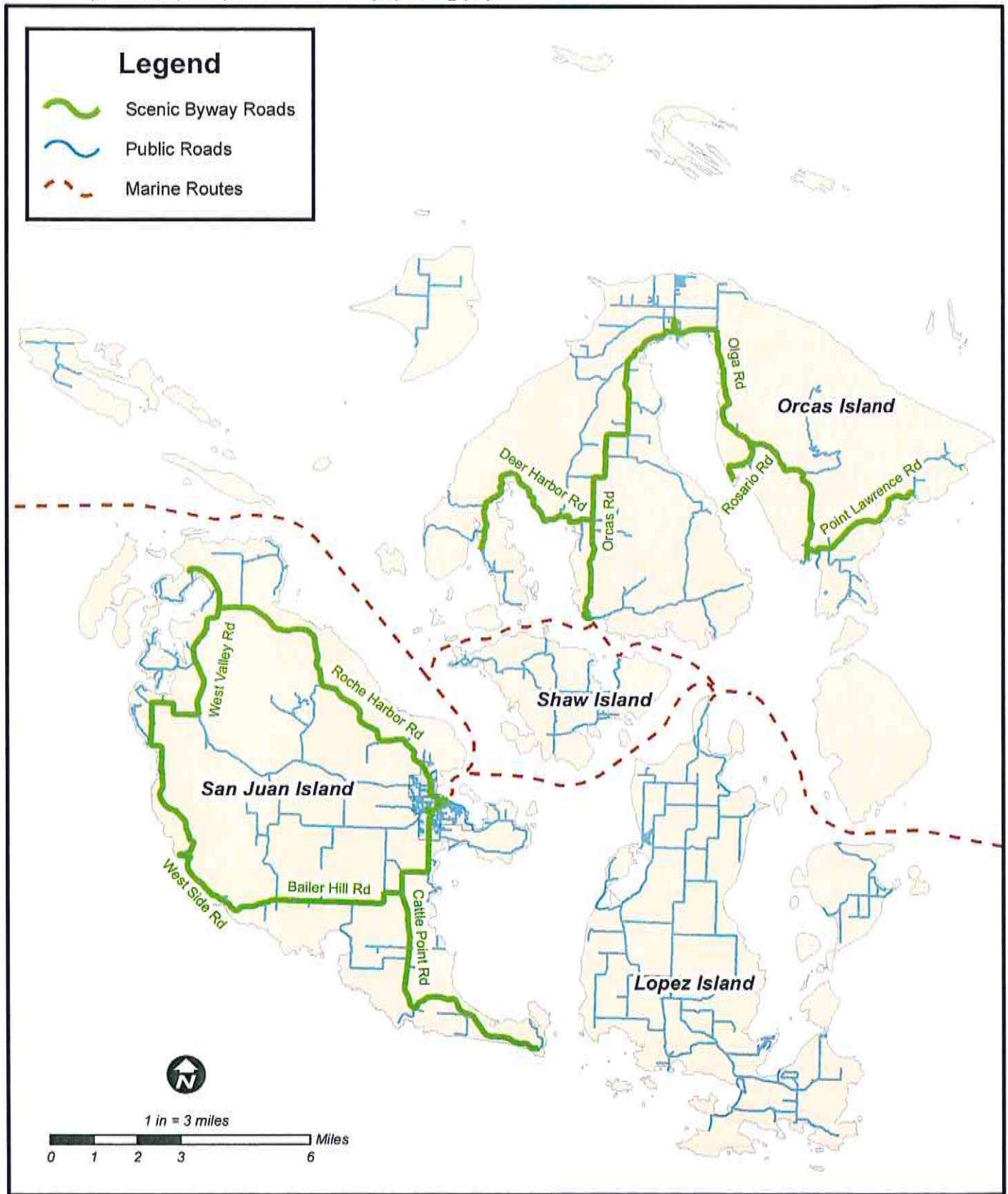
1. Roads

a. Inventory of Existing Facilities and Services – County Roads

The County is divided into three districts. The road crew in each district is responsible for operation and maintenance of the facilities within each of the districts. Roadway maintenance includes mowing and brushing within the road right-of-way to maintain site distance, sign installation, repairing and paving the roads, and general preservation of the facilities. Figures 5 through 9 present the roads within each of the districts.

b. Level of Service Analysis – County Roads

The level of service (LOS) for the County's roadways were updated based on the 2000 Highway Capacity Manual. The updated LOS thresholds for all LOS values are shown below in Table 9.



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San Juan Islands Scenic Byway

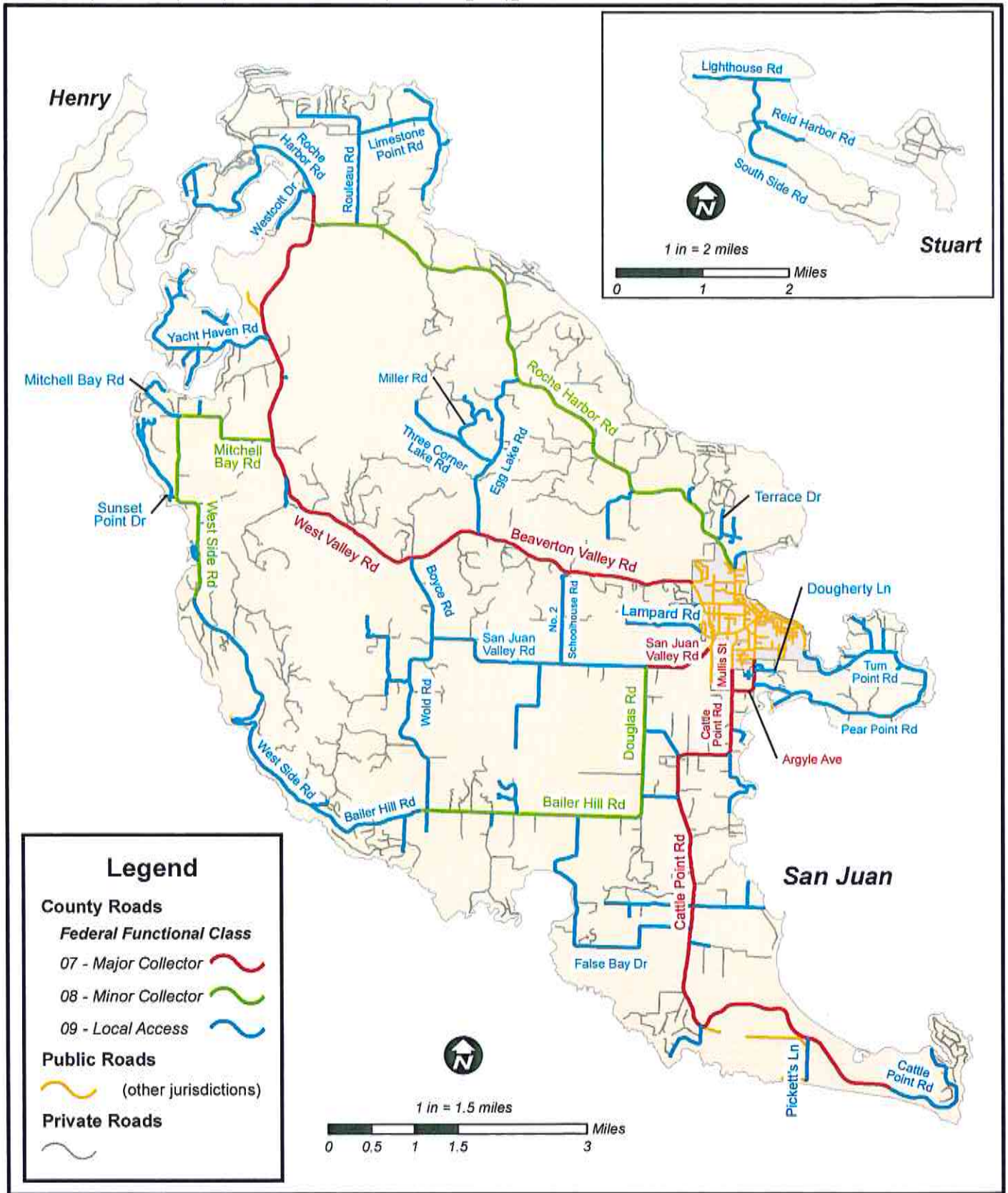
Figure

San Juan County, Washington

4

Drawn By: TC

Date: June 2011



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**Roads - District 1
San Juan & Stuart Islands**

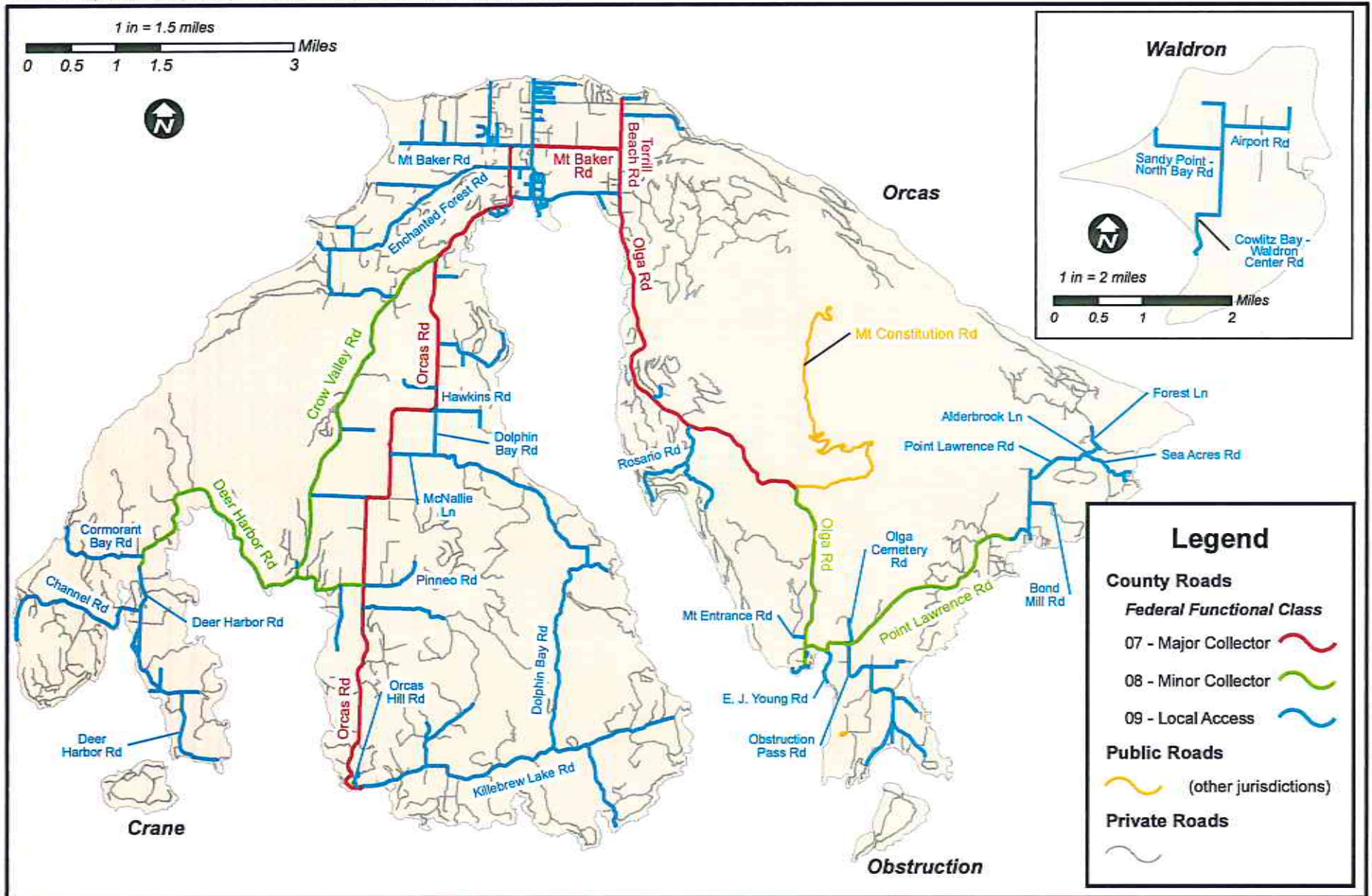
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San Juan County, Washington

5

Drawn By: TC

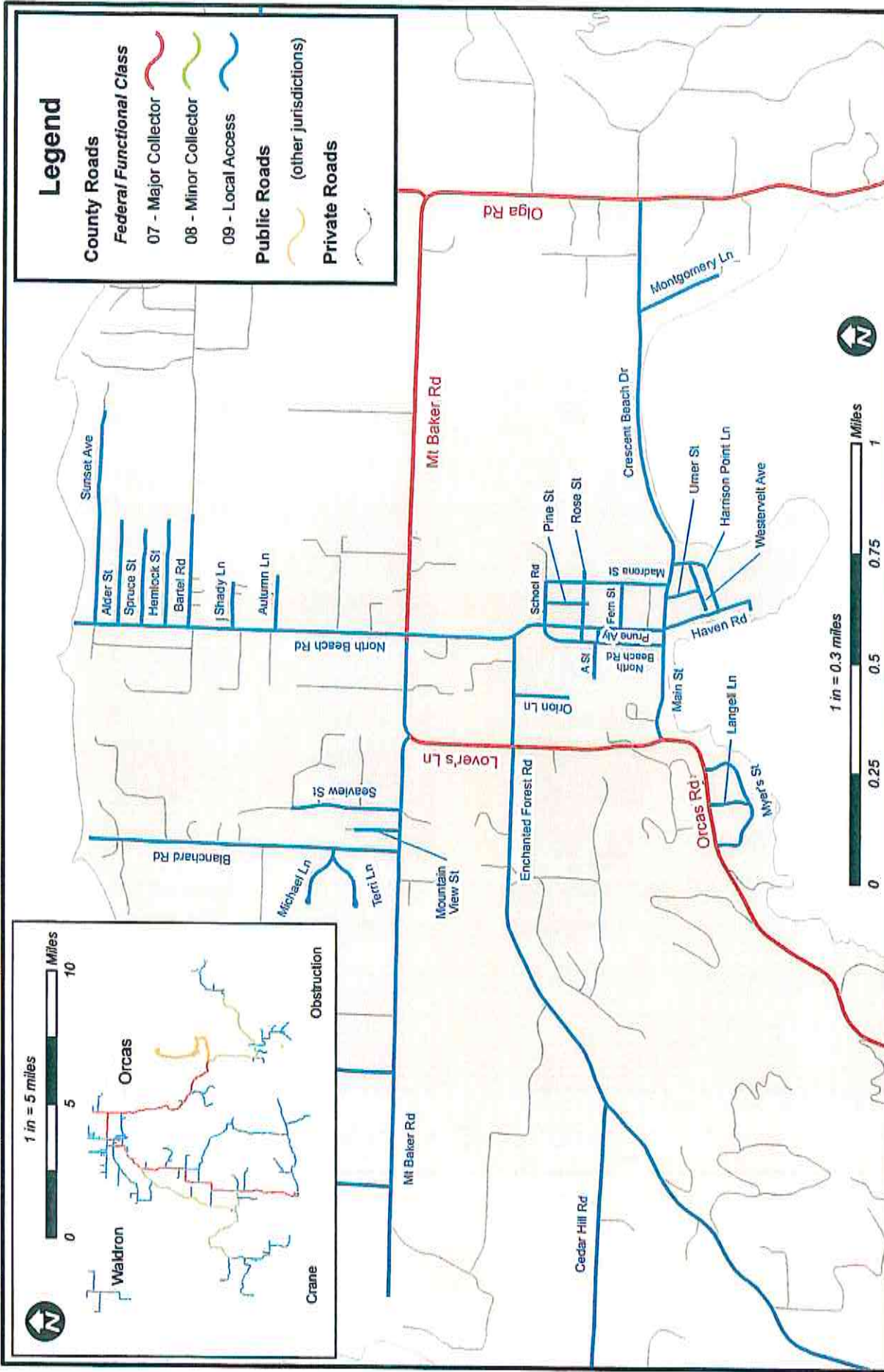
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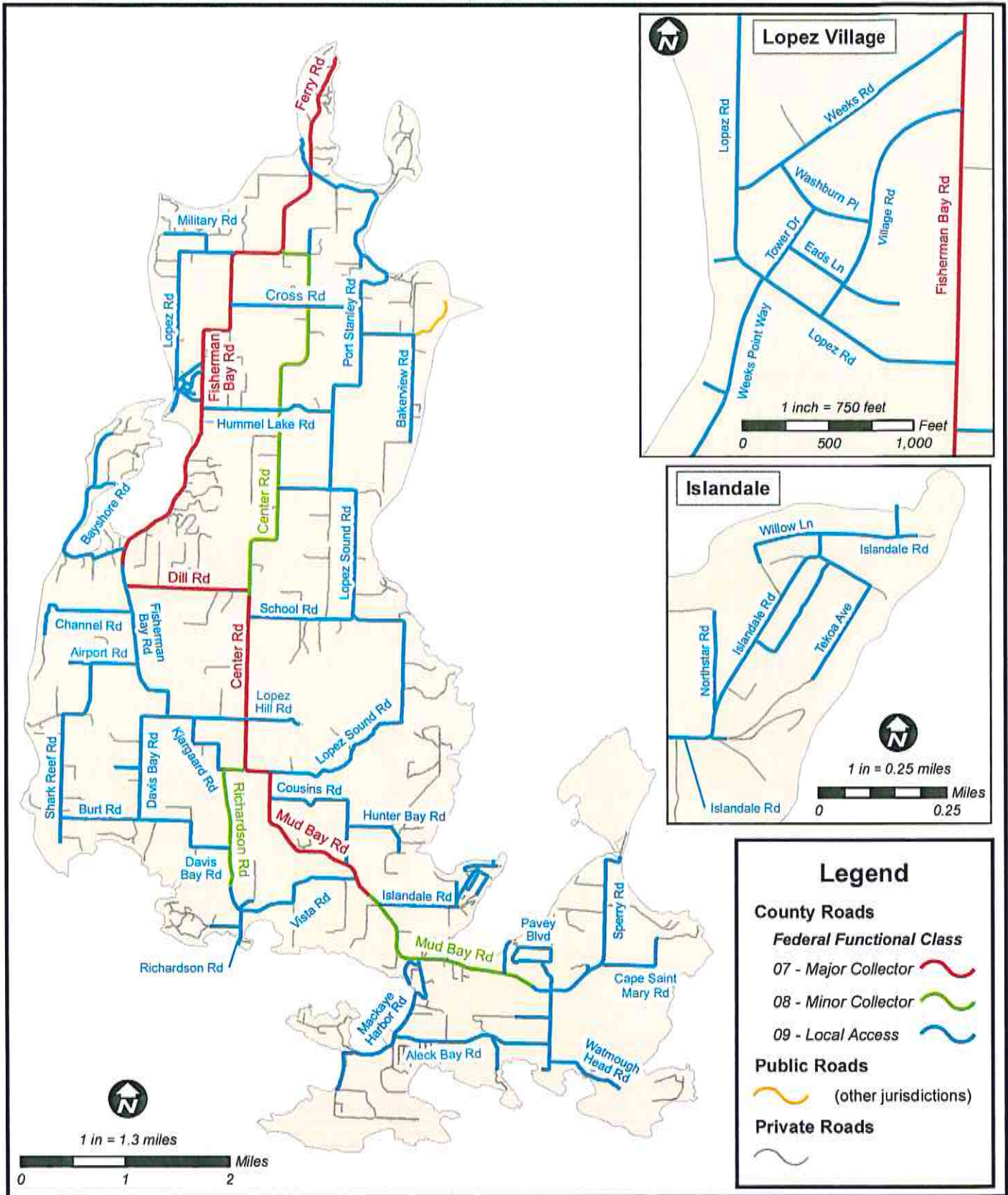
**Roads - District 2
Orcas & Waldron Islands**
San Juan County, Washington

Figure
6



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Roads - District 2
Orcas Island - Eastsound & Vicinity
 San Juan County, Washington
 Drawn By: TC
 Date: June 2011



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**Roads - District3
Lopez Island**

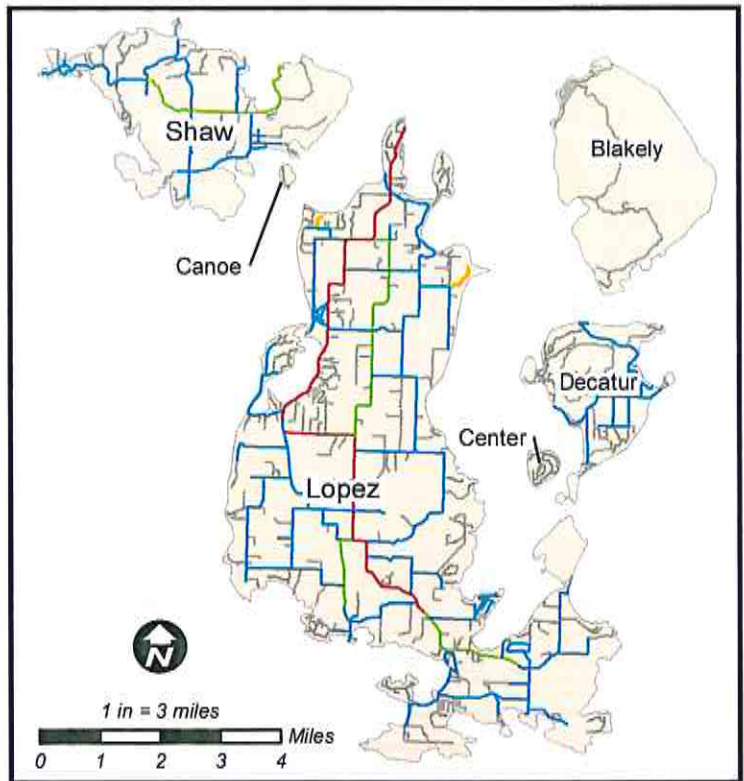
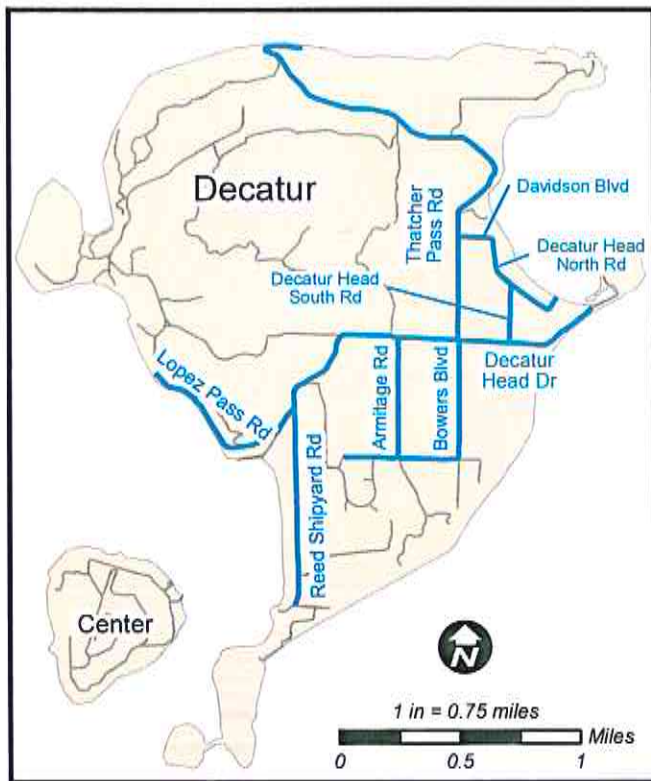
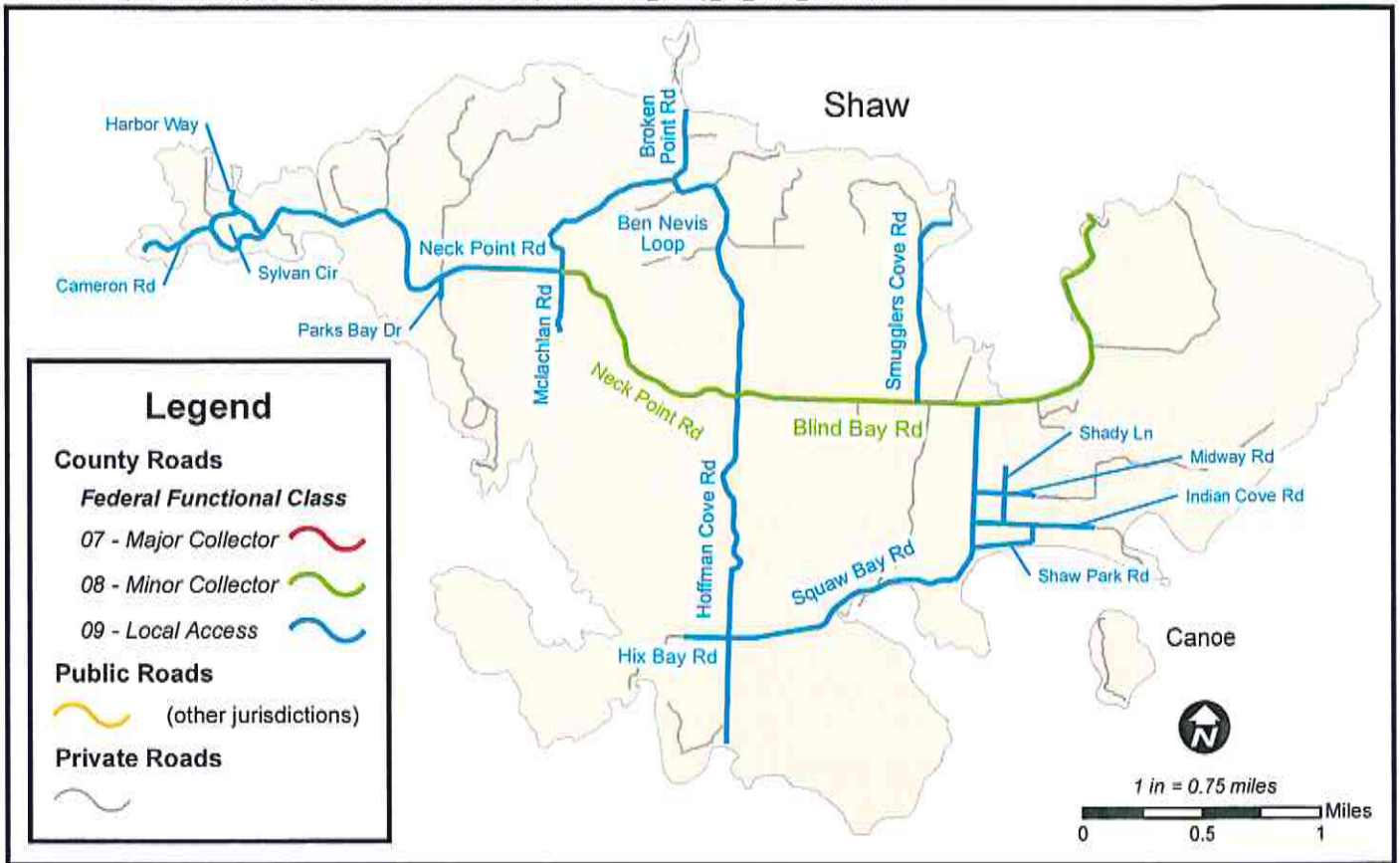
San Juan County, Washington

Drawn By: TC

Figure

8

Date: June 2011



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**Roads - District 3
 Shaw & Decatur Islands**

San Juan County, Washington

Drawn By: TC

Figure

9

Date: June 2011

Table 9. County Collector Roads AADT LOS Standards¹

Terrain	LOS A/B	LOS C	LOS D ²	LOS E	LOS F ³
Rolling Level	< 1,360 < 2,000	1,360 -2,790 2,000 -3,500	2,790 -4,380 3,500 -6,170	4,380 -11,670 6,170 -14,000	> 11,670 > 14,000

Source: *Transpo Group, 2011*

Notes:

1. *Proposed Standards from the HCM 2000*
2. *LOS D is San Juan County's adopted LOS standard for County collector roadways, per County Code 18.60.200.*
3. *The roadway capacity used to establish the LOS F threshold assumed the following: 10-foot travel lanes, no shoulders, 60/40 directional split, 10-percent trucks, 4-percent recreational vehicles, K-factor of 0.10 to convert peak hour capacity to a daily volume capacity.*

Existing and forecast average daily roadway volumes and level of service were calculated for County collector roadways using average annual daily traffic (AADT) counts. AADT is the typical description for the two-way traffic count for a roadway in a 24-hour period. A factor is applied to the AADT to adjust for seasonal variation. The 2021 forecasted volumes were developed by applying a forecast blended growth rates across all islands. The current and projected traffic counts and LOS on San Juan Island are shown in Table 10 and demonstrate that all San Juan Island collector roadways meet the County's standard of LOS D or better. Only one roadway segment operates at LOS D in 2010 and three segments in 2021.

Table 10. San Juan Island - County Roads LOS

County Road #	Mile Post	Road Name	Terrain	2010 or 2012 ¹		2021 ²	
				AADT	LOS	AADT	LOS
Major Collectors							
7	0.46	Argyle Rd	Rolling	2,073	A/B/C	2,507	A/B/C
18	0.65	Mullis Rd	Level	2,691	A/B/C	3,035	A/B/C
18	0.75	Cattle Point Rd	Level	3,160	A/B/C	3,733	D
3	0.83	Roche Harbor Rd	Level	4,014	D	4,527	D
7	0.92	Argyle Road	Flat	1,416	A/B/C	1,597	A/B/C
1	1.00	San Juan Valley Rd	Level	2,651	A/B/C	3,117	A/B/C
2	1.05	Beaverton Valley Rd	Rolling	2,648	A/B/C	1,889	A/B/C
18	1.95	Cattle Point Rd	Level	2,327	A/B/C	2,854	A/B/C
18	2.61	Cattle Point Rd	Rolling	1,923	A/B/C	2,169	A/B/C
2	3.52	Beaverton Valley Rd	Rolling	1,265	A/B/C	1,427	A/B/C
18	3.87	Cattle Point Rd	Rolling	1,163	A/B/C	1,311	A/B/C
2	4.75	West Valley Rd	Rolling	1,612	A/B/C	1,677	A/B/C
18	5.22	Cattle Point Rd	Rolling	947	A/B/C	1,068	A/B/C
18	5.75	Cattle Point Rd	Rolling	698	A/B/C	787	A/B/C
18	6.82	Cattle Point Rd	Rolling	600	A/B/C	676	A/B/C
2	6.91	West Valley Rd	Rolling	813	A/B/C	917	A/B/C
2	9.60	West Valley Rd	Rolling	834	A/B/C	940	A/B/C
2	9.72	Roche Harbor Rd	Level	1,295	A/B/C	1,262	A/B/C
2	10.82	Roche Harbor Rd	Rolling	1,058	A/B/C	1,135	A/B/C
Minor Collectors							
1	2.15	Douglas Rd	Rolling	1,538	A/B/C	1,742	A/B/C
3	2.15	Roche Harbor Rd	Rolling	2,840	D	3,203	D
1	3.52	Bailer Hill Rd	Rolling	1,108	A/B/C	1,250	A/B/C
3	5.00	Roche Harbor Rd	Rolling	1,905	A/B/C	2,166	A/B/C
1	6.23	Bailer Hill Rd	Rolling	814	A/B/C	883	A/B/C
3	6.53	Roche Harbor Rd	Rolling	2,087	A/B/C	2,354	A/B/C
3	7.63	Roche Harbor Rd	Level	1,720	A/B/C	1,940	A/B/C
1	14.67	Mitchell Bay Rd	Rolling	841	A/B/C	924	A/B/C

¹ San Juan County Public Works

² Transpo Group, 2011

As shown in Table 11, all Orcas Island collector roadways meet the County's standard of LOS D or better. Only one roadway segment operates at LOS D in 2010 and three segments in 2021.

Table 11. Orcas Island - County Roads LOS

County Road #	Mile Post	Road Name	Terrain	2010 or 2012 ¹		2021 ²	
				AADT	LOS	AADT	LOS
Major Collectors							
57	0.03	Terrill Beach Rd	Rolling	1,382	A/B/C	1,525	A/B/C
52	0.08	Lovers Ln	Rolling	2,127	A/B/C	2,617	A/B/C
58	0.10	Mount Baker Rd	Level	1,428	A/B/C	1,875	A/B/C
52	0.46	Lovers Ln	Rolling	1,979	A/B/C	2,434	A/B/C
57	0.68	Terrill Beach Rd	Level	632	A/B/C	778	A/B/C
4	0.75	Orcas Rd	Rolling	1,993	A/B/C	2,338	A/B/C
58	0.79	Mount Baker Rd	Rolling	1,829	A/B/C	1,924	A/B/C
58	1.17	Mount Baker Rd	Rolling	2,283	A/B/C	2,843	D
4	3.92	Orcas Rd	Level	2,167	A/B/C	2,361	A/B/C
4	6.93	Orcas Rd	Rolling	3,116	A/B/C	3,261	D
4	7.00	Orcas Rd	Level	3,514	D	4,650	D
4	9.45	Olga Rd	Rolling	2,674	A/B/C	2,875	D
4	11.50	Olga Rd	Rolling	2,325	A/B/C	2,554	A/B/C
Minor Collectors							
45	0.10	Deer Harbor Rd	Rolling	572	A/B/C	1,261	A/B/C
63	0.10	Point Lawrence Rd	Rolling	939	A/B/C	1,209	A/B/C
51	0.16	Crow Valley Rd	Rolling	745	A/B/C	916	A/B/C
63	0.56	Point Lawrence Rd	Rolling	540	A/B/C	664	A/B/C
45	1.00	Deer Harbor Rd	Rolling	1,060	A/B/C	1,304	A/B/C
51	1.90	Crow Valley Rd	Rolling	931	A/B/C	1,198	A/B/C
63	3.31	Point Lawrence Rd	Rolling	252	A/B/C	310	A/B/C
51	3.59	Crow Valley Rd	Rolling	1,488	A/B/C	1,807	A/B/C
45	3.80	Deer Harbor Rd	Rolling	942	A/B/C	1,159	A/B/C
45	4.36	Deer Harbor Rd	Rolling	881	A/B/C	1,084	A/B/C
4	14.36	Olga Rd	Rolling	1,086	A/B/C	1,388	A/B/C
4	15.94	Olga Rd	Rolling	253	A/B/C	312	A/B/C

¹ San Juan County Public Works

² Transpo Group, 2011

As shown in Table 12, all Lopez and Shaw Island collector roadways meet the County's standard of LOS D or better in both 2010 and 2021.

Table 12. Lopez and Shaw Islands - County Roads LOS

County Road #	Mile Post	Road Name	Terrain	2010 or 2012 ¹		2021 ²	
				AADT	LOS	AADT	LOS
Major Collectors (all on Lopez Island)							
108	0.10	Dill Rd	Level	674	A/B/C	664	A/B/C
114	0.10	Mud Bay Rd	Level	1,114	A/B/C	1,181	A/B/C
5	0.16	Ferry Rd	Level	633	A/B/C	654	A/B/C
103	0.40	Fisherman Bay Rd	Level	689	A/B/C	712	A/B/C
114	0.55	Mud Bay Rd	Rolling	906	A/B/C	937	A/B/C
103	1.75	Fisherman Bay Rd	Level	1,141	A/B/C	1,149	A/B/C
5	1.98	Ferry Rd	Level	1,128	A/B/C	1,144	A/B/C
103	2.26	Fisherman Bay Rd	Level	1,689	A/B/C	1,746	A/B/C
114	2.30	Mud Bay Rd	Level	857	A/B/C	886	A/B/C
103	3.00	Fisherman Bay Rd	Level	2,186	A/B/C	2,259	A/B/C
103	3.76	Fisherman Bay Rd	Level	1,300	A/B/C	1,343	A/B/C
103	4.00	Fisherman Bay Rd	Rolling	1,288	A/B/C	1,348	A/B/C
5	6.17	Center Rd	Level	1,661	A/B/C	1,717	A/B/C
5	7.12	Center Rd	Rolling	1,277	A/B/C	1,369	A/B/C
Minor Collectors – Lopez							
5	2.24	Center Rd	Level	446	A/B/C	461	A/B/C
114	2.94	Mud Bay Rd	Level	508	A/B/C	525	A/B/C
5	3.30	Center Rd	Level	619	A/B/C	535	A/B/C
5	4.85	Center Rd	Level	1,327	A/B/C	1,123	A/B/C
5	8.10	Richardson Rd	Level	269	A/B/C	278	A/B/C
5	9.20	Richardson Rd	Rolling	259	A/B/C	267	A/B/C
Minor Collectors – Shaw							
96	1.00	Blind Bay Rd	Rolling	292	A/B/C	359	A/B/C
96	2.21	Blind Bay Rd	Rolling	207	A/B/C	234	A/B/C

¹ San Juan County Public Works

² Transpo Group, 2011

c. Long-Range Planning Needs – County Roads

Between the early 1970s to early 1990s, traffic volumes increased by about 5%/year. However, growth rates on county collector roadways more recently have slowed and

forecasted growth is project to be between 0.3% and 1.9%, depending on the island. These figures are based on 2010 Census figures and the Office of Financial Management projections. This decline is attributed to factors such as the aging County population which tends to drive less, decrease in ferry traffic and inconsistent data collection locations. In most locations, maintenance and gradual upgrading to meet State and County standards are expected to provide adequate capacity and traffic safety to meet anticipated increases in traffic volumes.

Safety for all forms of transportation remains a long term goal for the County. An analysis of accident data from 2001 through mid-2011 was recently conducted. The majority of injury and/or fatal crashes in San Juan County involve a single vehicle (83%). Of the crashes that are classified as road departure accidents, 65% involve collision with a fixed object, such as trees, ditches or earth/rock banks. And 60% of the crashes occurred at a horizontal curve. These crash volumes may be partly attributed to narrow road surfaces, poor or no road shoulders, presence of objects like trees and fences in road right-of-way, and curvy roads. But while these may contribute to local vehicular crashes, they are also elements of scenic, rural character enjoyed by travelers on many island roads. One of the long term planning goals of the County will be to balance the need for increased safety along roadways with recognizing the need to maintain the scenic characteristics.

2. Bridges

a. Inventory of Existing Facilities and Services

San Juan County Public Works Department maintains four bridges on Orcas Island. There are no County bridges on the other islands.

Deer Harbor Bridge (Bridge No. 2146A): Constructed in late 1970 and early 1971, this bridge is located at milepost 0.22 on Channel Road. It crosses a salt water estuary that is nearly dry at low tide. The bridge is a three-span timber bridge with an overall length of fifty-one feet. The bridge originally had a laminated timber deck which was replaced earlier and again in 2009 with a new timber plank deck. The bridge has thirteen lines of timber stringers supported by transverse timber pile bents, consisting of a timber cap and four 12-inch diameter treated timber piles per bent. During removal and replacement of the decking in 2009, there was no evidence of "Vee" rot in the top of the original stringers. In 2009, the pile caps were reinforced with steel channel sections (C12x20.7) and new timber pile bent bracing. The piles are checked for soundness when the bridge is inspected every two years. The bridge is classified as Functionally Obsolete (FO), because of the narrowness of the bridge. Repair and replacement of the north timber backwall was completed earlier. This required removing and replacing the northerly approach fill.

Moran State Park Bridge (Bridge No. 9227A): Located at milepost 14.35 on Orcas Road, this one-lane earth-filled concrete arch bridge was constructed in 1921 by Robert Moran. The bridge is founded on bedrock, spans Cascade Creek in Moran State Park, and is adequate for current loads. The bridge is not scour critical. In the past, the

concrete bridge rails and overhead concrete portal have sustained damage from over-height vehicles. The bridge is inspected every two years by Washington State Department of Transportation (WSDOT) bridge inspectors. The bridge is classified as Functionally Obsolete (FO), because of the narrowness of the bridge and the angle of the road approaches. There is an oversize restriction on the bridge because the bridge is narrow and on a curve; extra wide or long vehicles, such as mobile homes, may strike the supports or the sides of the bridge. In spring 2005, the overhead portal was repaired by Washington State Department of Transportation (WSDOT) maintenance personnel because of a "high-load" hit in September 2004. In the 1990's, the County received grant funding to replace the bridge, but public opinion from residents forced the County to abandon plans for replacing the bridge. Replacement of the bridge will be challenging because of right-of-way issues and agency-wide competition for bridge replacement funds through the Federal/WSDOT BRAC program. A yield sign has been installed on the northbound lane and the Public Works department continues to monitor traffic safety.

West Sound Bridge (Bridge No. 9247A): Located at milepost 0.72 on Deer Harbor Road, this bridge was rebuilt in 2001 by adding new precast pre-stressed concrete deck slabs, two reinforced cast-in-place concrete pile caps supported on four 10-inch diameter piling behind the original "U-shaped" concrete retaining walls, and new timber posts and railing. The original retaining walls are cracked and deteriorating because of age and tidal action. The bridge crosses a small saltwater estuary at West Sound

Pt. Lawrence Road Bridge at Buck Bay: Completed in the fall of 2011, this 43-foot span pre-stressed concrete bridge spans Cascade Creek at Buck Bay at milepost 0.3 on Pt. Lawrence Road on the southeast side of Orcas Island, just east of the community of Olga. The bridge replaced two culverts, which were insufficient to pass flood water, and led to overtopping the road. The bridge consists of a reinforced cast-in-place concrete deck on top of seven 24-inch deep pre-stressed precast concrete channel beams. The abutments are cast-in-place concrete cap beams supported on eight 14-inch diameter steel piling per abutment. An 18-foot wide channel was created in place of 30-inch and 18-inch culverts. Salmon Recovery Board funds and County Road Funds were used to fund the design and construction.

b. Long-Range Planning Needs

Deer Harbor Bridge: The County has been working with environmental groups to assess the environmental impacts of the existing structure. A federal grant was secured in 2012 to replace the existing bridge with a wider span which will allow for recovery of the estuary habitat. Design will begin in 2013 with construction estimated to take place in 2015/16. In the meantime, the approaches have been posted to limit trucks to a single lane on the bridge.

Moran State Park Bridge: The bridge structure is adequate, but the narrow roadway may require a new bridge within the next 15 years.

Westsound Bridge: The bridge was replaced in 2001 with new decking and new

structural support system. The existing concrete retaining walls were left in place, but no longer provide structural support for the bridge. Grant funds are being sought for a replacement structure that will also allow fish passage.

3. Human Services Transportation Plan

In 2010, a *Coordinated Human Services Transportation Plan* (HSTP) was completed for San Juan County. The purpose of the plan was to: (a) create a local assessment that identified the varied transportation services available for individuals with lower incomes, seniors and persons with disabilities; (b) identify gaps in accessing services and community, and (c) develop and recommend strategies to meet those needs.

In general, San Juan County contains a larger percentage of people aged 65 or over than in Washington State. However, a slightly less percentage of people with disabilities or in poverty reside in the islands based on 2000 Census and updates, and the State Office of Financial Management data.

Transportation can be challenging for individuals without access to a personal vehicle. Unique strategies are employed on each island to assist residents to getting to services on the island or on the mainland.

Most community activities are located in the Town of Friday Harbor, Lopez Village or Eastsound, while the majority of people needing access live in a widely scattered pattern across each of the islands. In addition, many residents must travel to the mainland for work, medical appointments and for access to some government program offices.

In developing the HSTP, input was sought from the public utilizing a number of different venues, including surveys, personal interviews and public workshops. The top priorities for unmet transportation needs among individuals with lower incomes, seniors and persons with disabilities were identified.

With the data collected, San Juan County was successful in securing three grants to begin meeting the primary three identified transportation needs:

1. An on-demand accessible taxi service with voucher program for eligible individuals,
2. Capital assistance to replace three aging Senior Services vans, and
3. Funding for a Mobility Manager to coordinate services for more efficient use of available public and private resources.

In 2012, a Mobility Manager was hired, the successful Transportation Voucher Program (TVP) was launched, and two out of three Senior Service vehicles were acquired and put into service. 2013 will see the remaining vehicle replaced and TVP closed out, having provided increased community access to over 135 San Juan County community members. In 2013, San Juan County applied for continued funding to continue the TVP, as well as study the role of public transportation in San Juan County's future.

D. Demand Management Transportation Options

The availability of other modes of transportation to provide services and provide management benefits is limited. Public transit is available on the mainland to transport people to the ferry in Anacortes. Otherwise on-island transportation options are primarily privately owned. Figure 11 shows the various routes of the public and private transportation routes within San Juan County.

1. Public Transit

Skagit Transit (SKAT): SKAT Provides mainland-connecting service from the ferries through Route 410 that stops at the Anacortes ferry terminal. Accessible SKAT buses take San Juan County residents to March Point where they can transfer to the Tri-County Connector service going to the Skagit Transit Center (which hosts Greyhound Bus, Amtrak, or buses northbound to Bellingham) or south via Island Transit to Whidbey Island. Students attending one of the campuses of Skagit Valley College use SKAT, as do people who work in the Mt. Vernon or Burlington areas.

2. Private Transportation Services

a. **Airport Shuttle Service:** Shuttle bus service to SeaTac Airport is provided by one San Juan Island-based provider named Island Airporter. They provide scheduled ground service six days a week, offering both passenger and package service. San Juan County is also served by a private airport shuttle service located on the mainland. Bellair Airporter Shuttle meets the ferry at the Anacortes terminal and connects to Mt. Vernon, Bellingham, Seattle and SeaTac.

b. **Island Summer Shuttle Services:** San Juan Transit operates buses on a seasonal basis to transport tourists from the ferry terminal in Friday Harbor to service hubs and visitor attractions on San Juan Island. San Juan Transit offers fixed route service, stopping at locations that are of interest to visitors. It offers a limited number of local discount cards for commuters going to work through a punch card system. Several of the larger employers, such as Roche Harbor Resort, contract with San Juan Transit for their summer employees or guests. The buses generally operate between Memorial Day and Labor Day. San Juan Transit has a lift-equipped van.

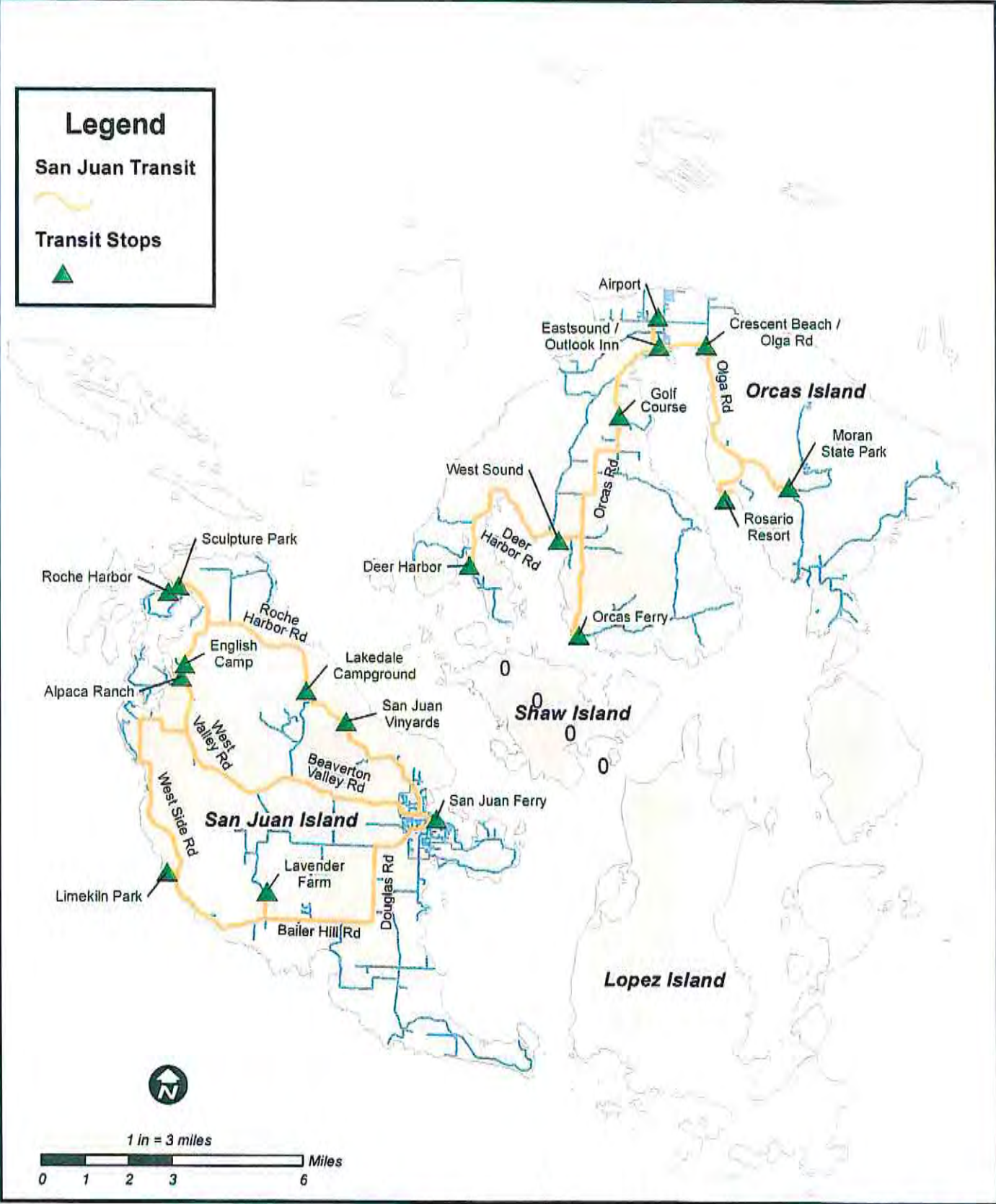
Orcas Island Shuttle provided seasonal service to destinations on Orcas Island until early in 2012. Beginning in the summer of 2012, San Juan Transit expanded service to include Orcas Island as a part of the Scenic Byway Shuttle Pilot Program for 2012/2013.

Legend

San Juan Transit



Transit Stops

This map is a graphic representation derived from San Juan County's Geographic Information System. It is designed and intended for reference only, and is not guaranteed to survey accuracy. Information represented in this map is subject to change without notice.

Transit Services	Figure
San Juan County, Washington	11
Drawn By: TC	1/4/2013

c. **Taxi Services:** San Juan Island is the only island that has stable taxi services at present. Three out of the five licensed providers operate year round. On Orca and Lopez, taxi services have been tried sporadically but have not yet demonstrated the ability to survive long-term.

3. Other Transportation Options

a. **sjRIDESHARE:** Islanders without cars often walk onto ferries hoping to find someone they know or a “friend of a friend” to get them to their off-island destinations. Electronic ridesharing is available to a limited extent through island-specific websites like lopezrocks.org and an Orcas-oriented Facebook site.

Along county roadways, there are a series of signs that designate ridesharing opportunities. sjRIDESHARE is the state's only sanctioned hitchhiking system and provides designated safe, accessible sites for potential riders to stand and wait for a ride. It also provides guidelines for both riders and drivers. sjRIDESHARE is in the process of developing a web-based bulletin board to connect those needing rides with those who are available to provide them.

b. **Senior Service Vans:** The Senior Services Council is a non-profit corporation with a mission to assist seniors in remaining independent and in their own home as long as possible. They operate a fleet of vans for the primary purpose of transporting seniors and people living with disabilities to the group meals held at the senior centers on the three major islands. San Juan and Orcas program also offer periodic medical trips to the mainland and occasional social and mainland shopping outings.

E. Freight Mobility

The ability to move goods and services within the county, as well as back and forth from the mainland, is essential to the economic vitality of San Juan County. The county is unique among other areas in the state in that there are no roads that lead to San Juan County. The only way to get to and from the county is via air or water. This fact raises challenges in developing reliable methods for moving freight to and from the region.

As stated in the WSF Long-Range Plan, WSF is an essential part of the highway network in Western Washington and for communities on the San Juan Islands; WSF is the only link to the mainland for personal and commercial vehicles from ferry-served islands. Additionally, that commercial vehicle connection is essential; San Juan County communities depend on ferries as the primary means to transport goods – including basic supplies and local products – to and from the wider market.

Ferries are designed to allow “tall” vehicles, i.e. commercial trucks over 7’6” in height, to be loaded in the center of the boat. The available space is limited and during high demand periods, commercial vehicles may be delayed. WSF instituted a “preferred loading” program for commercial vehicles nearly 30 years ago. This program allowed qualifying businesses to reserve space on the ferries provided that the company met certain requirements as to frequency of travel and timely arrival at the ferry terminal. Each vehicle must travel on the

same ferry at the same time at least twice each week in order to apply for space under this program. This represented essentially the first "reservation" program and is only in effect on the San Juan Islands run. Companies not able to meet the requirements vie for available "tail" space on a first-come, first-served basis.

For those islands not served by WSF, local barges and ferries transport a limited number of people and goods between the islands. These facilities are discussed in more detail in Section I.B.5. Barges.

Another essential freight transport link is represented by the airports on the islands which provide critical support to the economic well-being of each community. The ferry-served islands have airports owned and operated by a public Port District. Other islands have airstrips and private landing strips that can be used to transport freight, as well as passengers. The airports on both San Juan and Orcas Islands are located close to the main town and village which facilitate the ability to move goods to the commercial centers. Air facilities in San Juan County provide critical mobility and connectivity for people and freight in the region.

F. Intergovernmental Coordination

To date, San Juan County has acted as its own Transportation Planning Organization with the Ports of Friday Harbor, Orcas and Lopez and the Town of Friday Harbor. Meetings on coordination of transportation issues are held on an infrequent basis, primarily when funding is available or there are common projects between entities. However, while San Juan County is geographically isolated, it is dependent on the facilities of adjacent jurisdictions to ensure effective transportation of freight and people to and from the county. Therefore, there have been discussions in the past with other counties as to the benefits of joining an existing Regional Transportation Planning Organization (RTPO) such as Skagit/Island or a Municipal Planning Organization (MPO), such as Whatcom County.

Common interests and goals with Skagit/Island RTPO primarily concern transit; the ability to coordinate transportation of the ferry in Anacortes with the Skagit Area Transit (SKAT) system to ensure that people are able to efficiently travel between Anacortes and the I-5 corridor. With the ferry schedule changing seasonally, coordination of transit schedules has been a challenge.

With the Whatcom MPO, past discussions on the viability of a passenger ferry, particularly now with the new medical facility in Friday Harbor, has been the focal point of discussions, with transit connections as an ancillary topic.

To date, there have been no formal discussions with either Skagit/Island RTPO or Whatcom MPO for a number of years. It has been acknowledged that participation in a formal setting would require additional time and resources and the tangible benefits of doing so have not been quantified.

San Juan County has been actively participating in regional informational and coordination meetings to assess the regional transportation issues and projects developing to better

position the county to respond in a cooperative manner with other agencies. The Northsound Connecting Communities Group (aka Farmhouse Gang) is a nonprofit group that gathers regional transportation providers and legislators together and facilitates discussions to foster support for regional projects. San Juan County attends the general meetings and has participated in subcommittees and presentations. San Juan County has also been regularly attending the quarterly MPO/RTPO/WSDOT Committee meetings. This attendance has allowed the county to remain current on funding opportunities and requirements, as well as stay informed on state transportation planning efforts.

II. TRANSPORTATION FINANCING (2012 – 2032)

Appendix 6 addresses transportation funding for transportation projects maintained, preserved, improved and constructed by San Juan County Public Works. Transportation funding sources and financing strategies and plans for transportation projects managed by the San Juan County Parks Department are included in the *2010 Parks, Trails and Natural Areas Plan* and the *Capital Facilities Plan*. The *2010 Coordinated Human Services Transportation Plan* addresses transit funding and financing.

A. County Transportation Improvement Expenditures

San Juan County has been in a period of diminishing financial resources for several years and if this trend continues revenues for major transportation-related capital projects will be limited. Future expenditures on transportation-related improvements within the county will depend on the availability of local funding and, to a greater extent, the availability of state and Federal grant revenues. Planned projects are primarily targeted at safety improvements with few projects that add new capacity. Table 14 provides a summary of estimated transportation expenditures by major program type expected to be made by the county during the 2013-2032 timeframe.

Table 14. Summary of Planned Transportation Expenditures – 2013 through 2032

Estimated Expenditures	2013 -2018 (\$ Thousands)	2019-2032 (\$ Thousands)	Total (\$ Thousands)
Operations & Maintenance	21,807	54,418	76,225
Asset Preservation Activities	8,839	23,814	32,653
Safety Related Projects	9,440	19,258	28,698
Marine Access	913	1,863	2,776
Capacity Projects	30	61	91
Non-Motorized Projects	408	832	1,240
Other Projects	2,355	4,804	7,159
Sheriff Patrol	4,101	11,699	15,800
Total	47,893	116,749	164,642

1. Operations and Maintenance

In 2010, under the direction of the County Administrator, the County Public Works Department prepared a strategic budget plan for fiscal years 2011 through 2016. The strategic budget plan identified significant reductions in maintenance and operations staffing resulting in a decrease in level of service for some non-essential maintenance and engineering activities. Reductions are driven by the projected gap between level or decreasing resources and increasing future costs. Despite planned reductions in maintenance services, this category is projected to remain the largest single category of local transportation spending over the twenty-year planning period.

2. Asset Preservation Activities

Asset preservation activities are non-construction project investments in existing infrastructure that add useful life to the asset, but do not add additional capacity. The primary activities anticipated over the twenty year planning period are pavement reclamations, section rehabilitations, dock pile and float replacements, and the applications of thin overlays such as seal coats or chip seals.

3. Safety Related Projects

Safety related transportation improvement capital construction projects will be designed and built to correct known or potential safety issues. Typical safety issues include: (1) poor road alignment; (2) narrow roadways without adequate shoulders for safe pedestrian travel; (3) roadside hazards; and (4) installation of guardrails and other spot improvements.

4. Marine Access

Marine access projects will be designed and constructed to add new capacity to existing marine highway structures such as docks and ramps, and to correct existing deficiencies with the GMA requirement for concurrency.

5. Capacity projects

Capacity projects are investments in construction of new or substantially redesigned infrastructure that creates availability for more traffic. Evaluations are being conducted to determine if relief and/or capacity infrastructure is required during the planning period. Currently, traffic volumes are deemed to be acceptable on the county roads.

6. Other Projects

This category represents a range of transportation improvements that are not safety related. Projects in this category include those that improve drainage and environmental conditions.

7. Sheriff Patrol

It is anticipated that a transfer of significant funding from the county road fund to the sheriff for traffic patrol will continue during the planning period.

Table 15 is the County's 6-Year Transportation Improvement Program (TIP) which presents a listing of the upcoming projects from planning through construction phases with identified funding sources. The County Council approves and adopts the 6-Year TIP each year.

B. County Transportation Revenues

The short to mid-range (2 to 6 year) revenue forecast calls for flat to declining revenue growth across most major sources of transportation funds. There are five primary traditional sources of revenue for the county road fund. Of these five sources only the local road levy is projected to show slight growth over the 6 year planning period. The revenue trends are summarized below:

- Local Property Tax Road Levy (RL) - Slight growth
- Motor Vehicle Fuel Excise Tax (MVFT) - Flat
- Capron Refund (CAPRON) - Flat to decreasing
- County Arterial Preservation Account (CAPP) - Flat
- State and Federal Grants - Flat to slight growth

Overall revenue growth from stable major sources of revenue for the county road fund is projected to be between 1.5% and 2.5% per year for the planning period 2013 – 2032.

1. County's Existing Sources of Transportation Revenue

San Juan County relies on a number of revenue sources (federal, state, and local) in order to design, build and operate transportation facilities and services within the unincorporated areas of the County. Descriptions of the primary revenue sources follow.

a. Property Taxes

The authority to levy property tax is codified in RCW 84.52.043 and the county road fund levy is specifically authorized in RCW 36.82.040. State law limits the annual allowable increase in the road levy to one percent. Property taxes are levied for many state and local purposes and are arranged in a complex hierarchy. The basic limits of the senior county levies are \$1.80 per \$1,000 assessed valuation for general government (current expense) and \$2.25 per \$1,000 assessed valuation for roads. The sum of the two senior county levies cannot exceed \$4.05 per \$1,000 assessed valuation.

The county council has traditionally increased the local road levy by one percent annually and revenue forecasts for this source are based on an annual one percent increase through the planning period 2013 – 2032.

b. Reimbursable Services

San Juan County routinely provides transportation related services, such as engineering, and construction and maintenance projects to other agencies and local governments through the provisions of intergovernmental agreements. Typical clients for these services include the Town of Friday Harbor, Port Districts, Fire Districts, School Districts and County Parks. The county is reimbursed for these expenditures based on actual costs. This source of revenue is highly variable from year to year depending on the needs of the local agencies and the capacity of the county to provide needed services.

c. Motor Vehicle Fuel Taxes (MVFT)

The state motor vehicle fuel excise tax is collected as a tax per gallon of gasoline sold at the pump statewide and generates over 1.3 billion dollars annually. The current state "gas tax" is 37.5 cents per gallon. Counties receive a portion of the total tax based on a formula that uses population, road miles and road expenses among other factors to distribute the funds.

It should be noted that of the 37.5 cents per gallon, 14.5 cents is dedicated to capital construction projects. San Juan County receives none of the 14.5 cents because there are no state gas tax funded capital projects in the county.

Motor vehicle fuel tax revenues in San Juan County grew at a slow to moderate rate between 1980 and 2000. Since 2000, the rate of growth has slowed. Receipts from 2009 were less than 2008. This source of revenue will continue to be an important component of overall road fund revenues between 2011 and 2016, but the rate of growth is projected to remain flat.

Motor vehicle fuel tax currently accounts for about 12 percent of road fund annual revenue.

d. State and Federal Grants

State and federal grant funding has become an increasingly larger portion of the overall transportation improvement investment in the county. The most significant source of State transportation grants over the past 15 years has been the Rural Arterial Trust Account (RATA). The County Road Administration Board (CRAB) administers this competitive grant program for counties in Washington. San Juan County has been awarded over \$4,000,000 in RATA funding over the past 10 years.

Federal grant funding has increased in recent years due to economic stimulus programs and road safety programs with increased support from the Federal Highway Administration (FHWA).

There is significant uncertainty regarding the level of funding that may be available for the long term. Conservative estimates have been used to project future revenue from these sources for the planning period.

e. County Arterial Preservation Program

Counties receive an annual distribution of funds through the County Road Administration Board (CRAB) through the county arterial preservation account (CAPA) for the preservation of local arterial and collector roadways. The source of the money is motor vehicle fuel tax and a distribution formula is used to allocate monies to the various counties. These funds can only be used on certain functional class roads and cannot be used on roads that are designated as local access roads. For San Juan County, which has no classified arterial roads, this means the money must be spent on major and minor collector routes.

This source of revenue accounts for a little less than 2% of annual road revenues. The CAPP revenues the county receives have been flat for the past 10 years or so. It is projected to remain flat or show slow growth during the planning period.

f. CAPRON Refund

The Capron refund is a special transfer payment to San Juan and Island Counties that pays the counties money from the motor vehicle fuel account in lieu of providing state highways and maintenance facilities. The CAPRON Act was originally made law in 1919 as a means to ensure equitable distribution of the State portion of Motor Vehicle Fuel Tax (MVFT) Revenues. Without the Capron Act, San Juan County would be the only county in the state to receive no local benefit from state investment in state and federal highways.

The most significant event with respect to the Capron Act was a legislative change in 2006 that significantly reduced Capron revenue to San Juan County. ESSB 6839, passed by the 2006 Washington Legislature, amends the Motor Vehicle Fuel Tax (MVFT) and License Fee refund to island counties authorized by RCW 46.68.80 (Capron Act). This amendment of the Capron Act transfers a portion of the San Juan County refund to the Washington State Ferries (WSF) operating account. ESSB 6839 resulted in the loss of significant existing and future CAPRON Act refund dollars by transferring all of the Nickel Account and all of the Transportation Partnership Account (TPA) revenues to the Washington State Ferries (WSF) Operating Account. Both the Nickel Account and the TPA revenues were to be used by the Washington State Department of Transportation (WSDOT) for a specific set of projects set forth by the state legislature in 2003 and 2005. The WSF operating account is not a specific project approved by the legislature. San Juan County is currently the only county in Washington receiving no direct benefit or local investment from the Nickel and TPA revenues. This change resulted in the loss of between one and two million dollars annually for San Juan County.

Capron refund revenues currently account for about 35% of annual road fund revenues. The projected trend for this source is flat or downward. Capron revenues have decreased every year between 2005 and 2010 and remained steady since then. The revenues fluctuate depending on levels of annual grant funding. The long range growth forecast for this important source of revenue is relatively flat.

g. Real Estate Excise Taxes

Real Estate Excise Taxes (REET) are collected on the sale of residential and commercial real property in Washington State. San Juan County collects both authorized one-quarter percent REET for a total of one-half percent REET for local capital projects. The 2013-2018 Six Year TIP contains pending REET fund allocations for enhancement projects.

h. Developer Contributions

This de-facto revenue source entails dedicated right-of-way and construction that proponents of development contribute to county road system improvements.

i. Other Revenues

The County receives other revenues in any given year that include private timber-harvest tax, federal forest-yield, inter-departmental service fees, interest income, and miscellaneous review fees.

The various sources of revenue described above make up the county road fund, from which funds are drawn for operations, maintenance, and capital programs as described under the prior section on county expenditures.

2. County's Potential Sources of Transportation Revenue

a. Transportation Benefit Districts

A Transportation Benefit District (TBD) is a special taxing district for transportation purposes created by cities and/or counties. It allows more than one jurisdiction to join together for the purpose of acquiring, constructing, improving, providing, and funding any city street, county road, or state highway improvement within the district. With voter approval, a TBD has the authority to levy property tax, implement a vehicle license fee and issue general obligation bonds.

b. Transportation Impact Fees

The County is authorized to collect impact mitigation fees based on daily vehicle trips generated by new residential and commercial developments. Fees generated from impact fees may be used to fund selected capacity improvements that are related to the impacts caused by the development. San Juan County has not adopted regulations to allow the implementation of impact fees on development.

c. Public Transportation Benefit Areas

RCW 36.75A allows for the creation of Public Transportation Benefit Areas (PTBA) for the express purpose of providing transit and special needs transportation services. Revenues collected under the authority of a PTBA may not be used for improvement or maintenance of public roads or highways.

d. Local Improvement District

Local Improvement Districts (LIDs) are special assessment districts. These districts are formed as a means of assisting benefitting properties in the financing of and payment for

needed capital improvements. LIDs are formed to permit the improvements to be financed and paid for over a period of time through assessments on the benefiting properties.

e. **Federal Programs**

FTA Urban Mass Transit (Sections 3 and 9): This program is intended for transit agencies from the federal government. Section 3 is for new rail projects, improvement of existing rail systems, and the rehabilitation of bus systems. Section 9 provides transit capital and operating assistance to urbanized areas.

FTA Urban Mass Transit (Section 16): This program is for private, nonprofit agencies from the federal government through the state. It provides capital assistance for transportation services to elderly persons and persons with disabilities.

FTA Urban Mass Transit (Section 18): Transit agencies, cities and counties in rural areas from the federal government through the state benefit from this program. It provides transit capital and operating assistance to non-urbanized areas.

Community Development/Development Block Grant (CDBG): Federal funds are made available to cities and counties for a variety of public facilities, as well as housing and economic development projects which benefit low to moderate income households.

Land and Water Conservation Fund (LWCF): This fund is available to cities, counties, and the state to provide funds for trail development. Projects must create or expand trail development.

f. **Public Works Trust Funds (PWTF)**

The PWTF is available to cities, counties, and special purpose districts from the state in the form of low interest loans for public work improvements. Agencies must be compliant with the Growth Management Act to apply for funds from this program.

3. Summary of Projected Revenues

Table 16 provides an estimate of revenues available for transportation infrastructure improvements for the planning period which are balanced against estimated expenditures for the same planning period. Some revenue sources, such as motor vehicle fuel tax, CAPRON, and real estate excise tax, are not certain for the long range period and may vary significantly from current long range estimates.

Table 16. Summary of Transportation Revenues – 2013 through 2032
(2011 Adjusted Dollars)

Revenue Category	Short-Range 2013–2018 (\$ Thousands)	Long-Range 2019 – 2032 (\$ Thousands)	Total (\$ Thousands)
Road Property Tax	25,838	66,641	92,749
Diverted Road Property Tax	Shown in Expenditure Table 14 for Sheriff Dept.		
Reimbursable Services	170	420	590
Motor Vehicle Fuel Tax	5,290	12,320	17,610
Real Estate Excise Tax	149	Unknown	--
CAPRON	15,000	35,000	50,000
State/Federal Grants	3,701	Unknown	--
CAPP	630	1,470	2,100
Other Revenue	1,092	2,730	3,822
TOTAL REVENUE	51,870	approx. 118,581	approx. 170,451

4. Non-County Transportation Investments

a. Air Transportation

The Transportation Element does not include a Level of Service standard for air transportation facilities. However, the inventory does note that existing airport capacity should be sufficient to meet the projected air travel demand of the county. Air transportation facilities are provided by the port districts on San Juan, Orcas and Lopez islands. Approximately 2.31 percent of the local property tax dollar is collected by the port districts to support port operations. Most funding for airports is provided through the Federal Aviation Administration which apportions funds from the Aviation Trust Fund. Aviation trust funds are authorized to be spent through the Airport and Airway Improvement Safety and Capacity Expansion Act of 1987. The monies are allocated to airports on a priority basis.

b. Marine Transportation

With the repeal of the MVET, a major source of funding for the Washington State Ferries was lost. Now the principal source of operating revenue is from the fare-box. During the past ten years, the tariffs for travel throughout the ferry system have increased with the largest increases occurring in the San Juan Islands route. That higher percentage increase was the result of an equalization procedure that balanced the tariffs throughout the WSF system as a function of the length of the trip between ports, so that all tariffs are now proportionate. An indicator known as "fare-box recovery" now provides an approximation as to the degree that route revenues pay for the costs of service on each route. Fare-box recovery on the San Juan Islands route is estimated at 50%.

III. Public Outreach Process

A variety of techniques and resources were used to inform, consult and involve the community during the Transportation element update. Input was solicited from the general public stakeholder committees and organizations. Community comments have been obtained in writing and through interviews and public testimony. Public participation was early and continuous as many opportunities for community input were provided during different stages of product development.

In 2011, input from the community during development of the draft Transportation Element Update of the County's Comprehensive Plan was solicited in the following venues:

- Stakeholder development of text for the Inventory
- A series of County Council workshops
- Presentation to the Critical Needs Task Force – Transportation Group
- A booth at the Farmer's Market on each of the islands

In 2012, input for further updates to the Transportation Element was sought from the following organizations:

- County-wide Community Transportation Meeting
- WSF San Juan County Ferry Advisory Committee

In 2013, public outreach efforts and presentation of information intensified and the following organizations and venues were included:

- Workshops and hearings with the Planning Commission
- WSF San Juan County Ferry Advisory Committee
- San Juan Island Trails Group
- Town of Friday Harbor
- Economic Development Council
- Public Community Meetings on Lopez, Orcas and San Juan Islands
- County Council Briefings and Public Hearing

In addition, written and telephone comments were received prior to the issuance of the State Environmental Policy Act (SEPA) determination, documents were sent to the Washington Department of Commerce and the SEPA determination was publicized on the Washington State Department of Ecology's SEPA register (#201301568).

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V. Attachments

A. Transportation Element Growth Rates

MEMORANDUM

Date: June 16, 2011 **TG:** 11059.00

To: Shannon Wilbur, San Juan County

From: Jon Pascal, Transpo Group
Patrick Lynch, Transpo Group

Subject: Memo 1 of 3: San Juan County Transportation Element Growth Rates

As requested, Transpo Group has reviewed available population and traffic count information to identify growth rates to be utilized in assessing the County's forecast transportation levels of service. The following memorandum summarizes the different data sources and information available and resulting growth rates.

Data Sources

Several data sources were reviewed to assist in identifying appropriate growth rates for San Juan County. The following data sources were identified:

- Washington State Office of Financial Management (OFM) 2010 Census data (by County and UGA).
- OFM April 1 Small Area Population Estimates, June 2010.
- OFM Growth Management Population Projection Tracking Report, July 2007.
- OFM Projections of the Total Resident Population for the Growth Management Act (Low and Medium).
- OFM Population Estimates & Projections, Research Brief No. 47, August 2007.
- OFM population age 65 and over as a percent of total county population - medium series: history 2000 and projections from 2010 to 2030.
- OFM County-to-County Worker Flow in Washington, 2000.
- San Juan County population and household forecasts by Island and UGA, SJC staff, April 2011.
- San Juan County AADT traffic counts, SJC staff, April 2011

Background

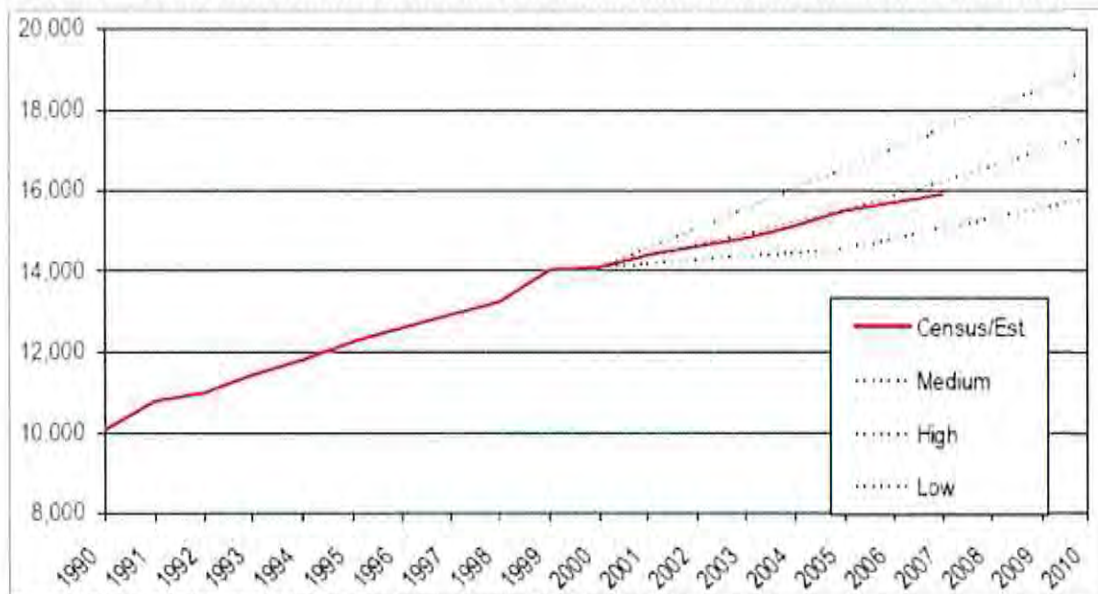
San Juan County staff initially provided existing population data by Island and Urban Growth Area (UGA) to Transpo in April 2011, however it differed somewhat from existing data obtained from the State Office of Financial Management (OFM). Subsequent conversations with County staff indicate the OFM data is likely more current than the data the County initially provided to Transpo.

The OFM data is based on existing 2010 State population data sets. OFM develops a Small Area Population estimate data set annually. For San Juan County (SJC), the data is summarized by Island and by UGA. This data is typically used to as the basis for 2010 population values for agencies throughout the state. In addition, the OFM data is separated into "estimated total housing units" and "estimated occupied housing units".

OFM Population Forecasts

In 2007, OFM produced county population forecasts for three growth scenarios (high, medium, and low) that extend out to 2030. Historical SJC population growth has been tracking with OFM's medium growth scenario, an average annual growth rate of approximately 2.0 percent per year. This data is summarized only at the county level and not available at the small area level. Figure 1 compares the OFM 2007 San Juan County population forecasts to historical population growth.

Figure 1. OFM 2007 Historical and Forecast Population Comparison – San Juan County



Source: OFM Growth Management Population Projection Tracking Report, July 2007

Updated San Juan County Growth Rates

SJC staff developed 2021 population forecasts for each Island and UGA. From these population forecasts, forecast growth rates were developed and applied to the OFM 2010 data to generate updated forecast population values. Historical and forecast growth rates and population by island and UGA are summarized in Table 1.

Table 1. San Juan County Existing and Forecast Population

Island	2000 to 2010 AAGR ¹	Population Growth	2010 Total Population	2010 to 2021 AAGR ¹	Population Growth	2021 Total Population
Blakely Island	2.8%	18	74	1.9%	17	90
Brown Island	-0.6%	0	12	1.6%	2	15
Center Island	5.8%	37	86	1.9%	20	106
Crane Island	1.0%	2	22	2.0%	5	27
Decatur Island	6.7%	64	135	1.9%	31	167
Henry Island	8.2%	24	44	1.7%	9	53
Johns Island	0.5%	0	5	1.7%	1	6
Lopez Island	0.8%	173	2,211	1.9%	509	2,720
O'Neal Island	0.0%	1	1	1.7%	0	2
Orcas Island	0.9%	322	3,928	1.3%	600	4,527
San Juan Island	1.2%	611	5,424	1.4%	896	6,320
Shaw Island	0.1%	2	237	1.9%	54	291
Spieden Island	0.0%	0	0	0.0%	0	0
Stuart Island	3.9%	22	69	1.9%	16	85
Waldron Island	0.9%	10	114	1.9%	26	140
Lopez - UGA	2.2%	33	172	6.1%	158	330
Eastsound - UGA	2.4%	229	1,078	3.9%	564	1,642
Friday Harbor UGA	0.8%	168	2,157	3.7%	1,060	3,217
County	1.2%	7,016	15,769	2.1%	3,969	19,738

Source: OFM 2010 Census data; OFM Small Area Forecasting Program, 2010; Transpo Group 2011

Note: San Juan, Orcas, and Lopez Islands population data reflect non-UGA areas

1. AAGR = Average Annual Growth Rate

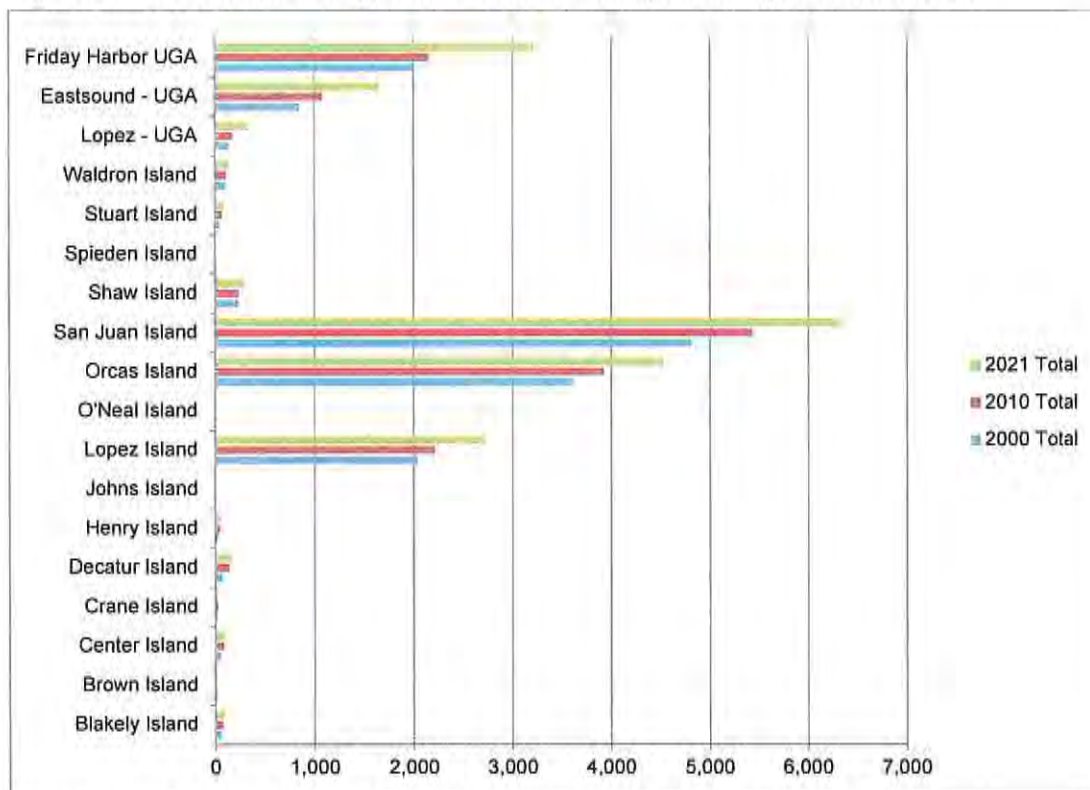
As shown in Table 1, the County as a whole is forecasted to experience a higher growth rate in the future as compared to the historical growth rate, although some individual islands are expected to experience a decrease in the growth rate. Overall, the forecast average annual growth rate for the County is 2.1 percent as compared to the historical growth rate of 1.2 percent. The County's 2.1 percent forecast average annual growth rate is consistent with OFM's medium forecast growth rate of 2.0 percent shown in Figure 1.

Comparison of Historical and Forecast Population Growth

Historical and Forecast County Population

Figure 2 shows San Juan County total population by Island and UGA for 2000, 2010, and 2021 time periods. Approximately 95 percent of the population has historically resided on San Juan, Orcas, and Lopez Islands. This population allocation is anticipated to remain consistent into the future.

Figure 2. Historical, Existing, and Forecast Total Population by Island and UGA



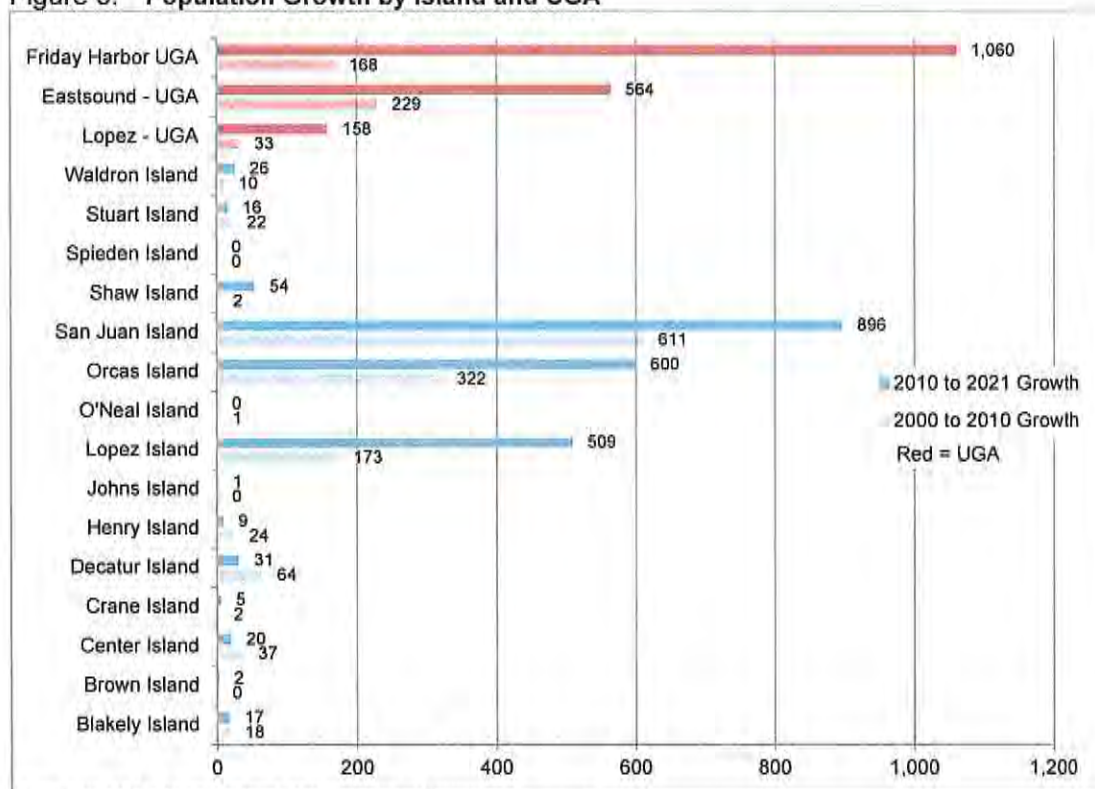
Source: OFM 2010 Census data; OFM Small Area Forecasting Program, 2010; Transpo Group, 2011
 Note: San Juan, Orcas, and Lopez Islands population data reflect non-UGA areas

County Population Growth

Figure 3 shows historical and forecast population growth by Island and UGA. From the years 2000 to 2010, over 90 percent of the growth was located on San Juan, Orcas, and Lopez Islands. Of the growth on those three islands, 20 percent occurred within the UGAs. Over two-thirds of that growth occurred in Friday Harbor.

Forecast growth is expected to be more focused in the UGAs. From the years 2010 to 2021, the percent of growth located on the three islands is expected to increase to 95 percent. Of that growth, 26 percent is expected to occur within the UGAs, a 6 percent increase as compared to historical growth. Of the growth occurring in the UGAs, approximately two-thirds is expected to be located in Friday Harbor, consistent with historical growth allocation.

Figure 3. Population Growth by Island and UGA



Source: OFM 2010 Census data; OFM Forecasting, October 2007
 Note: San Juan, Orcas, and Lopez Islands population data reflect non-UGA areas

Table 2 shows the historical (2000 to 2010) population change in San Juan County and Urban Growth Areas (UGAs) within the County.

Table 2. San Juan County Population by UGA and Unincorporated Areas

Area	Total Population	% of Total	Total Population	% of Total	% Growth	AAGR	Change % of Total
	2000		2010				
Total in UGAs	2,977	21.2%	3,407	21.6%	14.4%	1.4%	-0.4%
Total in Unincorporated/Non UGAs	11,077	78.8%	12,362	78.4%	11.6%	1.1%	0.4%
Total County	14,054	100.0%	15,769	100.0%	12.2%	1.2%	
	2010		2021				
Total in UGAs	3,407	21.6%	5,189	26.3%	52.3%	3.9%	4.7%
Total in Unincorporated/Non UGAs	12,362	78.4%	14,549	73.7%	17.7%	1.5%	-4.7%
Total County	15,769	100.0%	19,739	100.0%	25.2%	2.1%	

Source: OFM 2010 Census data; OFM Small Area Forecasting Program, 2010; Transpo Group 2011

As shown in Table 2, the distribution of population within the County did not change substantially between 2000 and 2010, with more than three-fourths of the people located in unincorporated areas in 2000 and 2010. Over the next 11 years, the share of population is expected to increase in the UGAs, from 21.6 percent to 26.3 percent, an increase of 4.7 percent.

Household Size

Household size in San Juan County has changed significantly over the past few decades. Table 3 shows the average household size for San Juan County, other neighboring counties, and the State. Between 1980 and 2010, the average persons per household (PPH) in San Juan County has steadily declined.

Table 3. Change in Household Size (# persons/household)

County	1980	1990	2000	2010
San Juan County	2.29	2.25	2.16	2.05
Island County	2.67	2.61	2.52	2.35
Skagit County	2.57	2.55	2.60	2.53
Whatcom County	2.59	2.53	2.51	2.43
Washington State	2.61	2.61	2.53	2.51

Source: OFM 2010 Census data; OFM Research Brief No. 47, August 2007

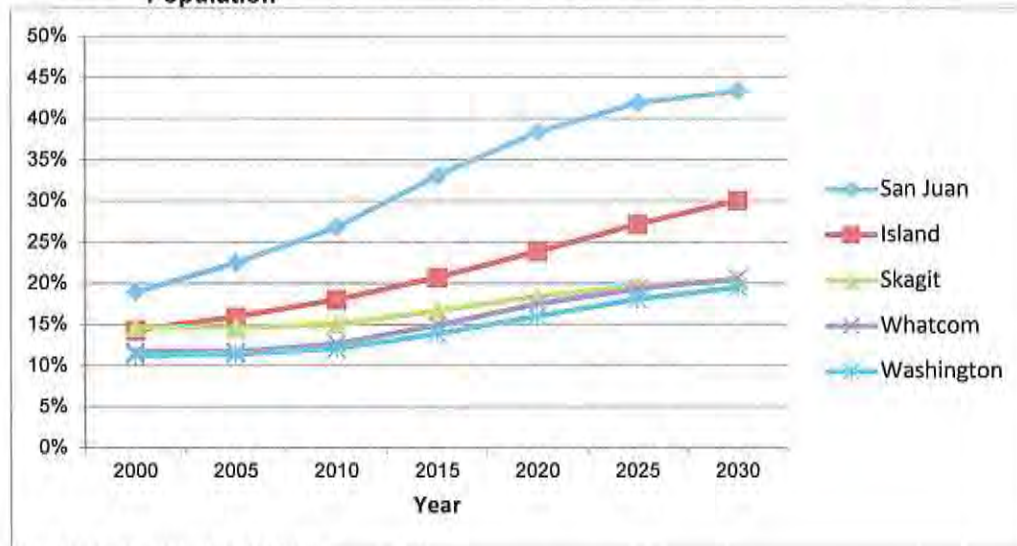
Comparing San Juan County to neighboring counties and the State as whole shows considerable variation in PPH over time. Generally speaking, counties that are experiencing decreases in PPH are generally consistent with growing retirement age populations while counties experiencing increasing PPH are generally attributed to growth in Hispanic populations.

To forecast 2021 households in San Juan County, an average person per household rate of 2.05 was applied to convert forecast population into forecast occupied housing units.

Percent of County Total Population Age 65 and Over

The total population in San Juan County that is 65 and older is continuing to increase over time, which corresponds to the declining size of households. Figure 4 shows the percent of population age 65 and over for San Juan County, other neighboring counties, and the State.

Figure 4. San Juan County Population Age 65 and Over as a Percent of Total County Population



Source: OFM Forecasting, October 2007

As shown in Figure 4, San Juan County's current percent of population 65 and older is greater than its neighboring counties at 27 percent of total population in 2010. This percentage is expected to increase to approximately 38 percent in 2020 and to 43 percent by 2030. A greater percentage of total population 65 and over is significant in that many of these people are retired and not commuting to work during the weekday. It will also result in a higher reliance on transit and special needs transportation.

Annual Average Daily Traffic Volume Growth

Historical traffic counts were reviewed and growth rates calculated for County Major and Minor Collector roadways. Table 4 summarizes historical (1993 to present) average annual growth rates by Island and roadway functional classification.

Table 4. San Juan County AADT¹ Average Annual Growth Rates

Island	Major Collector	Minor Collector	All Collectors
San Juan	0.0%	1.1%	0.6%
Orcas	1.2%	1.2%	1.2%
Lopez	-1.0%	-0.4%	-0.8%
Shaw	-	-0.7%	-0.7%
Countywide	-0.1%	0.6%	0.2%

Source: San Juan County AADT, April 2011

1. Average Annual Daily Traffic

As shown in Table 4, historical growth on County Collector roadways has been very low and in some cases a negative growth rate has been observed. The negative growth rates and overall lower rates of traffic growth compared to population growth are likely due to a few factors:

- **Traffic Data Availability** - The number of AADT counts available by Island and by functional classification varied by area. In addition, the year of the last count collected also varied by location. A high variation of the most current count year and location of the count could have resulted in inconsistent data to compare against.
- **Seasonal adjustment factor** – A seasonal factor is applied to the average daily traffic count to develop a seasonally adjusted average daily traffic count. This factor varies by month and is applied based on when the counts are collected. Applying the factor across all corridors, may result in inconsistent data to compare against.
- **Trip generation** – Although the County population continues to grow as a whole, the percentage of population 65 and older continues to increase as well. This demographic tends to drive less and may result in less vehicles on the road.
- **Ferry service/tourist influence** – San Juan County traffic is highly dependent and influenced by ferry on and off-loading traffic. The frequency of ferry service and number of ferry riders has declined over the most recent four years, also likely impacting vehicle traffic on the Islands.

The traffic count data is somewhat limited by the number and location of counts by Island and roadway functional class. This combined with the County's unique trip generation characteristics, seasonal variations, and ferry service influences are significant factors that are reflected in the historical traffic growth rates.

Resulting Growth Rates

The resulting growth rates are utilized in assessing forecast levels of service for County collector roads. In addition, population and household forecasts are used to assess levels of service for the County dock and ferry parking components.

County staff provided direction and feedback on the following proposed traffic growth rate options.

Traffic Growth Rate Options

The following growth rate options were considered for developing forecast transportation levels of service.

- OPTION 1:** **Forecast Population Growth Rates** – Utilize forecast County population rates by Island or groups of islands as shown in Table 2.
- OPTION 2:** **Historical County Collector Roadway Growth Rates** – Utilize County Collector roadway growth rates as shown in Table 4.
- OPTION 3:** **Blended Growth Rates** – Based on the relative historical change in traffic volumes to population growth, a forecast traffic growth rate is calculated by Island.
- HTG = Historical traffic growth (by Island)
 - HPG = Historical population growth (by Island)
 - FPG = Forecast population growth (by Island)

$$\text{Traffic Growth Rate} = \frac{\text{HTG}}{\text{HPG}} \times \text{FPG}$$

Final Growth Rates

A blended growth rate was used because it is reflective of both the County's population and traffic growth. Table 5 shows the resulting forecast traffic growth rates by Island using the blended growth rate method.

Table 5. San Juan County Forecast AADT Blended Growth Rates

Island	HTG ¹	HPG	FPG	Blended Growth Rate
San Juan Island	0.6%	1.1%	2.1%	1.1%
Orcas Island	1.2%	1.2%	1.9%	1.9%
Lopez Island	0.1%	0.9%	2.3%	0.3%
Shaw Island	0.1%	0.1%	1.9%	1.9%
Countywide	0.2%	1.2%	2.1%	0.4%

Source: Transpo Group 2011

1. Historical traffic growth rate of 0.1% is the default value for Lopez and Shaw Islands to account for negative historical traffic growth rate.

B. Transportation Level of Service Analysis and Recommendations

Level of Service: General Overview

The Growth Management Act requires that San Juan County regionally coordinate establishment of Level of Service (LOS) standards for locally owned arterial roads (aka county collector roads) and public transit routes (none in San Juan islands). As extension of County roads, San Juan County also establishes LOS for County docks which are considered extensions of the County road system.

The Washington State Department of Transportation Ferries division (WSF) establishes LOS standards for state-owned ferry route facilities and services that are considered highways of statewide significance. These LOS standards help the state to gauge the performance of the state transportation system and monitor performance, analyze proposed improvement strategies and facilitate coordination between local planned improvements and the state's ten-year investment program. After local consultant, LOS standards for the Washington State ferry service were established in the 2009 Washington State Ferries Long-Range Strategic Plan by WSDOT. These standards are based on projected ferry use to the year 2030. LOS standards for ferry related docks and parking have yet to be developed by WSF.

Concurrency

Transportation concurrency is required by the GMA pursuant to RCW 36.70A.070. Concurrency means that public transportation facilities or management strategies necessary to ensure that transportation facilities and services are available to serve a development in accordance with established LOS standards when a development is ready for occupancy or use. Concurrency requirements also apply to transportation facilities and services of statewide significance. WSF has determined that the Anacortes-Friday Harbor ferry route is not designated as a highway of statewide significance.

Concurrency requirements are established for county collectors and docks in San Juan County Code 18.60.200.

MEMORANDUM

Date: June 16, 2011 **TG:** 11059.00

To: Shannon Wilbur, San Juan County

From: Jon Pascal, Transpo Group
Patrick Lynch, Transpo Group

Subject: Memo 2 of 3: San Juan County Transportation Level of Service Analysis

This memorandum documents the transportation facility data provided by the County and the level of service analysis performed by Transpo. Based on the population and traffic growth rates summarized in *Memo 1 of 3: San Juan County Transportation Element Growth Rates*, level of service was calculated for the following transportation systems:

- County collector roadways
- County docks
- Ferry parking

The following level of service analysis results for each of the transportation systems differs somewhat from the previous level of service results summarized in the current Comprehensive Plan – Appendix 6, December 2002. This is due in part to a variety of factors, including updated data and forecasts, as well as, updated transportation system facility inventories and plans. The current Comprehensive Plan has a base year of 1993 and forecast year of 2014. The current effort updates the facilities inventory and level of service analysis to a 2010 base year and a 2021 forecast year.

County Collector Roadways

Updated County Collector Roadway Level of Service Standards

The roadway level of service (LOS) thresholds identified in San Juan County's *Transportation Element* were updated based on the planning modules of the HCS+ (Highway Capacity Software) program, which is based mainly on the Highway Capacity Manual (HCM 2000).

The same parameters used to develop the roadway LOS thresholds in the current *Transportation Element* were used to develop an updated daily roadway capacity. The *Highway Capacity Manual* defines LOS F as one hundred percent of roadway capacity. Based on this value, the remaining LOS thresholds were scaled by applying a relative percent of total capacity consistent with the County's current LOS standard. The existing and updated LOS thresholds for all LOS values are shown below in Table 1.

Table 1. County Collector Roadways AADT ⁵ Level of Service Standards					
Terrain	LOS A/B	LOS C	LOS D ²	LOS E	LOS F
Previous Standards (HCM 1994)					
Rolling ³	< 1,372	1,372 -2,801	2,802 -4,399	4,400 -11,730	> 11,730
Level ⁴	< 2,476	2,476 -4,343	4,344 -7,657	7,658 -17,370	> 17,370
Proposed Standards (HCM 2000)¹					
Rolling ³	< 1,360	1,360 -2,790	2,790 -4,380	4,380 -11,670	> 11,670
Level ⁴	< 2,000	2,000 -3,500	3,500 -6,170	6,170 -14,000	> 14,000

Source: San Juan County Comprehensive Plan; Transpo Group 2011

1. The roadway capacity used to establish the LOS F threshold assumed the following: 10-foot travel lanes, no shoulders, 60/40 directional split, 10-percent trucks, 4-percent recreational vehicles, K-factor of 0.10 to convert peak hour capacity to a daily volume capacity.
2. Level of Service (LOS) D is San Juan County's adopted LOS standard for County collector roadways per County Code 18.60.200.
3. Rolling Terrain - A combination of horizontal and vertical alignments causing heavy vehicles to reduce their speed substantially below that of passenger cars but not to operate at crawl speeds for a significant amount of time.
4. Level Terrain - A combination of horizontal and vertical alignments that permits heavy vehicles to maintain approximately the same speed as passenger cars; this generally includes short grades of no more than 1 to 2 percent.
5. AADT – Two-way annual average daily traffic volumes.

As shown in Table 1 the updated LOS volume thresholds for roadways with rolling terrain are generally consistent with the existing thresholds. For County roadways with level terrain, the volume thresholds have been reduced by approximately 20 percent as compared to the existing volume threshold due to changes in the HCM 2000 methodology.

County Roadway Level of Service

Existing and forecast average daily roadway volumes and level of service were calculated for County collector roadways. San Juan County staff provided average annual daily traffic (AADT) counts. For counts that were collected in years prior to 2010, a historical traffic growth (HTG) rate for County collector roadways by Island was applied to grow the counts to a common 2010 year. The 2021 forecasted volumes were developed by applying the forecast blended growth rates by Island to the 2010 volumes as described in Memo 1 of 3.

Tables 2, 3, and 4 summarize the 2010 and 2021 AADT volumes and the resulting roadway level of service for San Juan, Orcas, Lopez, and Shaw Islands respectively.

Table 2. San Juan Island - County Collector Roads Level of Service

	County Road #	Mile Post	Road Name	Terrain ^{2,3}	2010		2021	
					AADT ⁴	LOS ¹	AADT ⁴	LOS ¹
Major Collectors	7	0.46	Argyle Road	Rolling	2,177	A/B/C	2,455	A/B/C
	18	0.65	Mullis Road	Level	2,623	A/B/C	2,958	A/B/C
	18	0.75	Cattle Point Road	Level	3,242	A/B/C	3,656	D
	3	0.83	Roche Harbor Road	Level	3,931	D	4,433	D
	7	0.92	Argyle Road	Flat	1,380	A/B/C	1,556	A/B/C
	1	1.00	San Juan Valley Road	Level	2,706	A/B/C	3,052	A/B/C
	2	1.05	Beaverton Valley Road	Rolling	1,641	A/B/C	1,850	A/B/C
	18	1.95	Cattle Point Road	Level	2,478	A/B/C	2,795	A/B/C
	18	2.61	Cattle Point Road	Rolling	1,874	A/B/C	2,114	A/B/C
	2	3.52	Beaverton Valley Road	Rolling	1,233	A/B/C	1,391	A/B/C
	18	3.87	Cattle Point Road	Rolling	1,133	A/B/C	1,278	A/B/C
	2	4.75	West Valley Road	Rolling	1,456	A/B/C	1,643	A/B/C
	18	5.22	Cattle Point Road	Rolling	922	A/B/C	1,040	A/B/C
	18	5.75	Cattle Point Road	Rolling	680	A/B/C	767	A/B/C
	18	6.82	Cattle Point Road	Rolling	584	A/B/C	659	A/B/C
	2	6.91	West Valley Road	Rolling	796	A/B/C	898	A/B/C
	2	9.60	West Valley Road	Rolling	812	A/B/C	916	A/B/C
	2	9.72	Roche Harbor Road	Level	1,096	A/B/C	1,236	A/B/C
	2	10.82	Roche Harbor Road	Rolling	986	A/B/C	1,112	A/B/C
Minor Collectors	1	2.15	Douglas Road	Rolling	1,513	A/B/C	1,706	A/B/C
	3	2.15	Roche Harbor Road	Rolling	2,767	A/B/C	3,121	D
	1	3.52	Bailer Hill Road	Rolling	1,080	A/B/C	1,218	A/B/C
	3	5.00	Roche Harbor Road	Rolling	1,880	A/B/C	2,121	A/B/C
	1	6.23	Bailer Hill Road	Rolling	767	A/B/C	865	A/B/C
	3	6.53	Roche Harbor Road	Rolling	2,034	A/B/C	2,294	A/B/C
	3	7.63	Roche Harbor Road	Level	1,676	A/B/C	1,890	A/B/C
	1	14.67	Mitchell Bay Road	Rolling	803	A/B/C	905	A/B/C

Source: San Juan County; Transpo Group 2011

1. Level of Service (LOS) D is San Juan County's adopted LOS standard for County collector roadways per County Code 18.60.200.
2. Rolling Terrain - A combination of horizontal and vertical alignments causing heavy vehicles to reduce their speed substantially below that of passenger cars but not to operate at crawl speeds for a significant amount of time.
3. Level Terrain - A combination of horizontal and vertical alignments that permits heavy vehicles to maintain approximately the same speed as passenger cars; this generally includes short grades of no more than 1 to 2 percent.
4. AADT - Two-way annual average daily traffic volumes.

As shown in Table 2, all San Juan Island collector roadways meet the County's standard of LOS D or better. Only one roadway segment operates at LOS D in 2010 and three segments in 2021.

Table 3. Orcas Island - County Collector Roads Level of Service

	County Road #	Mile Post	Road Name	Terrain ^{2,3}	2010		2021	
					AADT ⁴	LOS ¹	AADT ⁴	LOS ¹
Major Collectors	57	0.03	Terrill Beach Road	Rolling	1,200	A/B/C	1,476	A/B/C
	52	0.08	Lovers Lane	Rolling	2,045	A/B/C	2,515	A/B/C
	58	0.10	Mount Baker Road	Level	1,476	A/B/C	1,815	A/B/C
	52	0.46	Lovers Lane	Rolling	1,929	A/B/C	2,373	A/B/C
	57	0.68	Terrill Beach Road	Level	616	A/B/C	758	A/B/C
	4	0.75	Orcas Road	Rolling	1,865	A/B/C	2,294	A/B/C
	58	0.79	Mount Baker Road	Rolling	1,535	A/B/C	1,888	A/B/C
	58	1.17	Mount Baker Road	Rolling	2,268	A/B/C	2,790	A/B/C
	4	3.92	Orcas Road	Level	1,884	A/B/C	2,317	A/B/C
	4	6.93	Orcas Road	Rolling	2,602	A/B/C	3,201	D
	4	7.00	Orcas Road	Level	3,710	D	4,563	D
	4	9.45	Olga Road	Rolling	2,294	A/B/C	2,822	D
	4	11.50	Olga Road	Rolling	2,038	A/B/C	2,507	A/B/C
	Minor Collectors	45	0.10	Deer Harbor Road	Rolling	972	A/B/C	1,196
63		0.10	Point Lawrence Road	Rolling	951	A/B/C	1,170	A/B/C
51		0.16	Crow Valley Road	Rolling	731	A/B/C	899	A/B/C
63		0.56	Point Lawrence Road	Rolling	526	A/B/C	647	A/B/C
45		1.00	Deer Harbor Road	Rolling	1,040	A/B/C	1,279	A/B/C
51		1.90	Crow Valley Road	Rolling	956	A/B/C	1,176	A/B/C
63		3.31	Point Lawrence Road	Rolling	246	A/B/C	302	A/B/C
51		3.59	Crow Valley Road	Rolling	1,442	A/B/C	1,774	A/B/C
45		3.80	Deer Harbor Road	Rolling	931	A/B/C	1,145	A/B/C
45		4.36	Deer Harbor Road	Rolling	871	A/B/C	1,071	A/B/C
4		14.36	Olga Road	Rolling	1,107	A/B/C	1,362	A/B/C
4		15.94	Olga Road	Rolling	247	A/B/C	304	A/B/C

Source: San Juan County, Transpo Group 2011

1. Level of Service (LOS) D is San Juan County's adopted LOS standard for County collector roadways per County Code 18.60.200.
2. Rolling Terrain - A combination of horizontal and vertical alignments causing heavy vehicles to reduce their speed substantially below that of passenger cars but not to operate at crawl speeds for a significant amount of time.
3. Level Terrain - A combination of horizontal and vertical alignments that permits heavy vehicles to maintain approximately the same speed as passenger cars; this generally includes short grades of no more than 1 to 2 percent.
4. AADT - Two-way annual average daily traffic volumes.

As shown in Table 3, all Orcas Island collector roadways meet the County's standard of LOS D or better. Only one roadway segment operates at LOS D in 2010 and three segments in 2021.

Table 4. Lopez and Shaw Islands - County Collector Roads Level of Service

	County Road #	Mile Post	Road Name	Terrain ^{2,3}	2010		2021	
					AADT ⁴	LOS ¹	AADT ⁴	LOS ¹
Major Collectors	108	0.10	Dill Road	Level	638	A/B/C	660	A/B/C
	114	0.10	Mud Bay Road	Level	1,139	A/B/C	1,177	A/B/C
	5	0.16	Ferry Road	Level	630	A/B/C	651	A/B/C
	103	0.40	Fisherman Bay Road	Level	687	A/B/C	710	A/B/C
	114	0.55	Mud Bay Road	Rolling	902	A/B/C	932	A/B/C
	103	1.75	Fisherman Bay Road	Level	1,108	A/B/C	1,145	A/B/C
	5	1.98	Ferry Road	Level	1,104	A/B/C	1,141	A/B/C
	103	2.26	Fisherman Bay Road	Level	1,681	A/B/C	1,737	A/B/C
	114	2.30	Mud Bay Road	Level	853	A/B/C	881	A/B/C
	103	3.00	Fisherman Bay Road	Level	2,175	A/B/C	2,248	A/B/C
	103	3.76	Fisherman Bay Road	Level	1,293	A/B/C	1,337	A/B/C
	103	4.00	Fisherman Bay Road	Rolling	1,300	A/B/C	1,344	A/B/C
	5	6.17	Center Road	Level	1,653	A/B/C	1,708	A/B/C
	5	7.12	Center Road	Rolling	1,321	A/B/C	1,365	A/B/C
Minor Collectors	5	2.24	Center Road	Level	445	A/B/C	460	A/B/C
	114	2.94	Mud Bay Road	Level	506	A/B/C	522	A/B/C
	5	3.30	Center Road	Level	514	A/B/C	531	A/B/C
	5	4.85	Center Road	Level	1,083	A/B/C	1,119	A/B/C
	5	8.10	Richardson Road	Level	268	A/B/C	277	A/B/C
	5	9.20	Richardson Road	Rolling	257	A/B/C	266	A/B/C
	Shaw Island							
96	1.00	Blind Bay Road	Rolling	281	A/B/C	346	A/B/C	
96	2.21	Blind Bay Road	Rolling	186	A/B/C	210	A/B/C	

Source: San Juan County; Transpo Group 2011

1. Level of Service (LOS) D is San Juan County's adopted LOS standard for County collector roadways per County Code 18.60.200.
2. Rolling Terrain - A combination of horizontal and vertical alignments causing heavy vehicles to reduce their speed substantially below that of passenger cars but not to operate at crawl speeds for a significant amount of time.
3. Level Terrain - A combination of horizontal and vertical alignments that permits heavy vehicles to maintain approximately the same speed as passenger cars; this generally includes short grades of no more than 1 to 2 percent.
4. AADT - Two-way annual average daily traffic volumes.

As shown in Table 4, all Lopez and Shaw Island collector roadways meet the County's standard of LOS D or better in both 2010 and 2021. However 2 of 74 roadway segments (Roche Harbor Road on San Juan Island and Orcas Road on Orcas Island) are currently operating at LOS D. In 2021, 6 of 74 roadway segments (2 segments of Roche Harbor Road and 1 segment of Cattle

Point Road on San Juan Island, 2 segments of Orcas Road and 1 segment Olga Road on Orcas Island) are forecast to operate at LOS D.

Overall this is consistent to the previous County collector roadway LOS analysis in the adopted Comprehensive Plan which shows all 74 roadway segments operating at or above the County's LOS D standard. The previous analysis shows 1 of the 74 roadway segments (Horseshoe Highway) operating at LOS D in 1993 and 3 of 74 of the roadway segments (2 segments of Horseshoe Highway and 1 segment of Roche Harbor Road) operating at LOS D in 2014.

County Dock Level of Service

As discussed in the San Juan County's Comprehensive Plan, level of service for County docks is based on the lineal feet of useable dock space per occupied housing unit within the designated service area. For Type-3 docks, the service area is the entire County and is estimated in hundreds of dwelling units.

There are three County dock types:

Type 1 – County docks located on ferry-served islands which provide primary access for non-ferry served islands.

Type 2 – County docks located on non-ferry served islands with County roads.

Type 3 – County docks that provide recreational uses or access between ferry-served islands.

The adopted San Juan County dock LOS thresholds are shown in Table 5, as per County Code 18.60.200.

Table 5. County Dock Level of Service Standards

Facility	LOS A	LOS B	LOS C ²	LOS D ³	LOS E	LOS F ⁴
County Docks ¹	>3.0	1.2 – 2.9	0.6 – 1.19	0.4 – 0.59	0.1 – 0.39	<0.09

Source: San Juan County Comprehensive Plan

1. Estimated useable lineal feet of dock space per occupied housing unit.

2. Level of Service (LOS) C is San Juan County's adopted LOS standard for Type 1 County docks.

3. Level of Service (LOS) D is San Juan County's adopted LOS standard for Type 2 County docks.

4. For islands and locations where no County dock currently exists, LOS F is the adopted standard.

Table 6 summarizes the County's dock service areas and dock lineal feet.

Table 6. County Dock Service Areas

Service Area	Dock Location	Dock Capacity ⁵
Type 1¹		
1 Center Decatur Frost Trump	Hunter Bay	65' dock, 120' float
2 Blakely Obstruction	Obstruction Pass	107' dock, 80' float
3 Waldron Wasp	Deer Harbor	120' float
4 Stuart Henry Pearl Johns Cactus O'Neal Spieden	Roche Harbor	120' float
Type 2²		
5 Stuart	Prevost	256' dock, 120' float
6 Waldron	Cowlitz	184' dock, 64' float
7 Decatur ³	-	-
Type 3^{3,4}		
8 San Juan	-	-
9 Orcas	Eastsound	112' dock, 80' float
	Westsound	140' dock, 145' float
	Orcas Landing	408' float
10 Lopez	Odlin	48' dock
	MacKaye Harbor	70' float, 120' float
11 Shaw	-	-

Source: San Juan County; Transpo Group 2011

1. Type 1 – County docks located on ferry-served islands which provide primary access for non-ferry served islands.
2. Type 2 – County docks located on non-ferry served islands with County roads.
3. Type 3 – County docks that provide recreational uses or access between ferry-served islands.
4. There is no concurrency requirement for Type 3 County docks.
5. Dock Capacity = Estimated useable lineal feet of dock space.

Table 7 summarizes the existing and forecast residential dwelling units, dock capacity, and resulting level of service for each service area.

Table 7. County Dock Level of Service

		2010				2021			
		Demand ⁶	Dock Capacity ⁵	Ratio	LOS	Demand ⁶	Dock Capacity ⁵	Ratio	LOS
Type 1¹									
1	Center Decatur	129	185	1.43	B	133	185	1.39	B
	Frost								
	Trump								
2	Blakely	40	187	4.68	A	44	187	4.25	A
	Obstruction								
3	Waldron	69	120	1.74	B	69	120	1.74	B
	Wasp								
4	Stuart	62	120	1.94	B	71	120	1.69	B
	Henry Pearl								
	Johns								
	Cactus								
	O'Neal Spieden								
Type 2²									
5	Stuart	35	376	10.74	A	41	376	9.17	A
6	Waldron	69	248	3.59	A	69	248	3.59	A
7	Decatur ³	67	0	0	F	81	0	0	F
Type 3⁴									
8	San Juan ³	76	0	0	F	96	0	0	F
9	Orcas	76	885	11.64	A	96	885	9.22	A
10	Lopez	76	238	3.13	A	96	238	2.48	B
11	Shaw ³	76	0	0	F	96	0	0	F

Source: San Juan County; Transpo Group 2011

1. Level of Service (LOS) C is San Juan County's adopted LOS standard for Type 1 County docks.
2. Level of Service (LOS) D is San Juan County's adopted LOS standard for Type 2 County docks.
3. For islands and locations where no County dock currently exists, LOS F is the adopted standard.
4. There is no concurrency requirement for Type 3 County docks.
5. Dock Capacity = Estimated useable lineal feet of dock space.
6. Demand = Number of occupied housing units.

As shown in Table 7, all 11 San Juan County service areas meet the adopted County dock standards in both 2010 and 2021. Overall this is an improved level of service as compared to the previous County dock LOS analysis in the adopted Comprehensive Plan which shows 2 of 11 service areas (1 and 2) not meeting standards in 1992 and 5 of 11 service areas (1, 2, 3, 5, and 6) not meeting standards in 2012. This is due in part to differences in number of occupied housing units and estimated useable lineal feet of dock per service area. The updated analysis shows fewer occupied housing units and more useable lineal feet of dock per service area.

Ferry Parking Level of Service

The adopted San Juan County ferry parking LOS thresholds are shown in Table 8.

Table 8. Ferry Parking Level of Service Standards

Facility	LOS A	LOS B	LOS C ²	LOS D ³	LOS E	LOS F ⁴
Ferry Parking ¹	>6	6	5	3	2	<2

Source: San Juan County Comprehensive Plan

1. Ferry parking places per 100 residents (population).

2. LOS C is San Juan County's adopted LOS standard for ferry parking facilities, per County Code 18.60.200.

The adopted level of service standard is at least five parking spaces per 100 population. Table 9 summarizes the existing and forecast population, ferry parking supply, and resulting level of service for each island.

Table 9. Ferry Parking Level of Service

Ferry Terminal Location	2010				2021			
	Population	Parking Supply	Ratio ¹	LOS ²	Population	Parking Supply	Ratio ¹	LOS ²
San Juan	7,581	57	0.75	F	9,537	57	0.60	F
Orcas	5,006	56	1.12	F	6,169	56	0.91	F
Lopez	2,383	79	3.32	D	3,050	79	2.59	D
Shaw	237	25	10.55	A	291	25	8.59	A

Source: San Juan County; Transpo Group 2011

1. Ferry parking places per 100 population.

2. Level of Service (LOS) C is San Juan County's adopted LOS standard for ferry parking facilities.

As shown in Table 9, three of the ferry terminal locations do not meet the adopted ferry parking standards in both 2010 and 2021. Overall this is a lower level of service as compared to the previous ferry parking LOS analysis in the adopted Comprehensive Plan which shows 2 of 4 ferry terminals (San Juan and Orcas Islands) not meeting standards in 1993 and in 2012. This is due in part to differences in population and number of parking spaces with both the existing and forecast conditions. Generally, the updated analysis shows higher population and lower parking supply values.

Table 10 shows the additional parking spaces needed in 2010 and 2021 for each ferry terminal location not currently meeting the LOS C standard.

Table 10. Additional Ferry Parking Needed

Ferry Terminal Location	2010				2021			
	Population	Parking Supply	LOS C Standard	Additional Needed	Population	Parking Supply	LOS C Standard	Additional Needed
San Juan	7,581	57	379	322	9,537	57	477	420
Orcas	5,006	56	251	195	6,169	56	309	253
Lopez	2,383	79	120	41	3,050	79	153	74

Source: San Juan County; Transpo Group 2011

1. LOS C is San Juan County's adopted LOS standard for ferry parking facilities.

As shown in Table 10, almost 750 additional parking spaces will be needed countywide by 2021 to meet the adopted LOS C standard.