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Staff Report

July 24, 2020

TO: County Council

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

SUBJECT: 2036 Comprehensive Plan-Transportation Element Briefing

FOR MEETING OF: August 18, 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 with 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 the Washington State Growth Management Act (GMA). The evaluation identified items to be reviewed and/or updated in the Transportation Element to comply with GMA. 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.

On February 10, 2020, we reviewed the proposed changes to the Transportation Element and Appendix 6 with the County Council.

Since then, we have made some minor changes to the documents; responded to public comment, added references to the County climate change resolution, included information about shore access locations, added intersection level of service data and long range planning recommendations, and edited for consistency.

The comments are posted to the website at <https://www.sanjuanco.com/1306/Comprehensive-Plan-Elements> under the Transportation tab.

The 2020 Transportation Element and Appendix 6 are provided for your review and comments.

Attachments:

- A 2020-06-30 Transportation Element Track Changes
- B 2020-06-30 Transportation Element Appendix 6 Track Changes

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. 6/30/2020--Updates recommended by public comments from 7/2018 through 3/2020 primarily related to energy conservation, greenhouse gas emission reduction, climate resilience, and stormwater/sea level rise planning. 6/30/2020--Incorporated transportation measures from Council's Climate Change Resolution.
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. 6/30/2020--Added policies to support WSF's plan to develop hybrid-electric ferries and improve facility resiliency.
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. 6/30/2020--Added information about shore access locations. 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.

	<p>The 2036 LOS forecast predicts that all the collector roads will operate within the established LOS Standard D.</p> <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. 6/30/2020--updated the intersection LOS data and long range planning recommendations. • 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

2020-06-30 Transportation Element Track Changes

COMPREHENSIVE PLAN

SECTION B, ELEMENT 6

TRANSPORTATION

June 30, 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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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 (*Plan*) and Vision Statement. It establishes
8 direction 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
10 Transportation Element are based upon ~~the~~ community vision, ~~the~~ 2021 2036 travel population forecasts,
11 ~~and other~~ 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 (PTNA-NM) was
15 developed to meet the multimodal transportation and recreational needs of the community. It was
16 adopted as Appendix 11 of the Plan in 2016. The PTNA-NM is implemented collaboratively by San Juan
17 County Parks, Public Works, the Land Bank and other partners. It establishes the community’s criteria for
18 prioritizing nonmotorized projects, contains a trails classification system, and identifies trail corridors for
19 development, as well as identifying nonmotorized facility funding mechanisms and local financing options.
20 The PTNA-NM also lists marine facilities and shore access sites within public right-of-way that can be used
21 to provide access to motorized vessels or hand-carry boats and recreation. Its goals and strategies provide
22 a framework that the community can use to meet its vision of providing safe, nonmotorized travel on a
23 multi-purpose trail and corridor system and locations designed to provide accessibility to community
24 activities, recreational areas and public shorelines.

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

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

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

- 47
48
 - ~~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 transportation 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 Improvement 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 also 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.~~

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 Level of Service

2
3 One of the principal criteria for identifying needed capital improvements for transportation systems is the
4 establishment of level of service (LOS) standards. ~~LOS standards to~~ measure the capacity of capital
5 facilities and services ~~which are~~ necessary to support new development and maintain or enhance the
6 quality of life in the community. The LOS standards adopted by San Juan County are based on the
7 community's values and vision of its future. LOS standards serve as a gauge to judge the performance of
8 the transportation systems and ensure that the community:

- 9
10
 - 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
13 policy direction.

14
15 The LOS standards for the San Juan County's road transportation systems are based on the physical
16 capacity of the facility or service, as well as ~~and~~ development projections. An explanation of the LOS
17 standards is provided in Appendix 6.

18
19 The County prioritizes transportation improvements for roadways, bridges, marine facilities and
20 bicycle/pedestrian accommodations based on capacity, safety, operation, maintenance, and importance
21 to the community. These aspects of the transportation facilities are reviewed in Appendix 6.

22
23 Concurrency

24
25 Consistent with GMA requirements, the County adopted development regulations ~~which that~~ prohibit
26 development approval if a development would causes the level of service on a transportation facility to
27 decline below the adopted standards, unless transportation improvements or strategies to accommodate
28 the impacts of the development are made concurrent with the development.

29
30 **6.1.C Relationship to Plan Elements, Consistency with Adjacent Jurisdictions and Regional Plan**
31 **Coordination**

32
33 Relationship to Plan Elements

34
35 This Element was developed to evaluate existing conditions, and to identify future planning needs. It sets
36 out the goals, policies and preferences of the County for maintaining and improving the quality of
37 transportation facilities and services, ~~and to guide intergovernmental and regional and international~~
38 ~~coordination~~ while assuring consistent adherence to the general goals and policies regarding the use and
39 development of land and transportation facilities as expressed in the other elements of the
40 Comprehensive Plan, including subarea plans.

41
42 Consistency with Plans of Adjacent Jurisdictions and Regions

43
44 Intergovernmental, regional and international coordination of plans are addressed in this element,
45 including coordinated planning for consistency with jurisdictions with common borders and counties that
46 share common regional issues. The Town of Friday Harbor is the only incorporated city in San Juan County.
47 In 1992, the County and the Town of Friday Harbor jointly adopted Countywide Planning Policies (CPPs)
48 (Resolution No. 120-199, which was updated by the adoption of Ordinance 48-2008). These policies

1 address the need for consistent and coordinated County and Town comprehensive plans. The CPPs are
2 included as Appendix 2 in this *Plan*. Consistency between this *Plan* and the Town of Friday Harbor
3 Comprehensive Plan, including Chapter 5, Transportation, Element is required by the GMA. San Juan
4 County is not a member of a Regional Transportation Planning Organization (RTPO); however, the County
5 coordinates with the ~~Whatcom, Island, and Skagit-Island RTPOs~~ Counties on regional planning issues.
6

7 **6.2 GENERAL TRANSPORTATION GOALS AND POLICIES**

8
9 The general goals and policies apply to all transportation modes.

10 **6.2.A General Goals:**

- 11
12
- 13 1. To develop and maintain a safe, reliable, environmentally responsible, economically feasible, locally,
14 regionally and internationally integrated transportation system that reflects the desires and
15 preferences of County residents, supports economic vitality and preserves the rural character, scenic
16 roadway features and aesthetics of island communities and the natural, social, and economic
17 environment of San Juan County.
 - 18
 - 19 2. To implement the following principles to guide planning, design and construction of Complete Streets:
20
21 a. Promote healthy communities by designing walking villages and encouraging walking, bicycling,
22 and use of public transportation;
23
24 b. Improve safety by designing roads to accommodate all users;
25
26 c. Reduce congestion by providing safe alternatives to single-occupancy driving; and
27
28 d. Preserve the rural character of the community by involving local citizens and stakeholders to
29 participate in the planning and design of Complete Streets.
 - 30
 - 31 3. To develop a transportation system that corresponds to and is consistent with patterns of land
32 development envisioned in adopted land use plans and also:
33
34 a. Addresses the complex transportation demands of current land use patterns, and prioritizes
35 service to the Urban Growth Areas, accommodates the needs and priorities of residents and
36 businesses while meeting the basic transportation needs of all islands in the County including non-
37 ferry served islands;
38
39 b. Enhances the character of the County as a single community of islands, while maintaining the
40 individual character of each island;
41
42 c. Directs development of facilities in a manner and at a scale consistent with the capabilities of the
43 site and the community to absorb them and increases the efficiency and safety of existing
44 transportation systems by using demand management strategies to avoid costly capital
45 expenditures;
46
47 d. Minimizes noise generated by transportation facilities and travel modes associated with them;
48

- 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, activity 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; ~~and~~
 - ~~l.~~ Support and incentivize interconnected, multi-modal transportation options, including conversion to electric vehicles, buses, vans, shuttles, taxis, electric rideshare and rental program; and
 - ~~m.~~ To monitor the development of driverless vehicle technology.
4. To establish an adaptation planning process for transportation infrastructure to increase community and environmental resilience to climate change while maintaining or modifying essential services.

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 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.

- 1
- 2 5. Explore ways to promote transportation modes that may decrease demands for increased automobile
- 3 traffic capacities on roads and ferries.
- 4
- 5 6. Prevent the consideration and development of bridges and tunnels between islands and/or from the
- 6 mainland.
- 7
- 8 7. ~~Consider~~ Identify, develop and implement cross-border transportation routes, in addition to those
- 9 established by ~~WSF Washington State Ferry Service~~.
- 10
- 11 8. Evaluate transportation system vulnerabilities to climate change, promote community and
- 12 environmental resilience, and define adaptive strategies to reduce damage and maintenance.
- 13
- 14 ~~9.8. Consider the risk of sea level rise in expenditures of public funds for transportation infrastructure.~~
- 15
- 16 9. Support transportation facility design and operational measures that protect the environment, such
- 17 as energy conservation, greenhouse gas emission reductions, and stormwater management.
- 18
- 19 10. Support the electrification of all transportation modes and provide recharge stations at key
- 20 destinations throughout the County.
- 21
- 22 11. Switch to electric vehicles for new county fleet purchases and electric motors, when feasible.
- 23

24 **6.2.B Transportation Financing Goals and Policies**

25

26 Section II in Appendix 6 of this *Plan* addresses transportation financing strategies for the ~~2012–2032~~ 2020-

27 2036 planning period. It also includes an inventory of funding sources and levels for capital projects, an

28 analysis of the County’s funding capabilities, and a copy of the ~~2019-2024~~ 2020-2036 six-year

29 Transportation Improvement Program (TIP) prepared by Public Works. The TIP identifies specific projects

30 and funding sources for ~~both road, marine, and nonmotorized trail projects along County roads~~. Public

31 Works also creates an annual construction road plan (ARP ACP) that includes the Public Works projects

32 budgeted for and approved by the County Council.

33

34 Funding and financing options for rustic and bike (non right-of-way) trail developments are addressed in

35 the San Juan County *PTNA-NM Plan*. Trail projects are selected from a 20-year, long-range project plan

36 for inclusion on the County’s six-year capital facilities plan (CFP) and Parks Department and Land Bank

37 budgets. Financing goals and policies for transit services and mobility coordination are addressed and

38 prioritized in the ~~2010 SJC Health and Human Services Coordinated Transportation Plan CHST~~ and

39 implemented through inclusion in the Health and Human Service Department’s 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

46 **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~~

1 transportation projects other than roads such as (docks, boat ramps, barge landing sites, log dumps,
2 mooring buoys, and pedestrian, equestrian and bicycle trails).
3

4 3. Organize the six-year TIP Plan in two three-year periods. Consideration of to incorporate all phases of
5 projects to allow for: needed projects and their design should be managed as follows:
6

7 a. ~~Projects should be identified~~ Scheduling time early in the plan period for public discussion and
8 County study of needs and desirability. ~~After project definition, a~~Additional public discussion to
9 be held during the project design phase, followed by project construction.
10

11 b. ~~Public discussion and County study of project design should occur in the later~~ Plan period. The
12 Public Works Department ~~County Council~~ should submit the six-year TIP Plan to the Planning
13 Department and Planning Commission for review and recommendation regarding its relationship
14 to policies and regulations of adopted County plans at least 45 days before the Council is
15 scheduled to adopt it for review and recommendations regarding its relationship to policies and
16 regulations of adopted County plans. ~~A copy of the recommendation should be provided to the~~
17 Public Works Director for comment before Council action.
18

19 34. Allocate County road funds in the following order of program priority:
20

21 a. Debt service;
22

23 b. Maintenance and preservation of County transportation facilities; and
24

25 c. Engineering and construction of improvements.
26

27 4. Rank County transportation facilities and services that require improvements using a priority rating
28 system which allots additional points for projects financed cooperatively. In addition, the County should
29 For improvement of transportation facilities and services, the County should:
30

31 a. Allow County roads to be improved by others, with approval from the County Engineer;
32

33 b. Cooperatively finance transportation facility and service improvements with land developers. The
34 amount of financial assistance should be based on a proportionate amount of increase in traffic
35 volumes attributable to the development project;
36

37 c. Consider forming transportation benefit districts and/or local improvement districts, when
38 cumulative land development projects cause transportation problems on County roads or to fund
39 needed transportation improvements;
40

41 d. Coordinate efforts with the Town of Friday Harbor for cooperative funding of road improvements
42 within the Town and its urban growth area; and
43

44 e. Seek to minimize regulatory impediments to investment in commercial transportation facilities,
45 by conducting a code review process and making needed code amendments.
46

47 5.6. Require that the estimated cost of providing those public transportation facilities, which are the
48 responsibility of the County, not exceed conservative estimates of revenues from sources that are

1 available to the County, pursuant to current statutes. Conservative estimates need not be the most
2 pessimistic estimate, but cannot exceed the most likely estimate.

3
4 ~~6.7.~~ Have the costs of needed transportation improvements be borne by both existing and future
5 development. These costs may be paid by grants, entitlements, or public facilities from other levels
6 of government and independent districts. For the purposes of this ~~Comprehensive Plan~~, "existing
7 development" means development which has occurred and "future development" means
8 development which has not yet occurred. ~~Financial responsibilities should be implemented as follows:~~

9
10 a. Existing Development

11 (1) Financial ~~responsibilities~~ includes:

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

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

19
20
21 b. Future Development

22 (1) Financial responsibilities include:

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

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

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

35
36 (4) Upon completion of construction, "future" development becomes "existing" development,
37 and will contribute to paying the costs of the replacement of obsolete or worn out facilities
38 as described in Policy ~~76~~6.a, above.

39
40
41 ~~c. Existing and Future Development~~

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

45
46 ~~7.8.~~ Revise the ~~Comprehensive Plan~~ to adjust for the lack of such revenues in the event that revenues
47 identified as necessary for the provision of adequate transportation facilities and services, ~~are but~~
48 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.
8. A portion of ? will be used to fund clean transportation initiatives that help reduce greenhouse gas emissions.
9. Consider managed retreat for locating transportation infrastructure away from climate impacted locations, as risk of failure increases or upgrade is required, to improve long-term resilience of investments.

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

Goals:

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.1-5):

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

1 include cooperation with the Town of Friday Harbor to analyze the correlation between traffic volume
2 increases on County roads and on town streets.

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

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

11 **6.2.D Communications and Information Technology Goals and Policies**

12 **Goal:**

13

14 **Goal:**

15

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

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

- 22
- 23
- 24 1. Promote the use of telecommunications systems ~~meetings~~ and facilitate remote work and
25 telecommuting in order to alleviate the need for additional, traditional transportation facilities.
- 26
- 27 2. Evaluate County business ~~operations~~ to identify opportunities to reduce individual travel and
28 encourage for the enhanced use of telecommuting and teleconferencing.
- 29
- 30 3. Encourage the development of county-wide, high-speed broadband service, with priority placed on ~~in~~
31 the Urban Growth areas, Town of Friday Harbor and business centers.
- 32
- 33 4. Encourage and support the development of, or expansion of, the County's data networking
34 infrastructure, in order to minimize reliance on vehicular travel.
- 35
- 36 5. Coordinate with local libraries, Skagit Valley College, and other entities to share telecommunication
37 resources.
- 38
- 39 6. Promote the use of social media, web-based applications, intelligent transportation system
40 development, and state transportation websites to provide information on transportation system
41 scheduling, real-time data, trip reduction, ride sharing, and nonmotorized travel options.
- 42
- 43 7. Utilize broadband technology and information systems to help create markets for locally produced
44 agriculture, trade, manufactured and intellectual goods, and ~~or~~ services.
- 45

46 **6.2.E Hazardous Materials Transport Goals and Policies**

47 **Goal:**

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

6
7 **Policies (6.2.E.1-6):**
8

- 9 1. Support strategies that address the risk of major fossil fuels and/or material spills that could occur
10 with current, as well as increased in transport vessel traffic.
11
12 2. Discourage the construction of fossil fuels trans-shipment facilities or other facilities and pipelines
13 through San Juan County or its waters that would compromise San Juan County's economy, public
14 health, safety, or water quality.
15
16 3. Ensure that transportation of hazardous materials or dangerous goods generated or used within the
17 County will meet established state and federal guidelines, and oppose the transportation of other
18 hazardous materials or dangerous goods that could endanger San Juan County's economy, public
19 health, safety, or water quality.
20
21 4. Improve the level of emergency preparedness for fossil fuel and material spills and other disasters,
22 by working with state, federal, and Canadian entities to develop and improve training and emergency
23 response plans, promote the location of response equipment in San Juan County, and support the use
24 of Best Achievable Protection Methods and Best Achievable Technologies.
25
26 5. Encourage responsible parties to locate spill response resources in San Juan County and to be
27 prepared to respond to material spills in waters surrounding San Juan County.
28
29 6. Advocate for the assignment of permit conditions on bulk shipping facility development project
30 permits, in order to guarantee the mitigation of all potential impacts from accidents that could
31 adversely affect San Juan County's economy, public health and safety, water quality, and fish and/or
32 wildlife habitat.
33

34 **6.3 AIR TRANSPORTATION GOALS AND POLICIES**
35

36 An inventory of aviation facilities and services, along with a ~~and~~ presentation of long-range planning
37 needs, is provided in ~~Section A~~ of Appendix 6 of this Comprehensive Plan. The following goals and policies
38 apply to land- and sea-based air transportation facilities and services.
39

40 **6.3.A Goals:**
41

- 42 1. To recognize the importance of public air transportation facilities to island commerce, as well as to
43 the mobility of island residents.
44
45 2. To promote optimum compatibility between air transportation facilities and services and other land
46 uses, in a manner that minimizes the impacts of airstrip, airfield, and airport use while maintaining
47 adequate, safe, efficient, and convenient service.
48

- 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

6.4 MARINE TRANSPORTATION GOALS AND POLICIES

Marine transportation includes the Washington State Ferry System (WSF) services and facilities, County marine facilities, 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 that~~ 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, ~~which 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, ~~while 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~~ WSF routes ~~that linking~~ 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 the Eastsound Urban Growth Area and the Lopez Village Urban Growth Area.
9. To provide public dock facilities on Shaw Island and other outer islands, if necessary.

6.4.A General Marine 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 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~~ Consider 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 evaluation of 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.1-1)~~:

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

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

17
18 With the help of the FAC, the County identifies solutions to on-going funding and service challenges and
19 promotes improvements in the ferry system through interactions with the WSF, the Washington State
20 Transportation Commission, and the State legislature.

21
22 **Policies (6.4.B.1-1):**

- 23
24 1. Consider the following primary factors while planning and developing marine transportation systems:
- 25
26 a. Existing marine terminal facilities and connecting roads are components of the marine
27 transportation system and have significant physical constraints which must be considered in
28 planning for changes to marine facilities and services;
 - 29
30 b. Transportation facilities and activities can have significant direct and indirect impacts on land use
31 and circulation patterns and the economic vitality of the community;
 - 32
33 c. Cost-effective and time-efficient ferry transportation is essential to island commerce;
 - 34
35 d. The County and the State of Washington have separate but complementary responsibilities for
36 inter-island marine transportation; and
 - 37
38 e. Washington State ferry routes are the primary economic routes for San Juan County.
- 39
40 2. Work with the state and federal government to encourage:
- 41
42 a. The long-term, sustainable funding of WSF service levels and capital funding for on-going ferry
43 construction needed to replace the aging fleet;
 - 44
45 b. The construction of a second ferry terminal slip with vehicle access in the Town of Friday
46 Harbor, to improve efficiency, scheduling flexibility and serve as a back-up slip;
 - 47

- 1 c. The dedication of funding needed to construct a commuter parking lot near the Friday Harbor
2 and Orcas and Lopez Island ferry terminals, and including priority funding to expedite
3 development of a lot on Department of Transportation property located in Orcas Village; and
4
- 5 d. The dedication of funding needed to improve the off-loading of passengers and vehicles,
6 especially at the terminal located in the Town of Friday Harbor.
7
- 8 3. Support the work of the FAC in collecting and interpreting data, gathering community input, and
9 providing recommendations to the County Council on ferry service improvement issues requiring
10 coordination with ~~the~~ WSF and the Washington Transportation Commission.
11
- 12 4. Support a local public review process conducted by WSF that seeks comments regarding potential
13 modifications to its administration of the adopted preferential loading policies identified in WAC 468–
14 300–700. This review process should include, but not necessarily be limited to, the Ferry Advisory
15 Committee. The County should support operations and procedures for processing requests for
16 preferential loading ~~which~~ that reflect local needs.
17
- 18 5. Submit requests to modify WAC 468–300–700 pertaining to preferential ferry loading to the FAC, who
19 will coordinate with WSF. The FAC should review and make recommendations on each request to the
20 San Juan County Council. The Council should make any formal recommendations to amend WAC 468–
21 300–700 to the Washington State Transportation Commission.
22
- 23 6. Coordinate with WSF, other regional transportation systems entities, and community transportation
24 partners and providers to promote non-vehicular traffic on ferries, in order to spread demand and
25 moderate increased demands on terminal facilities and County roads. To accomplish this, the County
26 should encourage WSF to:
27
- 28 a. Work with the County and Town to provide traffic control support near ~~t~~The Town of Friday
29 Harbor ferry terminal, and near and around the Orcas parking lot and County road ferry queue;
30
- 31 b. Consider the impacts of proposed service and facility improvements on traffic circulation at island
32 terminals, as well as ~~and~~ on County roads and Town streets;
33
- 34 c. Solicit resources to improve transit schedules and ~~transit~~ connections at ferry terminals and
35 coordinate ing with Skagit Transit and other transit providers; and
36
- 37 d. Promote the development of improved pedestrian, ~~and~~ bike, and shuttle access at terminals to
38 encourage walk-ons.
39
- 40 7. Coordinate with WSF to adjust operational practices, such as improving the use of information
41 technology to mitigate adverse impacts on safe traffic circulation and safety on island roads. The
42 County should encourage WSF to:
43
- 44 a. Promote operational and/or scheduling changes in preference to expanding terminal facilities;
45
- 46 b. Provide ferry boats in a vessel class that meet the needs of the County;
47
- 48 c. Separate the unloading of bicyclists and pedestrians from motor vehicles at island terminals;

- 1
- 2 d. Provide information regarding ferry and land transportation schedules at ferry terminals, on fixed
- 3 displays ~~for regarding~~ scheduled services and costs and on adjustable displays ~~for providing~~
- 4 current information on ferry operations, (e.g., overload status) and multimodal and transit
- 5 options;
- 6
- 7 e. Enhance user information by developing updated and new social media and mobile information
- 8 regarding ferry schedules, reservations, overloads, wait-times, and parking lot capacity; and
- 9
- 10 f. Work with the state legislature and WSF to add one additional ferry to the San Juan summer
- 11 schedule to service seasonal demand.
- 12
- 13 8. Encourage the WSF to coordinate with the County and other parties when passenger ferry terminals
- 14 or transfer floats are proposed by other parties, and on the preservation, expansion or improvement
- 15 of all terminal facilities consistent with County and Town of Friday Harbor land use plans, including
- 16 consideration of circulation patterns, potential public transit system connections, and public shoreline
- 17 access.
- 18
- 19 9. Identify community needs and desires, and support the 2040 WSF Long Range Plan vision which
- 20 depends on a coordinated set of investments in WSF's fleet, terminal infrastructure, workforce and
- 21 technology with a focus on building a reliable fleet that has a lighter footprint on the environment
- 22 and outperforms CO₂ reduction targets through the following strategies:
- 23 ~~encourage refinements in the ferry level of service, its methodology and standards and response~~
- 24 ~~mechanisms to ferry capacity and service issues.~~
- 25
- 26 a. Stabilizing the system to maintain reliable service through 2040 via vessel preservation and
- 27 replacement with new electric-hybrid vessels;
- 28
- 29 b. Improving the customer experience by enhancing connections for all users and harnessing
- 30 technology for an overall easier commute;
- 31
- 32 c. Managing growth by leveraging vessel, terminal and technology investments to provide strategic
- 33 service enhancements for operational efficiencies, while encouraging bicycle and walk-on
- 34 passengers; and
- 35
- 36 d. Providing sustainability and resilience in the fleet by investing in infrastructure to maintain reliable
- 37 service in a changing climate and reducing the environmental impact by employing adaptive
- 38 management strategies.
- 39
- 40 10. ~~Adopt WSF's level of service standard, Level 2 for ferry service which is based upon the daily percent~~
- 41 ~~of sailings at full vehicle capacity and is fully described in Section B of Appendix 6 of this~~
- 42 ~~Comprehensive Plan. Level 2 LOS indicates whether or not ferry assets are being used efficiently and~~
- 43 ~~when the LOS is exceeded, additional investment would be considered.~~
- 44
- 45 11. ~~Adopt WSF LOS Level 2 for ferry service for consistency with the WSF 2030 Long Range Plan although~~
- 46 ~~the WSDOT does not identify the Anacortes to San Juan Islands ferry route as a highway of statewide~~
- 47 ~~significance and concurrency requirements are not mandated.~~
- 48

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

4
5 a. ~~Re-evaluate the ferry LOS standard to determine if changes in available data, suggest that~~
6 ~~revisions of the LOS standards are appropriate. If changes are appropriate, amend this Element~~
7 ~~to revise the level of service standards.~~

8
9 b. ~~Work with WSF, the Town of Friday Harbor and other entities to consider and implement adaptive~~
10 ~~demand management strategies, designed to address increases in peak demand and improve the~~
11 ~~operation and efficiency of the ferry system. These strategies may include, but are not limited to,~~
12 ~~those outlined in the WSF 2030-2040 Long-Range Plan and identified by the County, including taking~~
13 ~~steps to:~~

14
15 ~~a.(1)Shift the demand from vehicle traffic to non-vehicular traffic, implement a vehicle~~
16 ~~reservation system, ride-sharing programs, improve passenger and pedestrian handling~~
17 ~~capabilities at terminals, enhance public transit scheduling and real time connection~~
18 ~~information, expand park and ride capabilities, decentralize parking or other parking~~
19 ~~improvements, improve pedestrian and bike connections, and provide new loading/facilities~~
20 ~~and new/expanded services.;~~

21
22 ~~b.(2)Promote alternative modes of transportation, such as private ferry systems, barges, air~~
23 ~~transportation, and passenger-only services, especially the location of a passenger ferry~~
24 ~~terminal at Bellingham which offer substantial benefits to island residents and, by~~
25 ~~encouraging passenger traffic, which could reduce need for expanded vehicle terminal~~
26 ~~facilities in the islands, etc.;~~

27
28 ~~c.(3)Work with WSF to establish a refine and update the reservation system that will to enable~~
29 ~~users to obtain assured ferry space to and that best meets the needs of residents, commercial~~
30 ~~enterprises, and other users, to expand the reservation system to include Lopez and Shaw~~
31 ~~islands, and to supports economic development.;~~

32
33 ~~d.(4)Optimize fare collection techniques and explore fare pricing options for different customer~~
34 ~~types, including fares that address the needs of local residents, frequent users, visitors, and~~
35 ~~off-peak, off-capacity, and promotional fares.;~~

36
37 ~~e.(5) Explore targeted, route-specific strategies to reduce queuing congestion traffic flow and~~
38 ~~smooth traffic flow queuing congestion at terminals, such as new traffic and dock space~~
39 ~~management techniques, parking, holding, and scheduling methods, and/or use of enhanced~~
40 ~~electronic and mobile user information applications and fare collection strategies that provide~~
41 ~~better customer service.;~~

42
43 ~~f.(6)Support data gathering and interpretation that provides real information upon which to base~~
44 ~~ferry operation and scheduling decisions.;~~

45
46 ~~g.(7)Promote and market the use of non-single occupancy vehicles, combined with transit~~
47 ~~enhancements.;~~ and

1 ~~h.(8)~~ Market tourism events and programs during times of greater ferry capacity, ~~and supporting~~
2 ~~with~~ promotional fares to spread demand to non-capacity sailings.
3

4 ~~11.13.~~ Take the following steps if ferry service level falls below ~~LOS 2~~ community needs and desires:

- 5
6 a. ~~Re-evaluate the LOS standard to~~ Determine if whether changes in available data indicate that
7 ferry assets are being used most effectively, and recommend that WSF move towards further
8 system investments; and
9
10 b. Evaluate the goals and policies contained in the Land Use Element and Shoreline Master Program
11 that affect the rate and amount of residential, commercial, recreational, and industrial growth
12 allowed.

13
14 ~~12.14.~~ Evaluate development for impacts ~~to~~ on ferry service and terminal parking through the SEPA
15 process, except for single-family residential proposals and other development proposals that do not
16 require SEPA.
17

18 ~~13.15.~~ Work with WSF to evaluate the effects that demand management strategies from the WSF 2030
19 Long Range Plan have on ferry terminal parking issues, and work together to consider the costs,
20 benefits, environmental and land impacts associated with the creation of additional parking capacity,
21 located either on-site at the ferry terminal or at remote locations, if demand management strategies
22 are not effective in reducing parking congestion issues.
23

24 ~~14.16.~~ Work with WSF to develop a meaningful LOS standard for ferry terminal parking that could be used
25 ~~to more effectively gauge the adequacy of~~ ferry terminal parking.
26

27 ~~17.~~ Support public and private transit and other multi-modal transportation system opportunities that
28 promote non-vehicular ferry trips and reduce the need for terminal parking.
29

30 ~~15.18.~~ Encourage WSF and the State to secure funding to construct adequate commuter or short-term (1-
31 3 days) parking areas at all ferry-served terminals as needed, after demand management strategies
32 have been implemented.
33

34 ~~16.19.~~ Support WSF plans to “Green the Fleet” and request prioritization of San Juan Island ferry service
35 for electric ferries to reduce fuel consumption and quiet ferries to reduce impact on orca whales.
36

37 ~~17.20.~~ Support WSF plans to improve resiliency by planning for earthquakes and climate change.
38

39 18. Support continued safe and effective transport of livestock on ferries per WAC 468-300-700(1)(p).
40

41 **6.4.C Policies for County Marine Facilities ~~Docks, Barge Landing Sites, Ramps and Associated Parking~~**
42 **Areas (6.4.C.1-10):**
43

44 Public marine facilities serve as extensions of the County road system, provide access for kayaks and other
45 boats, create access to popular water trails and recreation areas, are essential components of a thriving
46 economy, and are a significant element of the transportation system in an island community. ~~Appendix~~
47 ~~6, Section I.B.4.c of this Comprehensive Plan provides an explanation of marine facility level of service~~

1 (LOS). Tables 7 and 8 in Appendix 6 provides detailed dock inventories and current LOS information. for
2 three types of docks and dock service areas in the County.

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

10
11 The availability of sufficient barge landing sites and storage areas, and their safe use, are required and
12 development will be needed through the planning period to accommodate business development and
13 road building, especially if materials for road building must come from off-island providers. Barge landing
14 sites are also critical for emergency situations.

15
16 Marine facilities as an extension of the County road system shall be constructed on islands with County
17 roads. Proposed marine facilities are based on location, population served, needs of population served,
18 emergency response requirements and condition of existing facilities. Appendix 6 provides marine facility
19 demand and capacity assessments, and long-range planning recommendations.

20
21 **Policies (6.4.C.1-9):**

- 22
23 1. County and state responsibilities for inter-island services and marine facilities docks, barge landing
24 sites, ramps and their associated parking area facilities differ, but should be coordinated. The County
25 should:
- 26
27 a. Work with the port districts, island communities, and WSF when applicable, to coordinate the
28 planning, development, and maintenance of marine facilities docks, barge landing sites, ramps
29 and associated parking areas;
 - 30
31 b. Provide marine facilities public docks, barge landing sites, ramps and parking areas to facilitate
32 inter-island transport of goods and people, as essential public facilities and components of the
33 County road system that are available for public use, to facilitate inter-island transport of goods
34 and people and coordinate these facilities with potential passenger-only ferry service operations.
35 Support development of one barge landing site per island when consistent with the Shoreline
36 Master Program;
 - 37
38 c. Place emphasis on first providing adequate loading/unloading space on floats, and secondly on at
39 short-term tie-up space. Overnight moorage for recreational use should not be allowed, until a
40 feasibility study is conducted that includes an analysis of individual dock usage characteristics,
41 costs and benefits, strategies to minimize user conflicts, implementation and enforcement
42 measures, and a pilot program has been implemented and assessed;
 - 43
44 d. Include freight lifting equipment, where necessary or appropriate to facilitate;
 - 45
46 e. Encourage WSF to install loading/unloading floats or reasonable alternatives to them at all ferry
47 terminals, including the Anacortes terminal, to enhance inter-island travel and promote efficient
48 and convenient use of passenger-only ferry service;

- 1
- 2 f. Work with developers of small boat docks (loading/unloading floats) at ferry terminals designed to
- 3 improve marine access to the terminals from islands not served by ferries; and
- 4
- 5 g. Work with the local utilities to improve service to all marine locations, where possible.
- 6
- 7 2. ~~Locate County docks and ramps only on islands served by County roads. Barge landing sites should be~~
- 8 ~~located as needed. Preference should be given to locations where public shoreline access is available~~
- 9 ~~and where there is adequate parking space to serve the type of use anticipated. Potential connection~~
- 10 ~~to public vehicular transport should also be considered in establishing dock, ramp and barge landing~~
- 11 ~~site locations. Prioritize the use of existing County owned or private barge landings. Limit barge~~
- 12 ~~landings in critical areas unless no other option is viable.~~
- 13 Support the development of one public barge landing site per island, consistent with the Shoreline
- 14 Master Plan and where adequate parking space is available.
- 15
- 16 3. Prioritize County dock-marine facilities projects as follows:
- 17
- 18 a. Modifications and maintenance necessary for the safe usage of: (1) existing Type 2 County Docks.
- 19 ~~Type 2 County Docks are those County docks~~ marine facilities located on non-ferry served islands;
- 20
- 21 b. ~~Modifications and maintenance necessary for the safe usage of: (2) existing Type 1 County Docks.~~
- 22 ~~Type 1 County Docks are those County docks~~ marine facilities, located on ferry-served islands,
- 23 which provide primary access to ferry-served islands from non-ferry served islands; and
- 24
- 25 c. ~~Modifications and maintenance necessary for the safe usage of existing Type 3 (3) other existing~~
- 26 ~~County docks~~ marine facilities. ~~Type 3 County Docks are those County docks located on ferry-~~
- 27 ~~served islands which are primarily used for recreational purposes or are used for access between~~
- 28 ~~ferry served islands;~~
- 29
- 30 b.d. New Type 1 County marine facilities ~~docks~~ on non-ferry served islands without existing County
- 31 ~~docks~~ marine facilities; within service areas which have no existing County dock pursuant to the
- 32 LOS policies for County docks;
- 33
- 34 c.e. Capacity improvements to existing County ~~docks~~ marine facilities located on non-ferry served
- 35 islands; ~~Type 1 County docks~~ pursuant to the LOS policies for County docks;
- 36
- 37 d.f. New Type 2 County marine facilities located on ferry-served islands, which provide primary
- 38 access to ferry-served islands from non-ferry served islands within service areas which have no
- 39 existing County dock pursuant to the LOS policies for County docks;
- 40
- 41 e.g. Capacity improvements to other existing Type 2 County docks marine facilities pursuant to the
- 42 LOS policies for County docks; and
- 43
- 44 f.h. All other new or improved Type 3 County docks marine facilities.
- 45
- 46 4. ~~Establish LOS C as adequate for existing and new Type 1 County docks and LOS D as adequate for~~
- 47 ~~existing and new Type 2 County docks. Dock level of service is addressed in section B.4 of Appendix 6~~
- 48 ~~of this Comprehensive Plan.~~

1
2 5. For islands and locations where no County dock currently exists, establish LOS F as adequate. Annually
3 evaluate the condition, demand, and capacity of County docks marine facilities, in order to and review
4 the LOS standards and capital needs every three years as part of the development of the six-year
5 transportation facilities plan. prioritize maintenance and capital improvement projects based on the
6 annual evaluation. Evaluate alternative means of increasing capacity or decreasing demand. Include
7 in the evaluation the costs, benefits, and environmental impacts of expanding existing dock(s), leasing
8 facilities, requiring new development to provide access at private joint moorage facilities, or adding
9 additional public docks to serve the service area(s). Implement an appropriate mix of capacity
10 improvements and/or demand management strategies to bring the service back to a level identified
11 as adequate by this Element.

12
13 5.6. Consider the impacts of sea level rise, and accompanying flood and erosion hazards, and
14 opportunities to improve resiliency, when evaluating new development or maintenance of marine
15 facilities.

16
17 When the level of service for existing and new County docks falls below the LOS standards in Policy 4,
18 above, initiate the following response mechanisms:

19
20 a. ~~Re-evaluate the LOS standard to determine if changes in available data, and/or community needs~~
21 ~~or desires, make modification of the LOS standards appropriate; and/or re-evaluate the defined~~
22 ~~service areas to determine if they still accurately reflect the majority of the users. If changes are~~
23 ~~appropriate, amend this Element to revise the LOS standards. Identification of how new data,~~
24 ~~changes in community needs or desires, or changes in the designated service areas make changes~~
25 ~~appropriate should accompany any proposal to amend this Element.~~

26
27 b. Evaluate alternative means of increasing capacity or decreasing demand. Include in the evaluation
28 the costs, benefits, and environmental impacts of expanding the existing dock(s), leasing facilities,
29 requiring new development to provide access at private joint moorage facilities, or adding
30 additional public docks to serve the service area(s).

31
32 c. Implement an appropriate mix of capacity improvements and/or demand management strategies
33 to bring the service back to a level identified as adequate by this Element.

34
35 7. ~~Adopt and enforce concurrency standards which would prohibit development approval if it can be~~
36 ~~shown that the development would cause the level of service for Type 1 and Type 2 County docks to~~
37 ~~decline below the standards adopted in Policy 4, above, unless transportation improvements or~~
38 ~~strategies to accommodate the impacts of development are made concurrent with the development.~~
39 ~~Transportation improvements or strategies may include, but are not limited to those identified in~~
40 ~~Policy 6 above.~~

41
42 6.8. Provide County parking at Type 1 County docks where appropriate and necessary. In general, the
43 number of spaces to be provided should be based on the number of dwelling units in the service area
44 or the more detailed parking utilization study proposed in item 10 below.

45
46 9. Complete a dock utilization study which considers the availability of private and public dock space and
47 other dock use characteristics including typical dwell time, useable dock space, peak period use, dock
48 parking amenities, the percentage of non-resident users and other pertinent factors. Use the study

1 results to revise the dock LOS methodology and standards and to and to consider the adoption of a
2 dock parking LOS.
3

4 6.5 LAND TRANSPORTATION GOALS AND POLICIES

5
6 Land transportation facilities and services are inventoried and analyzed in Appendix 6, Section I.C of this
7 Comprehensive Plan. This Element addresses public and private roads, bridges, parking, bicycles, mopeds,
8 and transit service. Levels of service standards for County roads are also established presented in Section
9 I.C.1.b in Appendix 6 of this Comprehensive Plan.
10

11 **Goals:**

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

38 **6.5.A Policies for Road Classification, Right-of-Way, Design and Construction (6.5.A.1-15):**

39 Road Classification

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

47 Right-of-Way

- 1
2 3. Make County road rights-of-way widths adequate to accommodate anticipated improvements,
3 including utilities, franchise use options, telecommunications infrastructure, and nonmotorized
4 transportation facilities, and to maintain the roadway. A minimum twenty-year planning period
5 should be used for the purposes of anticipating needed improvements. ~~The County should:~~
6
7 a. ~~4. Obtain dedications of road rights-of-way when discretionary use permits or land division~~
8 ~~approvals are sought by property owners; and~~
9
10 b. ~~Ensure coordination between the County, Planning, Public Works, Parks, Land Bank, trail~~
11 ~~organizations such as the San Juan Island Trails Committee, Orcas Pathways, Lopez Community~~
12 ~~Trails Network, and other local, state and federal partners during the planning, development, and~~
13 ~~maintenance of nonmotorized transportation projects.~~
14
15 ~~5.4. Refrain from vacating public road rights-of-way needed to provide an adequate road system, access~~
16 ~~to private property, public access to, or a view of water bodies and links to trails systems.~~
17
18 ~~6.5. Approve parking on County road right-of-way if it will provide a public benefit; however, in rural~~
19 ~~areas, shoulders of County roads should not be widened or improved to provide parking for residential~~
20 ~~or commercial uses.~~
21
22 ~~7.6. Consider the inventory of County road ends which that abut shorelines, that which is included in the~~
23 ~~2010 San Juan County *Parks, Trails and Natural Areas Plan and Nonmotorized Plan* PTNA-NM, and~~
24 ~~evaluate their potential for marine access, recreational or other uses.~~
25
26 8. Support agriculture in the county by continuing to allow unrestricted movement of farm equipment
27 and machinery, as well as unrestricted driving of livestock, on County roads in a reasonable and
28 prudent manner.
29

30 Road Design and Construction

- 31
32 ~~9.7. Develop and adopt County road standards that meet minimum WSDOT and other applicable~~
33 ~~agency requirements and follow Complete Streets principles. The standards should protect rural~~
34 ~~character, provide for safety, the types and intensities of land uses to be served, volumes of traffic~~
35 ~~and transportation modes to be accommodated, and planning principles contained in the 1995~~
36 ~~Scenic Road Manual. These principles include the design and planning guidelines addressing the~~
37 ~~Protection of rural character and aesthetics.~~
38
39 10.9. Ensure that County road standards and practices are updated to reflect climate change projections,
40 and that new roads are sited appropriately and protected from sea level rise, increased flood and
41 erosion hazards, and storm surge.
42
43 ~~11.9. Support road designs that follow the goals and guidelines in the 1995 Scenic Road Manual until they~~
44 ~~are superseded by Council-adopted County road standards, as described in item 7 above. While safety~~
45 ~~of County roads is a primary concern, the design, construction, and maintenance of roads and right-~~
46 ~~of way trails should minimize adverse impacts on the scenic character of roadways that is provided by~~
47 ~~roadside trees, brush and terrain, the routes themselves and vistas from them.~~
48

1 ~~12.10.~~ Prevent the construction of public or private roads through areas designated Natural or
2 Conservancy areas in the San Juan County Shoreline Master Program, where a feasible alternative
3 exists.
4

5 ~~13.11.~~ Make use of the procedure provided in Chapter 36.86, RCW, to deviate from state standards for
6 collector roads when necessary to maintain their scenic qualities.
7

8 ~~14.12.~~ Include a thorough public participation program and interdisciplinary teams advisory to the County
9 Engineer, as early as practicable in the planning and design phases of major projects. Adjacent
10 property owners and other affected persons should be represented on interdisciplinary teams.
11

12 ~~15.13.~~ Strive to preserve the significant scenic, rural quality of island roads, including the San Juan Islands
13 Scenic Byway.
14

15 ~~16.14.~~ Establish alternative design standards for roads on non-ferry served islands that meet the specific
16 transportation needs of these islands.
17

18 ~~17.15.~~ Consider the creation of a local improvement district to finance improvements consistent with the
19 applicable activity center or subarea plan, when owners of property in activity centers desire road
20 improvements that exceed County requirements, such as sidewalks and curbs.
21

22 ~~18.16.~~ Consider using low-impact development techniques, when physically and economically feasible.
23

24 **6.5.B Policies for Driveway Approaches to County Roads, Setbacks, and Maintenance (6.5.B.1-3):** 25

26 1. Hold the number of driveway approaches to County roads to a minimum, in order to improve traffic
27 safety and minimize maintenance expenses.
28

29 2. Ensure that all structures are set back from road rights-of-way, ~~in order to maintain the rural and~~
30 ~~scenic character of County roads and provide for underground utilities~~ in compliance with county
31 codes.
32

33 3. Conduct maintenance of County transportation facilities by:
34

35 a. Keeping its transportation facilities in a usable and safe condition;

36 b. Assigning first priority to maintaining major and minor collector roads;

37 c. Supporting integrated control of noxious weeds within county road rights-of-way with
38 environmentally responsible practices per SJCC 18.60.090; and
39

40 de. Reducing the number presence of noxious weeds occurring over the long term by minimizing to
41 the extent that safety allows clearing of vegetation, particularly trees, in road rights of ways.
42 Scheduling clearing should be coordinated with the tourism season in mind. Developing and
43 implement programs as legally required under Chapter RCW 17.10 and Chapter WAC 16.750 to
44 remove noxious weeds, controlling the spread of their seeds prior to mowing and reducing the
45 spread of noxious seeds after mowing by sweeping and removing refuse from the roadway.
46
47
48

- 1 d. Do not use herbicides, pesticides, toxic substances, or other chemicals for weed control or other
2 purposes in road rights of way.
3

4 **6.5.C Policies for Land Transportation Level of Service (LOS) (6.5.C.1-7):**
5

- 6 1. Establish LOS standards and response mechanisms for land transportation facilities and services which
7 balance the needs of the community for land transportation with the impacts of those facilities and
8 services.
9
- 10 2. ~~Establish LOS standards for collector roads and UGA and Activity Center Intersections based upon~~
11 ~~Average Annual Daily Traffic (AADT) volumes. For San Juan County, the maximum AADT levels for~~
12 ~~specific LOS standards are provided in Appendix 6, Transportation of this Comprehensive Plan.~~
13
- 14 3. ~~Adopt~~ Establish LOS D as adequate for County collector roads. LOS D is defined as traffic flows
15 approaching unstable flow and can be described as speeds slightly decreasing and volumes slightly
16 increasing, as that condition during the peak hour when average vehicle operating speeds drop to 35
17 miles per hour, platoon sizes are typically 5-10 vehicles, and 75 percent of the motorists are delayed
18 by congestion or slower vehicles.
19
- 20 3. Adopt UGA intersection LOS () as adequate for Eastsound and Lopez Village key collector road
21 intersections. Key collector road intersections are defined by the County Engineer. For Urban Growth
22 Areas and Activity Centers, conduct intersection studies to determine the current LOS and evaluate
23 future needs,.
24
- 25 4. ~~Initiate the following response mechanism wWhen a County collector road Annual Average Daily~~
26 ~~Traffic (AADT) exceeds the LOS D standard, perform a traffic study to evaluate alternatives to increase~~
27 ~~capacity and/or decrease demand and define an implementation schedule.:~~ road falls below LOS-D,
28 based on the AADT:
29
- 30 a. ~~Perform a traffic study to evaluate a collector road outside of an activity center by calculating the~~
31 ~~LOS using the methods described in the most current edition of the Highway Capacity Manual,~~
32 ~~and data for the specific section of a collector road outside of an activity center;~~
33
- 34 b. ~~Re-evaluate the LOS standard to determine if changes in available data, and/or community needs~~
35 ~~or desires, make modification of the LOS standards appropriate. If changes are appropriate,~~
36 ~~amend this Element to revise the LOS standards. Identification of how new data or changes in~~
37 ~~community needs or desires make changes appropriate should accompany any proposal to amend~~
38 ~~this Element;~~
39
- 40 c. ~~Initiate an evaluation of alternatives for increasing capacity and/or decreasing demand. The~~
41 ~~alternatives considered should:~~
42
- 43 (1) ~~include demand management strategies and other non-structural improvements,~~
44
- 45 (2) ~~be cost effective,~~
46
- 47 (3) ~~not significantly increase adverse impacts of the transportation facility on surrounding land~~
48 ~~uses or the natural environment,~~

1
2 ~~(4) be consistent with the goals and policies of this Element and the other elements of the~~
3 ~~Comprehensive Plan, and~~

4
5 ~~(5) include the evaluation of the goals and policies contained in the Land Use Element and~~
6 ~~Shoreline Master Program that affect the rate and amount of residential, commercial,~~
7 ~~recreational, and industrial growth allowed;~~

8
9 ~~d. Begin implementation of an appropriate mix of capacity improvements and/or demand~~
10 ~~management strategies to bring the facility(s) back to a level identified as adequate by this~~
11 ~~Element within one year.~~

12
13 5. Adopt and enforce concurrency standards ~~which that~~ would prohibit development approval if the
14 development causes the AADT ~~level of service to exceed the LOS D standard or exceed intersection~~
15 ~~LOS standards.~~ for the collector roads to exceed the decline below the standard adopted in Policy 3,
16 ~~above, unless transportation improvements or strategies to accommodate the impacts of~~
17 ~~development are made concurrent with the development. Transportation improvements or strategies~~
18 ~~may include, but are not limited to those identified in Policy 4, above.~~

19
20 6. ~~Develop specific LOS standards for collector roads when needed inside of urban growth areas or~~
21 ~~activity centers as part of the planning for individual activity centers.~~

22
23 7. Do not require concurrency for any other land transportation facilities.

24
25 **6.5.D Policies for Private Roads (6.5.D.1-2):**

26
27 1. Private roads should not be incorporated into the County road system, unless public benefits are
28 substantial and the County's road design standards are met.

29
30 2. Establish standards for private roads in accordance with the following:

31
32 a. Establish private road standards to provide adequate vehicular safety, low maintenance, and
33 meet anticipated vehicular demand;

34
35 b. Require private roads to avoid and minimize environmental impacts and maintain the scenic
36 character of island roads;

37
38 c. Subject roads developed as part of land development or new subdivisions to develop
39 maintenance agreements when necessary;

40
41 d. Consider adoption of lesser road standards for islands not served by ferries; and

42
43 e. Require improvements to off-site private roads in approving a land development, if these roads
44 serve the development and do not meet applicable design standards.

45
46 **6.5.E Policies for Parking (6.5.E.1-7):**

- 1 1. Encourage the development of community parking facilities in all areas designated as activity centers
2 in County land use and subarea plans. Shared parking among separate facilities should be provided,
3 if other applicable parking requirements allow.
4
- 5 2. Provide off-street parking areas open to the public, where they would serve transportation facilities
6 or meet community needs.
7
- 8 3. Encourage the business community in commercial core areas to provide parking areas in locations
9 where they would relieve traffic congestion and accommodate taxi, van, and bus services without
10 disrupting traffic circulation. Design and location should be carefully considered in accordance with
11 applicable area plans.
12
- 13 4. Provide parking areas on the nearest ferry-served island to accommodate residents of non-ferry
14 served islands, after considering possible funding mechanisms, costs and benefits, and possible
15 parking lot locations.
16
- 17 5. Consider the use of local improvement districts or other administrative and financing structures when
18 desired to build, operate and maintain community parking areas.
19
- 20 6. All major transportation facilities should include adequate off-street parking areas.
21
- 22 7. All parking areas associated with new public or private development should:
23
 - 24 a. Include safe ingress and egress;
 - 25 b. Be screened or well set back from roads;
 - 26 c. Reflect adequate design for ease of use;
 - 27 d. Provide for the physically impaired; and
 - 28 e. Provide for alternative forms of transportation.

33
34 **6.5.F Policies for Motorized Bicycles and Mopeds. (6.5.F.1):**

35
36 ~~Mopeds are small motorcycles that have less stringent licensing requirements than motorcycles and do~~
37 ~~not include motorized bicycles. They are important modes of transportation used by residents and visitors~~
38 ~~to the islands. The use of mopeds, requires planning for the development of transportation facilities and~~
39 ~~operations that promote safe travelling experiences for all users and benefit the local economy.~~

- 40
- 41 ~~1. Promote enforcement of road rules and speed limits, and educate the public how to share the road~~
42 ~~safely.~~
- 43
- 44 ~~2. Evaluate the potential to improve safety by reducing the speed limits on high use or other County~~
45 ~~road segments with unique characteristics considering the legality, usage, season,~~
46 ~~events and practicality.~~
- 47

1 ~~3. Require that moped vendors provide and enforce the use of protective headgear when required by~~
2 ~~State law and give written and oral instruction regarding safe operation of mopeds as part of a land~~
3 ~~use project permit approval.~~

4
5 ~~4. Encourage WSF to unload mopeds in a safe and efficient manner.~~

6
7 **6.5.F Policies for Bicycles and Mopeds. (6.5.F.1):**

8
9 Motorized bicycles and mopeds are modes of transportation used by both residents and visitors to the
10 island. Increases in the number of bicycling and moped enthusiasts require planning for the development
11 of transportation facilities and operations that promote safe travel experiences for all users, and also
12 benefits the local economy.

13
14 1. Safe facilities and programs for use of bicyclists, (standard bicycles and motorized bicycles) should
15 be developed by the County and addressed in updates to the PTNA-NM.

16
17 2. The County and its economic and community development partners should:

18
19 a. Require that moped vendors provide and enforce the use of protective headgear when
20 required by State law, and give written and oral instruction regarding the safe operation
21 of mopeds, as part of a land use project permit approval;

22
23 b. Identify other ways to foster recognition of rights and responsibilities in the use of County
24 roads by both motorists and cyclists;

25
26 c. Sweep road shoulders regularly to facilitate safe use by cyclists and mopeds;

27
28 d. Encourage WSF to load and unload bicyclists and mopeds in a safe and efficient manner;

29
30 e. Include parking facilities for bicycles and mopeds at public transportation facilities, and
31 encourage commercial developments and other traffic generators to provide parking
32 facilities away from pedestrian paths;

33
34 f. Promote the enforcement of road rules and speed limits and educate the public on how
35 to share the road safely, and

36
37 g. Evaluate the potential to improve safety by implementing road design changes on high-
38 use or other County road segments with unique characteristics, taking into account
39 legality, usage, season, events and practicality.

40
41 ~~3. Require that moped vendors provide and enforce the use of protective headgear when required~~
42 ~~by State law and give written and oral instruction regarding safe operation of mopeds as part of~~
43 ~~a land use project permit approval.~~

44
45 ~~4. Encourage WSF to unload mopeds in a safe and efficient manner.~~

46
47 **6.5.G Transit Goals and Policies:**

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

5
6 **Goals:**

- 7
8 1. To encourage and support development of public and private transit and shuttle services.
9
10 2. To improve access to health and human services, employment, social, educational, recreational, and
11 tourism destinations.
12
13 3. To improve mobility and quality of life for residents and workers.
14
15 4. To increase transportation options for tourists and guests.
16
17 5. To encourage alternatives to the use of single-occupant vehicles.
18
19 6. To consider transit operations in roadway designs.
20

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

- 22
23 1. Support the development of social service public transit options and the work of nonprofit and private
24 community transportation partners to:
25
26 a. Reduce the isolation of target populations;
27
28 b. Increase accessibility to transportation services; and
29
30 c. Address seasonal tourist travel peaks through the development of transit alternatives; and
31
32 d. Create additional organizational capacity to sustain implementation of community identified
33 transportation needs.
34
35 2. Support the work of community transportation partners ~~such as San Juan Community Services, Senior~~
36 ~~Services, Family Resource Centers, San Juan Friends and Neighbors Program, SJ Rideshare, social~~
37 ~~service organizations and private transportation providers to evaluate public transit needs, further~~
38 ~~identify opportunities for service coordination, and implement actions described in the 2010 San Juan~~
39 ~~County Coordinated Human Services Transportation Plan~~ CHST to
40
41 3. ~~Encourage the development of transportation services that~~ meet the needs of the community,
42 especially individuals with lower incomes, seniors, persons with disabilities, and veterans.
43
44 4. ~~Support coordinated human services transportation planning that creates improved access to~~
45 ~~transportation information, develops economies of scale, eliminates inefficiencies, and provides greater~~
46 ~~visibility of transportation options.~~

1 ~~4.5-Explore and support the collaborative efforts of community organizations, state and federal partners,~~
2 ~~and transportation providers to provide cost-effective service delivery, to increase capacity to serve~~
3 ~~unmet needs, and to improve mobility and the quality of transportation services.~~

4
5 ~~5.4-Support community transportation planning efforts focused on gaining a better understanding of the~~
6 ~~transportation needs of the San Juan Islands, creating new methods of island travel, raising awareness of~~
7 ~~transportation issues, and exploring private and public funding for new public transportation solutions.~~

8
9 ~~6.5-Leverage community resources to obtain appropriate state and federal funding for transit projects~~
10 ~~that address both year-round and seasonal transit challenges.~~

11
12 ~~7.8-Coordinate with the WSDOT Public Transportation Division to implement high-priority projects~~
13 ~~identified by the community, using the ranking criteria for selecting projects established in the San Juan~~
14 ~~County 2010 Health and Human Services Transportation Plan CHST.~~

15
16 ~~9.Support private and nonprofit efforts to address seasonal tourism travel peaks through the~~
17 ~~development of transit alternatives.~~

18 19 **6.6 INTERGOVERNMENTAL AND REGIONAL COORDINATION GOALS AND POLICIES**

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

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

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

42 43 **Goals:**

- 44
45 1. To plan, prioritize, and finance transportation improvements in coordination with portions of local,
46 regional and state transportation plans.

2. To coordinate with multiple agencies and jurisdictions to facilitate the efficient transportation of people, goods, and services, in order to strengthen the local and regional environment and 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~~ to solves regional transportation issues and for 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~~ CPP 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 Goals. ~~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 Goals ~~TE-23.~~
4. Cooperate with WSDOT, ~~t~~The Town of Friday Harbor and the Port of Friday Harbor during the development of aviation facilities and consistent with the Town of Friday Harbor's Comprehensive Plan - General Air Transportation Policies ~~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 the 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, in order to reduce vehicular traffic in downtown Friday Harbor and on County roads and 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:

1 ~~“Identify areas and mechanisms for potentially collaborative projects so that~~
2 ~~multiple jurisdictions can share costs and efficiencies.”~~
3

- 4 8. Inform the North Sound ~~Connecting Communities Group~~ Transit Alliance-NTSA (aka Farmhouse Gang)
5 and adjacent RTPOs of San Juan County’s transportation issues and identify coordination issues.
6
7 9. Work with neighboring counties, as well as ~~and~~ the Skagit, Island RTPOs and Whatcom RTPOs to
8 recommend and develop planning goals, policies, and plans that address regional issues.
9
10 10. Coordinate with transportation planners in Whatcom and Skagit counties and Canada to develop
11 compatible transportation recommendations that support efficient trade and commerce.
12
13 ~~11. Coordinate with the Skagit County Island RTPO to support the continued provision of ferry service~~
14 ~~between to and from Anacortes-San Juan Islands and -Vancouver Island, B.C. consistent with Skagit~~
15 ~~County Transportation Element Policy 8A-5.6 to:~~

16
17 ~~“Support the State’s continued provision of ferry service to and from Anacortes-~~
18 ~~San Juan Islands-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, environmental sustainability, and
22 implement ~~compatible~~ transportation plans compatible with those of the County and neighboring
23 RTPOs.
24
25 13. Coordinate with other jurisdictions, public transit providers, agencies, and other entities, to promote
26 multimodal travel options and promotions that provide alternatives to the single-use passenger
27 vehicle.
28
29 14. Coordinate with ~~the~~ WSF, ~~and~~ the Skagit County RTPO, and the Whatcom RPTO to improve intermodal
30 connectivity between public transit operations on the mainland and WSF ferry-service.
31
32 15. Periodically assess the costs and benefits of joining an RTPO.
33
34 16. Continue to promote ~~Establish better~~ communications and coordination between the County and the
35 Port Districts within the County.
36
37 17. Participate in statewide transportation planning organization teleconferences.
38
39 18. Work with the Governor, Legislature and WSF to prioritize the San Juan Islands for construction of
40 new, quieter, hybrid-electric ferries to modernize our aging fleet, ensure reliable ferry service, and
41 benefit our waters and whales.
42
43
44
45

2036 Comprehensive Plan
Transportation Element Briefing

Attachment B
2020-06-30 Transportation Element
Appendix 6 Track Changes

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COMPREHENSIVE PLAN

APPENDIX 6

TRANSPORTATION

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

06/30/2020



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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 Washington State Ferry (WSF) 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. The Washington State Office of Financial Management (OFM) estimates the County 2016 population as 16,314. 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. Based on ferry ridership data presented in the WSF Traffic Statistics Rider Segment Report for July 1, 2017 through September 30, 2017; 767,671 people (drivers and passengers) travel to the San Juan Islands from Anacortes during this two-month timeframe:~~

- ~~• 11,331 to Shaw Island;~~
- ~~• 118,299 to Lopez Island;~~
- ~~• 254,056 to Orcas Island; and~~
- ~~• 352,391 to San Juan Island.~~

~~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.~~

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

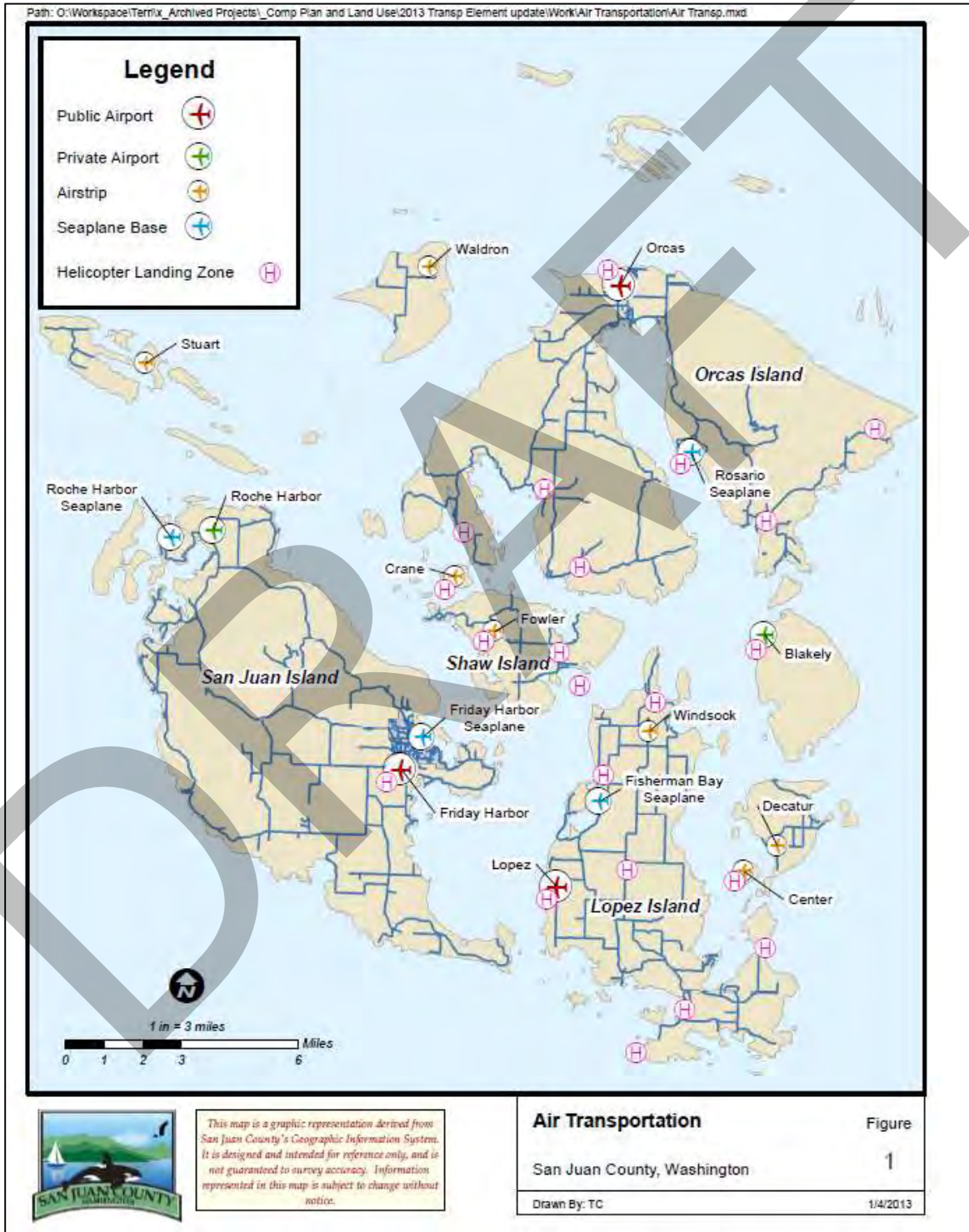
~~Appendix 6 to the Transportation Element provides information regarding existing transportation facilities, demand/capacity analysis, expenditure/revenue analysis, and planning recommendations to ensure adequate current and future transportation capacity.~~

A. Air Transportation

~~Aviation is a vital transportation component connecting non-ferry served island to other locations in the island and to the mainland, providing passenger travel, freight and mail transport, medical evacuation to mainland hospitals, disaster staging/relief, and other essential services. 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~~

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

7 **Figure 1. Air Transportation.**



8

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

2 Friday Harbor, Orcas and Lopez have commercial airline connections to Seattle, Bellingham, Anacortes
3 and other mainland destinations, and these services are used by residents as well as visitors to the islands.
4 Aviation is a vital transportation component connecting non-ferry served islands to other locations in the
5 islands and to the mainland, providing passenger travel as well as freight and mail transport, medical
6 evacuation to mainland hospitals, disaster staging/relief and other essential services.
7 The Ports of Friday Harbor, Orcas and Lopez receive federal funding through the Federal Aviation
8 Administration for improvements at the major public island airports. Capital projects funding is also
9 available through the Washington State Department of Transportation/ Aviation Division.

10
11 **a. Friday Harbor Airport**

12 Friday Harbor Airport is classified as a commercial service airport, which is owned and operated by
13 the Port of Friday Harbor. Its location spans the Town of Friday Harbor’s (Town) boundary with San
14 Juan County. The airport is a “primary service” airport. ~~with more than 10,000 commercial~~
15 ~~enplanements each year.~~ Its location adjacent to the Town makes it a destination for recreational
16 pilots from throughout the region.

17
18 Friday Harbor Airport has a 3,400-foot runway that is rated for aircraft of 12,500 pounds. The airport
19 designation is B-1 Small. ~~The largest commercial aircraft serving the airport carry nine passengers.~~
20 ~~The airport facilities include 55 Port-owned hangars, 45 private hangars, and 87 tie-downs of which~~
21 ~~45 are reserved for visiting aircraft. As of 2012, the airport has 135 based aircraft. A passenger~~
22 ~~terminal provides a base for commuter airlines to conduct business. Other business activities include~~
23 ~~air freight, air charter, flight training, full-service aviation mechanic and medical evacuation to~~
24 ~~mainland hospitals by helicopter or fixed-wing air ambulance. Business activities include passenger~~
25 ~~terminal, air freight, air charter, flight training, full-service aviation mechanic, and medical evacuation~~
26 ~~to mainland hospitals by helicopter or fixed-wing air ambulance.~~ The airport is adjacent to Peace
27 Island Medical Center. Friday Harbor Airport, the Friday Harbor Seaplane Base and the Roche Harbor
28 Seaplane Base are served by U.S. Customs and Border Protection personnel, who clear hundreds of
29 international flights each year. Friday Harbor Airport has an average of 50,000 to 60,000 operations
30 each year. ~~Recent years have seen just over 10,000 annual passenger enplanements, with the~~
31 ~~majority of passengers embarking on flights to Seattle. Comprehensive airport details are available in~~
32 ~~the airport master plan on the Port of Friday Harbor website.~~

33
34 **b. Orcas Island Airport**

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

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

47 ~~The airport has a 1500 sq. foot terminal, recently remodeled passenger waiting area, a public-~~
48 ~~use/conference room and office space for conducting port operations. There are 53 designated~~
49 ~~aircraft tie-down spaces, including 30 turf spots. The federal aircraft registry counts 70 aircraft using~~

1 the Orcas Island Airport as their home base, meaning they are either housed on the field or have
2 deeded residential through the fence access.

3 4 **c. Lopez Island Airport**

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

14 15 **d. Seaplane Facilities and Services**

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

21 22 **2. Long-Range Planning Needs Demand/Capacity**

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

29 30 **a. Friday Harbor Airport**

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

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

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

- 46 ● Replace hangars
- 47 ● Replace or rebuild airport fuel facility
- 48

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

8 9 **b. Orcas Island Airport**

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

22 ~~By the end of 2017, the following improvements are anticipated:~~

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

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

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

41 42 **c. Lopez Island Airport**

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

46 In its 2012 "Airport Compliance Inspection Report" the Federal Aviation Administration (FAA) listed
47 both ends of the airport as unsafe for landing aircraft, because of the obstructing trees. In 2013-2014,
48 the Port acquired most of the critical parcels at each end of the airport and it has removed most of
49 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	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.

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 **1. Washington State Ferry System**

2 The marine linkage between the islands within the county and the 'mainland' of Washington State
3 has supported the economy of the county for over 100 years. In the 1920's when the fruit growing
4 industry in the islands was vibrant, it was the necessary marine connection between the orchards in
5 the island valleys and the markets throughout the state and beyond that made the farmers successful.
6 Washington State Ferries is the principal provider of marine transportation between the islands of
7 San Juan County (San Juan, Orcas, Shaw and Lopez) and the mainland via Anacortes, Washington and
8 Canada through Sidney, B.C.; see Figure 2. Island terminals contain ferry holding lanes, commuter
9 parking lots and waiting areas. Schedules and routes vary from year to year as well as season-to-
10 season, but in general a greater number of larger vessels are employed during the summer months
11 than in the winter.

12
13 Demand for ferry services on the San Juan County route is highly variable. That variability is
14 manifested in substantial differences in demands depending upon the season, the day of the week,
15 and the hour of the day. The complexity of these demand variables contributes to the difficulty in
16 planning for the impacts on ferry service throughout San Juan County. The summer season, between
17 mid-June and mid-September, is the busiest season, with the highest peak demand occurring in July
18 and August. By contrast, the least busy period is the 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 by WSF.
21 The transportation needs of the County residents, commercial companies providing goods and
22 services to those residents, and those visitors/tourists that support the County economy all contribute
23 to the planning matrix that meets those collective demands. The fourth segment is the need to move
24 those same customers within the islands of San Juan County.
25

26 **Figure 2. Marine Transportation - Washington State Ferries.**



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 the ferry
3 landing, and the reservation system. Currently, all ferry facilities are planned to accommodate and
4 handle the highest peak of demand occurring in the summer months.

5
6 **Ferries:** The assignment of ferry vessels during the year is a function of seasonal varies seasonally
7 based on demand. The specific boats vary seasonally and also with maintenance needs and
8 unanticipated repairs. Table 2 provides an inventory of the boats that may ferries that typically serve
9 the San Juan Islands at any one time.

10
11 **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

12
13 During the summer period there are five vessels assigned to the Anacortes terminal. In general, three
14 of the ferries are Super-class providing service between Anacortes and the four island terminals.
15 ~~One~~The fourth is an Issaquah-class boat assigned to the international service connection with Sidney,
16 B.C. The fifth ferry is a smaller boat, assigned to interisland service. The five ferries represent 25%
17 22% of the current WSF fleet, although the San Juan Islands represent about 10% of the total system
18 traffic demand.

19
20 During the shoulder seasons, fall and spring, one Super-class ferry is typically removed. The two
21 remaining Supers continue to provide mainland service and the Issaquah-class ferry divides service
22 between one round-trip per day to Sidney, B.C. and service to the islands on the second work shift.
23 The interisland service remains the same.

24
25 In the winter period, service to Canada is discontinued, and that vessel provides service to the islands.
26 During this season, the interisland ferry is not in service on the weekends, such that for three months
27 there are two different schedules for the weekly period within each week. The four ferries assigned
28 to the islands during the winter period represent 20% 17% of the fleet providing service to while
29 representing about 7% of the system demand.

30
31 **Ferry Parking and Services:** WSF provides parking facilities at each of the island ferry terminals and
32 has a contract with San Juan County for maintenance of the parking lots.

33
34 **San Juan Island:** WSF operates a paved park-and-ride lot for ferry patrons, located south of the
35 intersection of Nichols Avenue and "B" Street, just east of the upper auxiliary holding area. This lot
36 has a capacity of 57 spaces. Some walk-on ferry patrons park in front of the Town of Friday Harbor's

1 Sunken Park, at the intersection of "B" Street and Nichols Avenue, and some park on Nichols Avenue,
2 adjacent to the north boundary of the upper boundary of the upper auxiliary holding area. The Town
3 of Friday Harbor (Town) is within walking distance of the ferry landing and provides a wide range of
4 services and resources. Traffic in Town is significantly impacted by ferry unloading.
5

6 ***Orcas Island:*** WSF provides parking in two areas at the Orcas ferry terminal, located in Orcas Village.
7 West of the upper holding lanes are 20 parking spaces along the southern boundary of the entrance
8 to the holding lanes. Parking is available at this location daily excluding Sundays and holidays and is
9 primarily used by commuters and day trippers.
10

11 Just to the south of the upper holding lanes is another parking area, which contains 36 parking spaces
12 ~~with and~~ one ADA parking stall. This lot is adjacent to the public restroom and is used by commuters
13 and long-term travelers. This parking lot is posted for a maximum parking limit of 72 hours. This
14 parking lot is typically full, particularly in the summer months.
15

16 ~~Historically, Overflow overflow parking tends~~ tended to occur at various locations within Orcas Village.
17 Overflow parking along road shoulders, particularly along Orcas Road to the north and Killebrew Lake
18 Road to the east, ~~are were~~ the areas most impacted during the summer season. These areas are
19 uncontrolled and unsigned.
20

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

24 ~~WSF owns a parcel just to the north of the holding lanes. In the past, there was discussion of the~~
25 ~~parcel being developed for additional parking, but there are no current plans to do so.~~ To the east of
26 the ferry terminal and adjacent to the Post Office, there are three private parking lots. ~~Directly north~~
27 ~~of the loading ramp is a waiting area with a ferry ticket vending machine and newspaper box.~~ Orcas
28 Landing, within walking distance of the ferry landing, has a grocery store, hotel, restaurants, post
29 office, retail shops, and rental car services.
30

31 In 2017, WSF made safety improvements to the ferry landing, including relocating the ticket booth to
32 enlarge the roadway for large vehicles exiting the ferry, pedestrian/bicycle safety and accessibility
33 improvements, and side upgrades.
34

35
36 ***Lopez Island:*** Parking for ferry patrons is provided in two areas in close proximity to the Lopez
37 terminal. A WSF-owned, gravel parking lot containing 58 spaces is located 200 feet south of the
38 terminal building and east of the vehicle holding area. The parking lot is posted for a maximum parking
39 limit of 72 hours. This parking lot is usually filled to capacity during the summer months. When the
40 lot is full, overflow traffic parks along the western road shoulder beyond Penny Lane (entrance to
41 Land Bank preserve). The shoulder is posted for no parking from 1 a.m. to 5 a.m.
42

43 A small paved parking lot owned by WSF is located across from the terminal building and contains ~~14~~
44 4 spaces, signed posted for 10 minute parking. Four spaces are reserved for ferry employees, ~~and 2~~
45 more spaces are labeled for ADA, ~~with and~~ one ~~spot~~ for the local taxi. The total present parking supply
46 in the vicinity of the Lopez Island ferry terminal is approximately ~~79~~ 69 spaces.
47

48 The remoteness of the terminal location means that there is no other alternative to parking or being
49 dropped off at the terminal ~~except for the use of a taxi available on the island.~~ There are no park-and-

1 ride lots on Lopez.
2

3 There are four car holding lanes. The easternmost lane (Lane 1) is reserved for Anacortes-bound
4 vehicles. When the number of cars exceeds the lane capacity, cars park and wait along the eastern
5 road shoulder. During the peak summer periods, ~~the~~ this extension of Lane 1 may contain cars backed
6 up in the shoulder nearly to Odlin Park, a distance of one mile to the south.
7

8 Available services within the Lopez terminal include a ferry ticket vending machine, a newspaper box,
9 a community bulletin board, and a display of used books for sale which is stocked by Friends of the
10 Lopez Library. Outside the terminal are three portable toilets, within the small paved parking lot. Two
11 more portable toilets are located on the rise east of the large, gravel parking lot.
12

13 ~~A privately-owned espresso stand with vending machines is located adjacent to the small, paved~~
14 ~~parking lot and is typically open during the shoulder and summer seasons with limited hours.~~
15

16 **Shaw Island:** The Shaw Island ferry landing was rebuilt in the mid-1990's and currently includes two
17 regular holding lanes, one oversize holding lane, and 6 parking spaces which ~~include~~ including one
18 ADA space. A restroom facility, a small customer waiting room and a ferry office are also located at
19 the dock. A bike rack is located east of the transfer span.
20

21 One holding lane is used exclusively for interisland ferry traffic and can accommodate 11-12 vehicles.
22 The second holding lane is used exclusively for the Anacortes-Shaw route and can accommodate 12-
23 13 vehicles. Capacity of the holding lanes is usually adequate for vehicle queuing, except for busy days
24 and weekends ~~in~~ during the summer when the Anacortes lane is regularly overloaded. Overloading of
25 the ferry holding lanes creates a safety concern as vehicles queued for the ferry extend out into the
26 northbound driving lane of the county road, up a steep hill and around a blind corner.
27

28 In addition to the facilities provided by Washington State Ferries, there is a privately owned store with
29 about 8 parking spots, located just north of the ferry holding lanes. The store is the only commercial
30 retail facility on Shaw Island and is regularly visited during daylight hours throughout the year. The
31 store complex includes the Shaw Island Post Office, which generates a significant number of vehicle
32 trips each day. Traffic visiting the store and/or post office must cross the loading and unloading ferry
33 traffic to reach their destination.
34

35 A privately-owned gravel parking area, adjacent to and west of the county road between the ferry
36 holding lanes and the oversize vehicle lane, is available for public parking. This area is often filled to,
37 or beyond, capacity during the daytime because it is used by commuters who walk on to the
38 interisland ferry. Approximately 10 parking spaces are available in this location.
39

40 Long-term lease parking is provided by the Shaw General Store to the east of the ferry holding lanes.
41 Approximately 10-12 spaces are available. Several of these spaces are permanently leased by utility
42 service providers, such as OPALCO, Century Tel, and San Juan County.
43

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

45 ~~In 2009, the Washington State legislature adopted the Washington State Department of~~
46 ~~Transportation Ferries Division Final Long Range Plan: 2009-2030 (Long Range Plan). The goal of the~~
47 ~~WSF Long Range Plan was to establish new operational and pricing strategies to meet the needs of~~
48 ~~ferry customers and identify vessel and terminal operations and capital requirements into the future.~~
49 ~~One of the primary challenges since the adoption of the Long Range Plan has been to identify a stable~~

1 source of capital funding. The funding source has yet to be identified, thus a number of the projects
2 and programs identified in the Long-Range Plan have not yet been implemented.

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

7 **Historical Background:** After a long period of service throughout the islands by independent
8 transportation providers, Black Ball Lines of Port Angeles, WA became the primary operator of ferry
9 service from the mainland to the islands of San Juan County. The State of Washington purchased the
10 assets of Black Ball in 1951 with the intention of only running the ferry service until cross-sound
11 bridges were constructed. The bridges never materialized and the Washington State Ferries came
12 into existence. During the following fifty years WSF expanded terminals at ferry served communities
13 throughout the Sound including the four within the County, and at Anacortes, WA. The fleet of ferry
14 vessels was also expanded beginning with the construction of the Evergreen Class vessels during the
15 1950's. Currently, WSF has a fleet of 20 vessels.

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

21 That revenue stream collapsed in 1999 with the voter approved Initiative 65 (I-695) and the legislative
22 repeal of the MVET in 2000. WSF lost approximately 20% of its operating support and 75% of its
23 dedicated capital funds. Since that time, the revenue for operations has been replaced by dramatic
24 increases in the tariffs charged to customers through the fare box. During the decade from 2000-
25 2010, tariffs increased dramatically in San Juan County. Historical analysis has shown that for every
26 5% in fare increases, the traffic volumes have decreased by about two percent.

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

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

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

42 **Table 3. Essential Terminal Preservation Projects**
43 (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.

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

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

- Implemented reservation system for Anacortes to Lopez, Orcas, Shaw, San Juan and Sydney. However, reservations to Anacortes are only available from San Juan Orcas, and Sydney (not from Lopez or Shaw);
- Improved the customer web experience;
- Implemented pricing strategies to maximize use of vehicle space;
- Built two new Olympic class vessels; Samish is dedicated to the Anacortes/San Juan Island route; and
- 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 percent by 2040. Anacortes to San Juan Islands ridership is predicted to increase slightly less, 26.5 percent. 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:

- 1 • Terminal electrification for Orcas, Friday Harbor, and Anacortes in 2022.
- 2 • Construction of a new terminal building at Anacortes and expansion of vehicle holding at
- 3 Lopez in 2025-2027;
- 4 • Construction of overhead loading and second slip at Friday Harbor is planned for 2035-2027;
- 5 • Preservation of the trestle and bridge structures at Orcas, Lopez and Shaw is planned for
- 6 medium-term and long-term planning horizon;
- 7 • In 2028, add service hours by extending the summer sailing schedule into May and October.
- 8 Restore the winter season weekend interisland service in 2033;
- 9 • Two vessels serving this route will be retired and replaced with two hybrid-electric,
- 10 international certified Olympic Class vessels (144 car) in 2022 and 2023;
- 11 • Replace the 90-car interisland with 114-car all-electric vessel with single deck in 2036.
- 12 • Replace two additional vessels with 144 car hybrid electric vessels in 2037;
- 13 • Increase entire fleet from 22 vessels to 26 vessels to allow for adequate maintenance and
- 14 have enough spare vessels to maintain reliable service;
- 15 • Relocate all customs processing to Sidney, in order to reduce processing time at Anacortes;
- 16 • Establish a workforce development plan to address workforce shortages;
- 17 • Improve customer experience, including upgrades to web site and service alerts, automate
- 18 queue detection and wait time information, real time parking information, upgrading
- 19 ticketing and reservation systems, automatic vehicle length detection, and automatic vehicle
- 20 passenger counting;
- 21 • Reduce carbon emissions by converting to hybrid-electric vessels;
- 22 • Reduce vessel noise to protect marine life;
- 23 • Increase energy efficiencies and waste reduction;
- 24 • Monitor stormwater at terminals;
- 25 • Continue creosote removal;
- 26 • Develop an emergency response plan to enhance preparedness and aid in response and
- 27 recovery efforts; and
- 28 • Prioritize terminal maintenance needs with the most seismic risk, vulnerability to sea level
- 29 rise and “lifeline routes” that provide access to major population centers or critical facilities.

30
 31 To accomplish its goals, the LRP includes new investments that are not currently included in WSF’s 16
 32 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 ferry sailings a
 36 walk-on, vehicle, or commercial vehicle had to wait before boarding a ferry during the peak period.
 37 This measure, called “boat wait”, was generally set at one boat wait for vehicles on most ferry routes.
 38 However, this measure did not apply to San Juan County routes due to the low frequency, complex
 39 routing, and non-commute nature of routes serving San Juan County. The only San Juan County boat-
 40 wait LOS measure adopted by WSF was a zero boat wait for all pre-registered commercial vehicles.
 41 This performance measure was revised in 2009 with the adoption by the State Legislature of the WSF
 42 Long-Range Plan. The Long-Range Plan eliminated the wait based LOS measure and moved to a
 43 measure of percent of sailing full during a specific month. Percent sailings full are measured in the
 44 westbound peak direction for the months of January, May and August. Two performance thresholds
 45 were identified: Level 1, which indicates when demand management and peak spreading strategies
 46 should be implemented and Level 2, which indicates when additional capacity may be needed. The
 47 intent of the revised LOS measure is to “move [the] ferry system planning away from thinking primarily
 48 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. 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 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~~

1 Bellingham. It has been conjectured that many of the employees could come from Bellingham and
2 make use of a passenger-only ferry, which would provide a solid commuter base for the ferry.
3 WSF does not currently operate POF service. WSF did provide POF service in the 1990s, but it was
4 discontinued a decade later by legislative restrictions on operating funds after the scaling back of
5 Motor Vehicle Excise Tax (MVET). POF service is not an allowable use for gas tax revenue. King and
6 Kitsap counties both now operate POF service with voter-approved local revenue sources.

7
8 The County does not plan to operate a passenger-only ferry; however, the County would support a
9 passenger-only ferry by providing roadway and marine facility access, as appropriate.

11 3. County Marine Facilities

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

19 a. ~~Inventory of Existing Facilities and Services~~ **County Marine Facilities and Services**

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

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

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

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

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

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

39 ~~No public parking is available.~~

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

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

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

48 ~~Figure 3. Marine Transportation—County Marine Facilities~~

District	Island	Name	Deck	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

1 Table 6. County Marine Facilities

1 **barge/landing-craft capable*

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

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

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

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

17 ***Orcas Landing Dock and Float, Orcas Island:*** This public marine facility contains a drive-on pier with
18 a small building. To the east, a small float is reserved for the Sheriff's boat. To the east, three floats
19 provide mooring for up to 4 hours. A gangway on each side of the pier provides access to the floats.
20 There is little public parking available at the site. Adjacent to the pier are four spaces — 2 ADA, one
21 for the sheriff and one for the County. On the northern elevated boundary are seven reserved parking
22 spaces.

23 ***Westsound Dock and Float, Orcas Island:*** This facility is located south of Deer Harbor Road at MP
24 0.85 on the southwestern portion of Orcas Island. The pier was constructed in 1989, along with two
25 floats. There is a stairway to the beach. The marine facility primarily serves recreational boaters and
26 some light commercial use.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

27 San Juan County Public Works Department currently operates and maintains 16 public marine
28 facilities:

- 29
- 30 • 9 public piers with floats;
- 31 • 7 boat ramps;
- 32 • 1 barge landing site, at the old gravel pit on San Juan Island; and
- 33 • The County leases one moorage dock, at Deer Harbor.
- 34

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

39

40 In addition to Public Works, San Juan County Parks operates and maintains boat ramps, at Small Pox
41 Bay on San Juan Island and at Indian Cove on Shaw Island. The Port of Friday Harbor operates the
42 boat ramp and dock at Jackson Beach. The Port also manages a marine fuel dock and public dock at
43 Friday Harbor. The Port has recently purchased Jensen's Shipyard and Shipyard Cove. They are in the
44 process of developing a plan for use of the site. Numerous private marine facilities exist on the islands,
45 from large marinas like Roche Harbor, Shipyard Cove, Deer Harbor, Cayou Quay, Rosario, and
46 Fisherman Bay to the single docks constructed for use by individual or small groups of property
47 owners.

48

49 The County also has numerous inventoried and non-inventoried shore access points resulting from

1 County roads that end at the shoreline (coastal or lakes). These shore access points may provide for:

- 2
- 3 • Delivery of people, vehicles, and freight via a barge or freight ferry
- 4 • Marine recreation including shore access and small boat launching
- 5

6 Some shore access points are listed in the County's Parks, Trails and Natural Area Plan and
7 Nonmotorized Plan (Parks Plan) and improvements to the public right of way may be included in the
8 County Public Works transportation improvement plans or the Parks capital improvement plans.

9

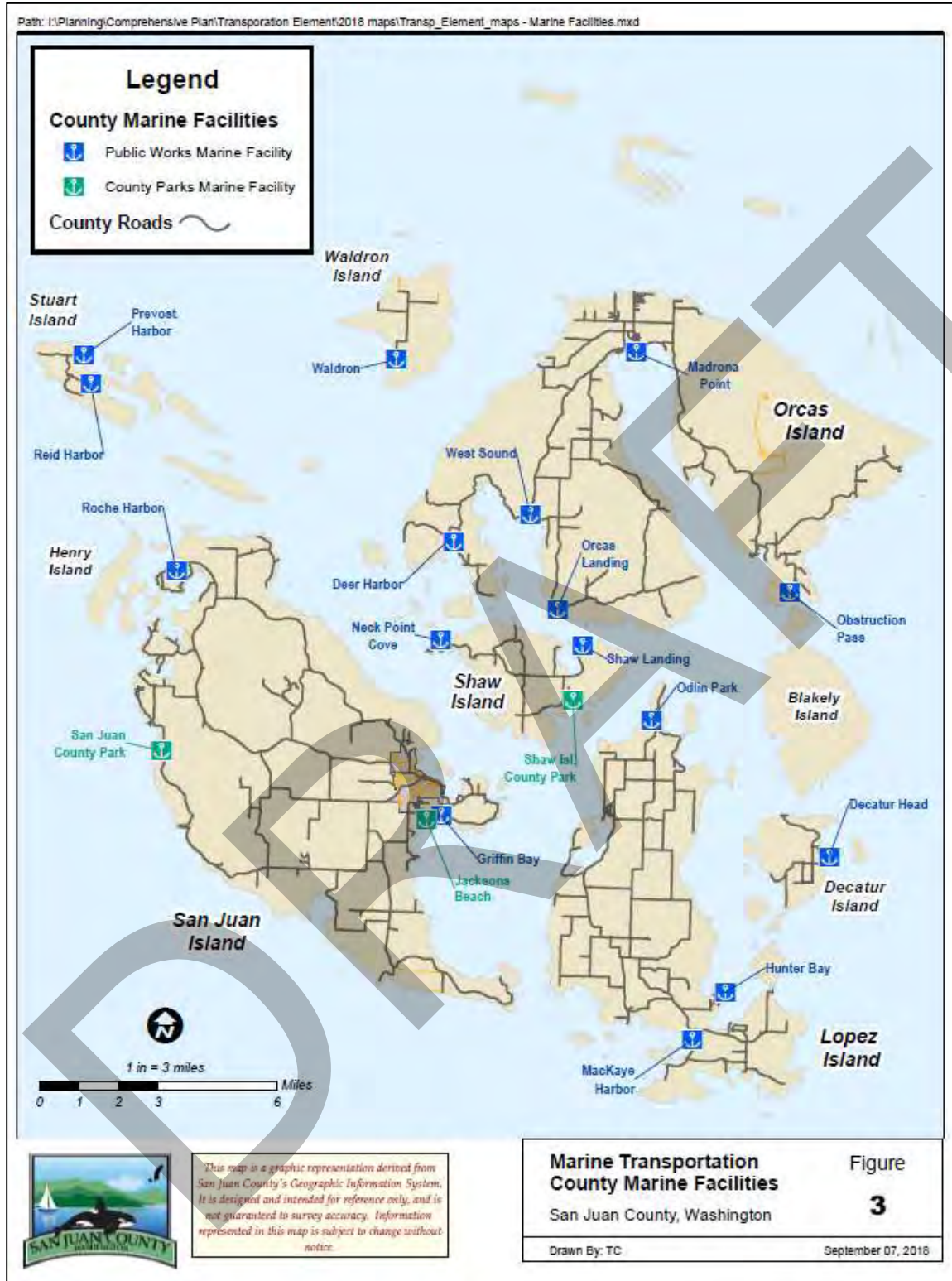
10 Several private barge companies serve the islands for most freight needs. A number of the County's
11 ramps are routinely used by the barges for delivery of freight and construction materials, including
12 ramps on Orcas, Lopez, Decatur, Stuart, and Waldron.

13

14

DRAFT

1 **Figure 3. Marine Transportation – County Marine Facilities.**



2

1
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 concepts
5 worth investigating further.

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

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

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

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

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

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

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

38 **Level of Service Analysis**

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

43 **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, Waspe	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.

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	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

1
2
3 Capital improvements to the County PW marine facilities are based on several factors: priority of
4 facility, condition of facility, and evidence of inadequate capacity. These factors are evaluated and
5 reported upon in the Marine Facility Annual Report.
6

7 Updated information on completed, in-progress, and planned capital projects for marine facilities are
8 available in the 6-Year TIP and the Annual Marine Facility Report, both of which are available on the
9 County website, Public Works page.
10

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

12 The County has set a high priority on maintaining and constructing marine facilities that provide non-
13 ferry served island residents with access to ferry served islands. Long-range planning needs for County
14 marine facilities are evaluated annually and documented in the Annual Marine Facility Report.
15

16 **4. Barges and Landing Craft**

17 Several private barge companies serve the islands with most freight needs. Humpback Hauling is a United
18 States Coast Guard certified barge that can carry up to 49 passengers and regularly moves vehicles and
19 freight throughout the islands. In the case of an emergency, Humpback Hauling is contracted with the
20 County to provide emergency evacuation services from marine access locations. Other private barging
21 businesses provide similar services to other outer islands. A number of the County ramps are routinely
22 used for delivery of freight and construction materials. Two are located on Lopez Island at Odlin Park and
23 Mackaye 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 Major
27 Collectors, Minor Collectors, and Local Access Roads. The County currently has four bridges, all on Orcas
28 Island. In the past 6 years, the County has made a dedicated commitment to non-motorized
29 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 to the
31 Islands, were designated in the San Juan Islands Scenic Byway. Figure 4 shows the official route of the
32 byway. The County is a member of the scenic byway stakeholder group and has participated in the
33 development of the 2012 Scenic Byway *Corridor Management Plan* and various grants. Successful grant
34 projects are included the county's Six Year Transportation Plan and those projects involving the roads are
35 implemented in compliance with county standards and safety protocols.

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

41 San Juan County has approximately 745 miles of roadways spread over 13 islands. Public Works maintains
42 270 miles of public roads located on 7 islands (Orcas, Lopez, San Juan, Shaw, Stuart, Waldron, and
43 Decatur). The majority of the roads in the County -- 450 miles -- are privately owned and maintained. In
44 addition, there are Federal park roads, State park roads, and the Town of Friday Harbor has about 16 miles
45 of roads. In 2008, some county roads on San Juan and Orcas Islands, along with the marine route from
46 Anacortes to the Islands, were designated as the San Juan Islands Scenic Byway. Figure 4 shows the official
47 route of the Byway.
48
49

1 County roads provide transportation corridors for multi-modal access: motor vehicles, transit vehicles,
2 pedestrians, and bicyclists. The County’s Parks, Trails and Natural Area Plan and Nonmotorized Plan (Parks
3 Plan) provides goals, policies and plans for the County’s pedestrians and bicyclists. These plans include
4 integrating roadway access (shoulder widening), separated trails adjacent to the roadways, and off-road
5 trails to provide multi-modal access in the County. The Parks Plan states:
6

7 “...one of the most pressing issues identified through the community outreach undertaken in preparation
8 for this plan is the need for non-motorized transportation opportunities. There is a need expressed by
9 the community to connect our islands together with a well-planned transportation system of multi-modal
10 trails”.
11

12 In 2018, the County adopted the Complete Streets Program Ordinance to ensure that future planning,
13 design, and construction of motorized and non-motorized transportation facilities incorporate Complete
14 Streets principles. The ordinance directs the County Engineer to prepare an annual report on the
15 recommended application of Complete Streets principles. This report is available on the County website,
16 Public Works page.
17

18 County roads are categorized according to their role and usage in carrying vehicles. These categories are
19 defined by US Department of Transportation, Federal Highway Administration (FHWA) in its roadway
20 functional classification system. The Functional Classification System includes designations for rural and
21 urban roads, including: Interstates, Freeways/Expressways, Principal Arterials, Minor Arterials, Major
22 Collectors, Minor Collectors, and Local Access. San Juan County does not have any Interstate, Freeway,
23 or Arterial roads. San Juan County has roadways in three functional classifications, as shown on Figure 5.
24 The functional classifications are described as follows:
25

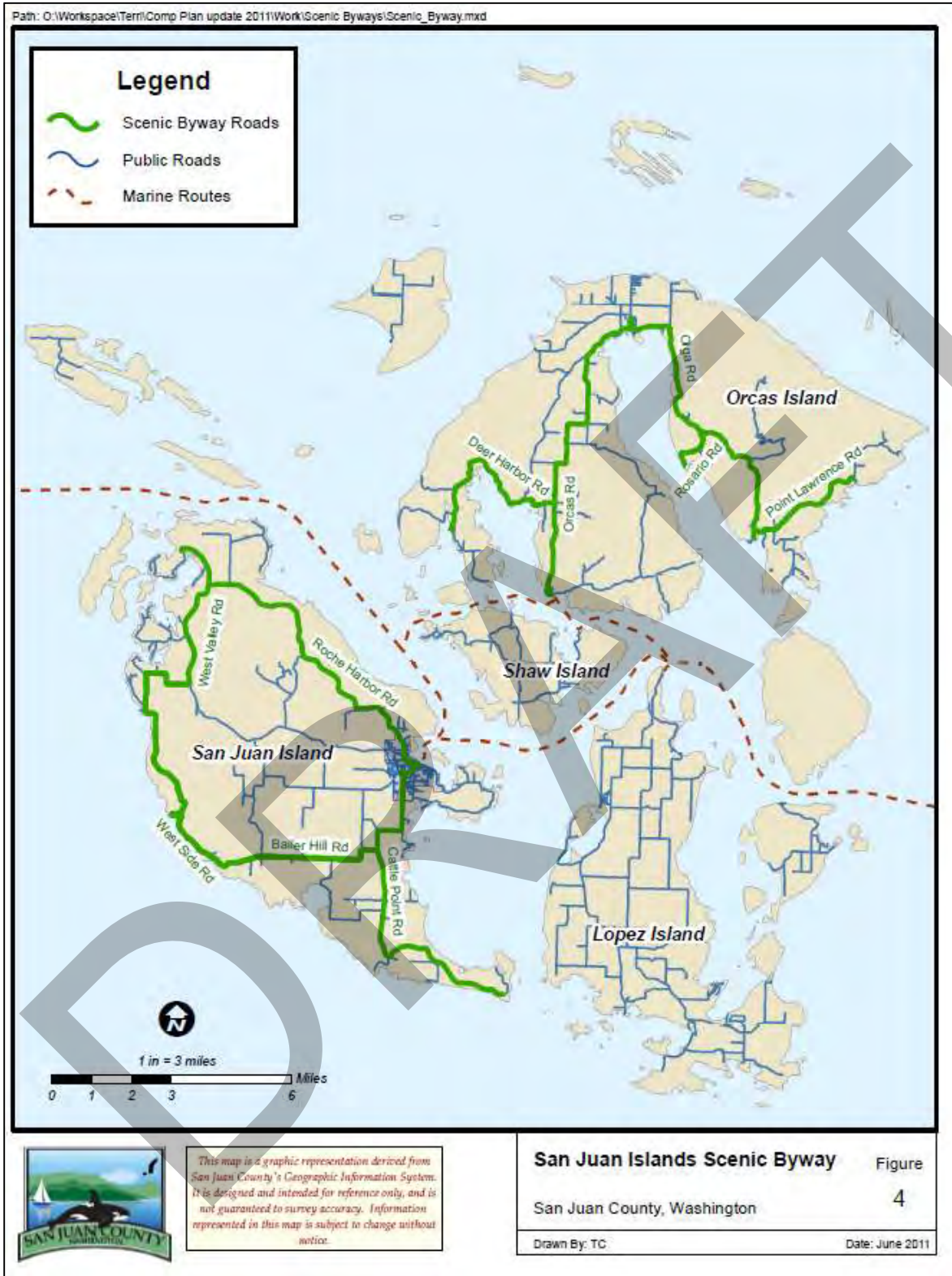
26 Rural Major Collectors provide the main access from the ferry landings. These are the highest volume
27 roads, with the highest speeds, and are the primary freight routes.
28

29 Rural Minor Collectors provide connections between the major collectors and the local access roads
30 or provide a secondary access to parts of the island.
31

32 Rural Local Access Roads provide direct access to abutting land uses and carry traffic to the collector
33 roads. Local access roads typically carry low volumes of traffic, traveling at low speeds.
34

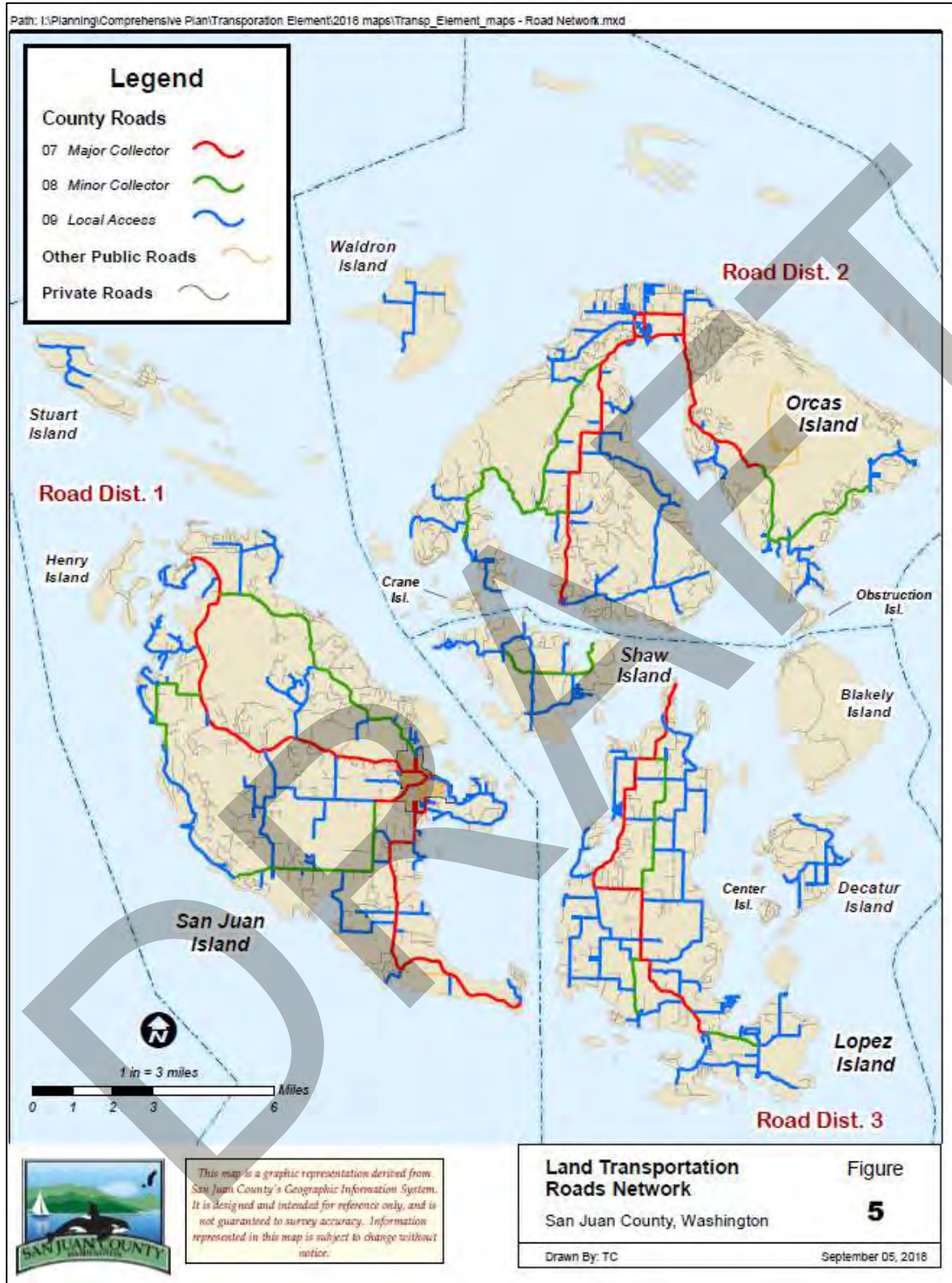
35 The functional classifications in San Juan County were established in 1968. In 2018, four road segments
36 on Orcas Island were changed from local access roads to major collectors: Main Street, Crescent Beach
37 Road, Prune Alley, and North Beach Road from School Road to Mount Baker Road.
38
39

1 **Figure 4. San Juan Islands Scenic Byway.**



2
3

1 **Figure 5. Roads – San Juan County.**



2

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

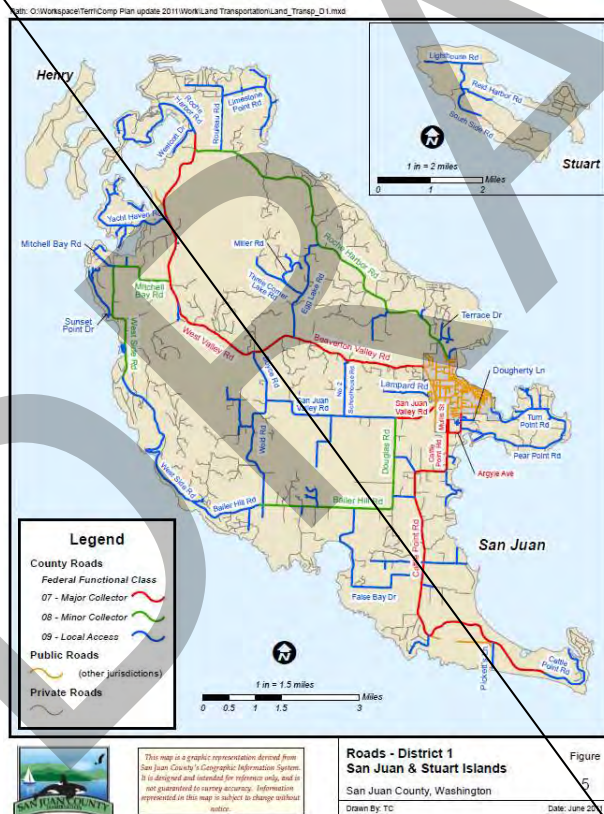
a. Inventory of Existing Facilities and Services – County Roads

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.

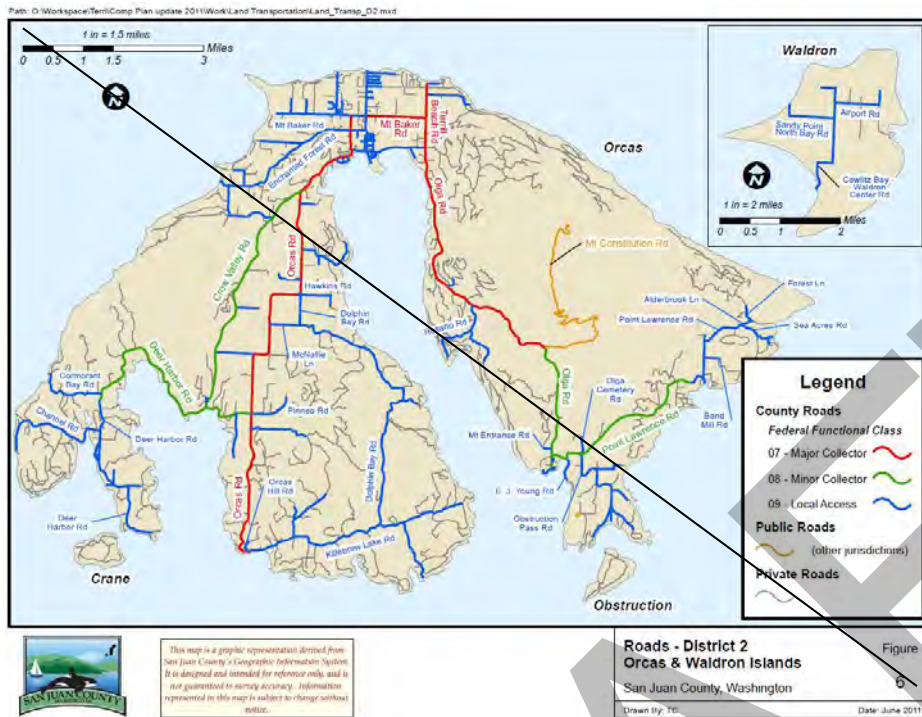
Figure 5. Roads – District 1 – San Juan & Stuart Islands



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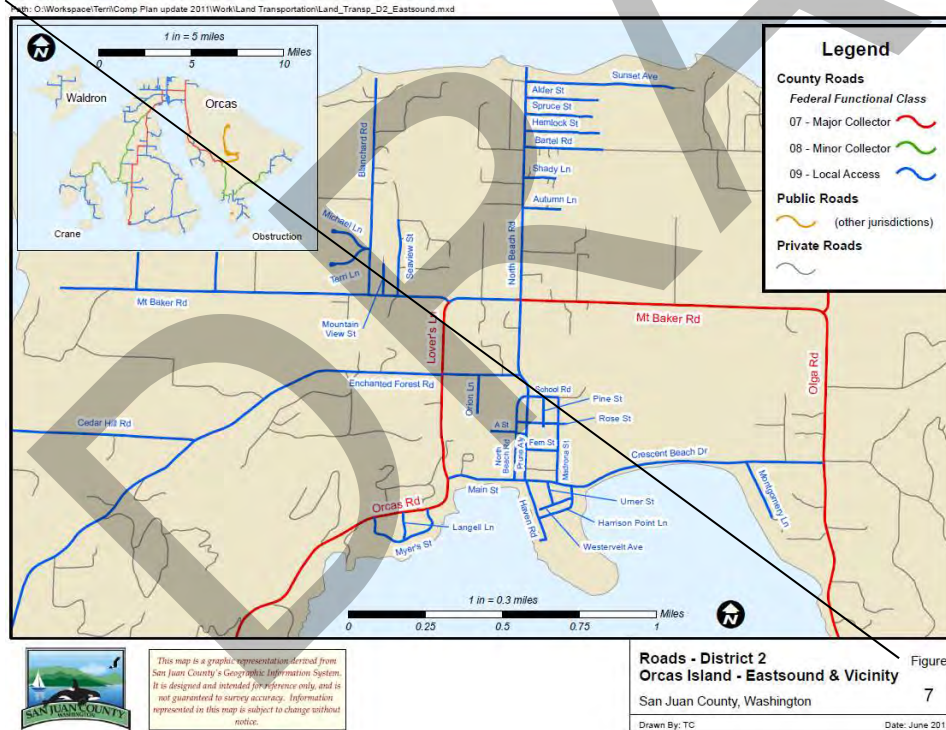
1 Figure 6. Roads—District 2—Orcas & Waldron Islands

2



3

4 Figure 7. Roads—District 2—Eastsound & Vicinity

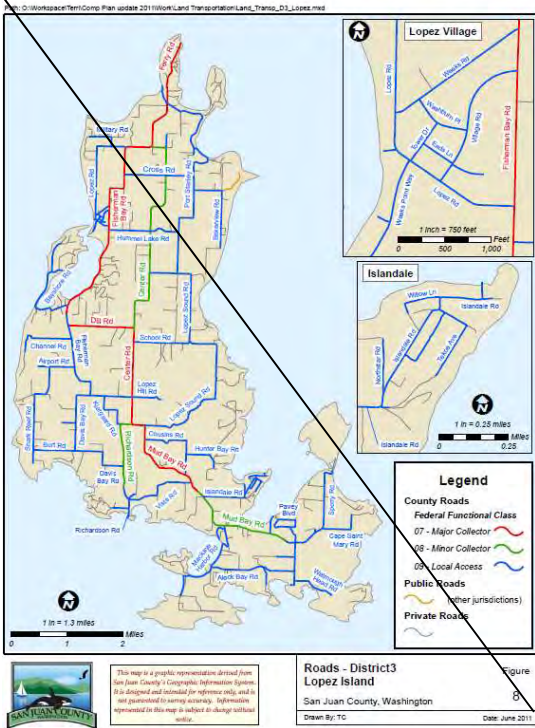


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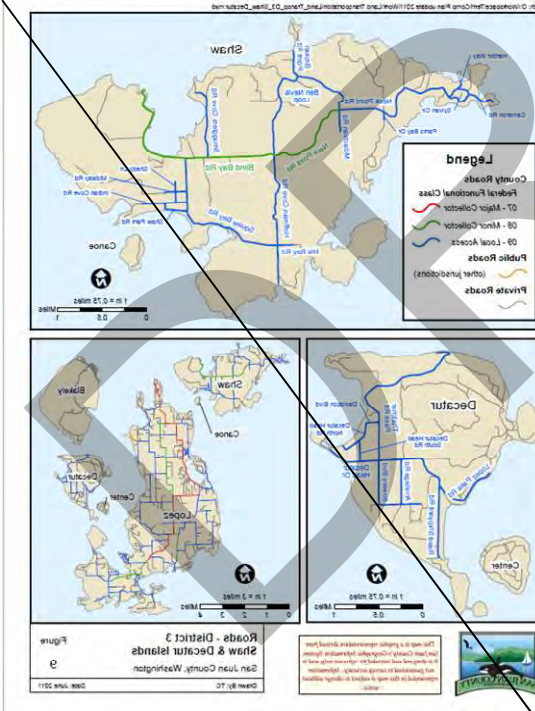
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Figure 8. Roads – District 3 – Lopez Island



3
4
5

Figure 9. Roads – District 3 – Shaw & Decatur Islands



6

1

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

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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

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	Ferrill 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	Ferrill 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

¹San Juan County Public Works

²Transpo-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

¹San Juan County Public Works

²Transpo-Group, 2011

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 AADT. The highest volume of daily traffic measured during the summer, 5,300 AADT 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.

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

Source: Highway Capacity Manual 2010, Transportation Research Board, 2010

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 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.

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

Source: 2018 County Traffic Counts and TranspoGroup Memoranda September 26, 2018; San Juan County Level of Service Analysis

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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

Source: 2018 County Traffic Counts and TranspoGroup Memoranda September 26, 2018; San Juan County Level of Service Analysis

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

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

Source: 2018 County Traffic Counts and TranspoGroup Memoranda September 26, 2018; San Juan County Level of Service Analysis

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.

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>
A	0 – 10
B	10 – 15
C	15 – 25
D	25 – 35
E	35 – 50
F	50

TranspoGroup recommends that the Intersection LOS D be 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 2019/2020, intersection flow was measured for existing conditions and modeled to predict intersection flow in 2036. When long-range planning, typical traffic forecasting methodology utilizes historic population and traffic growth, as well as forecasted population growth, to estimate future traffic volumes for a specific future year, such as 20 years in the future. The analysis performed was based on the historically achieved density and floor area ratios. The future buildout may or may not occur. If it does, it may take much longer than 20 years. The existing and projected LOS for the study intersections in LV-UGA are shown in Table 5 and in Eastsound in Table 6.

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Table 5. Lopez UGA Intersection LOS Existing and Projections.

LOPEZ UGA INTERSECTIONS	2019 Existing		2036 Projection	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
<u>Weeks Rd/Fisherman Bay Rd</u>	<u>9.1</u>	<u>A</u>	<u>10.5</u>	<u>B</u>
<u>Lopez Rd/Fisherman Bay Rd</u>	<u>9.1</u>	<u>A</u>	<u>11.0</u>	<u>B</u>
<u>Fisherman Bay Rd/Hummell Lake Rd</u>	<u>9.6</u>	<u>A</u>	<u>13.5</u>	<u>B</u>
<u>Weeks Rd/Lopez Rd</u>	<u>9.1</u>	<u>A</u>	<u>10.9</u>	<u>B</u>

Source; TranspoGroup 2020-06-16 Final Lopez Village UGA LOS and Circulation Memo

All four LV-UGA study intersections which currently operate at LOS A are forecasted to operate at LOS B in 2036.

Table 6. Eastsound UGA Intersection LOS Existing and Projections.

EASTSOUND UGA INTERSECTIONS	2019 Existing		2036 Projections	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
<u>N Beach Rd/Mt Baker Rd</u>	<u>21.7</u>	<u>C</u>	<u>133</u>	<u>F</u>
<u>Lovers Ln/Mt Baker Rd</u>	<u>11.8</u>	<u>B</u>	<u>19.4</u>	<u>C</u>
<u>Orcas Rd/Main St</u>	<u>14</u>	<u>B</u>	<u>24.7</u>	<u>C</u>
<u>Prune Alley/Main St</u>	<u>14.7</u>	<u>B</u>	<u>23.5</u>	<u>C</u>
<u>Prune Alley/School Rd</u>	<u>11.5</u>	<u>B</u>	<u>19.7</u>	<u>C</u>
<u>Terrill Beach/Crescent Beach Dr</u>	<u>11.3</u>	<u>B</u>	<u>12.2</u>	<u>B</u>
<u>Terrill Beach/Mt Baker Rd</u>	<u>8.5</u>	<u>A</u>	<u>9.8</u>	<u>A</u>

Source; TranspoGroup 2020-06-23 Final Eastsound UGA LOS and Circulation Memo

All of the Eastsound UGA study intersections are currently operating at LOS C or better. The 2036 projections show that the intersection of North Beach Road and Mount Baker Road is forecasted to operate at LOS F, while the other intersections will operate at LOS C or better. The only improvement necessary for all intersections to operate at LOS C or better in the Eastsound Study Area at Buildout is for the intersection of North Beach Road and Mount Baker Road to be changed from two-way to all-way stop controlled. Without this improvement, vehicles headed northbound on North Beach Road will have difficulty making a left turn onto Mount Baker Road, causing LOS failure. Converting to an all-way stop forces eastbound and westbound vehicles to stop and gives northbound vehicles sufficient time and space to make left turns which reduces overall intersection delay to approximately 16 seconds per vehicle.

In addition to evaluating the UGA intersection LOS, the County contracted with Transpo Group to reviewed future road improvement options that may mitigate future development and maintain LOS standards in the UGAs. The purpose of the analysis was to understand the impact to vehicular and non-motorized traffic and what impacts these changes may have on intersection LOS within the UGA. Implementation of these improvements would be considered only if LOS standards in the UGA are negatively impacted by development or other factors. The discussion of the new improvements within this memorandum is focused on a connectivity and level of service standpoint. The specific alignment, engineering feasibility and construction costs of the improvements were not analyzed.

1 Two road connections in LV-UGA and three road connections in Eastsound were analyzed in
2 order to evaluate their impact on intersection LOS.

3
4 **LV-UGA Weeks Road:** Weeks Road is a two-lane road with no shoulders or bike lanes and an
5 unpaved path on the north side of the road. It is one of the primary access points to the Lopez
6 Village. Under the UGA buildout is forecasted to operate above the LOS standard at the
7 intersections with Lopez Road and Fisherman Bay Road. Based on the number of forecasted
8 vehicles, along with the resulting forecast intersection LOS, no roadway improvements are
9 expected from a capacity or level of service standpoint. However, with the buildout of the UGA,
10 there will likely be an increased need for multimodal facilities to improve walking and biking
11 experiences along this roadway and increase multimodal access to the developing commercial
12 area in the UGA.

13
14 **LV-UGA Hummel Lake Road and Cross Road Connection:** The potential new roadway connection
15 might be necessary for one of two reasons. First, if there was not enough north-south capacity in
16 and around the UGA, or second, if development occurred east of the UGA and future roadways
17 were required to provide for adequate circulation and access to serve the new developments and
18 land uses. The future Lopez Village UGA buildout scenario does not include any significant
19 development east of the UGA. Therefore, any additional north-south connections would not be
20 required from a vehicle connectivity standpoint. Additionally, the forecast volumes show ample
21 north-south roadway capacity along both primary north-south corridors in the UGA, Fisherman
22 Bay Road and Lopez Road. The additional roadway capacity in the UGA indicates that no additional
23 north-south connections are necessary from a LOS or capacity perspective.

24
25 **Eastsound A Street Connection:** The west end of A Street has significant turnaround traffic,
26 which has prompted the County to consider a connection to Lover's Lane. This connection
27 would likely change the way vehicular traffic accesses the downtown area, particularly from the
28 west side of the study area. This connection would result in only slight improvements to the
29 UGA intersection LOS. The connection would not be necessary unless the UGA intersection LOS
30 degrades or if there are other safety reasons to make this connection.

31
32 **Eastsound School Road North-South Connection:** This scenario would involve a north-south
33 connection between Rose Street and School Road, and a connection north to Mount Baker
34 Road. This connection is intended to improve the north-south circulation around the downtown
35 area and reduce the vehicular impact on Prune Alley and Lovers Lane, while providing improved
36 access to Orcas Island Elementary and Middle Schools. Due to the small number of vehicles
37 expected to use the new School Road connection, there is a negligible improvement in
38 intersection LOS for all study intersections. The connection would not be necessary unless the
39 UGA intersection LOS degrades or if there are other safety reasons to make this connection.

40
41 **Eastsound Crescent Beach Road Closure:** The potential closure of Crescent Beach Drive as a
42 result of the increasing storm frequency and rising sea levels may result in the County's inability
43 to continue maintaining the roadway. This scenario is intended to evaluate how well the other
44 roadways would be able to absorb the traffic under UGA buildout should Crescent Beach Drive
45 be closed. The analysis of the closure of Crescent Beach Drive shows that intersection
46 improvements will be needed at the intersections of North Beach Road and Mt Baker Road,
47 Lovers Lane and Mt Baker Road, and Prune Alley and School Road. Specific alignment and
48 engineering feasibility would be required to determine the appropriate intersection
49 improvements.

1
2 c. **Long-Range Planning Needs – County Roads Long Range Transportation Planning**
3 **Recommendations**

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

12 Safety for all forms of transportation remains a long term goal for the County. An analysis of
13 accident data from 2001 through mid-2011 was recently conducted. The majority of injury and/or
14 fatal crashes in San Juan County involve a single vehicle (83%). Of the crashes that are classified
15 as road departure accidents, 65% involve collision with a fixed object, such as trees, ditches or
16 earth/rock banks. And 60% of the crashes occurred at a horizontal curve. These crash volumes
17 may be partly attributed to narrow road surfaces, poor or no road shoulders, presence of objects
18 like trees and fences in road right-of-way, and curvy roads. But while these may contribute to
19 local vehicular crashes, they are also elements of scenic, rural character enjoyed by travelers on
20 many island roads. One of the long term planning goals of the County will be to balance the need
21 for increased safety along roadways with recognizing the need to maintain the scenic
22 characteristics.

23 Currently, all County roadways are operating within the established LOS Standard (LOS D) or
24 better and will continue to operate at acceptable traffic volume levels for the next 20 years based
25 on estimated traffic growth. County roadways are expected to provide adequate capacity to meet
26 anticipated increases in traffic volumes. Roadway improvements should be focused on reducing
27 collisions and providing multi-modal access, while preserving scenic characteristics.

28
29 The UGA key intersections are currently operating at adequate LOS. However, modeling of the
30 intersections for 2036 growth projects that North Beach Road and Mount Baker Road some of the
31 intersections will have excessive side street delays. Closure of Crescent Beach due to rising sea
32 levels and increased storm events due to climate change will result in intersections projected to
33 have excessive delays. These intersection delays will be evaluated and intersection improvements
34 such as four way stops, turn lanes, or roundabouts will be considered based on the traffic flow
35 predictions, intersection geometry and available road right of way. Potential intersection
36 improvements will go through the standard county project planning and review process.

37
38 The County shall use the following assessments to develop transportation improvement priority
39 arrays, and guide the County legislative authority in the preparation of the Six Year Transportation
40 Improvement Plans and the Annual Construction Programs:

- 41
42
- 43 • Roadway condition;
 - 44 • Biennial traffic counts and LOS assessments;
 - 45 • Annual Complete Streets assessment;
 - 46 • Traffic collision assessment for road safety plan;
 - 47 • Concurrency evaluation for proposed developments. Developers in the County are not
48 typically required to improve County roads, but they are required to construct private
49 roads and may be required to make improvements to intersections to improve traffic flow
or safety; and

- Intersection LOS assessments.

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

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, this bridge was replaced in 2016-2017 with a concrete bridge supported by concrete end walls. 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 but 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~~

1
2 **~~Pt. Lawrence Road Bridge at Buck Bay:~~** Completed in the fall of 2011, this 43-foot span, pre-
3 stressed concrete bridge spans Cascade Creek at Buck Bay, at milepost 0.3 on Pt. Lawrence Road
4 on the southeast side of Orcas Island, just east of the community of Olga. The bridge replaced
5 two culverts, which were insufficient to pass flood water, and led to overtopping the road. The
6 bridge consists of a reinforced, cast in place concrete deck on top of seven 24-inch deep pre-
7 stressed of precast concrete channel beams. The abutments are cast in place concrete cap
8 beams, supported on eight 14-inch diameter steel piling per abutment. An 18-foot wide channel
9 was created in place of 30-inch and 18-inch culverts. Salmon Recovery Board funds and County
10 Road Funds were used to fund the design and construction

11
12 d. **Long Range Planning Needs**

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

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

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

24
25 a. **Inventory of Existing Facilities and Services**

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

- 30
- 31 • Deer Harbor Bridge on Channel Road;
 - 32 • Moran State Park Bridge on Olga Road;
 - 33 • West Sound Bridge on Deer Harbor Road; and
 - 34 • Buck Bay Bridge on Pt Lawrence Road.
- 35

1 **Figure 6. County Bridges.**



2

1 **b. Demand/Capacity**

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

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

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

13
14 **3. Human Services Transportation Plan**

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

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

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

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

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

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

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

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

46
47 **D. Demand Management Transportation Options**

48 The availability of other modes of transportation to provide services and provide demand management
49 benefits is limited in San Juan County. Public transit is available on the mainland to transport people to

1 the ferry in Anacortes. ~~Otherwise on-island transportation options are primarily privately owned. Figure~~
2 ~~11 shows the various routes of the public and private transportation routes within San Juan County. San~~
3 ~~Juan County transit options are privately owned.~~

4 5 **1. Public Transit Inventory of Transportation Services**

6 **a. Human Services Transportation Plan**

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

18
19 The plan describes the methods used to determine public needs and service gaps, and makes
20 recommendations for strategies, actions, and projects to meet the needs and close the gaps.

21
22 San Juan County was successful in securing three grants to meet its primary transportation needs:

- 23
24 1. An on-demand, accessible taxi service with voucher program for eligible individuals;
- 25 2. Capital assistance to replace three aging Senior Services vans; and
- 26 3. Funding and hiring for a Mobility Manager to coordinate services for more efficient use of
27 available public and private resources.

28
29 The 2018 HSTP presents the following priority projects for 2019 through 2021:

- 30
31 • Increasing access to San Juan County's Transportation Voucher Program, exploring
32 partnership with non-profit providers, and supporting drivers to operate the San Juan County
33 Senior Center vehicles.
- 34 • Coordination with adjacent counties' human service transportation is currently limited, but
35 opportunities for enhancement are noted.
- 36 • Education and outreach are approached through a network of public and private service
37 providers. Interviews indicate that casual or organized community discussions are also an
38 important means of distributing information about services.
- 39 • Reliable funding for organizational capacity is identified as a key to pursuing other funding,
40 communications and networking, and the continued success of human services
41 transportation in San Juan County.

42
43 The HSTP is available on the Health and Community Services Page of the County website.

44 45 **b. Skagit Transit (SKAT)**

46 SKAT Provides mainland connecting service from the ferries via Route 410 with a stop at the Anacortes
47 ferry terminal. Accessible SKAT buses take San Juan County residents to March Point, where they can
48 transfer to the Tri-County Connector service going to the Skagit Transit Center (which hosts

1 Greyhound Bus, Amtrak, or buses northbound to Bellingham) or south via Island Transit, to Whidbey
2 Island. Students attending one of the campuses of Skagit Valley College use SKAT, as do people who
3 work in the Mt. Vernon or Burlington areas.
4

5 **2. Private Transportation Services**

6 **c. Airport Shuttle Service:-**

7 Shuttle bus service to SeaTac Airport is provided by one San Juan Island-based provider, the Island
8 Airporter. They provide scheduled ground service six days a week, offering both passenger and
9 package service. San Juan County is also served by a private airport shuttle service located on the
10 mainland; Bellair Airporter Shuttle meets the ferry at the Anacortes terminal and connects to Mt.
11 Vernon, Bellingham, Seattle and SeaTac.
12

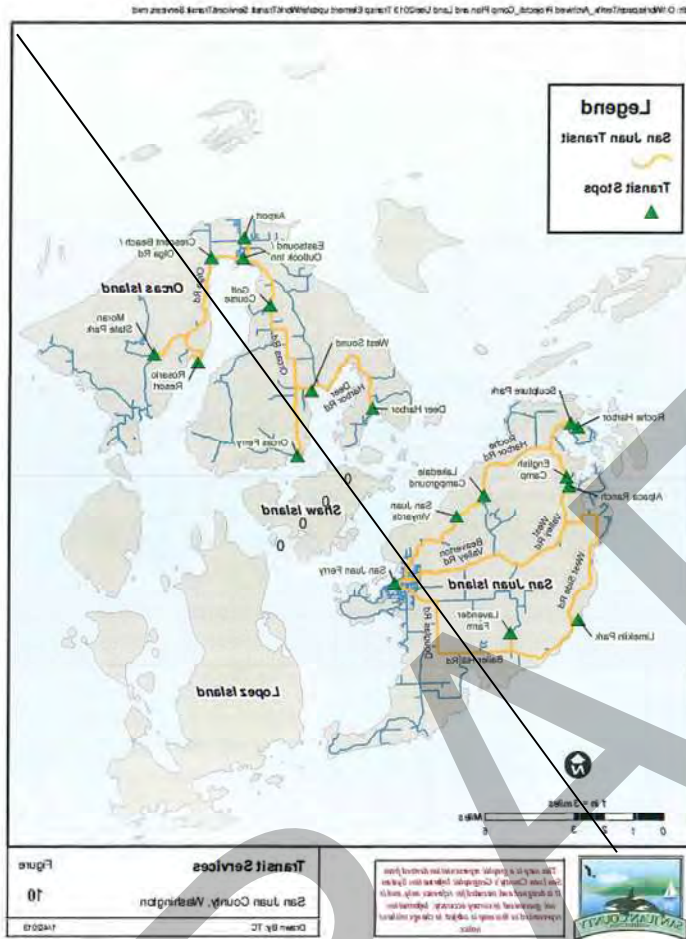
13 **d. Island Summer Shuttle Services:**

14 ~~San Juan Transit operates buses on a seasonal basis to transport tourists from the ferry terminal in~~
15 ~~Friday Harbor to service hubs and visitor attractions on San Juan Island. San Juan Transit offers fixed~~
16 ~~route service, stopping at locations that are of interest to visitors. It offers a limited number of local~~
17 ~~discount cards for commuters going to work through a punch card system. Several of the larger~~
18 ~~employers, such as Roche Harbor Resort, contract with San Juan Transit for their summer employees~~
19 ~~or guests. The buses generally operate between Memorial Day and Labor Day. San Juan Transit has~~
20 ~~a lift-equipped van. Orcas Island Shuttle provided seasonal service to destinations on Orcas Island~~
21 ~~until early in 2012. Beginning in the summer of 2012, San Juan Transit expanded service to include~~
22 ~~Orcas Island as a part of the Scenic Byway Shuttle Pilot Program for 2012/2013.~~
23

24 As of 2018, there are two shuttle bus services on a seasonal basis to transport tourists from the ferry
25 terminal in Friday Harbor to service hubs and visitor attractions on San Juan Island. San Juan Transit
26 offers fixed-route service, stopping at locations that are of interest to visitors. It offers a limited
27 number of local discount cards for commuters going to work, through a punch card system. Several
28 of the larger employers, such as Roche Harbor Resort, contract with San Juan Transit for their
29 summer employees and/or guests. The buses generally operate between Memorial Day and Labor
30 Day. San Juan Transit has a lift-equipped van that provides weekend service to Orcas Island and
31 Lopez Island. The Jolly Trolley provides shuttle service from the ferry to designated locations on San
32 Juan Island.
33
34

1
2

Figure 11. Transit Services



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12
13
14

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 Orca 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.

3. Other Transportation Options

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 developing a web-based~~

bulletin board to connect those needing rides with those who are available to provide them.

g. 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 homes as long as possible. ~~They~~The Council operates 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.~~ The program also offers periodic trips to the mainland from San Juan and Orcas islands, for medical visits and occasionally for social outings or shopping trips.

2. Demand/Capacity

San Juan County is the only county in Washington State that has no public transit system other than a ferry. No island has bus service, other than intermittent private bus services that operate during the summer months. San Juan and Orcas are the only islands that currently have reliable taxi service.

The Transportation Voucher Program (TVP) for human services transportation is available in San Juan County, and the TVP has substantially improved access to transportation services for many. However, the TVP program does not have secure funding, and further, longer term needs of a large number of transportation-vulnerable members of the community remain to be met.

3. Long Range Transportation Planning Recommendations

The County does not plan to operate public transit services; however, the County shall continue to support existing public and private transportation services. County roadways and marine facilities provide access for transit systems, and the roadways in the urban growth areas support the mobility of seniors and persons with disabilities. The County shall continue to upgrade roadways in urban growth areas, to provide better accessibility for persons with disabilities.

E. Freight Mobility

The ability to move goods and services within the county, as well as ~~back to~~ 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 ways to get to and from the county are 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 from ferry-served islands to the mainland for personal and commercial vehicles. ~~Additionally, that~~The 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~~ has a “preferred loading” program for commercial vehicles ~~nearly 30 years ago.~~ This ~~program allowed~~ allows qualifying businesses to reserve space on the ferries, provided ~~that~~ the company has 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 “tall” space on a first come, first served basis.

1 For those islands not served by ~~WSF~~ ferries, local barges and ferries transport a limited number of people
2 and goods between the islands. ~~These facilities are discussed in more detail in Section I.B.5. Barges.~~

3
4 Another essential freight transport link is represented by the airports on the islands, which provide critical
5 support to the economic well-being of each community. The ferry-served islands have airports owned
6 and operated by a public Port District. Other islands have airstrips and private landing strips that can be
7 used to transport freight, as well as passengers. The airports on both San Juan and Orcas Islands are
8 located close to the main town and village, ~~which facilitate~~ facilitating the ability to move goods to the
9 commercial centers. Air facilities in San Juan County provide critical mobility and connectivity for people
10 and freight in the region.

11 12 **F. Intergovernmental Coordination**

13 ~~To date, San Juan County has acted~~ acts as its own Transportation Planning Organization, together with
14 the Ports of Friday Harbor, ~~Orcas and Lopez~~ and the Town of Friday Harbor. Meetings on coordination of
15 transportation issues are held on an ~~infrequent~~ as-needed basis, primarily when funding is available or
16 there are common projects between entities. ~~However, while San Juan County is geographically isolated,~~
17 but it is dependent on the facilities of adjacent jurisdictions to ensure the effective transportation of
18 freight and people to and from the county. Therefore, there have been discussions with other Counties
19 in the past ~~with other counties~~ as to the benefits of joining an existing adjacent Regional Transportation
20 Planning Organization (RTPO) ~~such as Skagit/Island~~ or a Municipal Planning Organization (MPO), ~~such as~~
21 ~~Whatcom County.~~

22
23 Common interests and goals with Skagit County primarily concern ~~transit; the ability to coordinate~~
24 ~~transportation~~ the coordination of the ferry in Anacortes with the Skagit Area Transit (SKAT) system and
25 the Anacortes ferry, to ensure that people island residents are able to efficiently travel between Anacortes
26 and the I-5 corridor. With the ferry schedule changing seasonally, coordination of transit schedules has
27 been a challenge.

28
29 With the Whatcom MPO, past discussions on the viability of a passenger ferry, ~~particularly now with the~~
30 ~~new medical facility in Friday Harbor~~, has been the focal point of discussions, with transit connections as
31 an ancillary topic.

32
33 ~~To date, there have been no formal discussions with either Skagit/Island RTPO or Whatcom MPO for a~~
34 ~~number of years. It has been acknowledged that participation in a formal setting would require additional~~
35 ~~time and resources and the tangible benefits of doing so have not been quantified.~~ San Juan County has
36 been participating actively in regional informational and coordination meetings to assess the regional
37 transportation issues and developing projects to better position the county to respond in a cooperative
38 manner with other agencies. The Northsound Connecting Communities Group (aka Farmhouse Gang) is
39 ~~a nonprofit group that gathers regional transportation providers and legislators together and facilitates~~
40 ~~discussions to foster support for regional projects.~~ is a coalition of concerned citizens, elected officials and
41 professional staff of transportation agencies from Washington's five northwestern-most counties:
42 Whatcom, Skagit, Island, San Juan, and northern Snohomish. The NSTA strives to develop better ways for
43 people to travel in the region. San Juan County attends the general meetings and has participated in
44 subcommittees and presentations. San Juan County attends the general meetings and has participated
45 in subcommittees and presentations. San Juan County has also been regularly attending periodically
46 attended the quarterly MPO/RTPO/WSDOT Committee meetings. This attendance has allowed the county
47 to remain current on funding opportunities and requirements, as well as to stay informed on state
48 transportation planning efforts.

1 **II. TRANSPORTATION FINANCING (2012 – 2032)**

2
3 Appendix 6 addresses transportation funding for transportation projects maintained, preserved, improved
4 and constructed by San Juan County Public Works. Transportation funding sources and financing strategies
5 and plans for nonmotorized transportation projects managed by the San Juan County Parks Department are
6 included in the *Parks, Trails and Natural Areas Plan* and the Capital Facilities Plan. The *2010 Coordinated*
7 *Human Services Transportation Plan* addresses transit funding and financing.
8

9 **A. County Transportation Improvement Expenditures**

10 San Juan County has been in a period of diminishing financial resources for several years and if this trend
11 continues revenues for major transportation-related capital projects will be limited. Future expenditures on
12 transportation-related improvements within the county will depend on the availability of local funding and,
13 to a greater extent, the availability of state and Federal grant revenues. Planned projects are primarily
14 targeted at safety improvements with few projects that add new capacity. Table 14 provides a summary of
15 estimated transportation expenditures by major program type expected to be made by the county during the
16 2013-2032 timeframe.
17

18 **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

19 **1. Operations and Maintenance**

20 In 2010, under the direction of the County Administrator, the County Public Works Department
21 prepared a strategic budget plan for fiscal years 2011 through 2016. The strategic budget plan
22 identified significant reductions in maintenance and operations staffing resulting in a decrease in level
23 of service for some non-essential maintenance and engineering activities. Reductions are driven by
24 the projected gap between level or decreasing resources and increasing future costs. Despite planned
25 reductions in maintenance services, this category is projected to remain the largest single category of
26 local transportation spending over the twenty-year planning period.

27 **2. Asset Preservation Activities**

28 Asset preservation activities are non-construction project investments in existing infrastructure that
29 add useful life to the asset, but do not add additional capacity. The primary activities anticipated over
30 the twenty-year planning period are pavement reclamations, section rehabilitations, dock pile and
31 float replacements, and the applications of thin overlays such as seal coats or chip seals.

32 **3. Safety Related Projects**

33 Safety related transportation improvement capital construction projects will be designed and built to
34 correct known or potential safety issues. Typical safety issues include: (1) poor road alignment; (2)

1 narrow roadways without adequate shoulders for safe pedestrian travel; (3) roadside hazards; and (4)
2 installation of guardrails and other spot improvements.

3 **4. Marine Access**

4 Marine access projects will be designed and constructed to add new capacity to existing marine
5 highway structures such as docks and ramps, and to correct existing deficiencies with the GMA
6 requirement for concurrency.

7 **5. Capacity projects**

8 Capacity projects are investments in construction of new or substantially redesigned infrastructure
9 that creates availability for more traffic. Evaluations are being conducted to determine if relief and/or
10 capacity infrastructure is required during the planning period. Currently, traffic volumes are deemed
11 to be acceptable on the county roads.

12 **6. Other Projects**

13 This category represents a range of transportation improvements that are not safety related. Projects
14 in this category include those that improve drainage and environmental conditions.

15 **7. Sheriff Patrol**

16 It is anticipated that a transfer of significant funding from the county road fund to the sheriff for
17 traffic patrol will continue during the planning period.

18
19 Table 15 is the County's 6-Year Transportation Improvement Program (TIP) which presents a listing of the
20 upcoming projects from planning through construction phases with identified funding sources. The
21 County Council approves and adopts the 6-Year TIP each year.

22 **B. County Transportation Revenues**

23
24 The short-range to mid-range (2-6 year) revenue forecast calls for flat to declining revenue growth across
25 most major sources of transportation funds. There are five primary traditional sources, of revenue for the
26 county roads fund. Of these five sources only the local road levy is projected to show slight growth over
27 the 6-year planning period. The revenue trends are summarized below:

- 28 ● Local Property Tax Road Levy (RL): Slight growth
- 29 ● Motor Vehicle Fuel Excise Tax (MVFT): Flat
- 30 ● Capron Refund (Capron): Flat to decreasing
- 31 ● County Arterial Preservation Account (CAPP): Flat
- 32 ● State and Federal Grants: Flat to slight growth
- 33 ●

34
35 Overall revenue growth from stable major sources of revenue for the county roads fund is projected to
36 be between 1.5% and 2.5% per year, for the planning period 2013–2032.

37 **1. County's Existing Sources of Transportation Revenue**

38 San Juan County relies on a number of revenue sources (federal, state, and local) in order to design,
39 build and operate transportation facilities and services within unincorporated areas of the County.
40 Descriptions of the primary revenue sources follow.

41 **a. Property Taxes**

42
43 The authority to levy property tax is codified in RCW 84.52.043 and the county road fund levy is
44 specifically authorized in RCW 36.82.040. State law limits the annual allowable increase in the
45 road levy to one percent. Property taxes are levied for many state and local purposes and are
46 arranged in a complex hierarchy. The basic limits of the senior county levies are \$1.80 per \$1,000
47 assessed valuation for general government (current expense) and \$2.25 per \$1,000 assessed
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~~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 throughout the planning period 2013—2032.~~

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1 Table 6. Planned Transportation Improvement Projects—2013 through 2018

RESOLUTION
-2012 SIX YEAR TRANSPORTATION IMPROVEMENT PROGRAM (2013-2018)

Costs in the 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)										FUND	COMMENTS				
			Total	33	34	35	36	37	38	39	40	41						
CAPITAL PROGRAM			\$430	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10
1	S	AFS Condit Fork Road Reimbursement (MP 7.1 - 10.5)	\$430	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	Rec'd \$7.2 million Federal Funding & 50% Outside Fund Match
2	O	Dress Road Improvements (MP 3.6 - 4.5)	\$2,875	\$450	\$340	\$1,185	\$268											Pending County REET fund 2013 allocation
3	S	San Juan Valley Road Reimbursement (MP 0.0B - 0.4)	\$350	\$10	\$25	\$140	\$75											Pending \$2,587,500 RAIS Grant Application (90%)
4	ALL	Guardrail Safety Projects	\$355	\$355														Pending County REET fund 2013 allocation
5	ALL	Sign Replacement Program	\$270	\$270														Secured Bureau Safety Grant Fed (200%)
6	ALL	Roadside Hazard Mitigation Program	\$220	\$220														Secured Bureau Safety Grant Fed (200%)
7	O	West Beach Road Culvert Replacement (MP 1.21 - 1.25)	\$350	\$300	\$50													Secured Bureau Safety Grant Fed (200%)
8	L	GoIn Pile and Pile Replacement	\$148				\$148											Secured Bureau Safety Grant Fed (200%)
9	O	Obstruction Free Foot and Pile Replacement	\$120	\$120														Secured Bureau Safety Grant Fed (200%)
10	O	Mouat Baker Road Trail (MP 6.8-1.0)	\$238	\$238														Secured Bureau Safety Grant Fed (200%)
11	O	Mouat Baker Road Improvements (MP 0.0 - 1.1)	\$1,625	\$1,600	\$10	\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$5	Secured \$88,000 Fed + \$145,000 STP funds
12	L	Melkoye Harbor Road Relocation at County Park (MP 1.1 - 1.9)	\$230	\$30	\$100													Secured \$2,345,000 RAIS (CRAB) + \$500,000 STP funds
13	D	Deer Harbor Bridge Replacement (R# No 2116A)	\$2,855	\$340	\$375	\$3,435	\$240											Pending County REET fund 2013 allocation
14	D	A Street Reconstruction	\$210			\$10	\$200											Pending \$2,855,000 WSDOT BIAIC Grant Application (80%)
15	S	Kourou Road Reconstruction	\$180	\$30	\$30	\$120	\$30											Pending County REET fund 2013 allocation
16	O	Enclosed Forest Road Trail - East	\$300			\$30	\$90											Pending County REET fund 2013 allocation
17	L	Hunter Bay Dock, Foot, Boat Ramp Replacement	\$360			\$45	\$265											Pending County REET fund 2013 allocation
18	S	Griffin Bay Marinas Access	\$230			\$30	\$40	\$150										Secured \$13,200 grant - 100% BICWA match, \$13,200 other funds
19	O/S	San Juan Islands Scenic Byway Bypass Bypass and Waypoints	\$10	\$10														Rec'd 90% Outside Funds for Design & Construction
20	S	Feet Point Road to Turn Point Road Connector	\$30	\$30														Pending County REET fund 2013 allocation
21	O	Trane Alley Complex Street	\$935	\$285	\$650													Pending \$650 HCO WSDOT Federal (on and BICWA) Program Grant App
22	S	Reaveron Valley Road Culvert Replacement (MP 4.2)	\$300	\$10	\$100													Use local funds for part and 50% Outside Funds for rest
23	ALL	GRAVEL ROAD CONVERSION Spruce St, Almer St, Hemlock St, Firwood Rd, Lantana Rd Cape St, Mary Rd, Ceceith Rd	\$320	\$140	\$150	\$60	\$160	\$100	\$200	\$200	\$100							
24	ALL	SHORE ACCESS	\$75	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	
25	ALL	NON-ACTORIZED SAFETY IMPROVEMENTS	\$75	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	\$15	
26	ALL	INTERSECTION GEOMETRY IMPROVEMENTS	\$150	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	
27	ALL																	
TOTAL FUNDS			\$12,805	\$4,911	\$2,055	\$4,123	\$1,369	\$809	\$430	\$430	\$430	\$430	\$430	\$430	\$430	\$430	\$430	
COUNTY ROAD FUNDS			\$8,963	\$4,014	\$1,265	\$3,209	\$451	\$250	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$100	
COUNTY ROAD FUNDS			\$3,846	\$807	\$100	\$814	\$915	\$800	\$410	\$410	\$410	\$410	\$410	\$410	\$410	\$410	\$410	

San Juan County Public Works Department
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3 **b. Reimbursable Services**

4 San Juan County routinely provides transportation-related services, such as engineering, and
5 construction and maintenance projects, to other agencies and local governments through the
6 provisions of intergovernmental agreements. Typical clients for these services include the Town
7 of Friday Harbor, Port Districts, Fire Districts, School Districts and County Parks. The county is
8 reimbursed for these expenditures based on actual costs. This source of revenue is highly variable
9 from year to year, depending on the needs of the local agencies and the capacity of the county to
10 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 the pump
14 statewide, and generates over 1.3 billion dollars annually. The current state "gas tax" is 37.5 cents
15 per gallon. Counties receive a portion of the total tax based on a formula that uses population,
16 road miles and road expenses, among other factors, to distribute the funds.—

17
18 It should be noted that of the 37.5 cents per gallon, 14.5 cents is dedicated to capital construction
19 projects. San Juan County receives none of the 14.5 cents because there are no state gas tax
20 funded capital projects in the county.—

21
22 Motor vehicle fuel tax revenues in San Juan County grew at a slow to moderate rate between
23 1980 and 2000 slow rate from 2012-2017. Since 2000, the rate of growth has slowed. Receipts
24 from 2009 were less than 2008. This source of revenue will continue to be an important
25 component of overall road fund revenues between 2011 and 2016, but the rate of growth is
26 projected to remain flat.—

27
28 Motor vehicle fuel tax currently accounts for about 12 10 percent of road fund annual revenue.

29
30 **d. State and Federal Grants**

31 State and federal grant funding have become an increasingly larger portion of the overall
32 transportation improvement investment in the county. The most significant source of state
33 transportation grants over the past 15 years has been the Rural Arterial Trust Account (RATA).
34 The County Road Administration Board (CRAB) administers this competitive grant program for
35 counties in Washington. San Juan County has been awarded over \$4,000,000 in RATA funding
36 over the past 10 years.—

37
38 Federal grant funding has increased in recent years due to economic stimulus programs and road
39 safety programs, with increased support from the Federal Highway Administration (FHWA).—

40
41 There is significant uncertainty regarding the level of funding that may be available for the long
42 term. Conservative estimates have been used to project future revenue from these sources for
43 the planning period.

44
45 **e. County Arterial Preservation Program**

46 Counties receive an annual distribution of funds from CRAB, through the county arterial
47 preservation account (CAPA) for the preservation of local arterial and collector roadways. The
48 source of the money is motor vehicle fuel tax, and a distribution formula is used to allocate monies
49 to the various counties. These funds can only be used on certain functional class roads and cannot

1 be used on roads that are designated as local access roads. For San Juan County, which has no
2 classified arterial roads, this means the money must be spent on major and minor collector routes.

3
4 This source of revenue accounts for a little less than 2% of annual road revenues. The CAPP
5 revenues the county receives have been flat for the past 10 years or so. This funding is projected
6 to remain flat or show slow growth during the planning period.

7
8 **f. Capron Refund**

9 The Capron refund is a special transfer payment to San Juan and Island Counties which pays the
10 counties money from the motor vehicle fuel account in lieu of providing state highways and
11 maintenance facilities. The Capron Act was originally made law in 1919, as a means to ensure
12 equitable distribution of the State portion of Motor Vehicle Fuel Tax (MVFT) revenues. Without
13 the Capron Act, San Juan County would be the only county in the state to receive no local benefit
14 from state investment in state and federal highways.

15 The most significant event with respect to the Capron Act was a legislative change in 2006 that
16 significantly reduced Capron revenue to San Juan County. ESSB 6839, passed by the 2006
17 Washington Legislature, amends the Motor Vehicle Fuel Tax (MVFT) and License Fee refund to
18 island counties authorized by RCW 46.68.80 (Capron Act). This amendment of the Capron Act
19 transfers a portion of the San Juan County refund to the Washington State Ferries (WSF) operating
20 account. ESSB 6839 resulted in the loss of significant existing and future CAPRON Act refund
21 dollars by transferring all of the Nickel Account and all of the Transportation Partnership Account
22 (TPA) revenues to the Washington State Ferries (WSF) Operating Account. Both the Nickel
23 Account and the TPA revenues were to be used by the Washington State Department of
24 Transportation (WSDOT) for a specific set of projects set forth by the state legislature in 2003 and
25 2005. The WSF operating account is not a specific project approved by the legislature. San Juan
26 County is currently the only county in Washington receiving no direct benefit or local investment
27 from the Nickel and TPA revenues. This change resulted in the loss of one to two million dollars
28 annually for San Juan County.

29
30 Capron refund revenues currently account for about 35% of annual road fund revenues. The
31 projected trend for this source is flat or downward. Capron revenues decreased every year
32 between 2005 and 2010, and have remained steady since then. The revenues fluctuate depending
33 on levels of annual grant funding. The long range growth forecast for this important source of
34 revenue is relatively flat.

35
36 **g. Real Estate Excise Taxes**

37 Real Estate Excise Taxes (REET) are collected on the sale of residential and commercial real
38 property in Washington State. San Juan County collects both authorized one-quarter percent REET
39 for a total of one-half percent REET for local capital projects. The 2013-2018 2019-2025 Six Year
40 TIP contains pending REET fund allocations for enhancement projects.

41
42 **h. Developer Contributions**

43 This de facto revenue source entails dedicated right-of-way and construction that proponents of
44 development contribute to county road system improvements.

45 -

46 **i. Other Revenues**

47 The County receives other revenues in any given year that include private timber harvest taxes,
48 federal forest yield, inter-departmental service fees; interest income; and miscellaneous review
49 fees.

1
2 The various sources of revenue described above make up the county road fund, from which funds
3 are drawn for operations, maintenance, and capital programs as described under the prior section
4 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 purposes,
10 created by cities and/or counties. It allows more than one jurisdiction to join together for the
11 purpose of acquiring, constructing, improving, providing, and funding any city street, county road,
12 or state highway improvement within the district. With voter approval, a TBD has the authority
13 to levy property tax, implement a vehicle license fee, and/or issue general obligation bonds.
14

15 **b. Transportation Impact Fees**

16 The County is authorized to collect impact mitigation fees, based on daily vehicle trips generated
17 by new residential and commercial developments. Fees generated from impact fees may be used
18 to fund selected capacity improvements that are related to the impacts caused by the
19 development. San Juan County has not adopted regulations to allow the implementation of
20 impact fees on development.
21

22 **c. Public Transportation Benefit Areas**

23 RCW 36.75A allows for the creation of Public Transportation Benefit Areas (PTBA), for the express
24 purpose of providing transit and special needs transportation services. Revenues collected under
25 the authority of a PTBA may not be used for the improvement or maintenance of public roads or
26 highways.
27

28 **d. Local Improvement District**

29 Local Improvement Districts (LIDs) are special assessment districts. These districts are formed as
30 a means of assisting benefitting properties in the financing of and payment for needed capital
31 improvements. LIDs are formed to permit the improvements to be financed and paid for over a
32 period of time through assessments on the benefitting properties.
33

34 **e. Federal Programs**

35 ***FTA Urban Mass Transit (Sections 3 and 9):*** This program is intended for transit agencies from
36 the federal government. Section 3 is for new rail projects, improvement of existing rail systems,
37 and the rehabilitation of bus systems. Section 9 provides transit capital and operating assistance
38 to urbanized areas.
39

40 ***FTA Urban Mass Transit (Section 16):*** This program is for private, nonprofit agencies from the
41 federal government through the state. It provides capital assistance for transportation services
42 to elderly persons and persons with disabilities.
43

44 ***FTA Urban Mass Transit (Section 18):*** Transit agencies, cities and counties in rural areas from the
45 federal government through the state benefit from this program. It provides transit capital and
46 operating assistance to non-urbanized areas.
47

48 ***Community Development/Development Block Grant (CDBG):*** Federal funds are made available
49 to cities and counties for a variety of public facilities, as well as housing 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

1 occurring in the San Juan Islands route. That higher percentage increase was the result of an
2 equalization procedure that balanced the tariffs throughout the WSF system as a function of the
3 length of the trip between ports, so that all tariffs are now proportionate. An indicator known as
4 "fare box recovery" now provides an approximation as to the degree that route revenues pay for
5 the costs of service on each route. Fare box recovery on the San Juan Islands route is estimated
6 at 50%.

8 III. Public Outreach Process

9
10 A variety of techniques and resources were used to inform, consult and involve the community during the
11 Transportation element update. Input was solicited from the general public stakeholder committees and
12 organizations. Community comments have been obtained in writing and through interviews and public
13 testimony. Public participation was early and continuous as many opportunities for community input were
14 provided during different stages of product development.

15 In 2011, input from the community during development of the draft Transportation Element Update of the
16 County's Comprehensive Plan was solicited in the following venues:

- 17 ● Stakeholder development of text for the Inventory
- 18 ● A series of County Council workshops
- 19 ● Presentation to the Critical Needs Task Force – Transportation Group
- 20 ● A booth at the Farmer's Market on each of the islands

21 In 2012, input for further updates to the Transportation Element was sought from the following organizations:

- 22 ● County wide Community Transportation Meeting
- 23 ● WSF San Juan County Ferry Advisory Committee

24 In 2013, public outreach efforts and presentation of information intensified and the following organizations
25 and venues were included:

- 26 ● Workshops and hearings with the Planning Commission
- 27 ● WSF San Juan County Ferry Advisory Committee
- 28 ● San Juan Island Trails Group
- 29 ● Town of Friday Harbor
- 30 ● Economic Development Council
- 31 ● Public Community Meetings on Lopez, Orcas and San Juan Islands
- 32 ● County Council Briefings and Public Hearing

33 In addition, written and telephone comments were received prior to the issuance of the State Environmental
34 Policy Act (SEPA) determination, documents were sent to the Washington Department of Commerce and the SEPA
35 determination was publicized on the Washington State Department of Ecology's SEPA register (#201301568).

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IV. Attachments

~~Transportation Element Growth Rates~~

Transportation Level of Service Analysis and Recommendations

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1 **Level of Service: General Overview**

2 The Growth Management Act requires that San Juan County regionally coordinate establishment of Level of
3 Service (LOS) standards for locally owned arterial roads (aka county collector roads) and public transit routes
4 (none in San Juan islands). As extension of County roads, San Juan County also establishes LOS for County docks
5 which are considered extensions of the County road system.

6 The Washington State Department of Transportation Ferries division (WSF) establishes LOS standards for state-
7 owned ferry route facilities and services that are considered highways of statewide significance. These LOS
8 standards help the state to gauge the performance of the state transportation system and monitor
9 performance, analyze proposed improvement strategies and facilitate coordination between local planned
10 improvements and the state's ten year investment program. After local consultant, LOS standards for the
11 Washington State ferry service were established in the 2009 Washington State Ferries Long Range Strategic Plan
12 by WSDOT. These standards are based on projected ferry use to the year 2030. LOS standards for ferry related
13 docks and parking have yet to be developed by WSF.

14 **Concurrency**

15 Transportation concurrency is required by the GMA pursuant to RCW 36.70A.070. Concurrency means that
16 public transportation facilities or management strategies necessary to ensure that transportation facilities and
17 services are available to serve a development in accordance with established LOS standards when a
18 development is ready for occupancy or use. Concurrency requirements also apply to transportation facilities
19 and services of statewide significance. WSF has determined that the Anacortes-Friday Harbor ferry route is not
20 designated as a highway of statewide significance.

21 Concurrency requirements are established for county collectors and docks in San Juan County Code 18.60.200.
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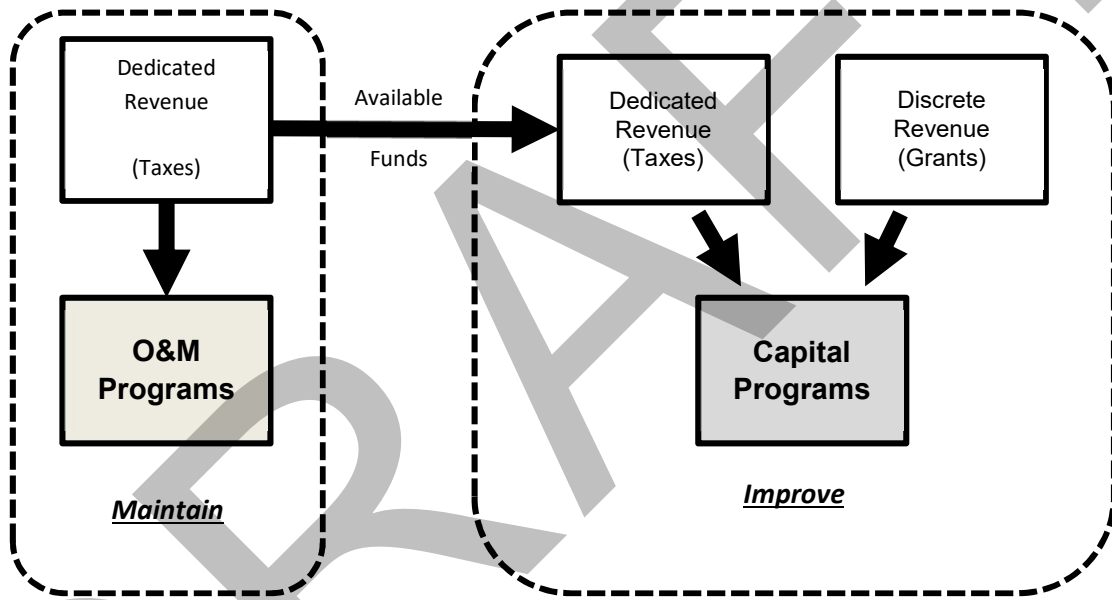
1 **II. TRANSPORTATION FINANCING (2020-2036)**

2
3 This section addresses transportation funding for transportation projects funded by the County road fund and
4 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 discrete
8 revenue (grants). Taxes are the most reliable and predictable source of transportation funds and are used
9 primarily to support the County’s operation and maintenance (O&M) programs (those necessary to
10 maintain the existing level of service). They are also used to support, if available, the County’s capital
11 programs (those developed to improve the level of service, multi modal access, and/or safety), see Figure
12 7.

13
14 **Figure 7. Operation and Maintenance Programs vs Capital Programs.**



16
17 Source: 2019 San Juan County Engineer Budget Presentation

18
19 The ability of the County to self-fund its capital programs enables it to best prioritize transportation
20 improvements in accordance with the recommendations of the Plan. When capital programs become
21 grant-dependent, individual capital projects must be developed to be grant eligible. Developing grant
22 eligible capital projects requires the expenditure of staff time and funds with no certainty of award.
23 Further, grant compliance may surrender the County’s desire to have full authority over project design
24 elements reflective of local conditions and social values.

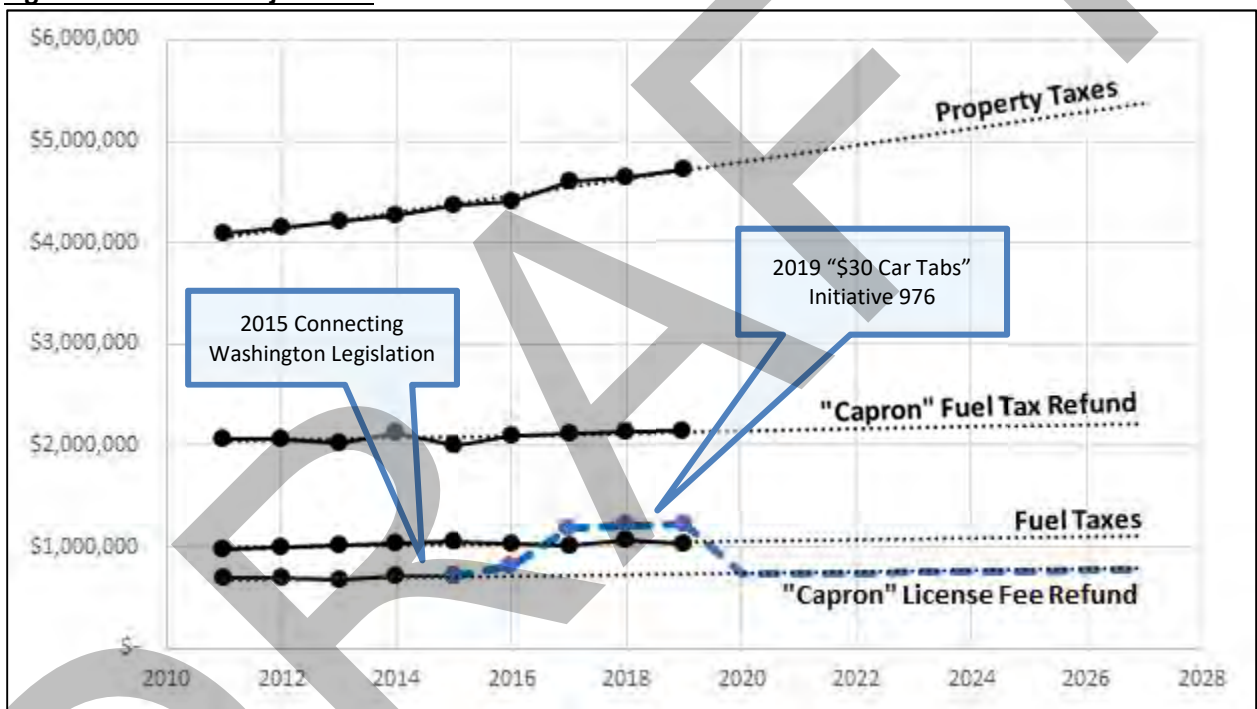
25
26 Overall, the County has been in a period of diminishing financial resources for several years and this trend
27 is projected to continue. The recent decrease in Capron revenue and increase in employee and goods and
28 services costs has accelerated the need to make strategic organizational decisions to reduce costs or
29 increase revenue, or some combination thereof, in order to prevent transportation level of service
30 reductions in the County.

1
2 **B. Transportation Revenues**

3 Revenue sources include property taxes, fuel taxes, and Capron refunds. Property taxes are authorized by
4 the County legislative authority and are subject to deductions from levy shifts and levy diversions. Fuel
5 taxes are collected by the State and are distributed to the County. The 1929 Capron Act (RCW 46.68.080)
6 provides additional revenue to the County consisting of motor vehicle license fees and motor vehicle fuel
7 taxes.

8
9 As shown in Figure 8, while tax revenue is normally stable and predictable, the license fee portion of
10 Capron refunds increased significantly in 2015 (approximately \$500,000/year) due to the passage of the
11 2015 Connecting Washington legislation. The recent passage of Initiative 976 (which is currently
12 contested) may reduce this revenue to 2015 projections pending final court action.

13
14 **Figure 8. Revenue Projections.**



15 Source: San Juan County Road Fund Budgets 2011-2019 and projections by County Engineer

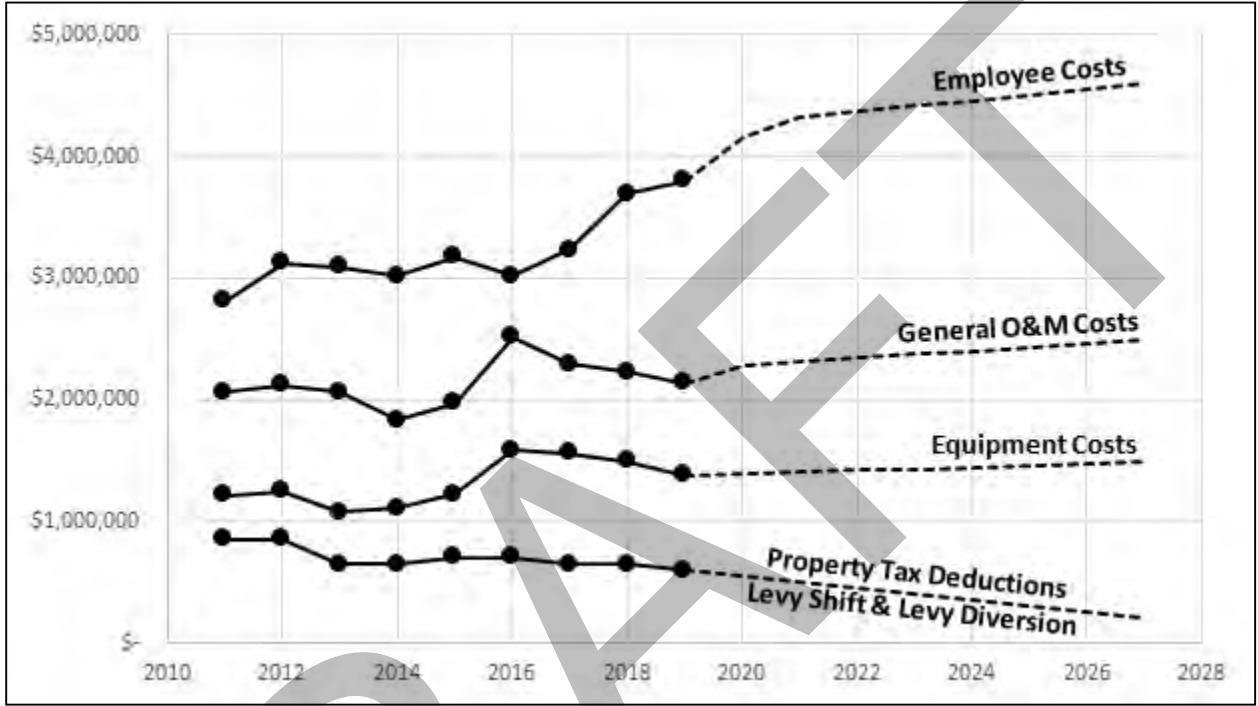
16
17
18 **C. Transportation Expenditures**

19 Expenditures have been categorized into four groups to facilitate annual projections and assist in strategic
20 organizational decisions: employee costs, operations and maintenance (O&M) costs, equipment costs,
21 and property tax deductions. Some of the many factors that complicate the ability to predict these costs
22 include collective bargaining agreements, employee benefit programs, raw material costs (rock and oil),
23 and inclement weather response (snow, ice, and wind).

24
25 Property tax deductions due to a levy shift or levy diversion are discretionary actions authorized by the
26 County legislative authority each year. They are shown as an expenditure so that property tax revenue
27 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 Fair
 2 Department by Ordinance 12-2015. A levy diversion has occurred every year since 2002. Beginning in
 3 2017, the County Council has programmatically reduced the levy diversion by \$50,000 each year with a
 4 \$550,000 and \$500,000 levy diversion budgeted for 2020 and 2021. Figure 9 shows the projected
 5 expenses in these four groups.

6 **Figure 9. Transportation Expenditure Projections.**



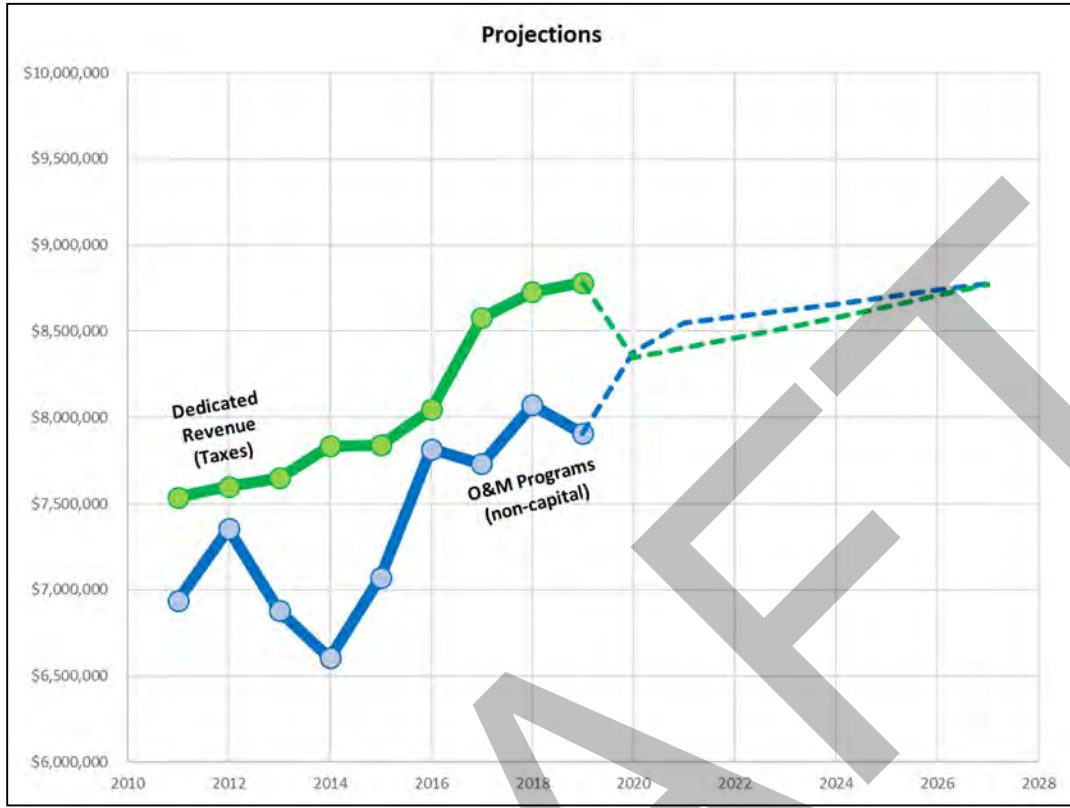
8 Source: San Juan County Road Fund Budgets 2011-2019 and projections by County Engineer

9 **D. Analysis and Projections**

10 A comparison of dedicated revenues (taxes) and O&M programs (non-capital) is necessary to determine
 11 the remaining availability of dedicated revenue for capital programs. In 2020, the County will need to
 12 implement cost saving or revenue increasing measures to preserve an ability to self-fund capital projects.
 13 Without these changes, the County's capital program may be entirely dependent on grant programs for
 14 construction (see Figure 10).

1

Figure 10. Road Fund Projections.



Source: San Juan County Road Fund Budgets 2011-2019 and projections by County Engineer

Table 7, a summary of planned transportation expenditures and revenues, indicates that in the 2020 – 2025 period O&M programs will need to be funded by County road fund reserves (cash) and that construction for planned capital programs may be entirely dependent on grant funds. This projection will need to be continually revised as necessary cost cutting and/or revenue increase measures are implemented.

Table 7. 2020-2037 Projection of Planned Expenditures and Revenues.

	3 x 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

Source: San Juan County 2020-2025 Six Year Transportation Improvement Plan and projections by County Engineer

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1
2 **E. Potential Options for Reducing O&M Expenses**

3 The Public Works Department has two basic options to consider to reduce O&M expenses:

- 4
5
 - 6 • Accelerate process improvement strategies to decrease costs by increasing operational
7 efficiencies. While process improvement is continually evaluated for cost saving measures, it is
8 most effective when strategically implemented over time when opportunities arise. For
9 example, an opportunity for fleet optimization may present itself when advances in the industry
10 allow for combining equipment or sharing equipment between islands.
 - 11 • Implement level of service reductions by cutting back on maintenance programs. This may
12 include reductions to the County's chip seal overlay program, which will adversely affect the
13 quality of County roads. Over time, deferred maintenance is typically more expensive as the
14 scope and scale of repairs exceeds what can be performed under routine operations.

15
16 **F. Potential Source of Transportation Revenue**

17 The State's Transportation Resource Manual (reference provided herein) includes the complete listing of
18 options that local governments may consider to increase dedicated revenues (taxes) for transportation.
19 The two most practical options are:

- 20
21
 - 22 • Property Taxes: Any county may impose a road levy up to \$2.25 per \$1,000 assessed value for the
23 county road district. In 2019 the San Juan County's road levy was approximately \$0.62 per \$1,000.
24 The road levy is subject to the 1 percent annual "levy lid" (RCW 84.55.010 and WAC 458-19-020).
 - 25 • Transportation Benefit Districts: Chapter 36.73 RCW authorizes counties to form transportation
26 benefit districts that can raise revenue for specific transportation projects, usually through vehicle
27 license fees or sales taxes.

28
29 **G. References for Section II Update**

30 **CRAB County Engineers' and Public Works Directors' Desk Reference**

31 Updated regularly by the Washington State County Road Administration Board (CRAB), a general resource
32 to support the work performed within the Office of the County Engineer.

33 <http://www.crab.wa.gov/engineering/dcs/20180419DeskRef.pdf>

34
35 **Transportation Committee Transportation Resource Manual**

36 Produced annually by the Transportation Committee (House Transportation Committee & Senate
37 Transportation Committee) and includes a comprehensive list of transportation taxes that have been
38 authorized by the Legislature for use by local governments.

39 <http://leg.wa.gov/JTC/trm/Pages/TRM2017.aspx>

40
41 **Office of Financial Management (OFM) Transportation Revenue Forecast Council**

42 Each quarter, technical staff of the Department of Licensing, Department of Transportation, Washington
43 State Patrol and the Office of Forecast Council produce forecasts. The revenue forecasts agreed upon by
44 the Transportation Revenue Forecast Council members become the official estimated revenues under
45 RCW 43.88.020 21.

46 <https://ofm.wa.gov/budget/budget-instructions/transportation-revenue-information>

1 **WSDOT Fuel and Vehicle Trends Report** - Summary of articles appearing in popular, business and
2 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 prices,
4 consumption and revenues to the current forecast.

5 <https://www.wsdot.wa.gov/sites/default/files/2020/05/05/FuelandVehicleTrends-Apr2020.pdf>

6
7 **Department of Revenue Property Tax Levies “Levy Manual”**

8 Designed for the convenience of the 39 county assessors and the Department of Revenue. It is also a
9 useful tool for other county officials, taxing district officials, legislators, and, of course, taxpayers.

10 https://dor.wa.gov/sites/default/files/legacy/Docs/Pubs/Prop_Tax/LevyManual.pdf

11

DRAFT

2036 Comprehensive Plan
Transportation Element Briefing

August 2020 Presentation

August 2020
Transportation Element
Update Briefing

Shannon Wilbur, Senior Project Engineer
Christine Coray, Project Engineer

Mandatory Update

- 2016 DCD contracted a review of the Comprehensive Plan as required by GMA.
- DCD developed a Scope of Work for the 2036 Update
- Transportation Element-five mandatory items to be reviewed and updated
 - Update Inventory of air, water, and ground transportation facilities/services
 - Update traffic forecast to cover to cover at least 10 years
 - Update analysis of future funding capabilities to 2036
 - Update multiyear financing plan to 2036
 - Re-assess strategies for if funding falls short of meeting identified needs

Transportation Element—Two Parts

- Transportation Element (Section B Element 6)

- Provides Transportation Goals and Policies

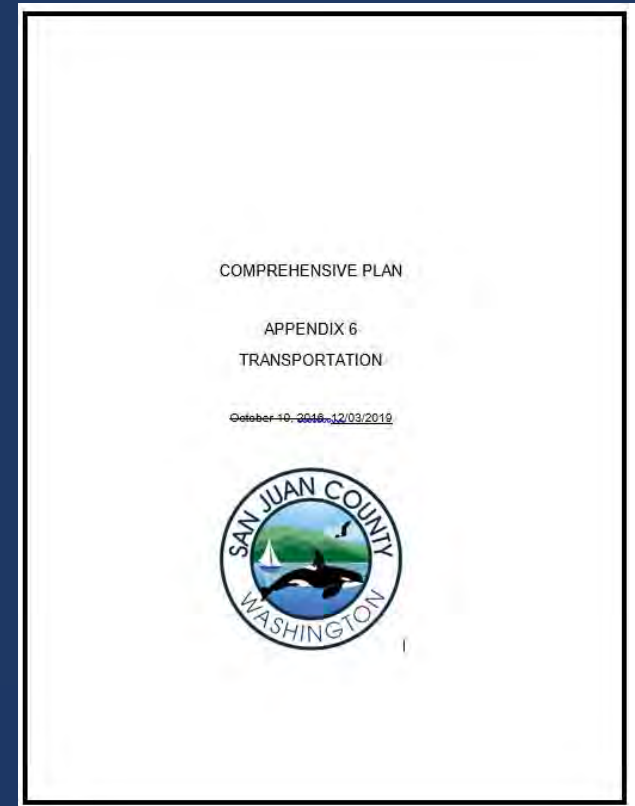
- General
 - Air
 - Marine
 - Land
 - Intergovernmental and Regional Coordination

- Appendix 6-Transportation

Provides data and analysis as the basis for the goals and policies in the Transportation Element.

Appendix 6 Transportation

- Purpose of Appendix 6
Provide data and analysis as the basis for the goals and policies in the Transportation Element.
- Section I-Transportation Facilities
 - A-Air Transportation
 - B-Marine Transportation
 - C-Land Transportation
 - D-Demand Management Transportation Options
 - E-Freight Mobility
 - F-Intergovernmental Coordination
- Section II-Transportation Financing
 - A-Expenditure
 - B-Revenues



Appendix 6 Transportation

✓ Consistent Format

- Inventory
- Demand/Capacity Analysis
- Long Range Transportation Planning Recommendations

✓ Streamlined

✓ Clarified

In February/March 2020 we reviewed the proposed changes with Council and Planning Commission.

We have made two additions to the draft Appendix:

- Added reference to Shore Access
- Updated Intersection LOS

Shoreline Access



Shore access points may result from County roads that end at the shoreline (coastal or lakes).

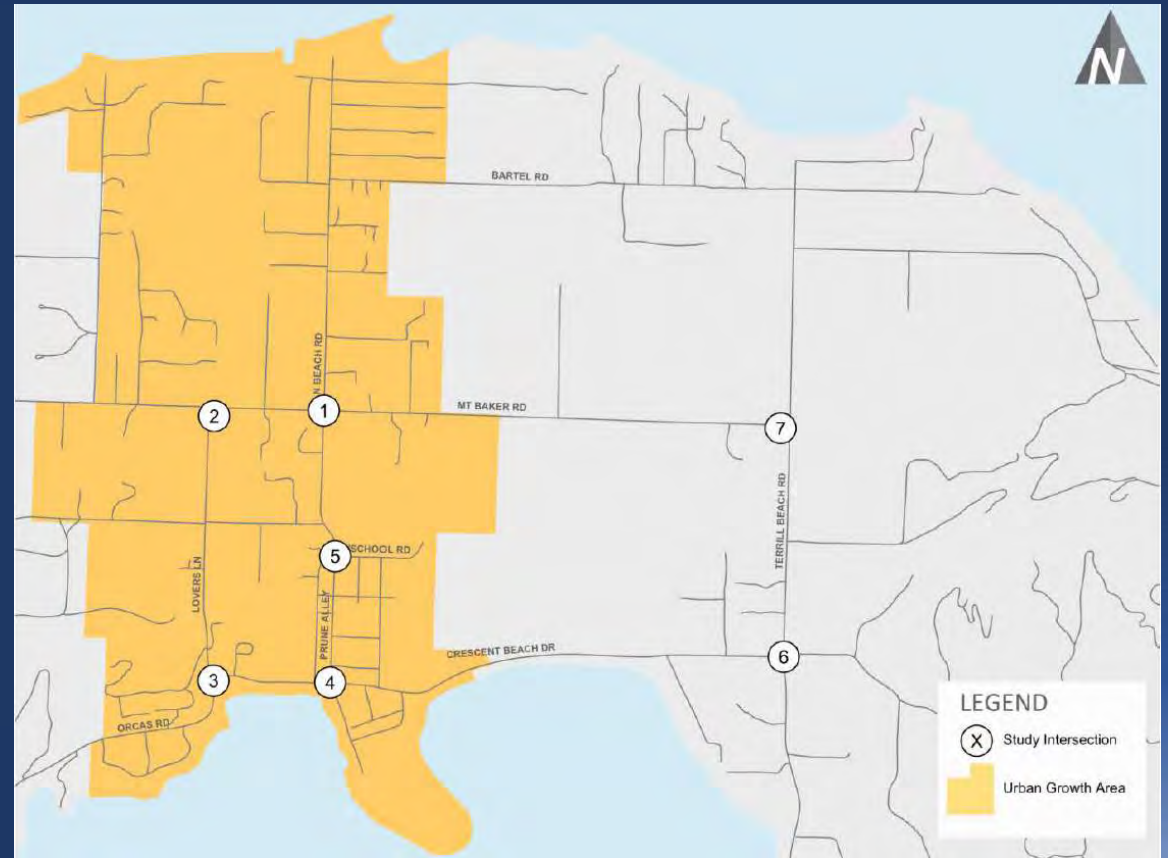
Shoreline Access provides for:

- Delivery of people, vehicles, and freight via a barge or freight ferry
- Marine recreation including shore access and small boat launching

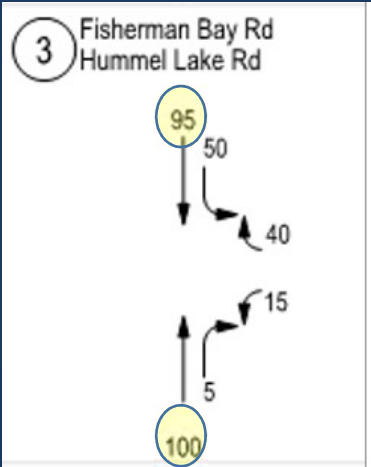
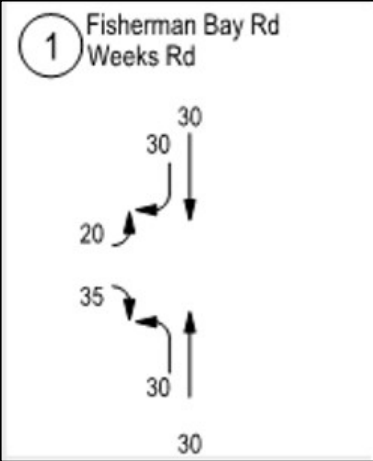
Some of the many shore access points are listed in the Parks Plan.

Improvements to the public right of way may be included in the PW TIP or the Parks CIP.

New Intersection LOS to analyze traffic congestion in UGAs



Measure peak traffic



Analyze Existing Intersection Delay

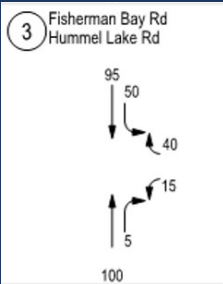
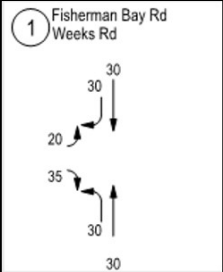


Table 2. Level of Service Criteria for Unsignalized Intersections

Level of Service	Average Control Delay (sec/veh)
A	0 - 10
B	>10 - 15
C	>15 - 25
D	>25 - 35
E	>35 - 50
F	>50

Table 3. PM Peak Hour LOS - Existing (2019)

Intersection	2019 Existing	
	LOS ¹	Delay ²
Weeks Rd / Fisherman Bay Rd	A	9.1
Lopez Rd / Fisherman Bay Rd	A	9.1
Fisherman Bay Rd / Hummel Lake Rd	A	9.6
Weeks Rd / Lopez Rd	A	9.1

1. Level of service, based on 2010 Highway Capacity Manual methodology.
 2. Average delay in seconds per vehicle.

Current and 20 Year Projected Intersection LOS

20 Year Projection Based on:

- Land Use Designations
- Population Projections

The future buildout may or may not occur. If it does, it may take much longer than 20 years.

Estimate intersection traffic and delays to determine LOS

LOPEZ UGA INTERSECTIONS	2019 Existing		2036 Projection	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Weeks Rd/Fisherman Bay Rd	9.1	A	10.5	B
Lopez Rd/Fisherman Bay Rd	9.1	A	11.0	B
Fisherman Bay Rd/Hummell Lake Rd	9.6	A	13.5	B
Weeks Rd/Lopez Rd	9.1	A	10.9	B

All currently operate at LOS A are forecasted to operate at LOS B in 2036.

EASTSOUND UGA INTERSECTIONS	2019 Existing		2036 Projections	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
N Beach Rd/Mt Baker Rd	21.7	C	133	F
Lovers Ln/Mt Baker Rd	11.8	B	19.4	C
Orcas Rd/Main St	14	B	24.7	C
Prune Alley/Main St	14.7	B	23.5	C
Prune Alley/School Rd	11.5	B	19.7	C
Terrill Beach/Crescent Beach Dr	11.3	B	12.2	B
Terrill Beach/Mt Baker Rd	8.5	A	9.8	A

All currently operating at LOS C or better now and in 2036 except North Beach Road and Mount Baker

Recommendation: Adopt Intersection LOS D

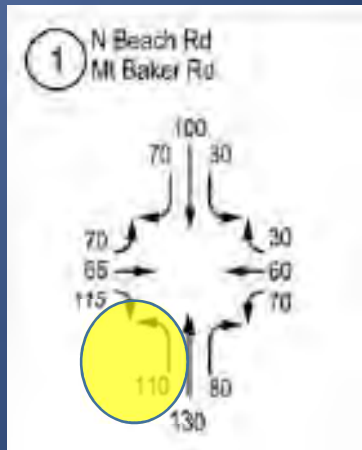
LOPEZ UGA INTERSECTIONS	2019 Existing		2036 Projection	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Weeks Rd/Fisherman Bay Rd	9.1	A	10.5	B
Lopez Rd/Fisherman Bay Rd	9.1	A	11.0	B
Fisherman Bay Rd/Hummell Lake Rd	9.6	A	13.5	B
Weeks Rd/Lopez Rd	9.1	A	10.9	B

EASTSOUND UGA INTERSECTIONS	2019 Existing		2036 Projections	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
N Beach Rd/Mt Baker Rd	21.7	C	133	F
Lovers Ln/Mt Baker Rd	11.8	B	19.4	C
Orcas Rd/Main St	14	B	24.7	C
Prune Alley/Main St	14.7	B	23.5	C
Prune Alley/School Rd	11.5	B	19.7	C
Terrill Beach/Crescent Beach Dr	11.3	B	12.2	B
Terrill Beach/Mt Baker Rd	8.5	A	9.8	A

Table 2. Level of Service Criteria for Unsignalized Intersections

Level of Service	Average Control Delay (sec/veh)
A	0 - 10
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C	>15 - 25
D	>25 - 35
E	>35 - 50
F	>50

North Beach and Mt Baker Intersection



Estimated 2036
Vehicles per hour

Table 5. PM Peak Hour LOS - Existing (2019) and Eastsound UGA at Buildout⁴

Intersection	2019 Existing			UGA Buildout		
	LOS ¹	Delay ²	WM ³	LOS	Delay	WM
1. N Beach Rd / Mt Baker Rd	C	21.7	NBL	F	133	NBL

When needed, an All-Way Stop will reduce overall intersection delay to approximately 16 seconds per vehicle.

Potential Road Improvement Options

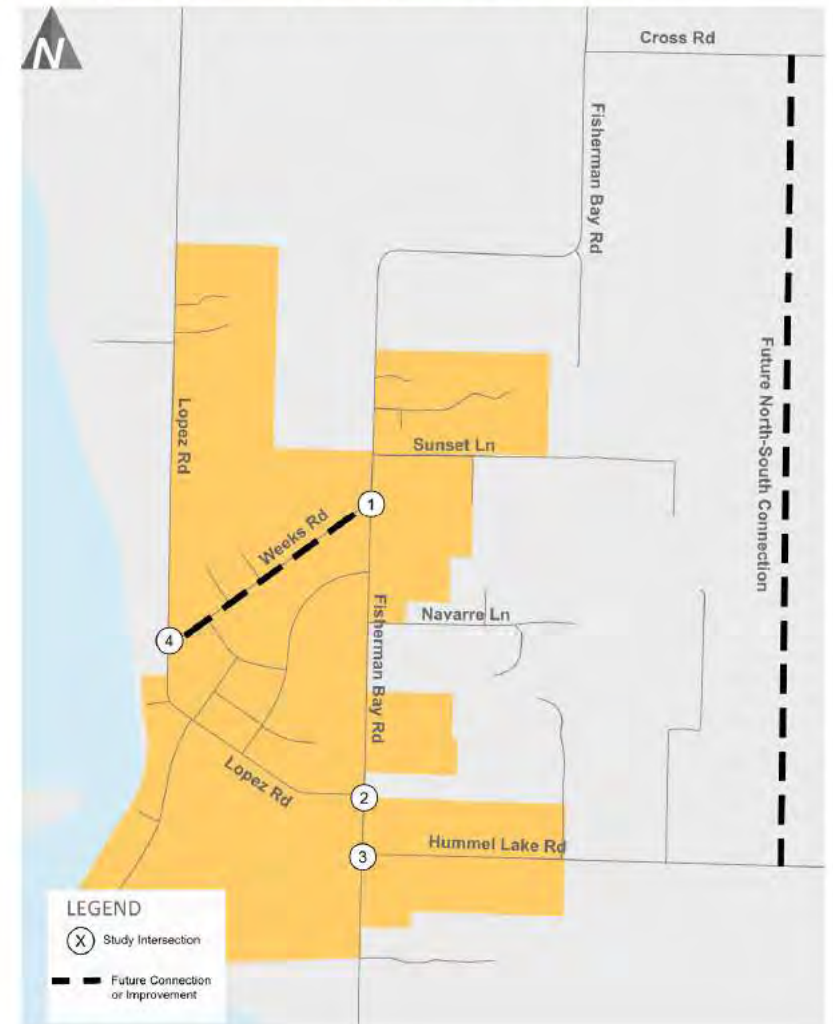
Weeks Road:

No roadway improvement requirements expected.
Possible future multimodal facilities to improve walking and biking experiences.

Hummel Lake Road and Cross Road Connection:

No additional north-south connections requirements expected from a LOS perspective.

Figure 5 - Lopez Village Potential Roadway Connections and Improvements



Potential Road Improvement Options

A Street Connection:

The connection is not expected to be necessary unless the UGA intersection LOS degrades or if there are other safety reasons to make this connection.

School Road North-South Connection:

The connection is not expected to be necessary unless the UGA intersection LOS degrades or if there are other safety reasons to make this connection.

Crescent Beach Road Closure: The analysis of the closure of Crescent Beach Drive shows that intersection improvements will be needed at:

- North Beach Road and Mt Baker Road,
- Lovers Lane and Mt Baker Road, and
- Prune Alley and School Road.

Specific alignment and engineering feasibility would be required to determine the appropriate intersection improvements.

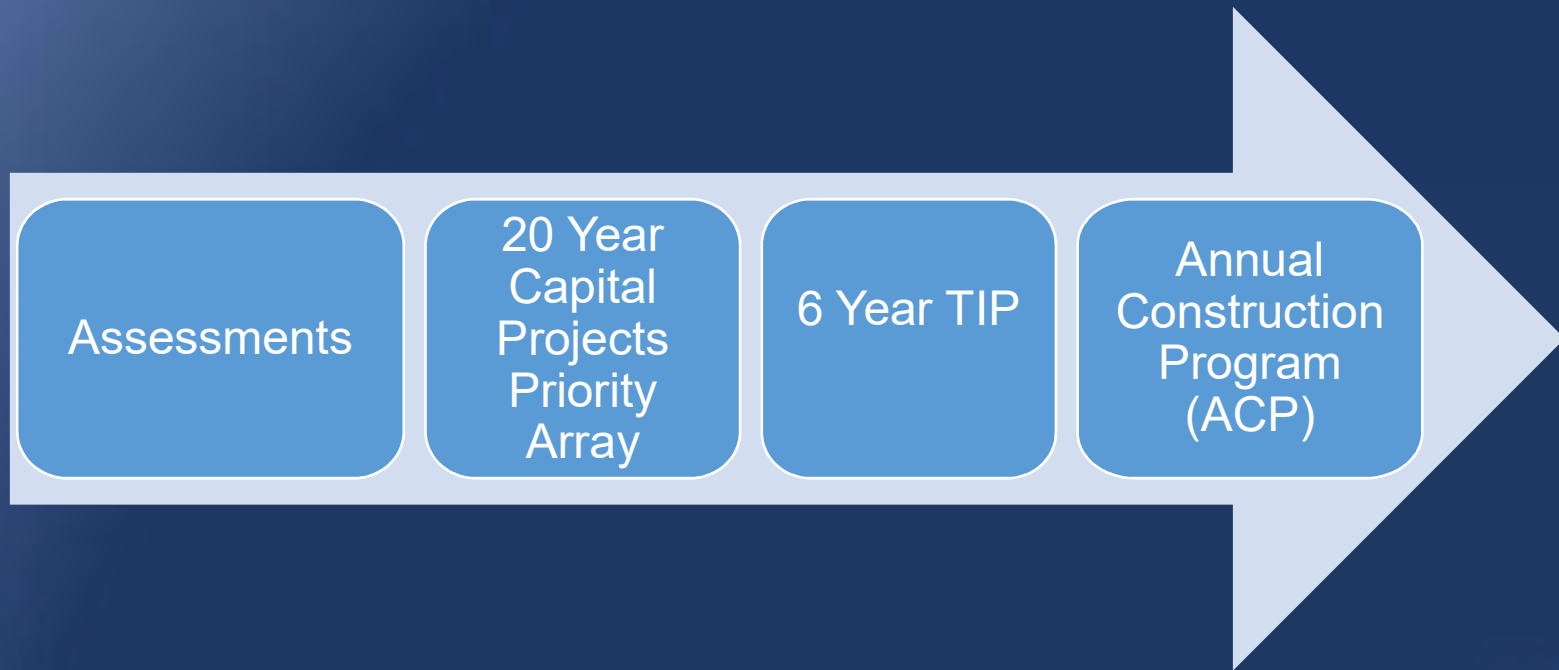
Figure 6 - Eastsound Potential Connections and Closures



UGA Long Range Planning

- Intersection delays will be evaluated periodically.
- **If intersection LOS is degrading**, 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.

Transportation Priority Planning



Assessments

- Roadway condition;
- Biennial traffic counts and LOS assessments;
- Annual Complete Streets assessment;
- Traffic collision assessment for road safety plan;
- Concurrency evaluation for proposed developments; and
- Intersection LOS assessments.

Transportation Element—Two Parts

- Transportation Element (Section B Element 6)

- Provides Transportation Goals and Policies

- General
 - Air
 - Marine
 - Land
 - Intergovernmental and Regional Coordination

- Appendix 6-Transportation

Provides data and analysis as the basis for the goals and policies in the Transportation Element.

Agricultural Comments

- Support safe and effective transport (priority loading) of livestock on ferries - *new Policy 6.4.B.18*
- Continue to allow unrestricted movement of farm equipment and machinery on county roadways – *new Policy 6.5.A.8*
- Continue support of unrestricted driving of livestock on county roads in a reasonable and prudent manner – *new Policy 6.5.A.8*
- Support integrated control of noxious weeds along county road ROW with environmentally-responsible practices – *new Policy 6.5.B.3.c*



Public Comments on Existing Port of Entry Goals

- 2013 Update – Goals 6.2.B.9 and 6.3.A.3 were added to create Ports of Entry on Lopez and Orcas Islands.
- Port of Entry Definition – A harbor, border town or airport by which people and goods may enter a country
- 2020 Update – The word ‘international’ was added to Goal 6.2.B.9 for clarification.
- Comments from public requesting that the Port of Entry goals be deleted.

Climate Change Resolution - Transportation

- Encourage telecommuting and teleconferencing for County business – *modified Policy 6.2.D.2*
- When feasible, switch to electric vehicles for county fleet purchases – *new Policy 6.2.A.11*
- Provide recharge stations at key destinations throughout the County – *new Policy 6.2.A.12*
- Support and incentivize interconnected, multi-modal transportation and convert to electric vehicles, rideshare and rental programs – *new Goal 6.2.A.3.I*
- Request WSF prioritize SJI service for electric ferries – *new Policy 6.4.B.16 and 6.6.A.18*
- Institute a policy of managed retreat for public infrastructure – *new Goal 6.2.A.4 and new Policy 6.2.B.9*



Electrification of Transportation

- Incentivize and support the development of clean electric vehicle (EV) transportation alternatives
- Facilitate the improvement and convenience of low carbon mass transit and increased car sharing, cycling, walking
- Facilitate remote working and telecommuting
- Install charging stations at key locations county-wide to reduce greenhouse gas emissions
- Support the electrification of all transportation facilities



Climate Change Responses and Environmental Considerations

- Climate change mitigation and adaptation
 - add 'flood and erosion hazards'
 - emphasize consideration to community and environmental resilience
 - provide for managed retreat of transportation infrastructure away from climate impacted locations
- Upgrade aging fleet of ferries to reduce vessel traffic noise and carbon pollution
 - prioritize new, quieter, hybrid-electric ferries
 - ensure reliable ferry service
 - benefit waters and whales

Fill in the Blank Policies

- New Policy 6.2.B.8 A portion of the _____ will be used to fund clean transportation initiatives that help reduce greenhouse gas emissions.
- New Policy 6.5 C.3 Adopt UGA intersection LOS _____ as adequate for Eastsound and Lopez Village key collector road intersections.

Level of Service	Average Control Delay (sec/veh)
A	0 - 10
B	>10 - 15
C	>15 - 25
D	>25 - 35
E	>35 - 50
F	>50

Transportation Element Forms Basis of ACP

