

# The Mosquito Fleet Trail Master Plan

Prepared for Kitsap County Department of Public Works, August 2001



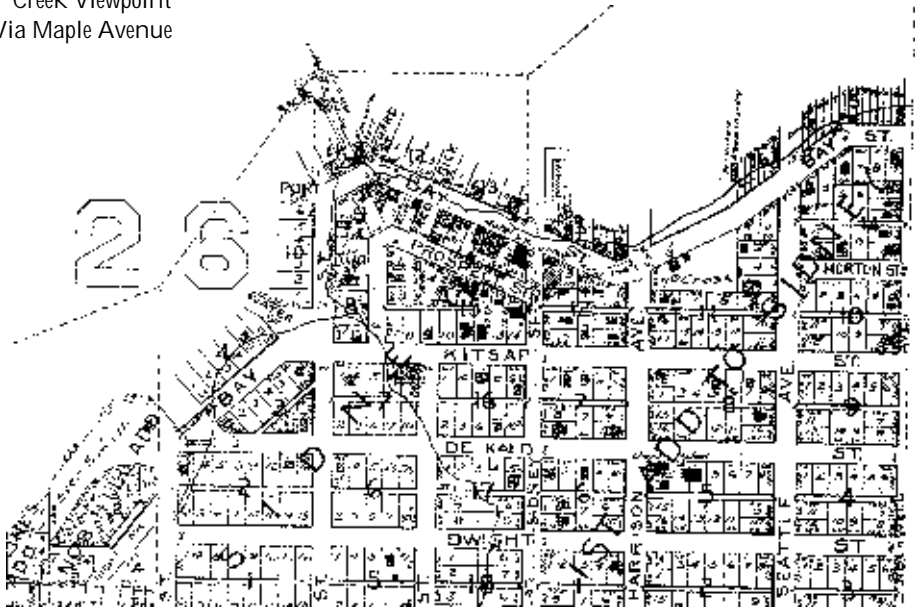
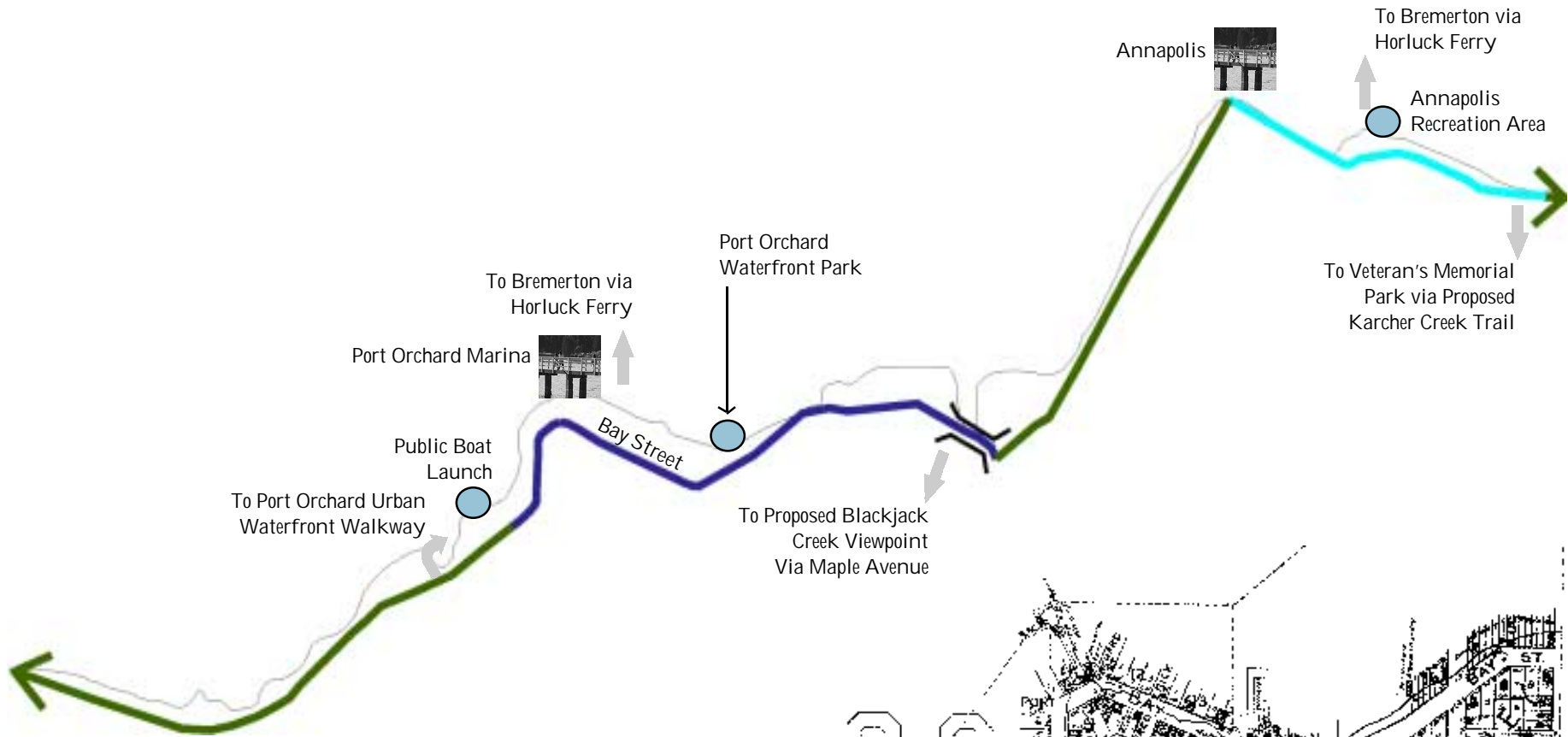
## **The Mosquito Fleet Trail Master Plan**

Prepared for Kitsap County Department of Public Works

Prepared by MacLeod Reckord  
Marcia Sinclair  
Adolfson Associates

August 2001

# Project 8: Port Orchard



Right and Opposite:  
 Maps of Sidney (now Port Orchard) and Annapolis.  
 From *Atlas of Kitsap County*, 1926..

Port Orchard offers numerous opportunities to connect to scenic sites and off-road trails. Suggested facilities reflect proposed trails and viewpoints included in Port Orchard's *Comprehensive Parks Plan* (1994).

**Primary Route** The primary corridor follows Bay Street through the City of Port Orchard, hugging the shoreline for much of the way. From Dogwood Hill Road to Kitsap Street, a separated path cross section is proposed on the waterside of the roadway. From Kitsap Street to Bethel Avenue, bicycle lanes are recommended. Through the downtown portion of Port Orchard (from Orchard Avenue to

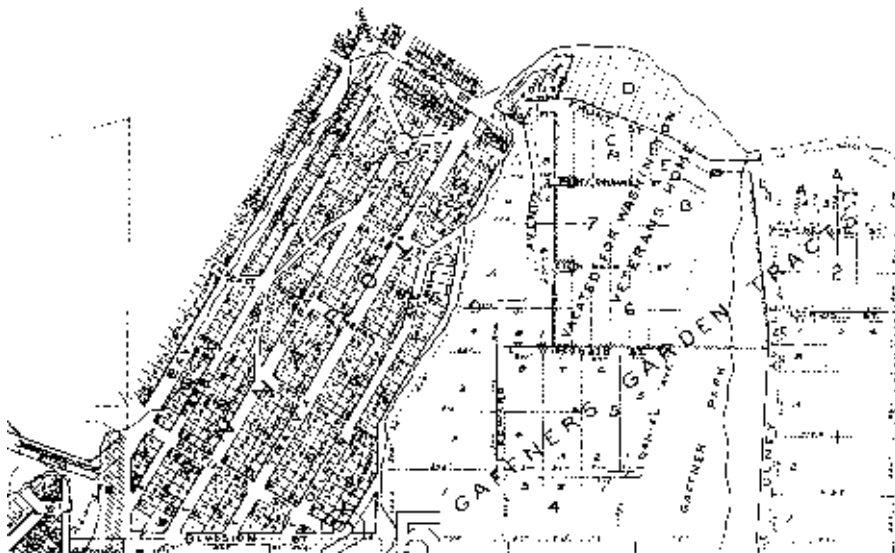
Harrison Avenue) the provision of bicycle lanes will require eliminating either the center turn lane or parallel parking from one side of the street.

From Sidney Avenue to Mitchell Point, a separated path cross section is recommended on the waterside of the road. The corridor narrows at Mitchell Point. Continuing from here to Olney Avenue, paved shoulders are recommended. Through coordination with Kitsap County Parks and Recreation, a separated path cross section could be developed from Retsil Road to Olney Avenue, by utilizing property at the Annapolis Recreation Area.

**Connections** There are a number of opportunities in Port Orchard to connect to planned off-road trails and viewpoints. The Port Orchard Urban Waterfront Walkway was first planned in 1985 and has since been adopted as part of Port Orchard's *Comprehensive Parks Plan* (1994). It proposes a 6 feet wide multi-use trail from the DeKalb Street Pier to the Retsil Veteran's Home. This is a substandard width for a shared use path. A re-evaluation of this walkway that integrates recommendations made in this plan is advised.

The *Blackjack Creek Comprehensive Management Plan* (1987) recommended development of a viewpoint along Blackjack Creek, a connection to this via Maple Avenue is suggested.

Recently there has been interest expressed by South Kitsap residents to develop a trail along Karcher Creek. Should this be pursued, it would provide a link between South Kitsap Community High School, Veteran's Memorial Park, the Annapolis Recreation Area and the Mosquito Fleet trail.



As an alternative to traveling around Gorst, the Horluck Ferry provides connections from the Annapolis Recreation Area and the Port Orchard Marina to downtown Bremerton. This is also an opportunity for trail users to travel on a real Mosquito Fleet ship, the Carlisle II, built in the San Juan Islands around 1917, and part of the Horluck Fleet since 1934.

**Cultural Resources** Cultural resources in Port Orchard include two museums, the Sidney Museum and Log Cabin Museum, both located on Sidney Avenue, a short distance from the trail corridor. The Sidney Museum, has exhibits on Kitsap County's history including a permanent display of Mosquito Fleet routes. The Log Cabin Museum also has exhibits related to Kitsap history, displayed in an authentic log cabin. There are also two Mosquito Fleet dock sites, Port Orchard (now the Port Orchard Marina) and Annapolis, located at Mitchell Point.

**Public Facilities** Public Facilities in the City of Port Orchard include the following:

**Recreation Facilities:** De Kalb Street Pier, Port Orchard Boat Launch, Port Orchard Marina, Port Orchard Waterfront Park & Boardwalk, Annapolis Recreation Area

**Community Facilities:** Port Orchard City Hall, Port Orchard Library

**Transit Facilities:** Horluck Ferry Terminals at Port Orchard and Annapolis, Kitsap Transit Terminal

**Viewpoints/Rest Areas** There are existing facilities at all three of the suggested viewpoint and rest area sites in Port Orchard. The Public Boat Launch, just east of the DeKalb Street Pier, is the site of a viewpoint proposed in the *Port Orchard Urban Waterfront Walkway* study. The Port Orchard Waterfront Park, managed by the Port of Bremerton, has restroom and shower facilities, picnic tables and a picnic shelter. A third site is the Annapolis Recreation Area. This site currently consists of a large parking area and a Horluck Ferry dock. Improvements to this site, including an interpretive sign, planting and seating would provide a scenic rest area for Mosquito Fleet trail users.

#	Street/R.O.W.	From	To	Length	District	R.O.W. Management	Facility Type	Proposed Cross Section	Project Status	Overlap with Other County & Municipal Plans	Estimated Cost*
1	Bay St.	Port Orchard City Limits	Kitsap St.	0.7	S	City of Port Orchard	Primary	Separated Path	Proposed	KC Greenways Plan	
		Kitsap St.	Bethel Ave.	0.8				Bicycle Lanes			
		Bethel Ave.	Mitchell Point	0.5				Separated Path			
		Mitchell Point	Port Orchard City Limits	0.2				Paved Shoulders			
2	Beach Dr.	Port Orchard City Limits	E. Ahlstrom Rd.	0.3	S	KCPW	Primary	Paved Shoulders	Proposed	KC Greenways Plan, KC Bicycle Facilities Plan, KC 1995 to 2000 6 yr. T.I.P., KC 2012 T.I.P. (from Retsil Rd. to Ahlstrom)	37
		E. Ahlstrom Rd.	E. Hillcrest Dr.	2				Separated Path			232
		E. Hillcrest Dr.	Lighthouse Dr. E.	1.5				Bicycle Lanes			249
		Lighthouse Dr. E.	Watauga Beach Dr.	0.6				Paved Shoulders			48
		Watauga Beach Dr.	Hilldale Road	0.4				Bicycle Lanes			42
3	Old Belfair Valley Rd./Sam Christopherson Ave. W/ W. Frontage Rd.	SR 3	SR 16	0.5	S	KCPW	Secondary	Bicycle Lanes	Proposed	KC Greenways Plan, KC Bicycle Facilities Plan	26
4	SR 16 (including interchange)	Frontage Rd.	Bay St. Inter-change	1.1	S	WSDOT	Primary	Separated Path	Proposed	KC Greenways Plan, 2012 Transportation Needs on State Facilities, State Hwy. System Plan (1998), KC Bicycle Facilities Plan	128

**KEY**

SR = State Route

KC = Kitsap County

N = North Kitsap County

C = Central Kitsap County

S = South Kitsap County

KCPW = Kitsap County Public Works

WSDOT = Washington State Department of Transportation

\* In thousands; 2000 \$.

\*\* Bridge costs do not include structural load and seismic retrofitting.

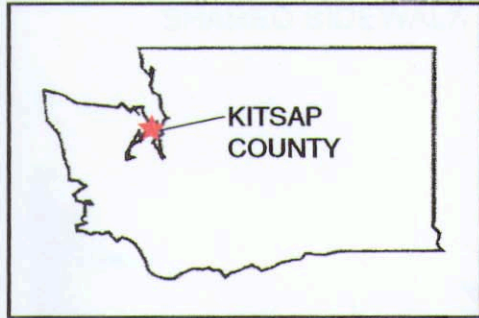
Lengths for project segments are rounded to the nearest tenth of a mile.

See ALTERNATIVE CONCEPTS section of this report for an explanation of facility types, cross sections and estimated costs.



# The Mosquito Fleet Trail

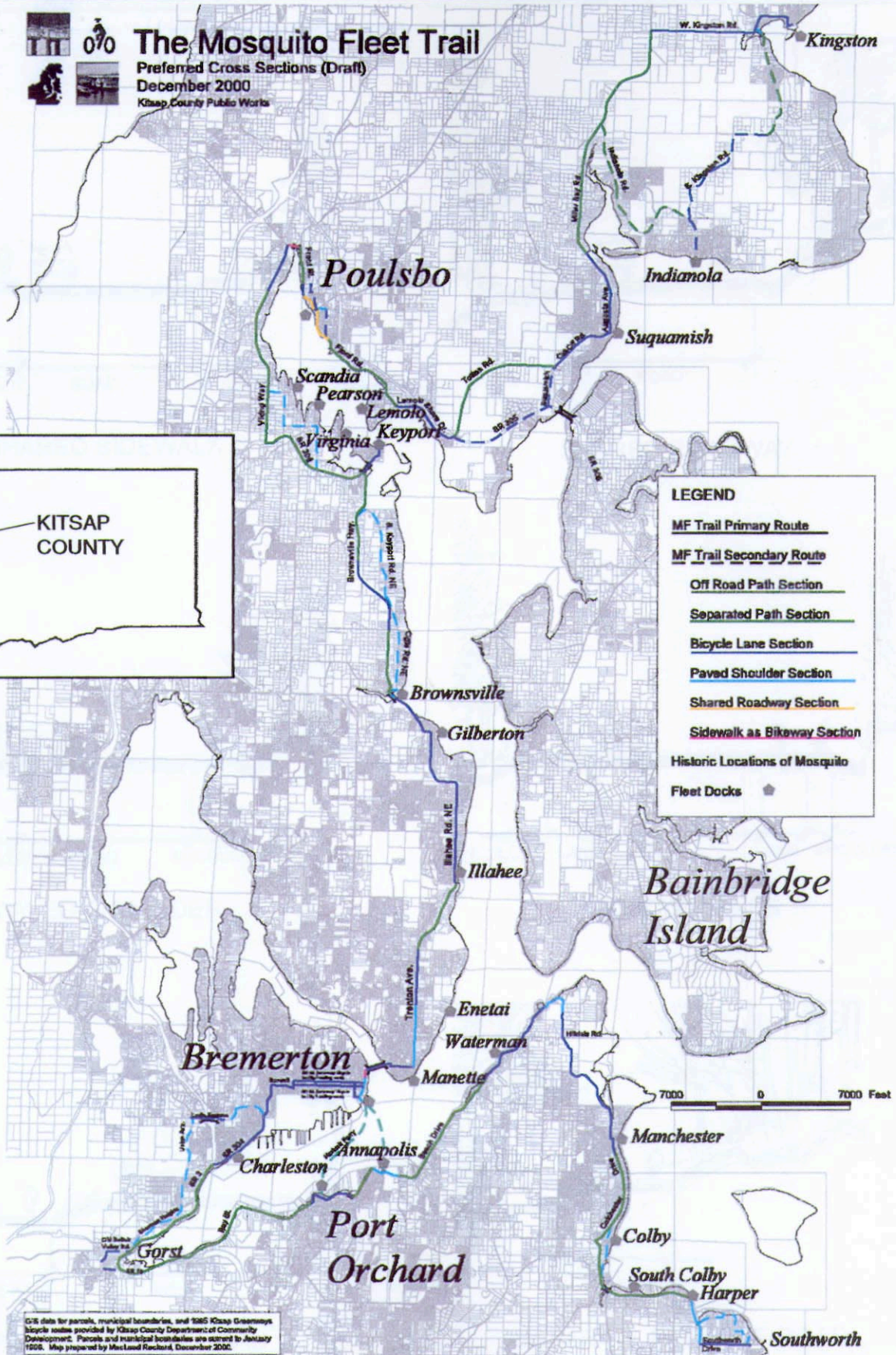
Preferred Cross Sections (Draft)  
December 2000  
Kitsap County Public Works



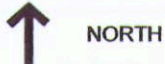
KITSAP  
COUNTY

## LEGEND

- MF Trail Primary Route** (thick blue line)
- MF Trail Secondary Route** (dashed blue line)
- Off Road Path Section** (green line)
- Separated Path Section** (green line with white center)
- Bicycle Lane Section** (blue line with white center)
- Paved Shoulder Section** (blue line)
- Shared Roadway Section** (yellow line)
- Sidewalk as Bikeway Section** (purple line)
- Historic Locations of Mosquito Fleet Docks** (grey star icon)



GIS data for parcels, municipal boundaries, and 1985 Kitsap Greenways bicycle routes provided by Kitsap County Department of Community Development. Parcels and municipal boundaries are current to January 1999. Map prepared by MetLead Reckard, December 2000.

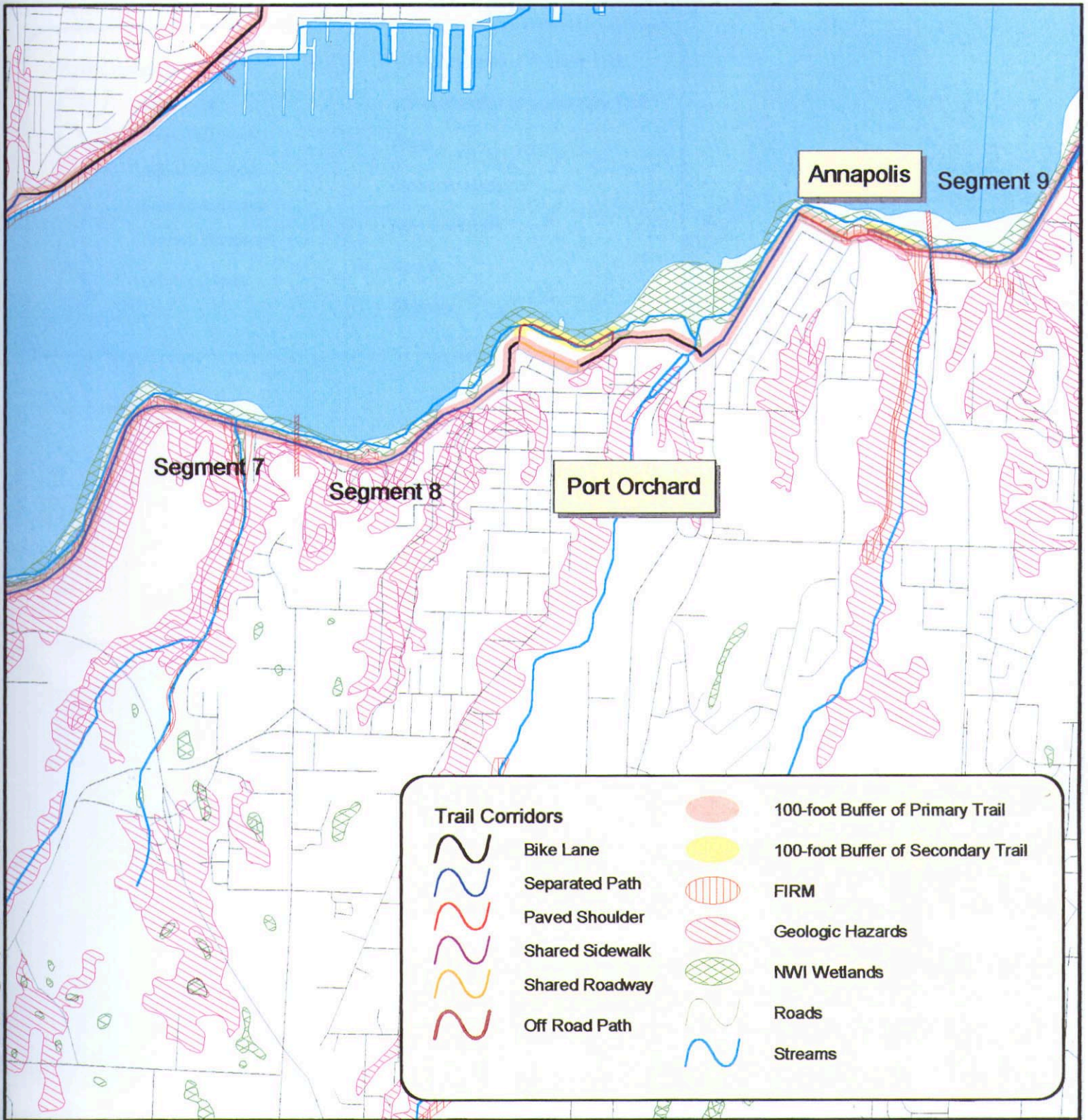


NORTH

File name: 99171trail.ai  
Original graphic by: ACT  
Edits by:  
Date: 12/11/00

Source: Mosquito Fleet Trail Master Plan, 2000.

**FIGURE 1.**  
PROPOSED TRAIL ROUTE  
MOSQUITO FLEET TRAIL  
KITSAP COUNTY, WASHINGTON



N

0.25 0 0.25 0.5 Miles

Date: 12/21/00  
 Edits by: lk  
 Source: Kitsap County GIS, November 2000

**Figure 8.**  
 Segment 8, Port Orchard  
 Mosquito Fleet Trail Master Plan  
 Kitsap County, Washington

PRIMARY ROUTE  
SEGMENT 30  
**BAY ST.**

**Project termini:** SR 16 interchange to Kitsap St.

**Length:** 2.26 ml.

**Road Classification:** Principal arterial

**R.O.W. Management:** City of Port Orchard

**Adjacent Land Use :** Urban reserve/ Incorporated city



<b>PREVIOUS PLANNING</b>	
<b>KC Greenways Master Plan Proposals</b>	High priority, bicycle lanes*/ Scenic rural resource zone (west of creek), Streetscape improvement zone (east of creek)
<b>KC Comprehensive Plan Proposals</b>	
<b>Other Plan Proposals</b>	
<b>ROAD DATA</b>	
<b>Speed Limit</b>	35
<b>ADT</b>	10,000 to 19,999 (1996 WSDOT counts)
<b>R.O.W. width</b>	±105' typical west part, ±95' typical east part with wider pull-outs
<b>Road width (approx.)</b>	±44'
<b>Description</b>	2 – 12' travel lanes + 10' paved shoulders
<b>Surface Condition</b>	Good a/c
<b>On-street Parking (Y/N)</b>	N, but room to pull over in shoulder
<b># of intersections</b>	7
<b>Truck % (approx.)</b>	medium
<b>% grade (approx.)</b>	0-5%
<b>Hazards</b>	
<b>FEATURES</b>	
<b>Visual experience</b>	Good, woods, res. & water
<b>Viewpoints</b>	Good water views in areas
<b>Landmarks (Historic or Scenic sites)</b>	
<b>Recreation sites</b>	Kitsap Marina, Port Orchard Yacht Club, De Kalb Street Pier (end of Port Orchard Blvd.)
<b>Other opportunities</b>	
<b>NOTES</b>	

# BAY ST. (SR 166)

# PRIMARY ROUTE/SEGMENT 31



**Project ter-** Kitsap St. to  
**mini:** Bethel Ave.

**Length:** .76 ml.

**Road Classi-** Urban minor  
**fication:** arterial

**R.O.W. Man-** City of Port  
**agement:** Orchard

**Adjacent** Incorporated  
**Land Use :** city

PREVIOUS PLANNING	
<b>KC Greenways Master Plan Proposals</b>	High priority, bicycle lanes*/ Streetscape improvement zone/ Crossed by a primary wildlife corridor at Blackjack Creek
<b>KC Comprehensive Plan Proposals</b>	
<b>Other Plan Proposals</b>	See blackjack creek improvement plan.
ROAD DATA	
<b>Speed Limit</b>	25
<b>ADT</b>	High, 10,000-19,999 (1996 WSDOT counts)
<b>R.O.W. width</b>	70' typical through downtown, 60' east part
<b>Road width (approx.)</b>	±51'
<b>Description</b>	2 – 12' travel lanes + 11' center turn lane + 8' parallel parking both sides + 5' to 8' sidewalks
<b>Surface Condition</b>	A/c
<b>On-street Parking (Y/N)</b>	y
<b># of intersections</b>	9
<b>Truck % (approx.)</b>	Moderate to high
<b>% grade (approx.)</b>	level
<b>Hazards</b>	Traffic, turning
FEATURES	
<b>Visual experience</b>	Urban, water
<b>Viewpoints</b>	Water views between buildings
<b>Landmarks (Historic or Scenic sites)</b>	Virginia V historic steamboat Port Orchard Dock (historic MF stop)
<b>Recreation sites</b>	Waterfront park, boat launch
<b>Other opportunities</b>	loop trail to waterfront, Horluck Ferry Dock (connection to Bremerton & alt. Route)
NOTES	

**Project termi-  
ni:** Bethel Ave. to  
Olney Ave.

**Length:** .96 ml.

**Road Classifi-  
cation:** Minor arterial

**R.O.W. Man-  
agement:** City of Port Or-  
chard, KCPW

**Adjacent Land  
Use :** Incorporated  
city/ urban low  
res./ public facili-  
ties/ park land



PREVIOUS PLANNING	
<b>KC Greenways Master Plan Proposals</b>	High priority, bicycle lanes* (Bay St.), bicycle path (Beach Dr.)/ Streetscape improvement zone (Bay St.), Scenic Resource Zone (Beach Dr.)
<b>KC Comprehensive Plan Proposals</b>	KC 2012 TIP: widen to 3L from Retsil Rd. to Ahlstrom Rd. KC 6 Yr. TIP: Beach Drive trail from Port Orchard city limits to Hilldale Rd.
<b>Other Plan Proposals</b>	Annapolis park & ferry dock improvements
ROAD DATA	
<b>Speed Limit</b>	25 to 35
<b>ADT</b>	5,323 (4/98 counts for Beach Drive)
<b>R.O.W. width</b>	±65' to 75' typical west of Retsil Rd., ±45' to 50' typical, east of Retsil
<b>Road width (approx.)</b>	±22' to 26'
<b>Description</b>	2 – 11' travel lanes + 0 to 3' paved shoulders
<b>Surface Condition</b>	A.C., okay to poor
<b>On-street Parking (Y/N)</b>	west of Retsil Rd., some angled and parallel parking
<b># of intersections</b>	4
<b>Truck % (approx.)</b>	moderate
<b>% grade (approx.)</b>	level
<b>Hazards</b>	Traffic, turning, sight distance
FEATURES	
<b>Visual experience</b>	waterfront
<b>Viewpoints</b>	Good water views, esp. at Annapolis Dock
<b>Landmarks (Historic or Scenic sites)</b>	Annapolis & Retsil (sites of MF docks)
<b>Recreation sites</b>	Annapolis Park, Veteran's Home trail, Karcher Creek
<b>Other opportunities</b>	Horluck Ferry Dock (connection to Bremerton)
<b>NOTES</b>	Trail could go through Annapolis Park property.

# BEACH DR.

# PRIMARY ROUTE/SEGMENT 33



**Project termini:** Olney Ave. to Lighthouse Dr.

**Length:** 3.56 ml.

**Road Classification:** Minor arterial (SW of Hilldale Rd.), Rural major collector (NE of Hilldale Rd.)

**R.O.W. Mgmt.:** KCPW

**Adjacent Land Use :** Rural res./ public facilities/ open space

PREVIOUS PLANNING	
<b>KC Greenways Master Plan Proposals</b>	High priority, bicycle path Scenic resource zone
<b>KC Comprehensive Plan Proposals</b>	KC 6 Yr. TIP: Beach Drive trail from Port Orchard city limits to Hilldale Rd.
<b>Other Plan Proposals</b>	
ROAD DATA	
<b>Speed Limit</b>	25 to 35
<b>ADT</b>	983/2,001/2,506/3,290 (4/97 counts taken at different points)
<b>R.O.W. width</b>	60' to 70' typical west of Hillcrest Dr., 55' to 60' typical east of Hillcrest
<b>Road width (approx.)</b>	22' to 26'
<b>Description</b>	2 – 11' travel lanes + 0 to 2' paved shoulders
<b>Surface Condition</b>	A.C., good
<b>On-street Parking (Y/N)</b>	N, parking at Waterman pier
<b># of intersections</b>	10
<b>Truck % (approx.)</b>	low
<b>% grade (approx.)</b>	0-5%
<b>Hazards</b>	
FEATURES	
<b>Visual experience</b>	Easy, some turns
<b>Viewpoints</b>	Great views to water, Bremerton & Olympic Mtns.
<b>Landmarks (Historic or Scenic sites)</b>	Waterman (historic MF dock)
<b>Recreation sites</b>	Waterman fishing pier & public beach
<b>Other opportunities</b>	
<b>NOTES</b>	What parcels does county own on the waterfront?



## Kitsap County Department of Public Works

614 Division Street (MS-26), Port Orchard, WA 98366-4699

R. W. Casteel, P.E., Director

Greetings!

You may have already heard about The Mosquito Fleet Trail. The trail is a series of scenic hike and bike trails along the eastern shoreline of the peninsula. The trail links historic ferry docks and other points of interest from Kingston to Southworth. MacLeod Reckord Landscape Architects, who has helped other communities develop similar projects, is helping develop the trail's master plan.

**You are receiving this letter because your property is along the proposed route for this new trail.** The majority of the route will be developed along county-owned rights-of-way. Your street is an important link to the trail and will help to provide access to vistas and roadside attractions.

We are currently developing the master plan for the trail. The goal of the first phase is to establish the route for the trail. We will look at roads and streets that can accommodate pedestrian and bicycle travel, as well as provide view vistas and historical stops. Once the route is determined we will begin more detailed planning. We want you to be part of this planning, and we are providing this information to provide you with background information.

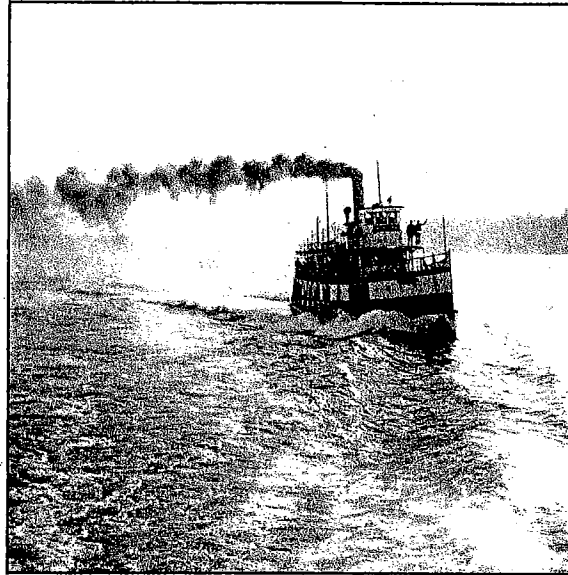
Please take a moment to review the enclosed information. It provides additional detail concerning trail design choices and the factors that will help determine the final route. We ask that you also take some time to complete the enclosed questionnaire. You may also complete the questionnaire online at [www.wa.gov/kitsap/departments/pubworks/mosquitofl.html](http://www.wa.gov/kitsap/departments/pubworks/mosquitofl.html).

The Mosquito Fleet Trail will serve local communities and rural residents, as well as visitors from nearby communities. As a property owner along the trail we want you to help us make this project a success. If you have any questions or comments regarding the trail, please let me know.

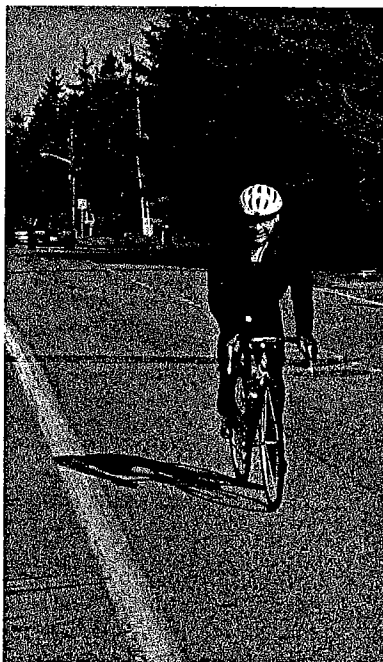
Warm regards,

Bill Zupancic  
Project Manager  
360-337-7210

*Help us plan*  
**The Mosquito Fleet Trail**



*In the 1920s, before roads linked communities on this rural peninsula, boats like the Kitsap provided residents with reliable transportation across and around Puget Sound.*

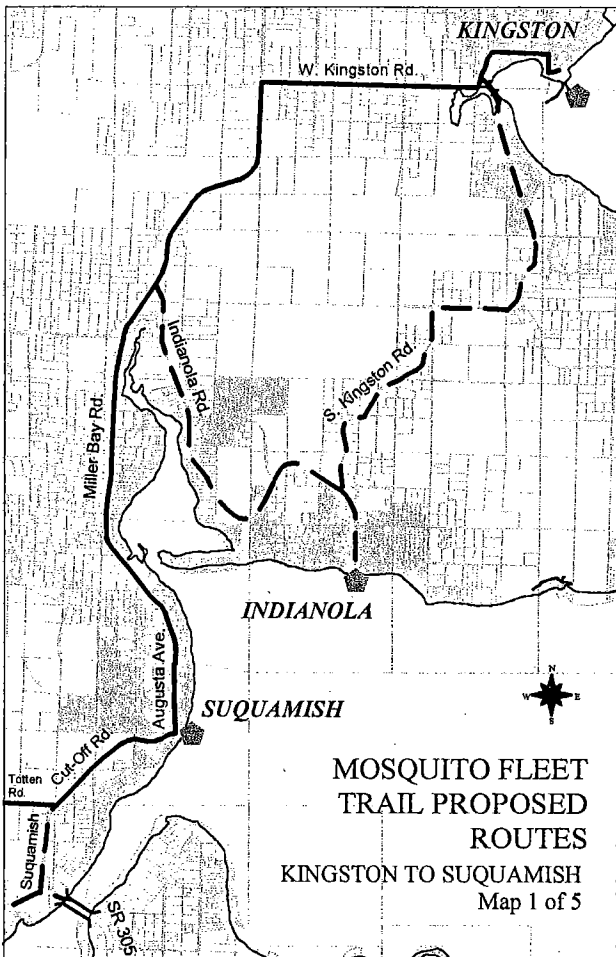


When Kitsap was a sparsely populated rural county with few roads and fewer cars, residents traveled mostly by boat. Over time, there grew a fleet of small privately owned ferries that transported passengers and cargo from dock to dock along the county's eastern shore. They served peninsula residents from 1853 to the 1940s, linking friends and families, transporting products to market, and carrying workers to their jobs.

At dawn and dusk each day, these waterborne taxis created such a buzz as they swarmed around docks competing for customers, that they came to be known as the Mosquito Fleet.

Today, we're honoring Kitsap County history by planning a trail that will link the Mosquito Fleet docks from Kingston to Southworth. It too will link friends and families, and provide a 57-mile safe and scenic transportation route.

***You are an important part of the plans for this trail! Read on!***



## Where will the trail go?

Maps on these two pages show the proposed trail route. Over the past few months, trail designers collected information on road width, scenic views, right-of-way ownership, and locally significant historic and recreational sites along the eastern shore of the peninsula.

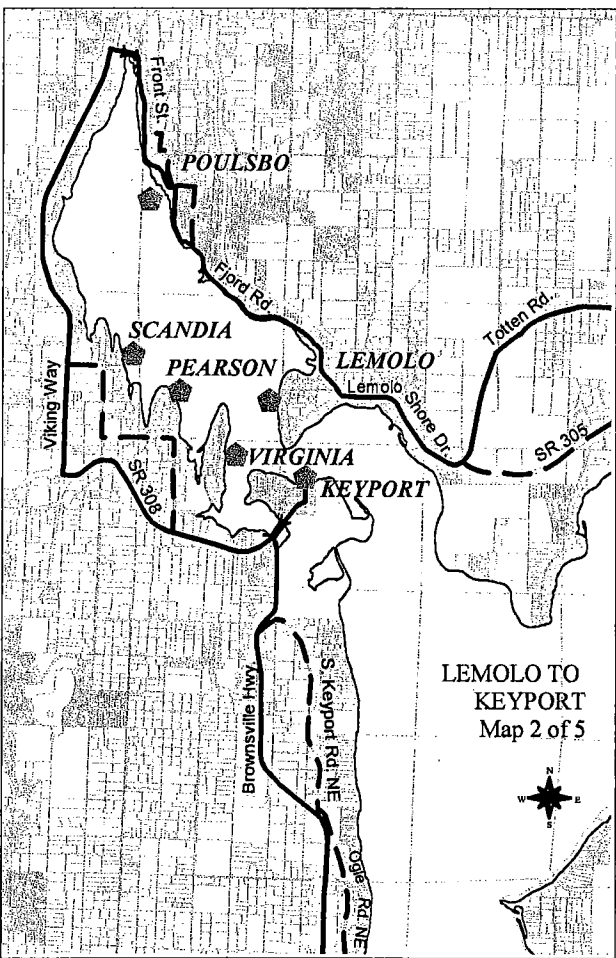
Then they mapped a route along roads where the county owns a right-of-way of sufficient width to accommodate a bike lane, shoulder or trail. In addition, they searched for a route that provides the greatest safety for trail users and best access to the most interesting and beautiful areas of the shoreline.




Having met these criteria, they found that for much of the route, the current configuration of the roadway limits choices of where the trail can be built and what it will look like. In some areas the roadway is very narrow. On either side, there may be steep banks, shoreline, buildings, driveways or parking lots. The road may cross a narrow bridge. In these cases, the "design" of the trail may be no more than a stripe on the pavement and a sign designating that it is part of the Mosquito Fleet route.

In a very few places, there are opportunities for the trail to be separated from the paved road. Other options include a widened shoulder bike path. In cities such as Bremerton, there may be areas where cyclists and pedestrians share the sidewalk. (See page 4 for more details).

The route will be marked with distinctive signs, making it easy to follow on foot, by bicycle or by automobile. While it is intended to link the old Mosquito Fleet docks, it will also provide access to many other interesting stopping points including villages and towns, parks, historic sites, and scenic vistas. For citizens who live along the route, it will surely be a nice way for you to walk to your neighbor's house or bicycle to the store.

Eventually, we hope to design and install interpretive signs at points of interest. These panels will likely have a distinctive Mosquito Fleet "look" that compliments the signs along the route, and will tell the story of the county's cultural and natural history.



LEGEND	
	Existing and Historic Mosquito Fleet Docks
	Primary trail corridor
	Secondary trail corridor

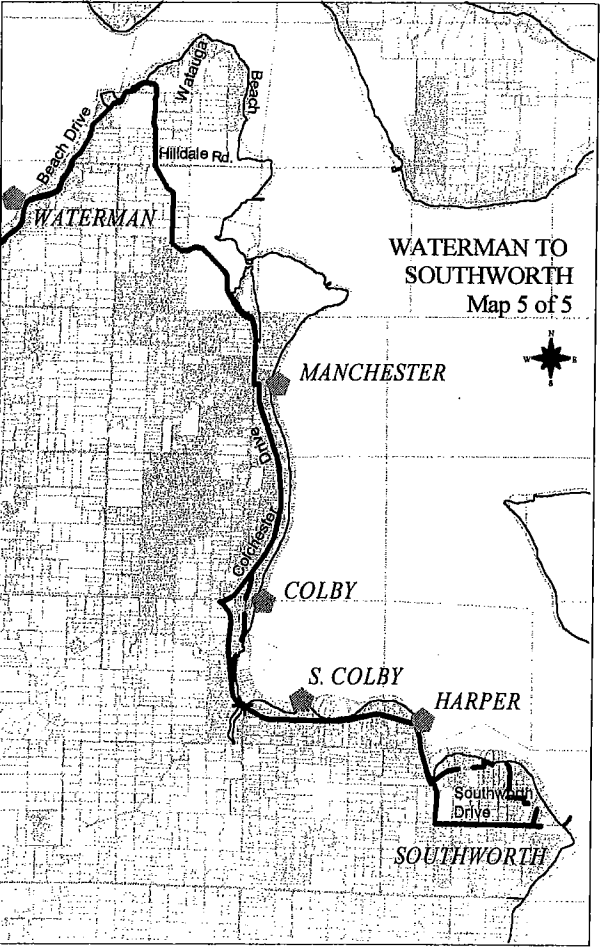
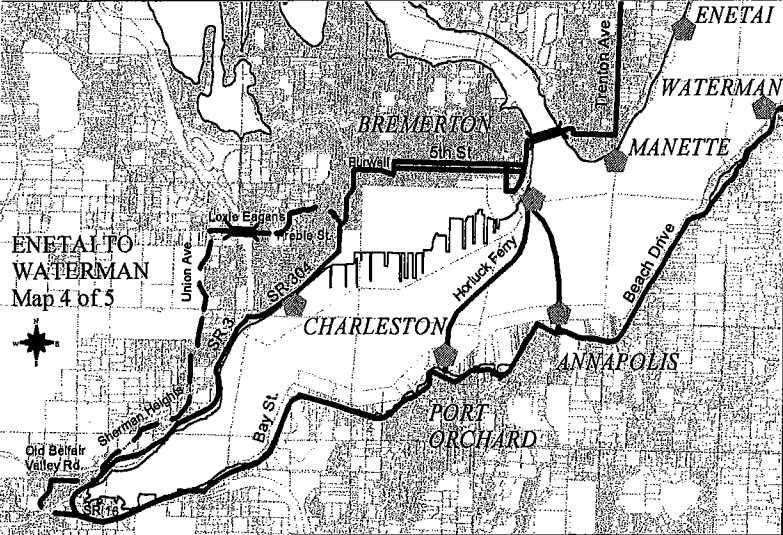
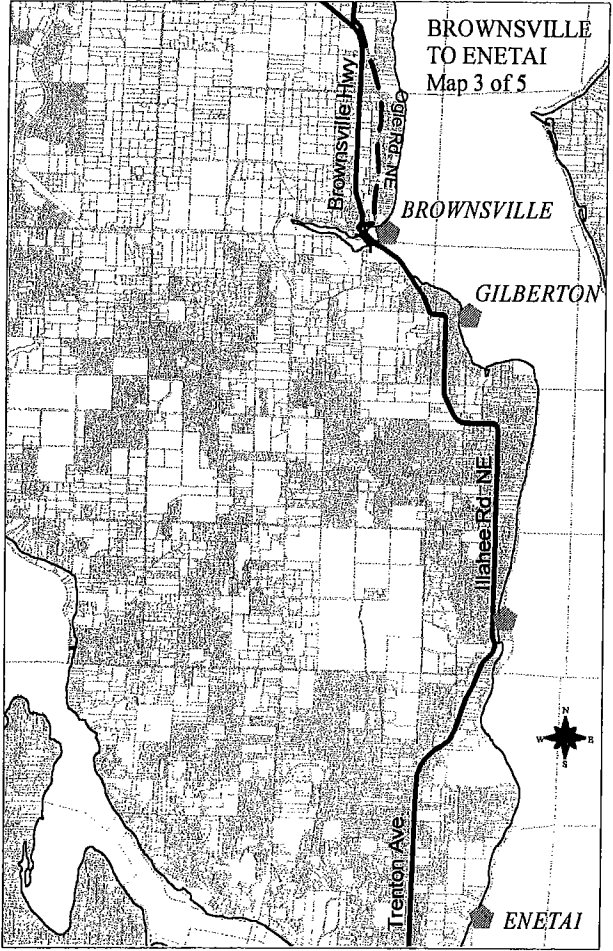
# How will decisions be made?



This is a proposed route for the trail, based on the best judgement of Kitsap County Public Works staff and the recommendations of trail designers, MacLeod Reckord Landscape Architects. While they have collected lots of information and talked with many people, they want very much to hear from you, as this trail should serve the citizens of Kitsap County and showcase for visitors the history and scenic beauty of our home.

As a master plan, it identifies the route and provides recommendations for design. More specific designs will be developed later for each section of the route. Actual construction may occur over several years.

After reviewing the mapped route and trail designs with local citizens, we will recommend a final route for approval by county commissioners. We expect they will make a decision by August 2000. (See Page 4 for ways to get involved.)



# Is this part of a bigger plan?

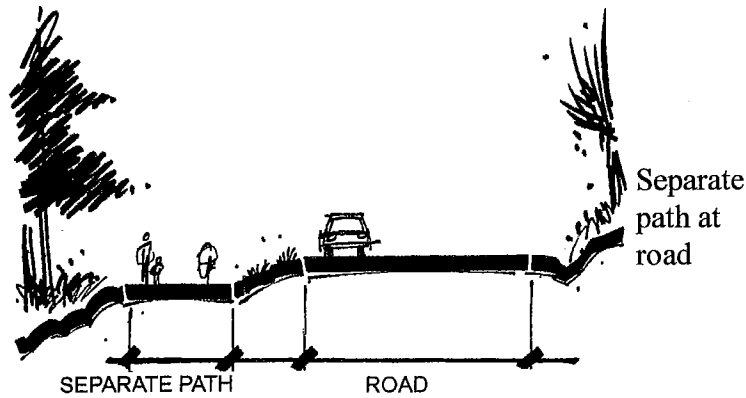
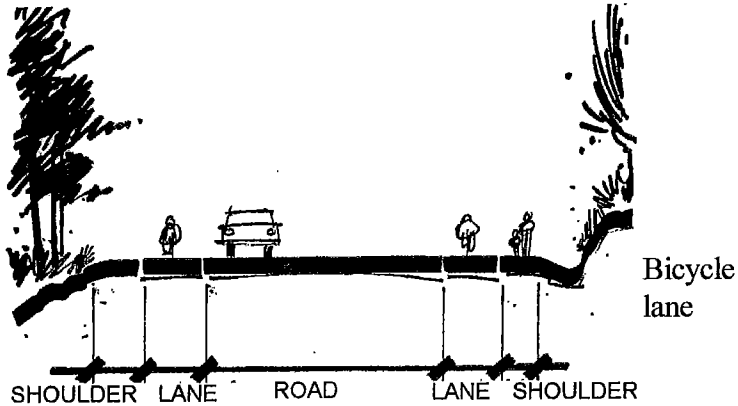


The idea for the Mosquito Fleet Trail grew from the Kitsap County Greenways Plan completed in 1996. This plan grew from citizen desire for a mapped system of connected open space. The Greenways Plan identifies and links transportation, recreation, scenic and natural resources throughout the county.

In developing the Greenways plan, the idea of the Mosquito Fleet trail began to emerge and remained the most popular project throughout Greenways planning. A completed trail master plan will equip county Public Works staff to seek grants and matching funds to begin site specific design and construction. The trail will be developed in phases as funds become available, and as it can be combined with road repairs or other projects.

## What will the trail look like?

There are established guidelines for the design of trails used by bicyclists. The two styles illustrated here in cross section are the trail designs that best suit the roads and their adjacent shoulders on the proposed trail route.



They are matched with photos of sections of the proposed Mosquito Fleet route where this style of trail best fits. Can you recognize some of the challenges in providing a safe pedestrian and cycling route?



**Beach Drive**



**Totten Road**

The other approved design options will likely be used less frequently on this route.

They are:

- 1) Shared sidewalk,
- 2) Shared roadway,
- 3) Paved shoulders,
- 4) Separate path

## What can I do?

For the next couple of months, we will be asking local citizens to review our work, examine the trail route and either validate what we've done or recommend changes. Your opinion is important to us and you can share it with us in several ways:

**Fill out a questionnaire.** Your answers to these questions will guide decisions on the Mosquito Fleet Trail as well as future road and trail planning throughout the county. Please complete it, fold it and mail it back to the address printed on the bottom. We'll keep you posted.

**Email us with your thoughts and ideas.** Send to: [comments@macleodreckord.com](mailto:comments@macleodreckord.com).

**Track our progress.** You can check our web site at <http://www.wa.gov/kitsap/departments/pubworks/mosquitofl.html> for regular updates.

**Send your comments the old fashioned way.** Mail your comments to MacLeod Reckord, Mosquito Fleet, 231 Summit Ave. East, Seattle WA 98102

**Call us.** You can reach us toll free at 1(800) 559-7919. After hours use extension 14.