KITSAP PUBLIC HEALTH DISTRICT

MEETING AGENDA

KITSAP PUBLIC HEALTH BOARD
AGENDA

Norm Dicks Government Center
June 3, 2014
11:20 a.m. to 12:20 p.m.

11:20 a.m.	1.	Minutes, May 6, 2014
11:21 a.m.	2.	Consent Items and Contract Updates: See Consent Agenda Agreement Summary, and Warrant and EFT Registers
11:22 a.m.	3.	Public Comment
11:28 a.m.	4.	Health Officer's Report / Administrator's Report

DISCUSSION ITEMS:

11:35 a.m.	5.	2011-2021 Strategic Plan Progress Report
12:00 p.m.	6.	2013 Water Quality Monitoring Report

ACTION ITEMS:

12:20 p.m.	7.	Adjourn

KITSAP PUBLIC HEALTH BOARD
Regular Meeting
May 6, 2014

The meeting was called to order by Board Chair, Mayor Patty Lent, at 11:20 a.m.

MINUTES

Commissioner Charlotte Garrido moved and Commissioner Rob Gelder seconded a motion to approve the minutes for the March 4, 2014, regular meeting. The motion was approved unanimously.

CONSENT AGENDA

The contracts on the consent agenda included the following contracts that were verbally reviewed and approved by Board Chair, Mayor Patty Lent on March 26, 2014, and Board Vice Chair, Commissioner Rob Gelder on March 24, 2014:

- Contract 1250: HealthCo, *Centricity Vendor Support*
- Contract 1233: Clallam County Health and Human Services, *Epidemiology Services – Lipton*
- Contract 1225, Amendment 1: Jefferson County Public Health, *Nurse Family Partnership Supervision*
- Contract 960, Amendment 13: Washington Department of Health, *Consolidated Contract*

The following contracts that were verbally reviewed and approved by Board Chair, Mayor Patty Lent and Board Vice Chair, Commissioner Rob Gelder on April 15, 2014, included:

- Contract1035, Amendment 1: Hood Canal Coordinating Council, *Hood Canal PIC Program*
- Contract 1163, Amendment 1: Washington Department of Ecology, *Local Source Control Partnership and Secondary Containment Voucher Program*

The following contracts were included on the regular Consent Agenda:

- Contract 1256, University of Washington School of Nursing, *Cost and Cost-Drivers of Foundational Public Health Services*
- Contract 960, Amendment 14, *Washington Department of Health, Consolidated Contract*

Commissioner Rob Gelder moved and Mayor Tim Matthes seconded a motion to affirm the agreements previously approved by the Board Chair and Vice Chair and approve the remaining contracts on the Consent Agenda, including the contracts signed update and warrant and Electronic Funds Transfer register. The motion was approved unanimously.

PUBLIC COMMENT

Board Chair Lent invited members of the audience to come forward if they wished to make public comments to the Board. Ms. Maurie Lewis, Vice President of the Bainbridge Island League of Women Voters, informed the Board that the March 29th Suicide Prevention Forum sponsored by the League was very well attended. At the March 4th Board meeting, the League had invited the Board to attend this forum. Ms. Lewis reported that attendees included many

local elected officials and leaders from local agencies. Ms. Lewis said that a video of the forum is available on the League of Women Voters website by clicking on the link to Program Videos. Ms. Lewis concluded her remarks saying that the League is anxious to support the Public Health Board in any way it can to help address the important public health issue of suicide. Board members thanked the League for their work in sponsoring the forum that raised community awareness about this important public health issue.

HEALTH OFFICER'S REPORT/ADMINISTRATOR'S REPORT

Dr. Scott Lindquist, Health Officer, addressed the Board on the recent measles outbreak in Washington State. He reported that currently there are 12 cases across the state, one of which is a Kitsap County resident. The Kitsap County resident contracted the illness in San Juan County where there are five additional measles cases in addition to six cases in Whatcom County. Lindquist explained that the Kitsap County resident was ill when he returned home from San Juan County and exposed hundreds of people as he moved through the ferry terminal both in Seattle and on Bainbridge Island and on the ferry itself. Lindquist commented that people often think of measles as a relatively harmless childhood illness when in fact it is highly contagious and has a high mortality rate. The Kitsap County resident who was infected was in the hospital for a number of days being treated for the illness. Lindquist informed the Board that dealing with this outbreak has cost the State several hundred thousand dollars. He explained that the only way to protect the population is to get immunized if you were born after 1957. If you were born before 1957, you are presumed to be immune because of the prevalence of the disease in the population at that time. In response to a question from the Board about the cost, Lindquist explained that a person who is infected with measles and moves through a room makes anyone following him into the same room vulnerable to infection for up to two hours after the infected individual has left. Further, Lindquist said that the measles is highly contagious, so a person without immunity would have a 90 percent or higher chance of being infected if exposed to the disease.

Mr. Scott Daniels, Administrator, deferred his report to free up time to focus on the next agenda item.

CASCADE PACIFIC ACTION ALLIANCE KICK-OFF MEETING

Mr. Scott Daniels, Administrator, explained the Health District has received an invitation from the CHOICE Regional Health Network and the Central Western Washington Regional Health Improvement Collaborative to attend a "kick-off" meeting for the Cascade Pacific Action Alliance on May 21st. Daniels explained that the purpose of the alliance is to help drive healthcare reform effectively in the region. The regional alliance being proposed includes Grays Harbor, Lewis, Mason, and Thurston Counties which could be expanded to include Kitsap, Clallam, and Jefferson Counties. Secondly, this group in interested in positioning the regional members of the alliance to take advantage of potential healthcare-related funding through the state's healthcare innovation plan. Mr. Daniels explained that at this point, he is attending these meetings to listen and learn about the potential risks and benefits for the Health District and the residents of Kitsap County if the Health District were to join the Alliance. He emphasized that no decisions will be made without the Board's involvement.

Mr. Daniels explained that in addition to the health insurance access element, there are some less well known elements of the federal Patient Protection and Affordable Care Act (ACA), including goals surrounding healthcare quality and moving the healthcare system away from the treatment of disease to a prevention model. Daniels explained that as this new healthcare reform model evolves in Washington State, there is the potential to change the structure and funding for public health's work. As was discussed in a Board meeting earlier this year, Daniels reviewed House Bill 2572 which creates the State's Healthcare Innovation Plan and establishes the framework to guide healthcare reform in Washington State. To accomplish this, this plan employs three broad strategies: first, value-based purchasing of healthcare in communities; second, improve health overall by building healthy communities through prevention and early mitigation of disease; and third, improve chronic illness care through better integration of care and social support. The Healthcare Innovation Plan creates so-called "Communities of Health" which Daniels said we are beginning to see regionally across the state. The proposed Cascade Pacific Action Alliance would be a proposed "Community of Health" in our region.

There was a discussion by the Board centering on learning about encouraging a discussion about the framework for moving the conversation forward and a timeline for potential deliverables that can be incorporated into local comprehensive plans as well as questions about costs. The consensus of the Board was to have the Policy Committee review this issue and make a recommendation to the full Board.

ANNUAL KITSAP COUNTY CORE PUBLIC HEALTH INDICATORS REPORT

Ms. Siri Kushner, Epidemiologist 2, provided an overview of the updated 2014 Core Public Health Indicators before the Board broke into two smaller groups to review the data in more detail. Kushner reminded the Board that the core public health indicators have been updated annually since 2006. She noted that the public health indicators provide an overview of the health and well-being of Kitsap residents using demographic and public health data as a lens. This data is then used to inform and prioritize programs and policies that improve the health and well-being of Kitsap County residents. After the Board's review today, the indicators will be posted to the District's website.

Following the conclusion of her presentation at 11:53, Kushner invited the Board to break into two groups and invited audience members to participate by joining a group as well to receive a more in-depth review and discussion about the public health indicators led by the District's two staff epidemiologists, Kushner and Ms. Beth Lipton. The study groups concluded at 12:32 p.m.

ADJOURN

There was no further business; the meeting was adjourned at 12:32 p.m.

Mayor Patty Lent, Chair **Kitsap Public Health Board**	**Scott Daniels** **Administrator**

Board Members Present: *Council Member* Sarah Blossom; *Mayor* Becky Erickson; *Commissioner* Charlotte Garrido; *Commissioner* Rob Gelder; *Mayor* Patty Lent; *Mayor* Tim Matthes; *Commissioner* Linda Streissguth

Board Members Absent: None

Staff Present: Karen Boysen-Knapp, *Healthy Communities Specialist; S*cott Daniels, *Administrator;* Katie Eilers, *Assistant Director, Community Health Division*; Keith Grellner, *Director, Environmental Health Division;* Leslie Hopkins, *Program Coordinator 2, Administration;* Siri Kushner, *Epidemiologist 2, Administration*; Scott Lindquist, *Health Officer;* Beth Lipton*, Epidemiologist 2, Administration;* Suzanne Plemmons*, Director, Community Health Division;* Shelley Rose, *Public Health Educator, In Person Assister Program;* Danielle Schaeffer, *Environmental Health Specialist, Healthy Communities Program*

Public Present: Monte Levine, *self;* Ron Levy, *self;* Maurie Louis, *League of Women Voters-Kitsap;* Leslie Kelly, *Bremerton Patriot*

Kitsap Public Health District
Consent Agenda Agreement Summary
June 2014

KPHD Contract Number	Their Contract Number	Name	Type of Agreement	Term of Agreement	Amount
558 Amendment 1	C0900049	Washington State Department of Ecology *Well Decommissioning*	Interagency	07/01/2008-06/30/2015	Extends term one year
1264		Washington State Department of Social and Health Services *Institutional Review Board Authorization Agreement*	Agreement	Upon signing – until terminated	$0

DEPARTMENT OF
ECOLOGY
State of Washington

AMENDMENT NO.1

TO

CONTRACT NO. C0900049

BETWEEN THE

STATE OF WASHINGTON DEPARTMENT OF ECOLOGY

AND

Kitsap County Health District

PURPOSE: To amend the Agreement between the Department of Ecology, hereinafter referred to as 'ECOLOGY' and Kitsap County Health District, hereinafter referred to as 'KCHD'.

IT IS MUTUALLY AGREED the agreement is amended as follows:

1) The contract's period of performance is extended from June 30, 2014 to June 30, 2015.

2) The Contract Manager assigned to this agreement is Scott Malone (360) 407-0281 or scott.malone@ecy.wa.gov.

3) The following language will be added to the agreement:

   FUNDING AVAILABILITY

   ECOLOGY's ability to make payments is contingent on availability of funding. In the event funding from state, federal, or other sources is withdrawn, reduced, or limited in any way after the effective date and prior to completion or expiration date of this contract, ECOLOGY, at its sole discretion, may elect to terminate the contract, in whole or part, for convenience or to renegotiate the contract subject to new funding limitations and conditions. ECOLOGY may also elect to suspend performance of the contract until ECOLOGY determines the funding insufficiency is resolved. ECOLOGY may exercise any of these options with no notification restrictions.

All other terms and conditions of the original Agreement including any Amendments remain in full force and effect, except as expressly provided by this Amendment.

This Amendment is signed by persons who represent that they have the authority to execute this Amendment and bind their respective organizations to this Amendment.

This Amendment is effective on June 30, 2014.

IN WITNESS WHEREOF: the parties have executed this Amendment.

State of Washington Department of Ecology	**Kitsap County Health District**
Signature Date	Signature Date
Thomas Loranger	Scott Daniels
Program Manager Water Resources Program	Administrator Kitsap Public Health District

INSTITUTIONAL REVIEW BOARD (IRB)
AUTHORIZATION AGREEMENT

BETWEEN

INSTITUTION OR ORGANIZATION PROVIDING IRB REVIEW:
WASHINGTON STATE DEPARTMENT OF SOCIAL AND HEALTH SERVICES

AND

INSTITUTION RELYING ON THE DESIGNATED IRB:
KITSAP PUBLIC HEALTH DISTRICT

PART 1
INSTITUTION INFORMATION

This Institutional Review Board (IRB) Authorization Agreement (IAA) describes the responsibilities of the Institutions engaged in the research involving human subjects. This Agreement, when signed, becomes part of each Institution's Federal Assurance for the Protection of Human Research Subjects (e.g., Department of Health and Human Services (DHHS) Federalwide Assurance (FWA)).

A. Engaged Institution Relying on the designated IRB:

Institution Name: Kitsap Public Health District
Engaged Institution's DHHS FWA Number: FWA00021789

B. Institution or Organization Providing IRB Review:

Institution or Organization Name: Washington State Department of Social and Health Services
Institution or Organization DHHS FWA Number (if applicable): FWA00000326
Institution or Organization DHHS IRB Registration Number: IRB00000093

C. Scope:

This Agreement applies to Kitsap Public Health District research protocols accepted by the Washington State Institutional Review Board (WSIRB) (designated IRB) for review.

D. Effective Dates:

This Agreement is effective as of the date approved and signed by the Signatory Officials below.

PART 2
INSTITUTIONAL RESPONSIBILITIES

All institutions are responsible for ensuring that their personnel and agents (i.e., the Institutional Official, the IRB, IRB office staff, investigators and research staff, and any other personnel supporting research covered under this IAA) act in accordance with all applicable federal, state and local laws and regulations (e.g., Title 45 of the U.S. Code of Federal Regulations (CFR) Part 46 (45 CFR 46 and all subparts); 45 CFR Part 160, 162 and 164 (HIPAA Privacy Rule); U.S. Food and Drug Administration regulations (e.g., 21 CFR Parts 50, 56, 312, and 812); the Washington State Agency Policy on Protection of Human Research Subjects; and the Washington State Institutional Review Board (WSIRB) Procedures Manual, where applicable, in addition to the terms and conditions of the institutions' DHHS FWA.

Specific Washington State Agency and WSIRB requirements are stated in Part 3 of this IAA.

All institutions will permit, upon request, the inspection of any facilities used in support of the activities described in the "Scope" and other research areas by agencies responsible for oversight of human research protection and proper management of the research within the scope of this IAA.

A. The Institutional Official of the Engaged Institution Relying on the Designated IRB, Kitsap Public Health District, will:

1. Ensure that all institutional personnel and agents involved in the research (covered within the scope of this IAA) have completed required education and training requirements related to the protection of human research subjects.

2. Verify that research protocol procedures are consistent with sound research design and do not unnecessarily expose subjects to risk, and that the designated IRB will be provided with documentation of this verification for consideration for the IRB's review.

3. Verify that the IRB has reviewed the research protocol in accordance with applicable requirements, including those identified in the research contract or agreement.

4. Ensure institutional personnel and agents comply with requirements and oversight established by the designated IRB.

5. Ensure institutional personnel and agents follow the approved research protocol.

6. Comply with the requirements of the Privacy Rule of the Health Insurance Portability and Accountability Act (HIPAA), as applicable.

7. Comply with the requirements of the 42 CFR Part 50 and 45 CFR Part 94, Responsibility of Applicants for Promoting Objectivity in Research for which Public Health Service Funding is Sought and Responsible Prospective Contractors, as applicable.

8. Ensure institutional personnel and agents report to the designated IRB and to institutional officials of the institution relying on the designated IRB: (a) unanticipated problems involving risks to subjects or others, (b) serious or continuing non-compliance, (c) suspension or termination of IRB approval, and (d) any other events or circumstances requiring notification.

9. Ensure institutional personnel and agents maintain current copies of the designated IRB approved research protocol (initial review, continuing review, amendments, adverse event reports, and final report), all communications with the designated IRB, this IAA, and other relevant information in accordance with DHHS and Washington State Agency record keeping requirements.

10. Verify the designated IRB has the expertise and policies and procedures needed to review and oversee the research submitted by the Institution relying on the designated IRB (in accordance with 45 CFR 46, Sections 107, 103(b)(3), (4) and (5), and 115).

B. The Institution or Organization Providing IRB Review, Washington State Department of Social and Health Services, will:

1. Verify that personnel and agents involved in the research have completed required education and training related to the protection of human research subjects.

2. Verify that the IRB is properly constituted for reviewing the study.

3. Fulfill the IRB responsibilities identified in the engaged Institution's Assurance.

4. Fulfill the IRB's responsibility for implementation of the provisions of the Privacy Rule of the Health Insurance Portability and Accountability Act (HIPAA), as applicable.

5. Verify implementation of financial conflicts of interest management plans, as applicable, in accordance with provisions of 42 CFR Part 50 and 45 CFR Part 94, Responsibility of Applicants for Promoting Objectivity in Research for which

Public Health Service Funding is Sought and Responsible Prospective Contractors, as applicable.

6. Provide the Institutional Official of the engaged institution relying on the designated IRB with information about the IRB, such as a list of IRB members or expertise and the written procedures for executing IRB responsibilities in accordance with paragraph A.10 above.

7. Provide to the engaged institution relying on the designated IRB and that is conducting the research and the Principal Investigator(s) a copy of the IRB review and determinations concerning the research (e.g., IRB minutes or other appropriate documents).

8. Maintain current copies of the IRB-approved research protocol (initial review, continuing review, amendments, adverse events reports, and final report), all communications with the engaged institution relying on the designated IRB, this IAA, and other relevant information in accordance with DHHS and Washington State Agency record-keeping requirements.

C. Amendments and Termination:

This IAA may be modified, cancelled, or renegotiated upon mutual consent, at any time through an amendment signed by authorized representatives of the organizations.

PART 3
WASHINGTON STATE AGENCY AND WSIRB REQUIREMENTS

A. The institution relying on the designated IRB will comply with the requirements of the Washington State Agency and WSIRB issuing this IAA. These requirements are identified in Part 3, paragraph B.

B. When the institution relying on the designated IRB conducts research subject to review by the designated IRB, the institution relying on the designated IRB must comply with the policies and procedures of the designated IRB. These requirements are identified below:

1. Washington State Agency Policy on Protection of Human Research Subjects

2. Washington State Institutional Review Board (WSIRB) Procedures Manual

PART 4
INSTITUTIONAL AGREEMENT

A. Engaged Institution Relying on the Designated IRB

1. Signatory Official at the Engaged Institution, Kitsap Public Health District

Acting in an authorized capacity on behalf of this Institution and with an understanding of the Institution's responsibilities under its Assurance, I assure protections for human subjects as specified above.

Signature: Date:

Name: Scott W. Lindquist, M.D., M.P.H.
Institutional Title: Health Officer
Telephone Number: 360-337-5237
FAX Number: 360-337-5249
Email Address: scott.lindquist@kitsappublichealth.org

Mailing Address:

Kitsap Public Health District
345-6th Street, Suite 300
Bremerton, Washington 98337-1866

2. Primary Contact for Human Research Protection at the Engaged Institution

Name: Scott W. Lindquist, M.D., M.P.H.
Institutional Title: Health Officer
Telephone Number: 360-337-5237
FAX Number: 360-337-5249
Email Address: scott.lindquist@kitsappublichealth.org

Mailing Address:

Kitsap Public Health District
345-6th Street, Suite 300
Bremerton, Washington 98337-1866

B. Institution or Organization Providing IRB Review.

1. **Signatory or Delegated Official of the Institution or Organization Providing IRB Review, Washington State Department of Social and Health Services:**

   I am aware that under this IAA that the WSIRB will be providing IRB Review on behalf of the Engaged Institution.

   Signature: Date:

   Name: T. Howard Stone, J.D., LL.M., C.I.P.
   Institutional Title: IRB Administrator
   Telephone Number: 360-902-8075
   FAX Number: 360-902-0705
   Email Address: howard.stone@dshs.wa.gov

   Mailing Address:

   Washington Department of Social and Health Services
   Human Research Review Section
   P.O. Box 45205
   Olympia, Washington 98504-5205

2. **Primary Contact for Human Research Protection at the Institution or Organization Providing IRB Review (if different from Part 4, Section B.1 above):**

   Name:
   Institutional Title:
   Telephone Number:
   FAX Number:
   Email Address:

   Mailing Address:

Kitsap Public Health Board Meeting
Date: June 3, 2014

CONSENT AGENDA ITEM: Warrant and EFT Registers

Approvals:

	Signature	Date
Administrator		
Finance Manager	Tracey Kelley CPA	5/28/2014

Recommended Motion: Approval

Items:

Type	Warrant/Electronic Fund Transfer Date	Beginning Warrant Number	Ending Warrant Number	Total Amount
Accounts Payable	4/28/2014	3611300	3611324	$18,872.03
Accounts Payable	4/28/2014	DD23936	DD23947	$2,252.62
Accounts Payable	4/21/2014	3610339	3610363	$20,623.30
Accounts Payable	4/21/2014	DD23801	DD23814	$2,826.95
Accounts Payable	4/14/2014	3609700	3609717	$41,336.68
Accounts Payable	4/14/2014	3609135	3609135	$320.10
Accounts Payable	4/14/2014	DD23692	DD23702	$5,039.97
Accounts Payable	4/7/2014	3608987	3609006	$34,131.39
Accounts Payable	4/7/2014	DD23588	DD23593	$ 969.48
Accounts Payable Total				$126,372.52
Payroll Benefits	4/30/2014	3610911	3610933	$106,394.25
Payroll Benefits	4/30/2014	DD23876	DD23876	$8,766.77
Payroll Benefits Total				$115,161.02
Payroll	4/30/2014	N/A	N/A	$503,923.60
Payroll	4/30/2014	681204	681204	$1,116.45
Payroll Total				$505,040.05
			Grand Total	**$746,573.59**

Kitsap Public Health Board Action:

- ☐ Approve
- ☐ Deny
- ☐ Table / Continue

	Signature	Date
Kitsap Public Health Board Chair		

Department	Vendor Number	Vendor Name	Purchase Order	Voucher Number	Pay Itm	Warrant Number	Wrt Typ	Check/ Itm Date	Warrant Amount
00969 95969 Kitsap Public Health Di	301358	ADVANCED MEDICAL IMAGING		1275472	001	3611300	PK	04/28/14	200.00
Warrant 3611300 total									200.00
	369036	ONE TIME PAYMENT		1275688	001	3611301	PK	04/28/14	124.00
Warrant 3611301 total									124.00
	359327	CENTURYLINK (PO BOX 52187		1275474	001	3611302	PK	04/28/14	3.18
Warrant 3611302 total									3.18
	224151	CENTURYLINK (PO BOX 91155		1275473	001	3611303	PK	04/28/14	115.40
Warrant 3611303 total									115.40
	397272	COLLINS COMPUTING, INC.		1275990	001	3611304	PK	04/28/14	643.50
Warrant 3611304 total									643.50
	366503	CYTOCHECK LABORATORY, LLC		1275475	001	3611305	PK	04/28/14	369.50
Warrant 3611305 total									369.50
	11325	FARRELL'S HOME HEALTH (WH		1275476	001	3611306	PK	04/28/14	54.35
Warrant 3611306 total									54.35
	388109	FIRST BOOK NATIONAL BOOK		1275477	001	3611307	PK	04/28/14	84.50
Warrant 3611307 total									84.50
	314732	GE CAPITAL		1275478	001	3611308	PK	04/28/14	345.67
Warrant 3611308 total									345.67

Department	Vendor Number	Vendor Name	Purchase Order	Voucher Number	Pay Itm	Warrant Number	Wrt Typ	Check/ Itm Date	Warrant Amount
	369214	IRON MOUNTAIN (NEW YORK)		1275604	001	3611309	PK	04/28/14	162.85
Warrant 3611309 total									162.85
	12367	KING COUNTY FINANCE: ACCT		1275606	001	3611310	PK	04/28/14	333.00
Warrant 3611310 total									333.00
	242239	KITSAP CONSERVATION DISTR		1275480	001	3611311	PK	04/28/14	5,956.82
Warrant 3611311 total									5,956.82
	10699	KITSAP COUNTY INFORMATION		1275685	001	3611312	PK	04/28/14	6,293.97
Warrant 3611312 total									6,293.97
	13399	KITSAP COUNTY PUBLIC WORK		1275482	001	3611313	PK	04/28/14	120.89
Warrant 3611313 total									120.89
	369036	ONE TIME PAYMENT		1275484	001	3611314	PK	04/28/14	100.00
Warrant 3611314 total									100.00
	12265	MCKESSON CORPORATION (GE		1275653	001	3611315	PK	04/28/14	160.00
Warrant 3611315 total									160.00
	347049	MINUTEMAN PRESS		1275654	001	3611316	PK	04/28/14	85.87
Warrant 3611316 total									85.87
	222931	OFFICE DEPOT (POB 70049)		1275485	001	3611317	PK	04/28/14	164.55
Warrant 3611317									

Department	Vendor Number	Vendor Name	Purchase Order	Voucher Number	Pay Itm	Warrant Number	Wrt Typ	Check/ Itm Date	Warrant Amount
total									164.55
	393428	OXFORD DIAGNOSTIC LABORAT		1275491	001	3611318	PK	04/28/14	104.00
Warrant 3611318 total									104.00
	364774	STAPLES ADVANTAGE -(DEPT		1275655	001	3611319	PK	04/28/14	120.30
Warrant 3611319 total									120.30
	217161	TAYLOR TECHNOLOGIES, INC.		1275505	001	3611320	PK	04/28/14	124.28
Warrant 3611320 total									124.28
	12382	UNITED BUSINESS MACHINES		1275508	001	3611321	PK	04/28/14	727.19
Warrant 3611321 total									727.19
	8570	UNITED PARCEL SERVICE		1275509	001	3611322	PK	04/28/14	50.00
Warrant 3611322 total									50.00
	382431	WELLS FARGO FINANCIAL LEA		1275510	001	3611323	PK	04/28/14	2,378.21
Warrant 3611323 total									2,378.21
	277244	WSEHA		1275676	001	3611324	PK	04/28/14	50.00
Warrant 3611324 total									50.00
Department 95969 total									18,872.03

Department	Vendor Number	Vendor Name	Purchase Order	Voucher Number	Pay Itm	Warrant Number	Wrt Typ	Check/ Itm Date	Warrant Amount
00969 95969 Kitsap Public Health Di	216294	BANIGAN, LESLIE		1275528	001	23936	PT	04/28/14	225.00
Warrant 23936 total									225.00
	395814	EILERS, KATHARINE		1275458	001	23937	PT	04/28/14	126.26
Warrant 23937 total									126.26
	10940	GRELLNER, KEITH		1275459	001	23938	PT	04/28/14	120.72
Warrant 23938 total									120.72
	350574	LIPTON, BETH		1275467	001	23939	PT	04/28/14	137.19
Warrant 23939 total									137.19
	280214	PITNEY BOWES GLOBAL FINAN		1275609	001	23940	PT	04/28/14	560.70
Warrant 23940 total									560.70
	10979	QUAYLE, TIM		1275468	001	23941	PT	04/28/14	130.48
Warrant 23941 total									130.48
	397584	SCHAEFFNER, DANIELLE		1275469	001	23942	PT	04/28/14	58.96
Warrant 23942 total									58.96
	24869	STERICYCLE, INC.		1275493	001	23943	PT	04/28/14	204.26
Warrant 23943 total									204.26
	289067	TELELANGUAGE, INC		1275506	001	23944	PT	04/28/14	14.85
Warrant 23944 total									14.85

Department	Vendor Number	Vendor Name	Purchase Order	Voucher Number	Pay Itm	Warrant Number	Wrt Typ	Check/ Itm Date	Warrant Amount
	339412	TOURIGNY, LINDA L		1275470	001	23945	PT	04/28/14	95.36
Warrant 23945 total									95.36
	397857	TWISS ANALYTICAL, INC		1275507	001	23946	PT	04/28/14	129.72
Warrant 23946 total									129.72
	218935	ZOLLWEG, DAVID A		1275471	001	23947	PT	04/28/14	449.12
Warrant 23947 total									449.12
Department 95969 total									2,252.62

Department	Vendor Number	Vendor Name	Purchase Order	Voucher Number	Pay Itm	Warrant Number	Wrt Typ	Check/ Itm Date	Warrant Amount
00969 95969 Kitsap Public Health Di	389139	ACRANET CBS BRANCH		1274499	001	3610339	PK	04/21/14	50.00
Warrant 3610339 total									50.00
	361253	CHLF/CHLC - TREASURER		1274501	001	3610340	PK	04/21/14	300.00
Warrant 3610340 total									300.00
	20078	CITY OF BREMERTON (WTR PA		1274500	001	3610341	PK	04/21/14	900.00
Warrant 3610341 total									900.00
	365071	COASTWIDE LABORATORIES		1274502	001	3610342	PK	04/21/14	1,265.72
Warrant 3610342 total									1,265.72
	17992	DELL MARKETING L.P. (CHIC		1274503	001	3610343	PK	04/21/14	2,204.47
Warrant 3610343 total									2,204.47
	237399	DEPT OF LABOR & INDUSTRIE		1274538	001	3610344	PK	04/21/14	17.45
Warrant 3610344 total									17.45
	280934	DREW, MICHAEL		1274409	001	3610345	PK	04/21/14	444.08
Warrant 3610345 total									444.08
	391025	ENTERPRISE FM TRUST		1274504	001	3610346	PK	04/21/14	769.04
Warrant 3610346 total									769.04
	10476	FEDEX (PO BOX 94515)		1274505	001	3610347	PK	04/21/14	15.28
Warrant 3610347 total									15.28

Department	Vendor Number	Vendor Name	Purchase Order	Voucher Number	Pay Itm	Warrant Number	Wrt Typ	Check/ Itm Date	Warrant Amount
	396930	GARDA CL NORTHWEST-LOCKBO		1274506	001	3610348	PK	04/21/14	359.37
Warrant 3610348 total									359.37
	339396	GIUNTOLI, PAUL		1274410	001	3610349	PK	04/21/14	110.88
Warrant 3610349 total									110.88
	376779	GOOGLE INC.		1274507	001	3610350	PK	04/21/14	4,133.25
Warrant 3610350 total									4,133.25
	290308	IBM CORPORATION		1274508	001	3610351	PK	04/21/14	1,374.84
Warrant 3610351 total									1,374.84
	10871	KCDA PURCHASING COOPERATI		1274510	002	3610352	PK	04/21/14	154.86
	10871	KCDA PURCHASING COOPERATI		1274510	001	3610352	PK	04/21/14	580.00
Warrant 3610352 total									734.86
	257231	KITSAP COMMUNITY RESOURCE		1274511	001	3610353	PK	04/21/14	65.00
Warrant 3610353 total									65.00
	10699	KITSAP COUNTY INFORMATION		1274509	001	3610354	PK	04/21/14	300.00
Warrant 3610354 total									300.00
	231611	MICROSOFT SERVICES		1274513	001	3610355	PK	04/21/14	2,050.08
Warrant 3610355 total									2,050.08
	222931	OFFICE DEPOT (POB 70049)		1274515	001	3610356	PK	04/21/14	281.21

Department	Vendor Number	Vendor Name	Purchase Order	Voucher Number	Pay Itm	Warrant Number	Wrt Typ	Check/ Itm Date	Warrant Amount
Warrant 3610356 total									281.21
	7663	OFFICEMAX INCORPORATED		1274514	001	3610357	PK	04/21/14	83.15
Warrant 3610357 total									83.15
	394683	SHRED-IT USA - SEATTLE		1274516	001	3610358	PK	04/21/14	73.50
Warrant 3610358 total									73.50
	323120	TECHLINE COMMUNICATIONS,		1274518	001	3610359	PK	04/21/14	3,959.45
Warrant 3610359 total									3,959.45
	8570	UNITED PARCEL SERVICE		1274525	001	3610360	PK	04/21/14	50.00
Warrant 3610360 total									50.00
	349356	USA MOBILITY WIRELESS, IN		1274522	001	3610361	PK	04/21/14	136.36
Warrant 3610361 total									136.36
	12566	WA STATE PATROL		1274543	001	3610362	PK	04/21/14	180.00
Warrant 3610362 total									180.00
	244803	WEX BANK		1274532	001	3610363	PK	04/21/14	765.31
Warrant 3610363 total									765.31
Department 95969 total									20,623.30

Department	Vendor Number	Vendor Name	Purchase Order	Voucher Number	Pay Itm	Warrant Number	Wrt Typ	Check/ Itm Date	Warrant Amount
00969 95969 Kitsap Public Health Di	247234	BROWER, JANET L.		1274408	001	23801	PT	04/21/14	227.52
Warrant 23801 total									227.52
	397372	HARO, JENNIFER S.		1274411	001	23802	PT	04/21/14	46.25
Warrant 23802 total									46.25
	10945	HOLBURN, NATHAN D.		1274412	001	23803	PT	04/21/14	342.16
Warrant 23803 total									342.16
	227674	HOLDCROFT, JODIE		1274422	001	23804	PT	04/21/14	711.76
Warrant 23804 total									711.76
	17216	KNOOP, MELINA		1274413	001	23805	PT	04/21/14	289.52
Warrant 23805 total									289.52
	317954	LINDEN, LISA		1274423	001	23806	PT	04/21/14	182.00
Warrant 23806 total									182.00
	285101	LYTLE, ROSS		1274444	001	23807	PT	04/21/14	92.92
Warrant 23807 total									92.92
	295081	NGUYEN, LOAN		1274788	001	23808	PT	04/21/14	28.00
Warrant 23808 total									28.00
	388608	PHILLIPS, LYNN J.		1274414	001	23809	PT	04/21/14	99.12
Warrant 23809 total									99.12

Department	Vendor Number	Vendor Name	Purchase Order	Voucher Number	Pay Itm	Warrant Number	Wrt Typ	Check/ Itm Date	Warrant Amount
	339412	TOURIGNY, LINDA L		1274416	001	23810	PT	04/21/14	73.36
Warrant 23810 total									73.36
	397857	TWISS ANALYTICAL, INC		1274519	001	23811	PT	04/21/14	48.93
Warrant 23811 total									48.93
	8825	WCP SOLUTIONS		1274530	001	23812	PT	04/21/14	554.37
Warrant 23812 total									554.37
	397370	WENDT, JAN E.		1274420	001	23813	PT	04/21/14	31.36
Warrant 23813 total									31.36
	10997	WIGGINS, TOM		1274418	001	23814	PT	04/21/14	99.68
Warrant 23814 total									99.68
Department 95969 total									2,826.95

Department	Vendor Number	Vendor Name	Purchase Order	Voucher Number	Pay Itm	Warrant Number	Wrt Typ	Check/ Itm Date	Warrant Amount
00969 95969 Kitsap Public Health Di	301358	ADVANCED MEDICAL IMAGING		1273516	001	3609700	PK	04/14/14	50.00
Warrant 3609700 total									50.00
	323752	BREMERTON GOVERNMENT CENT		1273517	001	3609701	PK	04/14/14	22,937.31
Warrant 3609701 total									22,937.31
	20963	CULTURALLY SPEAKING LLC		1273518	001	3609702	PK	04/14/14	1,897.50
Warrant 3609702 total									1,897.50
	17992	DELL MARKETING L.P. (CHIC		1273532	001	3609703	PK	04/14/14	2,319.50
Warrant 3609703 total									2,319.50
	242239	KITSAP CONSERVATION DISTR		1273534	001	3609704	PK	04/14/14	1,134.31
Warrant 3609704 total									1,134.31
	262868	KITSAP SUN (AD & CLASSIFI		1273538	001	3609705	PK	04/14/14	130.00
Warrant 3609705 total									130.00
	322741	MOORE MEDICAL LLC		1273539	001	3609706	PK	04/14/14	9.49
Warrant 3609706 total									9.49
	222931	OFFICE DEPOT (POB 70049)		1273541	001	3609707	PK	04/14/14	115.41
Warrant 3609707 total									115.41
	393428	OXFORD DIAGNOSTIC LABORAT		1273542	001	3609708	PK	04/14/14	52.00
Warrant 3609708 total									52.00

Department	Vendor Number	Vendor Name	Purchase Order	Voucher Number	Pay Itm	Warrant Number	Wrt Typ	Check/ Itm Date	Warrant Amount
	10980	QUILL CORPORATION		1273582	001	3609709	PK	04/14/14	212.45
Warrant 3609709 total									212.45
	372448	SENSOTECH, INC.		1273588	001	3609710	PK	04/14/14	140.85
Warrant 3609710 total									140.85
	8570	UNITED PARCEL SERVICE		1273590	001	3609711	PK	04/14/14	50.00
Warrant 3609711 total									50.00
	327504	US BANK (JUNIOR DISTS ONL		1273993	001	3609713	PK	04/14/14	11.66
	327504	US BANK (JUNIOR DISTS ONL		1273973	002	3609713	PK	04/14/14	1,505.91
	327504	US BANK (JUNIOR DISTS ONL		1273973	001	3609713	PK	04/14/14	225.97
	327504	US BANK (JUNIOR DISTS ONL		1273972	002	3609713	PK	04/14/14	1,765.86
	327504	US BANK (JUNIOR DISTS ONL		1273972	001	3609713	PK	04/14/14	41.90
	327504	US BANK (JUNIOR DISTS ONL		1273971	001	3609713	PK	04/14/14	814.16
	327504	US BANK (JUNIOR DISTS ONL		1273970	002	3609713	PK	04/14/14	684.36
	327504	US BANK (JUNIOR DISTS ONL		1273970	001	3609713	PK	04/14/14	77.84
	327504	US BANK (JUNIOR DISTS ONL		1273955	001	3609713	PK	04/14/14	456.98
	327504	US BANK (JUNIOR DISTS ONL		1273698	002	3609713	PK	04/14/14	563.11
	327504	US BANK (JUNIOR DISTS ONL		1273698	001	3609713	PK	04/14/14	45.50
	327504	US BANK (JUNIOR DISTS ONL		1273696	002	3609713	PK	04/14/14	803.27
	327504	US BANK (JUNIOR DISTS ONL		1273696	001	3609713	PK	04/14/14	39.90
	327504	US BANK (JUNIOR DISTS ONL		1273695	002	3609713	PK	04/14/14	572.25
	327504	US BANK (JUNIOR DISTS ONL		1273695	001	3609713	PK	04/14/14	23.79
	327504	US BANK (JUNIOR DISTS ONL		1273694	001	3609713	PK	04/14/14	1,005.20
	327504	US BANK (JUNIOR DISTS ONL		1273693	001	3609713	PK	04/14/14	64.23

Department	Vendor Number	Vendor Name	Purchase Order	Voucher Number	Pay Itm	Warrant Number	Wrt Typ	Check/ Itm Date	Warrant Amount
	327504	US BANK (JUNIOR DISTS ONL		1273692	001	3609713	PK	04/14/14	1,192.50
Warrant 3609713 total									9,894.39
	268891	VERIZON WIRELESS (1 CHECK		1273631	001	3609714	PK	04/14/14	1,101.46
Warrant 3609714 total									1,101.46
	268891	VERIZON WIRELESS (1 CHECK		1273636	001	3609715	PK	04/14/14	466.29
Warrant 3609715 total									466.29
	393230	WALTHER, SUSAN B.		1273514	001	3609716	PK	04/14/14	260.72
Warrant 3609716 total									260.72
	277244	WSEHA		1273591	001	3609717	PK	04/14/14	565.00
Warrant 3609717 total									565.00
Department 95969 total									41,336.68

WARRANTS BY DEPARTMENT
A/P USE THIS REPORT FOR SORTING
WARRANTS & GIVE TO IND DEPARTMT

Department	Vendor Number	Vendor Name	Purchase Order	Voucher Number	Pay Itm	Warrant Number	Wrt Typ	Check/ Itm Date	Warrant Amount
00969 95969									
Kitsap Public Health Di	397814	REED, HELEN MAE		1273586	001	3609135	PK	04/14/14	320.10
Warrant 3609135 total									320.10
Department 95969 total									320.10

Department	Vendor Number	Vendor Name	Purchase Order	Voucher Number	Pay Itm	Warrant Number	Wrt Typ	Check/ Itm Date	Warrant Amount
00969 95969 Kitsap Public Health Di	281133	ACOSTA, NANCY		1273506	001	23692	PT	04/14/14	89.40
Warrant 23692 total									89.40
	226171	BROWN, STEVEN		1273508	001	23693	PT	04/14/14	397.04
Warrant 23693 total									397.04
	215766	EVANS, ERIC		1273509	001	23694	PT	04/14/14	248.08
Warrant 23694 total									248.08
	393436	HERNANDEZ, DAYNA		1273510	001	23695	PT	04/14/14	357.25
Warrant 23695 total									357.25
	388624	MAZUR, KARINA M		1273511	001	23696	PT	04/14/14	179.76
Warrant 23696 total									179.76
	397102	NELSON, ISABEL CALDERA		1273540	001	23697	PT	04/14/14	700.00
Warrant 23697 total									700.00
	217750	NICOLAISEN, NIELS		1273949	001	23698	PT	04/14/14	80.97
Warrant 23698 total									80.97
	349819	PITNEY BOWES PURCHASE POW		1273581	001	23699	PT	04/14/14	2,500.00
Warrant 23699 total									2,500.00
	10979	QUAYLE, TIM		1273512	001	23700	PT	04/14/14	162.40
Warrant 23700 total									162.40

Department	Vendor Number	Vendor Name	Purchase Order	Voucher Number	Pay Itm	Warrant Number	Wrt Typ	Check/ Itm Date	Warrant Amount
	397857	TWISS ANALYTICAL, INC		1273589	001	23701	PT	04/14/14	306.59
Warrant 23701 total									306.59
	19323	ULTICAN, SHAWN		1273513	001	23702	PT	04/14/14	18.48
Warrant 23702 total									18.48
Department 95969 total									5,039.97

Department	Vendor Number	Vendor Name	Purchase Order	Voucher Number	Pay Itm	Warrant Number	Wrt Typ	Check/ Itm Date	Warrant Amount
00969 95969 Kitsap Public Health Di	359327	CENTURYLINK (PO BOX 52187		1272753	001	3608987	PK	04/07/14	7.36
Warrant 3608987 total									7.36
	224151	CENTURYLINK (PO BOX 91155		1272751	001	3608988	PK	04/07/14	534.73
Warrant 3608988 total									534.73
	20078	CITY OF BREMERTON (WTR PA		1272749	001	3608989	PK	04/07/14	900.00
Warrant 3608989 total									900.00
	327621	COMCAST		1272756	001	3608990	PK	04/07/14	123.19
Warrant 3608990 total									123.19
	10476	FEDEX (PO BOX 94515)		1272791	001	3608991	PK	04/07/14	8.50
Warrant 3608991 total									8.50
	314732	GE CAPITAL		1272792	001	3608992	PK	04/07/14	118.89
Warrant 3608992 total									118.89
	339396	GIUNTOLI, PAUL		1272741	001	3608993	PK	04/07/14	302.96
Warrant 3608993 total									302.96
	369214	IRON MOUNTAIN (NEW YORK)		1272868	001	3608994	PK	04/07/14	162.85
Warrant 3608994 total									162.85
	257231	KITSAP COMMUNITY RESOURCE		1272793	001	3608995	PK	04/07/14	100.00
Warrant 3608995 total									100.00

Department	Vendor Number	Vendor Name	Purchase Order	Voucher Number	Pay Itm	Warrant Number	Wrt Typ	Check/ Itm Date	Warrant Amount
	16054	KITSAP COUNTY DEPT OF ADM		1272795	001	3608996	PK	04/07/14	25,383.00
Warrant 3608996 total									25,383.00
	15029	KITSAP PUBLIC HEALTH DIST		1272797	001	3608997	PK	04/07/14	209.73
Warrant 3608997 total									209.73
	262868	KITSAP SUN (AD & CLASSIFI		1272794	001	3608998	PK	04/07/14	48.50
Warrant 3608998 total									48.50
	347049	MINUTEMAN PRESS		1272799	001	3608999	PK	04/07/14	142.81
Warrant 3608999 total									142.81
	322741	MOORE MEDICAL LLC		1272805	001	3609000	PK	04/07/14	562.64
Warrant 3609000 total									562.64
	325212	MORGAN, NEWTON		1272746	001	3609001	PK	04/07/14	140.54
Warrant 3609001 total									140.54
	222931	OFFICE DEPOT (POB 70049)		1272809	001	3609002	PK	04/07/14	124.67
Warrant 3609002 total									124.67
	279396	POINT DEFIANCE AIDS PROJE		1272810	001	3609003	PK	04/07/14	4,720.15
Warrant 3609003 total									4,720.15
	12382	UNITED BUSINESS MACHINES		1272816	001	3609004	PK	04/07/14	55.87
Warrant 3609004									

Department	Vendor Number	Vendor Name	Purchase Order	Voucher Number	Pay Itm	Warrant Number	Wrt Typ	Check/ Itm Date	Warrant Amount
total									55.87
	8570	UNITED PARCEL SERVICE		1273028	001	3609005	PK	04/07/14	250.00
Warrant 3609005 total									250.00
	277244	WSEHA		1272818	001	3609006	PK	04/07/14	235.00
Warrant 3609006 total									235.00
Department 95969 total									34,131.39

Department	Vendor Number	Vendor Name	Purchase Order	Voucher Number	Pay Itm	Warrant Number	Wrt Typ	Check/ Itm Date	Warrant Amount
00969 95969 Kitsap Public Health Di	216294	BANIGAN, LESLIE		1272737	001	23588	PT	04/07/14	82.88
Warrant 23588 total									82.88
	247234	BROWER, JANET L.		1272738	001	23589	PT	04/07/14	60.70
Warrant 23589 total									60.70
	256763	CRIM, EVA M		1272740	001	23590	PT	04/07/14	136.71
Warrant 23590 total									136.71
	359597	JONES, KIMBERLY D.		1272744	001	23591	PT	04/07/14	197.12
Warrant 23591 total									197.12
	387402	MCKINNON, BRYAN		1272742	001	23592	PT	04/07/14	93.91
Warrant 23592 total									93.91
	227445	STICKNEY, CHRISTINA		1272748	001	23593	PT	04/07/14	398.16
Warrant 23593 total									398.16
Department 95969 total									969.48

Department	Vendor Number	Vendor Name	Purchase Order	Voucher Number	Pay Itm	Warrant Number	Wrt Typ	Check/ Itm Date	Warrant Amount
00969 95969 Kitsap Public Health Di	299482	HRA VEBA TRUST		1275362	003	23876	PT	04/30/14	8,766.77
Warrant 23876 total									8,766.77
	5628	AMERICAN FAMILY LIFE COUN		1275319	010	3610911	PK	04/30/14	4,881.35
Warrant 3610911 total									4,881.35
	6783	CHAPTER 13 TRUSTEE SEATTL		1275322	003	3610912	PK	04/30/14	698.25
Warrant 3610912 total									698.25
	383135	HEALTH EQUITY		1275385	001	3610913	PK	04/30/14	413.33
Warrant 3610913 total									413.33
	6834	ING LIFE INSURANCE AND AN		1275332	002	3610914	PK	04/30/14	3,016.00
Warrant 3610914 total									3,016.00
	356091	MENDOCINO DSHS		1275371	001	3610915	PK	04/30/14	339.18
Warrant 3610915 total									339.18
	6831	NACO DEFERRED COMP XPH		1275331	001	3610916	PK	04/30/14	6,038.00
Warrant 3610916 total									6,038.00
	394347	PEAK 1 ADMINISTRATION, LL		1275396	001	3610917	PK	04/30/14	1,617.00
Warrant 3610917 total									1,617.00
	6811	PROF & TECHNICAL ENG XPH		1275326	001	3610918	PK	04/30/14	2,993.54
Warrant 3610918 total									2,993.54

Department	Vendor Number	Vendor Name	Purchase Order	Voucher Number	Pay Itm	Warrant Number	Wrt Typ	Check/ Itm Date	Warrant Amount
	262653	UNITED STATES TREASURY		1275350	001	3610919	PK	04/30/14	4,650.52
Warrant 3610919 total									4,650.52
	6825	UNITED WAY		1275330	006	3610920	PK	04/30/14	505.00
Warrant 3610920 total									505.00
	376566	WA HEALTH CARE AUTHORITY		1275381	001	3610921	PK	04/30/14	638.35
Warrant 3610921 total									638.35
	376567	WA HEALTH CARE AUTHORITY		1275382	001	3610922	PK	04/30/14	15,439.76
Warrant 3610922 total									15,439.76
	376565	WA HEALTH CARE AUTHORITY		1275380	001	3610923	PK	04/30/14	34,465.29
Warrant 3610923 total									34,465.29
	6779	WA STATE LABOR & IND INS		1275321	002	3610924	PK	04/30/14	3,633.21
Warrant 3610924 total									3,633.21
	6837	WA STATE TREASURER		1275333	007	3610925	PK	04/30/14	9,468.00
Warrant 3610925 total									9,468.00
	383133	WASHINGTON STATE TREASURE		1275384	001	3610926	PK	04/30/14	5,179.77
Warrant 3610926 total									5,179.77
	5606	WCIF STANDARD ACCIDENT		1275318	004	3610927	PK	04/30/14	199.73
Warrant 3610927									

Department	Vendor Number	Vendor Name	Purchase Order	Voucher Number	Pay Itm	Warrant Number	Wrt Typ	Check/ Itm Date	Warrant Amount
total									199.73
	5601	WCIF STANDARD BASIC LIFE		1275315	003	3610928	PK	04/30/14	729.60
Warrant 3610928 total									729.60
	341372	WCIF STANDARD LIFE INSURA		1275369	001	3610929	PK	04/30/14	1,879.06
Warrant 3610929 total									1,879.06
	360635	WCIF STANDARD STD		1275375	001	3610930	PK	04/30/14	186.70
Warrant 3610930 total									186.70
	5605	WCIF STANDARD VTL		1275317	005	3610931	PK	04/30/14	2,129.49
Warrant 3610931 total									2,129.49
	368370	WHIT-DELTA DENTAL OF WASH		1275376	001	3610932	PK	04/30/14	6,553.84
Warrant 3610932 total									6,553.84
	368371	WHIT-WILLIAMETTE		1275377	001	3610933	PK	04/30/14	739.28
Warrant 3610933 total									739.28
Department 95969 total									115,161.02

Company - Home . . 00969 Kitsap Public Health District
Home Bus. Unit . . 95969 Kitsap Public Health District

Individual deductions and taxes are confidential - Redacted

. . . . . EMPLOYEE . . . . . Number	Name	Hours	Wages	Vendor#	Gross Pay	Deductions	Taxes	Net Pay	Check Control	I C	Err Msg
4563	ABNEY, BEVERLY M.	173.35	4,157.00	1,118.55	4,157.00			2,862.66	7714077	N	
278956	ACOSTA, NANCY M.	173.31	6,045.00	1,232.67	6,045.00			3,917.27	7714078	N	
341359	AMUNDSON, BRANDY E.	173.35	3,285.00	1,758.94	3,285.00			1,870.26	7714079	N	
275982	ARTHUR, ELLEN C.	173.31	6,045.00	1,252.67	6,065.00			3,065.20	7714080	N	
397902	BALTAZAR, ELYA	86.40	1,854.14	798.49	1,854.14			1,116.45	7714081	N	
215189	BANIGAN, LESLIE B.	156.00	5,357.00	889.30	5,357.00			3,921.93	7714082	N	
328436	BAZZELL, RICHARD L.	173.31	5,142.00	1,546.10	5,175.00			3,477.44	7714084	N	
230914	BERNI, GRETCHEN C.	86.67	3,824.00	578.13	3,824.00			1,136.27	7714085	N	
2058	BOYSEN-KNAPP, KAREN	138.65	4,147.00	735.37	4,147.00			2,965.91	7714086	N	
2882	BRAINERD, DANA G.	173.31	6,045.00	1,284.67	6,097.00			4,022.11	7714087	N	
245475	BROWER, JANET L.	173.33	7,176.00	1,385.27	7,228.00			4,476.91	7714088	N	
271677	BROWN, STEVEN J.	173.33	5,952.00	1,065.45	6,004.00			4,180.92	7714089	N	
1777	BURRER, LAURINE M.	52.00	2,080.00	7.49	2,080.00			1,645.98	7714090	N	
301566	CRAWFORD, KERRIE L.	173.35	5,367.00	1,585.82	5,419.00			3,930.35	7714092	N	
299534	CRIM, EVA M.	173.34	6,521.00	1,791.19	6,573.00			4,465.00	7714093	N	
246639	DALTON, MELANIE A.	173.34	6,651.00	1,400.25	6,703.00			4,505.79	7714094	N	
1226	DANIELS, SCOTT C.	173.35	10,406.00	2,472.78	10,458.00			6,427.63	7714095	N	
17665	DEGRACIA, PATRICIA	138.68	3,797.00	762.21	3,797.00			2,321.91	7714096	N	
359180	DENSON, DAYDRA D.	173.36	4,868.00	1,121.48	4,888.00			3,402.46	7714097	N	
23825	DOBBELAERE, KERRY J	173.33	7,765.00	1,283.49	7,817.00			4,747.41	7714098	N	
279990	DREW, MICHAEL E.	173.35	5,367.00	1,632.91	5,367.00			3,927.40	7714099	N	
223648	EAKES, DEANNA L.	173.35	3,616.28	775.54	3,616.28			2,429.09	7714100	N	
395244	EILERS, KATHARINE	173.35	7,395.00	1,169.56	7,447.00			5,780.32	7714101	N	
4565	EVANS, ERIC V.	173.35	6,833.00	2,085.71	6,833.00			4,124.48	7714102	N	
340919	EVANS, KELLY A.	173.29	3,809.00	1,026.74	3,809.00			2,715.56	7714103	N	
321284	FISK, APRIL K.	173.34	4,188.00	1,842.10	4,188.00			2,815.50	7714104	N	
356883	FONG, YOLANDA N.	55.53	2,047.39	1,112.76	2,047.39			1,256.94	7714105	N	
279971	FOWLER, ANNE M.	173.34	4,415.00	1,498.14	4,467.00			3,103.90	7714106	N	
337331	GIUNTOLI, PAUL A.	173.33	5,635.00	1,194.91	5,635.00			3,795.96	7714107	N	
1264	GRELLNER, KEITH J.	173.35	8,560.00	1,612.46	8,612.00			6,205.76	7714108	N	
355732	GUIDRY, JESSICA F.	173.33	6,284.00	1,717.37	6,284.00			4,531.29	7714109	N	
298093	GUSTAFSON, CANDYCE	104.00	2,081.00	477.37	2,081.00			1,537.69	7714110	N	
356336	GUZMAN, DAMARYS L.	173.33	3,172.00	1,331.66	3,172.00			2,236.68	7714111	N	
3013	HANSSEN-KELLER, JOH	138.68	4,876.00	802.51	4,876.00			3,576.60	7714112	N	
10110	HARO, JENNIFER S.	121.32	3,408.00	624.81	3,408.00			2,686.26	7714113	N	
393427	HERNANDEZ, DAYNA R.	173.30	3,459.00	1,046.50	3,511.00			2,567.85	7714114	N	
352751	HINTON, ROBERT J.	173.34	6,651.00	2,120.95	6,703.00			4,616.70	7714115	N	
1033	HOLBURN, NATHAN D.	173.35	5,367.00	1,190.23	5,387.00			3,298.54	7714116	N	
4579	HOLDCROFT, GRANT A.	173.33	5,952.00	1,244.11	5,972.00			3,764.39	7714117	N	
270783	HOLDCROFT, JODIE ST	173.33	5,952.00	1,257.11	5,985.00			3,744.80	7714118	N	
1041	HOLT, JUDITH A.	173.33	7,176.00	1,274.33	7,228.00			4,762.94	7714119	N	
2726	HOLT, KAREN L.	173.35	5,795.00	1,678.33	5,795.00			3,906.39	7714120	N	
6545	HOPKINS, LESLIE W.	156.01	5,476.00	900.27	5,476.00			4,004.25	7714121	N	
306605	HUGHES, RACHEL J.	173.35	3,304.00	951.44	3,304.00			2,443.49	7714122	N	
295036	JAMESON, BETTY S.	173.34	3,621.00	1,009.42	3,621.00			2,718.52	7714123	N	
389018	JENNINGS, DEVON	52.00	1,353.00	203.46	1,353.00			1,123.52	7714124	N	
358933	JONES, KIMBERLY D.	173.31	5,111.00	959.20	5,163.00			3,548.98	7714125	N	
362275	KELLOGG, TRACEY	173.35	7,395.00	1,353.44	7,395.00			5,273.13	7714126	N	
245476	KENCH, DONALD C.	173.29	3,504.00	1,984.16	3,504.00			2,640.75	7714127	N	

Company - Home . . 00969 Kitsap Public Health District
Home Bus. Unit . . 95969 Kitsap Public Health District

. . . . . EMPLOYEE . . . . . Number	Name	Hours	Wages	Vendor#	Gross Pay	Deductions	Taxes	Net Pay	Check Control	I C	Err Msg
250913	KIESS, JOHN F.	173.33	7,176.00	1,336.84	7,176.00			4,494.71	7714128	N	
16125	KNOOP, MELINA V.	173.35	5,867.00	1,268.28	5,919.00			4,143.21	7714129	N	
243184	KRUSE, CHARLES H.	173.33	6,032.00	1,694.16	6,032.00			4,540.11	7714130	N	
327580	KUSHNER, SIRI E.	173.33	6,630.00	2,067.01	6,630.00			5,034.95	7714131	N	
316830	LINDEN, LISA B.	173.32	5,255.00	1,642.60	5,275.00			3,393.30	7714133	N	
281297	LINDQUIST, SCOTT W.	173.34	13,746.00	2,774.40	13,798.00			2,641.68	7714134	N	
349713	LIPTON, BETH A.	138.68	5,263.00	1,654.08	5,263.00			3,751.50	7714135	N	
285038	LYTLE, ROSS D.	173.33	5,635.00	1,550.74	5,687.00			3,729.86	7714136	N	
354918	MALLORY, TERRY L.	86.67	3,824.00	697.86	3,824.00			2,221.51	7714137	N	
388104	MAZUR, KARINA MARIA	173.33	4,510.00	851.85	4,510.00			3,213.08	7714138	N	
387088	MCKINNON, BRYAN	173.36	4,868.00	1,904.73	4,868.00			3,511.09	7714139	N	
368977	MILLER, AKIKO	103.98	2,897.00	695.24	2,897.00			2,318.00	7714140	N	
270056	MILLS, JACQUELYN F.	173.31	3,818.00	788.12	3,818.00			2,563.93	7714141	N	
389848	MOORE, JESSICA R.	29.50	1,146.46	4.25	1,146.46			950.55	7714142	N	
324204	MORGAN, W. NEWTON	173.33	5,952.00	1,607.70	5,972.00			4,476.65	7714143	N	
312378	MORRIS, DAWN M.	138.64	3,039.00	656.34	3,039.00			2,159.61	7714144	N	
345997	MURPHY, MAUREEN E.	173.33	7,376.00	1,240.75	7,376.00			4,504.44	7714145	N	
295035	NELSON, GERALYN M.	173.36	3,469.00	755.97	3,469.00			2,334.58	7714146	N	
295033	NGUYEN, LOAN T.	138.64	3,014.00	631.01	3,014.00			2,383.04	7714147	N	
208456	NICOLAISEN, NIELS K	173.31	5,869.00	629.01	5,921.00			4,536.97	7714148	N	
3128	NOBLE, GREGORIA A.	173.34	4,915.00	1,034.09	4,935.00			3,430.09	7714149	N	
22459	NORTH, EDWIN	173.33	7,765.00	1,791.07	7,765.00			4,164.71	7714150	N	
2386	NOSER, PATRICIA E.	173.36	3,469.00	995.42	3,469.00			2,453.49	7714151	N	
243679	OUTHWAITE, MINDI L.	106.24	3,732.04	738.88	3,732.04			2,661.09	7714152	N	
388198	PHILLIPS, LYNN J.	103.99	3,153.00	980.10	3,153.00			2,001.00	7714153	N	
229901	PHIPPS, BETH M.	173.31	6,045.00	1,026.22	6,078.00			3,736.60	7714154	N	
268609	PLEMMONS, SUZANNE M	173.35	8,560.00	1,282.86	8,612.00			5,186.10	7714155	N	
394466	PREWITT, SUSANA C.	153.88	2,323.35	649.60	2,323.35			1,880.12	7714156	N	
1214	QUAYLE, TIMOTHY P.	173.35	6,433.00	1,751.09	6,453.00			4,596.41	7714157	N	
241304	REIN, ARDELLE	138.68	5,651.00	1,468.59	5,684.00			3,980.10	7714158	N	
324654	RHEA, SUSAN R.	173.35	3,322.00	981.89	3,322.00			2,444.74	7714159	N	
396295	RHOADES, LACEY P.	39.13	880.38	1,346.66-	880.38			661.28	7714160	N	
267073	RIDGE, BETTI L.	173.32	5,555.00	1,207.55	5,575.00			3,942.68	7714161	N	
397252	SALTER, SARAH K.	104.01	2,177.00	474.94	2,177.00			1,461.61	7714162	N	
397254	SCHAEFFNER, DANIELL	173.30	4,005.00	1,041.22	4,005.00			3,049.19	7714163	N	
1224	SMITH-ROSE, SHELLEY	155.99	4,271.00	1,004.78	4,271.00			2,906.44	7714164	N	
361388	SMITH, TERRI L.	173.33	6,032.00	992.03	6,032.00			4,251.34	7714165	N	
226538	STICKNEY, CHRISTINA	173.31	6,045.00	1,118.16	6,045.00			4,465.35	7714166	N	
337963	TOURIGNY, LINDA L.	173.34	6,391.00	1,260.97	6,391.00			3,039.52	7714167	N	
1682	TURNER, DENISE M.	173.35	4,157.00	950.28	4,157.00			2,614.14	7714168	N	
17666	ULTICAN, SHAWN P.	173.33	5,952.00	1,620.70	5,985.00			4,520.56	7714169	N	
392243	WALTHER, SUSAN B.	173.30	4,005.00	857.34	4,057.00			2,919.64	7714170	N	
14545	WELLBORN, BRIAN D.	129.99	2,384.00	949.92	2,436.00			1,666.21	7714171	N	
397255	WENDT, JAN E.	173.35	5,258.81	2,028.46	5,258.81			3,847.28	7714172	N	
2189	WERDALL, LORI E.	138.64	3,014.00	711.01	3,014.00			1,637.13	7714173	N	
21402	WESTERGAARD, RUTH E	173.34	5,443.00	1,148.44	5,443.00			3,950.23	7714174	N	
14571	WHITFORD, STUART S.	173.33	7,176.00	1,752.43	7,228.00			5,188.97	7714175	N	
1274	WIGGINS, THOMAS C.	173.35	6,433.00	1,783.09	6,485.00			4,370.41	7714176	N	
2908	ZIMNY, JAMES A.	173.34	6,509.00	1,304.62	6,561.00			5,091.45	7714177	N	

Individual deductions and taxes are confidential - Redacted

Kitsap County
Summary Payroll Register

Individual deductions and taxes are confidential - Redacted

Company - Home . . 00969 Kitsap Public Health District
Home Bus. Unit . . 95969 Kitsap Public Health District

. . . . . EMPLOYEE . . . . . Number	Name	Hours	Wages	Vendor#	Gross Pay	Deductions	Taxes	Net Pay	Check Control	I C	Err Msg
337082	ZOLLWEG, DAVID A.	173.35	5,367.00	1,055.72	5,367.00			3,900.02	7714178	N	
305016	ZUMWALT, LORI A.	93.99	3,278.20	732.58	3,298.20			2,247.18	7714179	N	
Total.		15566.63		117,946.15		70,103.01		336,765.39			
			503,375.05		505,040.05		98,171.65				

New or Renewed Contracts for the Period of 04/01/2014 through 04/30/2014

KPHD Contract ID	KPHD Program	Contract Type	Contract Length	Payment Schedule	Contract Amount	Signed Date	Start Date	End Date	Client Contract ID
Active (11 contracts)									
Amerigroup Washington									
ID: 1207	Clinical Services, Kerry Dobbelaere	Agreement	Open Ended	No Cost	$0.00	04/14/14	04/14/14		
Description: Managed Health Care Insurance Provider Preferred Provider									
Clallam County Department of Health and Human Serv									
ID: 1233	Health Information Resources, Beth Lipton	Agreement	Closed	Monthly	$10,000.00	04/08/14	01/01/14	12/31/14	11301-14 KCHD
Description: Epidemiology Services - Lipton									
Collins Computing									
ID: 1254	Accounting, Tracey Kellogg	Amendment	Closed	Hourly	$19,804.00	04/17/14	03/01/14	03/12/15	
Description: Amendment 1: Dynamics software support									
Embassy Education Center									
ID: 1236	Parent/Child Health, Katie Eilers	Agreement	Closed	Hourly	$2,500.00	04/30/14	01/01/14	12/31/14	
Description: Childcare Consultation-Zumwalt									
Jefferson County Public Health									
ID: 1244	Parent/Child Health, Suzanne Plemmons	Amendment	Closed	Monthly	$91,776.00	04/21/14	01/01/14	12/31/16	
Description: Amendment 1: NFP Supervision									
ID: 1225	Parent/Child Health, Suzanne Plemmons	Contract for Services	Closed	Monthly	$78,408.00	04/21/14	01/01/14	12/31/16	
Description: NFP Supervision									
Kitsap Community Resources									
ID: 1237	Parent/Child Health, Katie Eilers	Agreement	Closed	Hourly	$2,500.00	04/17/14	01/01/14	12/31/14	
Description: Childcare Consultation-Zumwalt									
Kitsap County Juvenile Detention Facility									
ID: 1180	Community Health, Suzanne Plemmons	Agreement	Closed	Monthly	$298,404.00	04/28/14	01/01/14	12/31/14	
Description: Juvenile Detention Medical Care									
Washington Health Benefit Exchange									
ID: 1228	Clinical Services, Kerry Dobbelaere	Facilities Agreement	Closed	In Kind		04/14/14	01/01/14	12/31/18	K1118
Description: ACA Enrollment Assistance Specialists and Space Lease									
Washington State DOH									
ID: 1242	Administration, Scott Daniels	Amendment	Closed	Monthly	$876,227.00	04/01/14	01/01/12	12/31/14	C16888
Description: Amendment 13: Consolidated Contract									

New or Renewed Contracts for the Period of 04/01/2014 through 04/30/2014

KPHD Contract ID	KPHD Program	Contract Type	Contract Length	Payment Schedule	Contract Amount	Signed Date	Start Date	End Date	Client Contract ID
Washington State, DOH									
ID: 1252	HIV/AIDS, Kerry Dobbelaere	Data Sharing Agreement	Closed	No Cost	$0.00	04/04/14	04/01/17	12/31/19	N20467-1
Description: Data sharing agreement (Ryan White)									

KITSAP PUBLIC
HEALTH DISTRICT

345 6th Street, Suite 300
Bremerton, WA 98337
360-337-5235

MEMO

To: Kitsap Public Health Board

From: Scott Daniels, Administrator

Date: May 28, 2014

Re: **2011-2021 Strategic Plan 2013 Year-End Progress Report**

At the June 3, 2014, Kitsap Public Health Board meeting, members of the District's Executive Leadership Team will review progress on the objectives established in the District's 2011-2021 Strategic Plan.

To assist with this review, included in the packet are the following documents:

1. The Summary: 2011-2021 Strategic Plan 2013 Progress Report
2. The Details: 2013 Year-End Progress-to-Goal Monitoring Logs for Implementation Plan Goals One through Five

The Strategic Plan was initially approved by the Board, by resolution, in November 2011. Five goals were initially established in the Strategic Plan, and objectives and activities for each goal were later detailed in implementation plans. The five goals were:

GOAL 1: We will strengthen our ability to prevent and control communicable diseases.

GOAL 2: We will decrease chronic diseases and their impacts in our community.

GOAL 3: We will prevent and reduce environmental threats to public health from contaminated water, food, land, and air.

GOAL 4: We will promote healthy child development and health equity by ensuring all children have healthy starts.

GOAL 5: We will strengthen our financial and technological resources and ensure our workforce has the new skills required in our changing environment. We will also increase the extent to which community members and policy makers perceive public health to be an essential asset in their lives.

The Strategic Plan is a critical component of the District's Strategic Management System (SMS) which informs how the District creates, implements, monitors and adjusts its Strategic Plan (and implementation plans), Quality Improvement Plan, individual program work plans, and

ultimately, employee performance evaluation objectives. The District's plans are each informed, in part, by the Kitsap Community Health Priorities (KCHP), the county's community health improvement plan. As part of the SMS process, the Kitsap Public Health Board, working jointly with the Executive Leadership Team, is responsible for monitoring progress on the Strategic Plan annually.

The ultimate goal of the SMS is to help the District fulfill its mission and vision. Specifically, the District uses the SMS to:

1. Improve the health and wellbeing of the people of our community.
2. Ensure our customers have a good experience while receiving quality, safe and effective services.
3. Optimize the cost, effectiveness and efficiency of the services we provide.
4. Provide a workplace environment that allows staff at all levels to use performance management practices to improve our outcomes and demonstrate accountability to the public we serve.

It's also important to note that the SMS process allows for adjustments to the Strategic Plan every three to five years, as needed. The District will evaluate the need to adjust the Strategic Plan following the completion of the KCHP updating process, currently underway.

KITSAP PUBLIC HEALTH DISTRICT

2011-2021 STRATEGIC PLAN
IMPLEMENTATION PLAN GOALS AND OBJECTIVES: 2013 YEAR-END STATUS SUMMARY

GOAL 1 Strategic Plan		BY 2021, WE WILL STRENGTHEN OUR ABILITY TO PREVENT AND CONTROL COMMUNICABLE DISEASES BY ACHIEVING THE OBJECTIVES BELOW.		
Objective Number	Completion By	Implementation Plan Objective	Activities	
			Completed	Pending
1.1	12-31-14	We will implement an effective communication strategy with our healthcare provider partners (medical providers, veterinarians, hospitals, pharmacies, laboratories, and public school nurses) that strengthens their awareness and action in disease prevention and reporting. Our success will be demonstrated by a 10% increase in medical providers' perceived value of our messages and a 90% medical provider message recall.	3	1
1.2	12-31-14	We will enhance the healthcare provider pages on our website to provide easy access for current information on communicable disease prevention, case definitions, screening/testing, reporting requirements, and treatment recommendations. Our success will be demonstrated by a 75% favorable rating on our provider survey and a 20% increase in utilization measured by hits per month.	0	4
1.3	09-01-13	We will enhance our communication practices to better reach our targeted non-healthcare provider populations with communicable disease guidance. Our success will be demonstrated by a statistically significant increase in audience message recall between two survey periods.	3	0

GOAL 2 Strategic Plan		BY 2021, WE WILL DECREASE CHRONIC DISEASES AND THEIR IMPACTS IN OUR COMMUNITY BY MEETING THE OBJECTIVES NOTED BELOW.		
Objective Number	Completion By	Implementation Plan Objective	Activities	
			Completed	Pending
2.1	12-31-14	At least six KPHD staff will have been trained in and able to educate our stakeholders about the causes and prevention of chronic disease, life course theory, and social determinants.	2	1
2.2	12-31-14	We will be participating actively in all five of our county and city community planning processes to promote and support a healthy environment.	3	3
2.3	12-31-13	We will create a Chronic Disease Prevention Program (CDPP) that is integrated across three KPHD programs and is harmonized with the related goals in the Kitsap Community Health Priorities work plan.	2	1

GOAL 3 Strategic Plan		BY 2021, WE WILL PREVENT AND REDUCE ENVIRONMENTAL THREATS TO PUBLIC HEALTH FROM CONTAMINATED WATER, FOOD, LAND, AND AIR BY ACHIEVING THE OBJECTIVES LISTED BELOW.		
Objective Number	Completion By	Implementation Plan Objective	Activities	
			Completed	Pending
3.1	2021	We will ensure safe and reliable drinking water for Kitsap County by increasing the number public water systems that meet the total coliform bacteria standards to 95% or better on an annual basis.	2	3
3.2	2017	We will decrease the annual rate of illnesses commonly related to unsafe food, unsafe water, or poor hygiene to less than 25 per 100,000.	1	3
3.3	2017	We will increase the percentage of streams meeting standards for acceptable levels of fecal coliform bacteria and the number of marine shoreline miles classified as "open" for shellfish harvesting to better than 50% and better than 95%, respectively.	2	1
3.4	01-01-14	We will ensure the proper handling and disposal or recycling of solid and hazardous wastes by increasing timely compliance rates to 100%.	2	1

GOAL 4 Strategic Plan		BY 2021, WE WILL PROMOTE HEALTHY CHILD DEVELOPMENT AND HEALTH EQUITY BY ENSURING ALL CHILDREN HAVE HEALTHY STARTS BY ACHIEVING THE OBJECTIVES LISTED BELOW.		
Objective Number	Completion By	Implementation Plan Objective	Activities	
			Completed	Pending
4.1	12-31-12	We will partner with neighboring Local Health Jurisdictions (LHJs) to implement a Nurse Family Partnership (NFP) program in Kitsap County and will serve the maximum NFP caseload of 25 families per 1.0 FTE nurse home visitor.	3	0
4.2	11-30-13	We will complete and evaluate an educational program that will foster increased understanding of and intent to advocate for NFP and the Healthy Start Kitsap program among at least 50% KPHD Staff as evidenced by pre-post staff surveys.	2	2
4.3	12-31-13	We will complete an educational program that will strengthen community support of and advocacy for NFP among healthcare providers, schools, community agencies, and others. At least 50% of stakeholders will demonstrate increased support and intent to advocate as evidenced by pre-post surveys.	1	1

GOAL 5 Strategic Plan		BY 2021, WE WILL ACHIEVE THE FOLLOWING OBJECTIVES TO STRENGTHEN OUR FINANCIAL AND TECHNOLOGICAL RESOURCES; ENSURE OUR WORKFORCE HAS THE NEW SKILLS REQUIRED IN OUR CHANGING ENVIRONMENT; AND INCREASE THE EXTENT TO WHICH COMMUNITY MEMBERS AND POLICY MAKERS PERCEIVE PUBLIC HEALTH TO BE AN ESSENTIAL ASSET IN THEIR LIVES.		
Objective Number	**Completion By**	**Implementation Plan Objective**	**Activities**	
			Completed	**Pending**
5.1	07-01-14	We will gain consensus on a new Public Health Board (the Board) local funding formula.	0	3
5.2	2021	We will work with our State Legislators and partners and will achieve stable dedicated State public health funding.	6	0
5.3	03-01-13	We will have formally applied to achieve national accreditation from the Public Health Accreditation Board (PHAB) to position ourselves for future federal funding.	4	1
5.4	12-31-13	We will be skilled and experienced in applying policy development to effect community-level change in using strategic partnerships that produce results. We will identify specific training needs, assemble comprehensive curriculum, and train at least five identified leaders and five staff to be subject matter experts.	3	0
5.5	10-01-14	We will develop a mentoring program wherein at least two subject matter experts disseminate skills to other staff.	1	1
5.6	04-01-16	The Public Health Board will establish a list of priority public health policies, and will adopt the highest priority policy.	0	6
5.7	07-01-15	We will implement the top three Kitsap Community Health Priorities (KCHP) priorities.	1	2
5.8	04-30-14	We will provide education to 100% of our staff and Public Health Board so they will be knowledgeable about all we do and able to convey compelling messages about our mission to the community.	1	4
5.9	05-01-14	We will execute a comprehensive public communication strategy to raise public awareness of the functions and value of public health.	0	4
5.10	12-31-13	We will have effective data collection and monitoring systems in place and the analytical resources necessary to provide timely, actionable information that will: • 5.10.1 Measure the prevalence of communicable and chronic diseases. • 5.10.2 Identify environmental threats to human health from water, food, sewage, land and air. • 5.10.3 Measure the effectiveness of home visiting by public health nurses. • 5.10.4 Enhance the efficiency and effectiveness of our administrative and business functions.	4	1
5.11	06-01-12	We will complete implementation of an electronic medical record (EMR) system so we can lead the formation of a community-level electronic health information exchange (HIE) that by 1-1-15 will improve communicable disease threat tracking capability, increase mandated reporting compliance, and provide chronic disease data.	1	1

KITSAP PUBLIC HEALTH DISTRICT

IMPLEMENTATION PLAN GOAL 1
PROGRESS-TO-GOAL MONITORING LOG
DIRECTORS REVIEW 3/17/14

Monitor work each July and December. Identify status of all activities: completed (on time or late) or pending (on target or modify). If an activity or performance measure is at risk or modified, describe this information in the Comments section and describe any specific tools or methods used to analyze problems and/or improve efforts. Be prepared to produce electronic documentation of all tool and method use. Add rows/sections as needed.

GOAL 1 Strategic Plan	BY 2021, WE WILL STRENGTHEN OUR ABILITY TO PREVENT AND CONTROL COMMUNICABLE DISEASES BY ACHIEVING THE OBJECTIVES BELOW.

Objective 1.1	By 12-31-13 we will implement an effective communication strategy with our healthcare provider partners (medical providers, veterinarians, hospitals, pharmacies, laboratories, and public school nurses) that strengthens their awareness and action in disease prevention and reporting. Our success will be demonstrated by a 10% increase in medical providers' perceived value of our messages and a 90% medical provider message recall.

Activity	Performance Measures	Completed		Pending		Comments *Required for Modifications in Activities and Measures*
		On Time	Late	On Target	Modify	
1.1.1. The PHEPR team will determine the optimal activities for the healthcare provider liaison effort.	Decision by 3-1-13.	✓				
1.1.2. We will create and send a semi-annual CD newsletter.	Newsletter will be sent as noted 100% of the time. First issue sent by 7-1-12.	✓				
1.1.3. We will develop a comprehensive, standard medical provider survey that will measure satisfaction with KPHD performance.	Survey drafted by 12-31-13.				✓	Survey will be completed 5/31/14 and distributed June 2014.
	Survey sent by 6-1-14.			✓		
	Survey analyzed and reported by 10-1-14.			✓		
1.1.4. Implement improvements from medical provider communication QP project.	Template for communications implemented by 12-31-13.	✓				
	Process for issuing communications complete by 12-31-13.	✓				
	Web-based sending research and recommendations complete by 12-31-13.	✓				

IMPLEMENTATION PLAN GOAL 1
PROGRESS-TO-GOAL MONITORING LOG: Review Date 3/17/14

Objective 1.2	**By 12-31-13, we will enhance the healthcare provider pages on our website to provide easy access for current information on communicable disease prevention, case definitions, screening/testing, reporting requirements, and treatment recommendations. Our success will be demonstrated by a 75% favorable rating on our provider survey and a 20% increase in utilization measured by hits per month.**					
Activity	**Performance Measures**	**Completed**		**Pending**		**Comments** *Required for Modifications in Activities and Measures*
		On Time	**Late**	**On Target**	**Modify**	
1.2.1. Investigate system solutions for online reporting of communicable diseases.	Provide Directors a report of available options by 12-31-13.				✓	Washington State Department of Health is in the process of looking for a new vendor to create a reporting system statewide.
1.2.2. Benchmark peer websites to find best practices in provider sites.	Provide Directors a report of best practices, recommendations for KPHD by 12-31-13.				✓	Move to 6-30-14.
1.2.3. Survey healthcare providers re: customer requirements and document recommendations.	Provide Directors a report of recommendations by 12-31-13.				✓	Move to 6-30-14.
1.2.4. Revise website using recommendations from 1.2.2 and 1.2.3.	Completed by 4-1-14.				✓	Move to 12-31-14.

Objective 1.3	**By 9-1-13, we will enhance our communication practices to better reach our targeted non-healthcare provider populations with communicable disease guidance. Our success will be demonstrated by a statistically significant increase in audience message recall between two survey periods.**					
Activity	**Performance Measures**	**Completed**		**Pending**		**Comments** *Required for Modifications in Activities and Measures*
		On Time	**Late**	**On Target**	**Modify**	
1.3.1. We will research and document best practices on methods for reaching different kinds of target populations.	Provide Directors recommendations from a) research of best practices and b) Community Outreach Group by 5-1-13.	✓				Completed with homeless individuals and stakeholders.
1.3.2. We will determine how to measure community awareness and message satisfaction.	Method completed and ready to use by 9-1-13.	✓				Completed with homeless individuals and stakeholders.
1.3.3. We will issue at least one preventive message per year using methods that were determined to be best practices.	First communication sent by 10-1-13.	✓				Completed with homeless individuals and stakeholders.

KITSAP PUBLIC HEALTH DISTRICT

IMPLEMENTATION PLAN GOAL 2
PROGRESS-TO-GOAL MONITORING LOG
DIRECTOR REVIEW DATE 3/17/14

Monitor work each July and December. Identify status of all activities: completed (on time or late) or pending (on target or modify). If an activity or performance measure is at risk or modified, describe this information in the Comments section and describe any specific tools or methods used to analyze problems and/or improve efforts. Be prepared to produce electronic documentation of all tool and method use. Add rows/sections as needed.

GOAL 2 Strategic Plan	BY 2-2021, WE WILL DECREASE CHRONIC DISEASES AND THEIR IMPACTS IN OUR COMMUNITY BY MEETING THE OBJECTIVES NOTED BELOW.
Objective 2.1	**By the end of 2014, at least six KPHD staff will have been trained in and able to educate our stakeholders about the causes and prevention of chronic disease, life course theory, and social determinants.**

Activity	Performance Measures	Completed		Pending		Comments *Required for Modifications in Activities and Measures*
		On Time	Late	On Target	Modify	
2.1.1. Assemble training materials (to include at a minimum education on causes and prevention of chronic disease, life course theory, and social determinants).	Materials assembled by 6-1-13.	✓				
2.1.2. Deliver the curriculum.	All trainings delivered to KPHD staff by 12-31-13.	✓				
	All trainings to KPHD decision-makers completed by 12-31-13.	✓				
2.1.3. Evaluate training.	Evaluation completed by 7-1-14.			✓		

Objective 2.2	**By the end of 2014, we will be participating actively in all five of our county and city community planning processes to promote and support a healthy environment.**

Activity	Performance Measures	Completed		Pending		Comments *Required for Modifications in Activities and Measures*
		On Time	Late	On Target	Modify	
2.2.1. Build staff and agency capacity, knowledge, and skills around the role of public health in community and transportation planning. With regional partners, conduct Health and Equity in Transportation Planning Conference for planners, elected officials, and public health staff in the region with a focus on defining metrics and quantifying the health benefits of active transportation.	Complete training on healthy planning for chronic disease prevention staff by 7-1-12.	✓				
	In partnership, conduct Health and Equity in Transportation Planning Conference by 10-1-12.	✓				

Objective 2.2 (Continued):

Activity	Performance Measures	Completed		Pending		Comments *Required for Modifications in Activities and Measures*
		On Time	Late	On Target	Modify	
2.2.2. Review and assess the current community and transportation planning processes and documents in Kitsap County and complete a written assessment.	Gather current transportation and comprehensive planning documents impacting public health in the county by 3-31-13.	✓				
	Complete review of these documents and a written assessment of these documents by 3-31-13.		✓			Kitsap County, Bremerton and Port Orchard comp plan reviews completed by Alta Planning by the Fall of 2013.
2.2.3. Meet with county and city community development and planning officials to gather information (regulations, plans, processes, etc.) about existing built environment provisions for each jurisdiction with regard to chronic disease prevention, and discuss their perspective on KPHD participation in the transportation and community planning processes.	Meet with municipal and County planning directors by 6-30-13.		✓			Met with Kitsap County and Bremerton planning directors on time. Port Orchard planning director meeting pending.
2.2.4. Draft a white paper framing the health impacts of transportation planning, and planning options which benefit health, targeted toward planners and policy makers in Kitsap County.	Draft white paper on health and transportation planning by 9-30-13.				✓	This task was no longer deemed necessary due to change in work scope as outlined in the District's CTG Grant Active Living Communication Plan. That communication plan will become the new communication strategy and activity.

Objective 2.2 (Continued):

Activity	Performance Measures	Completed		Pending		Comments *Required for Modifications in Activities and Measures*
		On Time	Late	On Target	Modify	
2.2.5. Present the white paper to the Kitsap Public Health Board, discuss with them the KPHD strategic priority regarding community planning including the District's participation in these processes, and request the Board's support and commitment to include KPHD in their jurisdictional community planning processes.	Present the white paper to, and discuss issues with, the Public Health Board by 12-31-13.				✓	See 2.2.4 above.
2.2.6. With Board approval, provide comments on local jurisdictional transportation and comprehensive plans to improve community health.	Submit comments on plans according to the schedule established by the issuing jurisdictions.			✓		Note, the District is now a member of the internal review team for the Kitsap County comp plan update process.

Objective 2.3	We will create a Chronic Disease Prevention Program (CDPP) that is integrated across three KPHD programs and is harmonized with the related goals in the Kitsap Community Health Priorities work plan by 12-31-13.					
Activity	Performance Measures	Completed		Pending		Comments *Required for Modifications in Activities and Measures*
		On Time	Late	On Target	Modify	
2.3.1. Create a KPHD integrated, multi-disciplinary CDPP framework and budget.	Framework and budget established by 7-31-13.	✓				
2.3.2. Complete the work plan for the Community Transformation Grant that is aimed at preventing chronic disease through initiatives that improve active living, tobacco-free living and healthy eating.	CTG work plan year 1 activities completed by 9-30-12.	✓				
2.3.3. Ensure on-going KPHD participation in Kitsap Community Health Priorities (KCHP) workgroups that relate to chronic disease prevention.	Number of staff participating and number of meetings for each workgroup reported quarterly beginning 3-31-12.				✓	Work group meetings have occurred on schedule; checking to see if reports exist.

KITSAP PUBLIC HEALTH DISTRICT

IMPLEMENTATION PLAN GOAL 3
PROGRESS-TO-GOAL MONITORING LOG
DIRECTORS REVIEW 3/17/14

Monitor work each July and December. Identify status of all activities: completed (on time or late) or pending (on target or modify). If an activity or performance measure is at risk or modified, describe this information in the Comments section and describe any specific tools or methods used to analyze problems and/or improve efforts. Be prepared to produce electronic documentation of all tool and method use. Add rows/sections as needed.

GOAL 3 Strategic Plan	**BY 2021, WE WILL PREVENT AND REDUCE ENVIRONMENTAL THREATS TO PUBLIC HEALTH FROM CONTAMINATED WATER, FOOD, LAND, AND AIR THROUGH ACHIEVING THE OBJECTIVES LISTED BELOW.**
Objective 3.1	**By 2021, we will ensure safe and reliable drinking water for Kitsap County by increasing the number public water systems that meet the total coliform bacteria standards to 95% or better on an annual basis.**

Activity	Performance Measures	Completed		Pending		Comments *Required for Modifications in Activities and Measures*
		On Time	Late	On Target	Modify	
3.1.1. Review and evaluate Kitsap County Coordinated Water System Plan (KCCWSP) to determine KPHD's existing and future capacity to meet its obligations as assigned in the Plan.	Plan review and evaluation completed by 9-1-13	✓				
3.1.2. Review and evaluate new State Board of Health rules for Group B Water Systems as they relate to Kitsap County and KPHD's responsibilities in KCCWSP.	Plan review and evaluation completed by 12-1-13.	✓				
3.1.3. Prepare draft evaluation report, recommendations, and implementation plan for KPHD to increase the number of public water systems routinely sampled for total coliform bacteria and increase the number of public water systems in compliance with the total coliform bacteria standards.	Plan review and evaluation completed by 2-1-14.				✓	Research completed, report pending.
3.1.4. Gain agreement on KCCWSP/Group B draft evaluation report, recommendations, draft Group B Water System Regulations, and implementation plan with Water Purveyors Association of Kitsap County.	Support and approval of evaluation report, Group B Regulations and implementation plan from Water Purveyors Association of Kitsap County obtained by 6-1-14.			✓		In progress.

Objective 3.1 (Continued):

Activity	Performance Measures	Completed		Pending		Comments *Required for Modifications in Activities and Measures*
		On Time	Late	On Target	Modify	
3.1.5. Present KCCWSP and Group B evaluation report, recommendations, draft Group B Water System Regulations, and implementation plan to Kitsap Public Health Board for adoption.	Obtain Board adoption of Group B Regulations and implementation plan by 11-1-14.			✓		In progress.

Objective 3.2	We will decrease the annual rate of illnesses commonly related to unsafe food, unsafe water, or poor hygiene to less than 25 per 100,000 residents by 2017.					
Activity	**Performance Measures**	**Completed**		**Pending**		**Comments** *Required for Modifications in Activities and Measures*
		On Time	Late	On Target	Modify	
3.2.1. Produce a new draft of local food service regulations, modeled on new State Board of Health Food Regulations, and present to the Kitsap Public Health Board for approval.	Adoption of new local food regulations by Kitsap Public Health Board by 9-1-13.	✓				New rules adopted by Health Board in May 2013.
3.2.2. Produce a proposed draft of local water recreation facilities rules in accordance with State Board of Health water recreation facility regulations, and present to the Kitsap Public Health Board for approval.	Adoption of local water recreation facility regulations by Kitsap Public Health Board by 9-1-14.			✓		
3.2.3. Attain 100% adherence with the required inspection schedule for all food service establishments and water recreation facilities.	100% inspection rate for all food service establishments and water recreation facilities by 7-1-14.			✓		
	100% passing scores for all food service establishments and water recreation facilities on an annual basis by 1-1-21.			✓		

Objective 3.3	**We will increase the percentage of streams meeting standards for acceptable levels of fecal coliform bacteria and the number of marine shoreline miles classified as "open" for shellfish harvesting to better than 50% and better than 95%, respectively, by 2017.**					
Activity	**Performance Measures**	**Completed**		**Pending**		**Comments** *Required for Modifications in Activities and Measures*
		On Time	Late	On Target	Modify	
3.3.1. Prepare a revised Local Onsite Septic System Management Plan and present to the Kitsap Public Health Board for approval.	Kitsap Public Health Board adoption and implementation of revised Local Onsite Septic System Management Plan by 1-1-15.			✓		
3.3.2. Identify and obtain additional revenues to expand PIC Program clean-up efforts and implement ongoing marine shoreline survey program.	Procurement of additional revenues to expand PIC Program clean-up efforts and implement ongoing marine shoreline survey program by 1-1-15.	✓				
3.3.3. Ensure repair of all failing septic systems, failing sewer systems, and contaminated storm water systems within 12 months of confirmation.	Correction and elimination of failing septic, sewer, and storm water systems within 12 months of confirmation on an annual basis.	✓				

Objective 3.4	**We will ensure the proper handling and disposal or recycling of solid and hazardous wastes by increasing timely compliance rates to 100% by 1-1-14.**					
Activity	**Performance Measures**	**Completed**		**Pending**		**Comments** *Required for Modifications in Activities and Measures*
		On Time	Late	On Target	Modify	
3.4.1. Attain 100% adherence with the required inspection schedule for all solid waste handling facilities.	100 % inspection and compliance rate for all solid waste handling facilities on annual basis by 1-1-14.	✓				
3.4.2. Respond to and implement enforcement of 100% of confirmed illegal dumping incidents within 7 business days.	100% response and enforcement rate within 7 days for all confirmed illegal dumping incidents by 1-1-14.				✓	76% response within 7 days.
3.4.3. Complete 100% of scheduled Site Hazard Assessment (SHA) investigations and Local Source Control (LSC) site visits on annual basis.	100% completion rate of scheduled SHA investigations and LSC site visits on annual basis by 1-1-14.	✓				

KITSAP PUBLIC HEALTH DISTRICT

IMPLEMENTATION PLAN GOAL 4
PROGRESS-TO-GOAL MONITORING LOG
DIRECTORS REVIEW 3/17/14

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GOAL 4 Strategic Plan	WE WILL PROMOTE HEALTHY CHILD DEVELOPMENT AND HEALTH EQUITY BY ENSURING ALL CHILDREN HAVE HEALTHY STARTS.

Objective 4.1	We will partner with neighboring Local Health Jurisdictions (LHJs) to implement a Nurse Family Partnership (NFP) program in Kitsap County by 12-31-12 and will serve the maximum NFP caseload of 25 families per 1.0 FTE nurse home visitor.					
Activity	**Performance Measures**	**Completed**		**Pending**		**Comments** *Required for Modifications in Activities and Measures*
		On Time	Late	On Target	Modify	
4.1.1. Convene meetings with regional LHJs that have NFP programs and LHJs, tribes, and non-profits that want to start NFP programs to develop options for expanding NFP regionally to serve more clients (Include NFP National Service Office (NSO) staff).	Meetings convene by 1-1-12.	✓				
	Meetings are held at least quarterly in 2012.	✓				
	At least one option for Kitsap Public Health District (KPHD) to start a NFP program is identified by 4-1-12.	✓				
4.1.2. Formally establish a partnership with an existing NFP program operated by a neighboring LHJ.	Memorandum of Agreement establishing partnership is in place by 6-30-12.	✓				
4.1.3. Recruit and train NFP nurse home visitors.	Two nurses are trained and seeing NFP clients by 9-30-12.	✓				

Objective 4.2	We will complete and evaluate an educational program by 11-30-13 that will foster increased understanding of and intent to advocate for NFP and the Healthy Start Kitsap program among at least 50% KPHD Staff as evidenced by pre-post staff surveys.					
Activity	**Performance Measures**	**Completed**		**Pending**		**Comments** *Required for Modifications in Activities and Measures*
		On Time	Late	On Target	Modify	
4.2.1. Create a NFP educational presentation for KPHD staff.	Presentation completed by 2-28-13.	✓				
4.2.2. Deliver the NFP educational presentation to KPHD staff.	All presentations delivered by 6-30-13.	✓				

Objective 4.2 (Continued):

Activity	Performance Measures	Completed		Pending		Comments *Required for Modifications in Activities and Measures*
		On Time	Late	On Target	Modify	
4.2.3. Develop, administer and analyze results from a pre and post survey that will measure increases in support for the program and intent to advocate for it.	Pre-survey completed by 5-31-13; post-survey completed by 8-30-13.				✓	Pre & post surveys not completed. Will reevaluate when developing 2014 Goal 4 implementation plan.
4.2.4. Evaluate NFP presentation.	Completed by 11-30-13.				✓	NFP presentation evaluation not completed. Will reevaluate the need for this when developing 2014 Goal 4 implementation plan.

Objective 4.3	**We will complete an educational program by 12-31-13 that will strengthen community support of and advocacy for NFP among healthcare providers, schools, community agencies, and others. At least 50% of stakeholders will demonstrate increased support and intent to advocate as evidenced by pre-post surveys.**					
Activity	**Performance Measures**	**Completed**		**Pending**		**Comments** *Required for Modifications in Activities and Measures*
		On Time	Late	On Target	Modify	
4.3.1. Healthy Start Kitsap Board and NFP nurses gain community support by delivering NFP educational presentations to community partners.	Deliver 12 presentations by 12-31-13.	✓				
4.3.2. Develop, administer and analyze results from a pre and post survey that will measure increases in support for the program and intent to advocate for it.	Pre-survey completed by 12-31-13; post-survey completed by 3-30-14.				✓	Pre & post surveys not completed. Will reevaluate when developing 2014 Goal 4 implementation plan.

KITSAP PUBLIC HEALTH DISTRICT

IMPLEMENTATION PLAN GOAL 5
PROGRESS-TO-GOAL MONITORING LOG
DIRECTORS REVIEW 3/17/14

Monitor work each July and December. Identify status of all activities: completed (on time or late) or pending (on target or modify). If an activity or performance measure is at risk or modified, describe this information in the Comments section and describe any specific tools or methods used to analyze problems and/or improve efforts. Be prepared to produce electronic documentation of all tool and method use. Add rows/sections as needed.

GOAL 5 Strategic Plan	TO ACCOMPLISH OUR GOAL BY 2021, WE WILL ACHIEVE THE FOLLOWING OBJECTIVES TO STRENGTHEN OUR FINANCIAL AND TECHNOLOGICAL RESOURCES; ENSURE OUR WORKFORCE HAS THE NEW SKILLS REQUIRED IN OUR CHANGING ENVIRONMENT; AND INCREASE THE EXTENT TO WHICH COMMUNITY MEMBERS AND POLICY MAKERS PERCEIVE PUBLIC HEALTH TO BE AN ESSENTIAL ASSET IN THEIR LIVES.

Objective 5.1	By 7-1-14, we will gain consensus on a new Public Health Board (the Board) local funding formula.					
Activity	Performance Measures	Completed		Pending		Comments *Required for Modifications in Activities and Measures*
		On Time	Late	On Target	Modify	
5.1.1. Research other local jurisdictional health district funding models in Washington State.	We will complete a written report for the Board by 12-31-13.				✓	Work delayed due to insufficient staffing and competing priorities. Will schedule this work for later in 2014.
5.1.2. Educate the Board on the history and importance of local governmental funding to the District, and available formula options.	We will make a presentation on funding options to the Board in their regular monthly meeting by 4-1-14.				✓	See 5.1.1 above.
5.1.3. Gain consensus and implement a new Health District local funding formula for Board members.	The Board will adopt a resolution implementing the formula by 7-1-14.				✓	See 5.1.1 above.

Objective 5.2	We will work with our State Legislators and partners and will achieve stable dedicated State public health funding by 2021.					
Activity	Performance Measures	Completed		Pending		Comments *Required for Modifications in Activities and Measures*
		On Time	Late	On Target	Modify	
5.2.1. Develop annual District legislative priorities, to include need for stable dedicated State funding.	Annual legislative priorities document completed by 11-30-12.	✓				
5.2.2. Gain Board consensus approval of annual legislative priorities.	Board approval documented by 12-4-12.	✓				
5.2.3. Share annual legislative priorities with Kitsap County's State elected officials and discuss impacts.	Documentation of this communication with state legislators completed by 4-1-13.	✓				

Objective 5.2 (Continued):

Activity	Performance Measures	Completed		Pending		Comments *Required for Modifications in Activities and Measures*
		On Time	Late	On Target	Modify	
5.2.4. Participate as a member of the Washington State Association of Local Public Health Officials' Legislative Committee advocating for public health funding.	Participation on committee documented by 12-31-12.	✓				
5.2.5. Attend meetings with state legislator s representing the County at least once annually to communicate the value of public health.	Itinerary documenting scheduled visits completed by 4-1-13.	✓				
5.2.6. As allowed under law, support legislation and State budgets that preserve State funding for the District, and oppose legislation and budgets which remove funding that supports core services.	Documentation of communications with state legislators completed by 4-1-13.	✓				

Objective 5.3	**By 3-1-13, we will have formally applied to achieve national accreditation from the Public Health Accreditation Board (PHAB) to position ourselves for future federal funding.**					
Activity	**Performance Measures**	**Completed**		**Pending**		**Comments** *Required for Modifications in Activities and Measures*
		On Time	Late	On Target	Modify	
5.3.1. Determine method that ensures each Manager and others (if assigned) will a) become expertly knowledgeable about standards that affect their work and b) design and begin documenting work according to PHAB requirements.	The method will be finalized by 6-1-12 and implemented by 9-15-12.	✓				
5.3.2. Determine who will be responsible for documenting and reviewing each standard in preparation for the 2013-14 accreditation review.	Decision made and documented by 6-1-12.	✓				
5.3.3. Finalize timeline for pursuing accreditation process.	Decision made and documented by 12-31-12.	✓				

Objective 5.3 (Continued):

Activity	Performance Measures	Completed		Pending		Comments *Required for Modifications in Activities and Measures*
		On Time	Late	On Target	Modify	
5.3.4. Determine who will support Standards Coordinator in 2013/14 and prepare to assume Coordinator role in the 2019 accreditation cycle.	Decision made and documented by 3-1-13.	✓				
5.3.5. Start the PHAB accreditation process and complete all steps, concluding with the site visit.	Success measured by meeting deliverables per work plan schedule and achieving accreditation.			✓		

Objective 5.4	**By 12-31-13, we will be skilled and experienced in applying policy development to effect community-level change in using strategic partnerships that produce results. We will identify specific training needs, assemble comprehensive curriculum, and train at least five identified leaders and five staff to be subject matter experts.**					
Activity	**Performance Measures**	**Completed**		**Pending**		**Comments** *Required for Modifications in Activities and Measures*
		On Time	Late	On Target	Modify	
5.4.1. Identify District staff who need policy development training.	Staff training list completed by 1-1-13.	✓				
5.4.2. Evaluate available and cost-effective policy development training opportunities, including training offered through the Washington State Department of Health's Healthy Communities Program.	Evaluation completed and documented by 3-1-13.	✓				
5.4.3. Ensure that approved staff members complete selected policy development training in key topic areas.	Complete identified training by 12-31-13.	✓				

Objective 5.5	**By 10-1-14, we will develop a mentoring program wherein at least two subject matter experts disseminate skills to other staff.**					
Activity	**Performance Measures**	**Completed**		**Pending**		**Comments** *Required for Modifications in Activities and Measures*
		On Time	**Late**	**On Target**	**Modify**	
5.5.1. Develop and implement a formal mentoring program that includes mentoring policy development skills.	Policy developed and implemented by 6-1-13.	✓				
5.5.2. Seek policy development mentors and match them to staff members who express interest in being mentored during or after completing training under Objective 5.2.1.	A list of policy development subject matter experts who are willing to serve as mentors will be compiled by 7-1-14.			✓		
	A list of District staff members matched to mentors will be compiled by 10-1-14.			✓		

Objective 5.6	**By 4-1-16, the Public Health Board will establish a list of priority public health policies, and will adopt the highest priority policy.**					
Activity	**Performance Measures**	**Completed**		**Pending**		**Comments** *Required for Modifications in Activities and Measures*
		On Time	**Late**	**On Target**	**Modify**	
5.6.1. We will develop a list of policies that will be evaluated, using the steps below, and considered for priority implementation over the next ten years.	The list of prioritized policies will be approved by the Board by 12-31-13.				✓	Use of these detailed policy development activities 5.6.1 through 5.6.6 did not occur during the first year. District processed initial backlog of policy issues during 2013. Policy process will be reevaluated in 2014 and included in 2014 work and implementation plans. District did begin work on policy prioritization guidelines to assist with prioritization process.
5.6.2. Once the prioritized list is approved we will work with the Board to adopt the first policy using these steps: **Step 1:** 1. **R**esearch recent policy activity and evaluate whether administrative or legislative action is needed. 2. Determine which department has jurisdictional responsibility for the types of policy being considered, and identify key decision-makers. 3. Hone in on specific policy objectives informed by the political landscape.	Accomplish one policy assessment, and document the assessment activities we will complete to achieve the objective by 3-30-14.				✓	See 5.6.1 above. Policies were adopted during this period, but did not follow this process verbatim. Policy process will be revisited and redeveloped in 2014.

Objective 5.6 (Continued):

Activity	Performance Measures	Completed		Pending		Comments
		On Time	Late	On Target	Modify	*Required for Modifications in Activities and Measures*
Step 2: 1. Identify supporters. 2. Recruit an Influential official to help build rapport with other officials. 3. Understand the potential opponents of the Initiative.	Complete documentation to show supporters recruited to support policy implementation for one policy by 6-30-14.				✓	See 5.6.1 above. Policies were adopted during this period
Step 3: 1. Frame the case to support environmental and policy solutions. 2. Back up ideas with research. 3. Calculate cost and savings if possible. 4. Use media to educate the public and decision-makers.	Complete documentation to show how the case was made to support policy implementation for one policy. By 9-1-14.				✓	See 5.6.1 above. Policies were adopted during this period
Step 4: 1. Ensure that policy implementation Is feasible. 2. Determine monitoring and enforcement mechanisms. 3. Ensure that policy is implemented equitably and Is designed to achieve equitable health outcomes. 4. Ensure equitable application of enforcement activities we will complete to achieve the objective. 5. Plan to evaluate policy and disseminate results.	Complete documentation to show how policy implementation, monitoring, and enforcement will work for one policy by 12-31-14.				✓	See 5.6.1 above. Policies were adopted during this period
5.6.3. Board prioritizes policies based on Director recommendations.	Documentation completed showing the Board prioritized proposed policies by 6-1-15.				✓	See 5.6.1 above. Policies were adopted during this period
5.6.4. Designate a lead to research and write the policy statement and work plan.	Complete policy statement and work plan by 9-1-15.				✓	See 5.6.1 above. Policies were adopted during this period
5.6.5. Present the policy statement and work plan to the Board for comments and edits.	Policy statement and work plan presented to the Board by 12-31-15.				✓	See 5.6.1 above. Policies were adopted during this period

Objective 5.6 (Continued):

Activity	Performance Measures	Completed		Pending		Comments
		On Time	Late	On Target	Modify	*Required for Modifications in Activities and Measures*
5.6.6. Bring back the policy and work plan for Board adoption.	Policy adopted by the Board by 4-1-16.				✓	See 5.6.1 above. Policies were adopted during this period, but did not follow this process verbatim. Policy process will be revisited and redeveloped in 2014.

Objective 5.7	We will implement the top three Kitsap Community Health Priorities (KCHP) priorities by 7-1-15.

Activity	Performance Measures	Completed		Pending		Comments
		On Time	Late	On Target	Modify	*Required for Modifications in Activities and Measures*
5.7.1. Implement "Ready, Set, Go, 5-2-1-0!" as a county-wide initiative including creating a 5-2-1-0 implementation committee and website.	Create a 5-2-1-0 implementation committee by 1-1-12.	✓				
	Create a 5-2-1-0 website by 8-1-12.	✓				
	Number of partners signing on to the campaign for each 5-2-1-0 sector.	✓				
	By 12-31-14, 10 awareness activities will be used to promote the 5210 message.			✓		
	By 6-30-15, ten schools will implement the 5210 framework.			✓		
	By 12-31-15, six workplaces will implement the 5210 workplace wellness practices.			✓		
	By 12-31-14, 80% of people surveyed at intervention sites will correctly identify what 5210 means.			✓		
	By 12-31-15, 50% of the general population surveyed will indicate awareness of 5210 message.			✓		
	By 6-30-15, students at interventions schools will have a positive change in healthy behaviors, indicated by an increase in adherence to at least 2 of the 5210 messages.			✓		

Objective 5.7 (Continued):

Activity	Performance Measures	Completed		Pending		Comments *Required for Modifications in Activities and Measures*
		On Time	Late	On Target	Modify	
5.7.2. Implement Project Access • Provide an in-kind office for a local coordinator. • Help recruit physicians for the project.	Project Access is operational by 12-31-13.	✓				
5.7.3. Implement the newborn home visiting program.	By June 30, 2013, 100% of the OB/GYN offices will have Welcome Home Baby (WHB) materials.				✓	Newborn home visiting ended in January 2013 and a new service was developed in its place in March 2014 - the New Parent Support Project (NPSP).
	By June 30, 2013, 70% of family practice offices will have WHB materials.				✓	100% of OB/GYN offices and family practice offices received NPSP materials.

Objective 5.8	**By 4-30-14 we will provide education to 100% of our staff and Public Health Board so they will be knowledgeable about all we do and able to convey compelling messages about our mission to the community.**					
Activity	**Performance Measures**	**Completed**		**Pending**		**Comments** *Required for Modifications in Activities and Measures*
		On Time	Late	On Target	Modify	
5.8.1. Update our Board orientation materials and make it available online.	Updated manual completed and posted online by 12-31-12.	✓				
5.8.2. Conduct an annual Board orientation at a regular monthly Board meeting.	Annual Board orientation at a regular monthly Board meeting completed by 4-1-13.				✓	Completed in 2012 and scheduled again for early 2014. Estimate this to be necessary every two years.
5.8.3. Offer individual orientation to new Board members.	Individual orientations completed as requested and documented by 4-1-13.				✓	Completed in 2012 and scheduled again for early 2014. Estimate this to be necessary every two years.

Objective 5.8 (Continued):

Activity	Performance Measures	Completed		Pending		Comments *Required for Modifications in Activities and Measures*
		On Time	Late	On Target	Modify	
5.8.4. Ensure KPHD staff remain informed and engaged by providing opportunities for them to meet with leaders to receive information and provide feedback. • Directors will plan and hold All Staff meetings. • EH, CH and Admin Directors will meet jointly with all Managers monthly to share information and receive feedback. • Managers will carry information to their staff meetings and seek feedback that will be carried to the Manager's meeting.	We will hold at least one all staff meeting per year.	✓				Completed in 2013.
	Director-Manager meetings will be documented at least 6 months per year.	✓				
	Minutes from at least 4 Program staff meetings per year will show that information was conveyed and feedback was sought.				✓	Not sure if program staff meetings keep minutes. Checking…
5.8.5. Develop and present a KPHD annual activities report to the Board.	Completed by 4-30-14.				✓	Reevaluating the necessity of this work.

Objective 5.9	By 5-1-14, we will execute a comprehensive public communication strategy to raise public awareness of the functions and value of public health.					
Activity	**Performance Measures**	**Completed**		**Pending**		**Comments** *Required for Modifications in Activities and Measures*
		On Time	Late	On Target	Modify	
5.9.1. Research best practices, successful efforts and measures from other public health or government entities.	Completed by 6-1-13.				✓	Insufficient staffing to complete the work. New Communications Coordinator will be hired mid-2014.
5.9.2. Draft Communication Plan, including specific execution roles for PIO, Directors, Managers and others who are needed for successful and sustainable execution.	Plan completed by 12-31-13 Plan approved by Directors by 2-15-14.				✓	See 5.9.1 above.
5.9.3. Create documentation (e.g., tracking forms, calendars, detailed work plans) needed to support execution and tracking of effort and outcomes.	Documentation completed by 4-1-14.				✓	See 5.9.1 above.

Objective 5.9 (Continued):

Activity	Performance Measures	Completed		Pending		Comments *Required for Modifications in Activities and Measures*
		On Time	Late	On Target	Modify	
5.9.4. Execute plan, monitor results, adjust and improve plan as data indicates over time.	Beginning 5-1-14, there will be an ongoing execution and PDCA of a continuous work plan. Directors will ensure Managers are meeting deliverables on individual work plans.				✓	See 5.9.1 above.
	Measure change in awareness at each calendar year-end by documenting changes in Website hits and incidence of earned media. Set targets once a baseline measure is established.				✓	See 5.9.1 above.

Objective 5.10	**By the end of 2013, we will have effective data collection and monitoring systems in place and the analytical resources necessary to provide timely, actionable information that will:** **5.10.1 Measure the prevalence of communicable and chronic diseases.** **5.10.2 Identify environmental threats to human health from water, food, sewage, land and air.** **5.10.3 Measure the effectiveness of home visiting by public health nurses.** **5.10.4 Enhance the efficiency and effectiveness of our administrative and business functions.**					
Activity	**Performance Measures**	**Completed**		**Pending**		**Comments** *Required for Modifications in Activities and Measures*
		On Time	Late	On Target	Modify	
5.10.1. SharePoint Workflow: Improve workflow by implementing Sharepoint to improve collaboration on documents and better manage project tasks by implementing business processes on documents and items in a Microsoft Office SharePoint site. This will help us adhere to consistent business processes, and improve organizational efficiency and productivity by managing the tasks and steps involved in business processes.	Develop workflow processes for Performance Evaluations, Contract Status and Continuing Education forms by 8-1-12.	✓				

Objective 5.10 (Continued):

Activity	Performance Measures	Completed		Pending		Comments *Required for Modifications in Activities and Measures*
		On Time	Late	On Target	Modify	
5.10.1. SharePoint Workflow (Continued): Improve workflow by implementing SharePoint to improve collaboration on documents and better manage project tasks by implementing business processes on documents and items in a Microsoft Office SharePoint site. This will help us adhere to consistent business processes, and improve organizational efficiency and productivity by managing the tasks and steps involved in business processes.	Provide scope of work to consultant(s) and get quotes to implement SharePoint and train users to create workflows and use SharePoint by 12-1-12.	✓				
	Implement SharePoint workflow for the three initial workflows and train staff by 3-1-13.				✓	Sharepoint implementation has been put on hold while we switch Sharepoint platform from local Sharepoint to Sharepoint online. New estimate completion date by 8/1/2014.
5.10.2. Google Apps: Use the functionality provided by Google Apps to increase our efficiency and effectiveness by providing methods to share documents and review revisions, and to make available documents and instructions from remote locations and mobile devices.	Develop an IntraNET site in Google Apps and share out important documents, instructions and other resources such as contact lists that are readily available from remote locations and mobile devices by 2-1-12.	✓				Have since re-developed the IntraNET in Office 365 SharePoint.
	Research and test Google Docs to provide a method of easily sharing out and working with documents and tracking document changes by 6-1-12.	✓				Have since switched to Office 365 and Skydrive.
5.10.3. Scan Personnel Records: Set up a method to enable Human Resources to scan personnel records into Laserfiche and make these records available to Human Resources, managers, or staff.	Configure Laserfiche indexes, security and business rules to enable scanning of personnel records by 8-1-13.	✓				
	Purchase and install scanner for Human Resources by 1-31-13.	✓				Scanner since removed. Human Resources has decided not to pursue scanning documents at this time.
	Enable Human Resources to search for and utilize the scanned records by 12-31-13.	✓				Human Resources has since decided not to pursue scanning documents at this time.

Objective 5.10 (Continued):

Activity	Performance Measures	Completed		Pending		Comments *Required for Modifications in Activities and Measures*
		On Time	Late	On Target	Modify	
5.10.4. Web-Based Payment Method Established for Onsite Property Conveyance Inspection Applications, and Food Establishment and Pool Annual Permits: Increase efficiency by Implementing software for online payment of the above. Reduce front counter cash receipting and duplicate entry of cash receipts between the retail management system and the accounts receivable system for payments received online.	Implement web based solution to enable contractors to pay their OSS Contract fees online by 12-31-12.	✓				Implemented online RME.
	Implement web based solution to enable food establishment and pool customers to pay their annual permits online by 5-1-12.	✓				Implemented ePay.
5.10.5. Consolidate Staff Request Methods: Consolidate Purchasing Requests, Facilities Requests, IT Helpdesk Requests and Print/Photocopy Requests into a single system that enables easy tracking and status of the requests.	Implement a single system to allow staff to make requests to several departments by 6-1-12.	✓				Implemented ANET Helpdesk.
	Train those responsible for acting on the requests to use the system by 2-1-12.	✓				Purchase requests not included in the system per Purchasing.

Objective 5.11	**By 6-1-12 we will complete implementation of an electronic medical record (EMR) system so we can lead the formation of a community-level electronic health information exchange (HIE) that by 1-1-15 will improve communicable disease threat tracking capability, increase mandated reporting compliance, and provide chronic disease data.**

Activity	Performance Measures	Completed		Pending		Comments *Required for Modifications in Activities and Measures*
		On Time	Late	On Target	Modify	
5.11.1. Implement use of EHR at KPHD.	EMR implemented in Clinic 11-15-11.	✓				
	EMR implemented in Juvenile Detention Clinic 5-17-12.	✓				
5.11.2. Formalize our data-sharing process with Harrison Medical Center (HMC) and state agencies.	We will be connected to the HIE at a state and local level by 1-1-15.			✓		Work on this area continues. This activity is in process and is likely to need modification. HMC will be transitioning to a new EMR (EPIC) in 2014 and this will have an impact on our timeline.

Environment

2013 WATER QUALITY MONITORING REPORT

KITSAP PUBLIC
HEALTH DISTRICT

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December 31, 2013

Fundeded Through:

KITSAP COUNTY SSWM Surface and Storm Water Management

KITSAP PUBLIC HEALTH DISTRICT

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INTRODUCTION

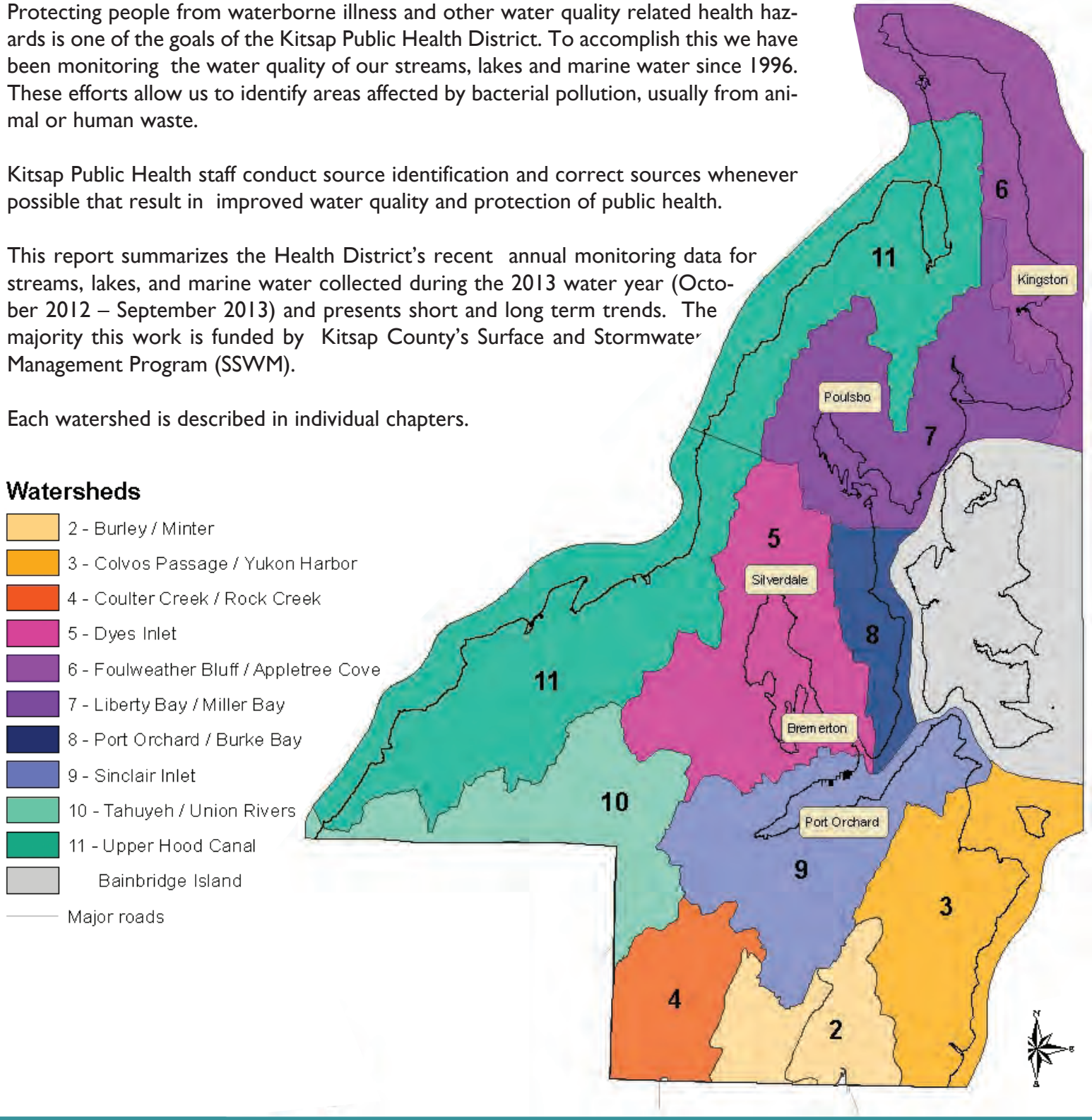
INTRODUCTION

Protecting people from waterborne illness and other water quality related health hazards is one of the goals of the Kitsap Public Health District. To accomplish this we have been monitoring the water quality of our streams, lakes and marine water since 1996. These efforts allow us to identify areas affected by bacterial pollution, usually from animal or human waste.

Kitsap Public Health staff conduct source identification and correct sources whenever possible that result in improved water quality and protection of public health.

This report summarizes the Health District's recent annual monitoring data for streams, lakes, and marine water collected during the 2013 water year (October 2012 – September 2013) and presents short and long term trends. The majority this work is funded by Kitsap County's Surface and Stormwater Management Program (SSWM).

Each watershed is described in individual chapters.



PURPOSE OF HEALTH DISTRICT WATER QUALITY MONITORING

The quality of water in our streams and lakes often reflect whether human activities are being managed to effectively protect public health and the environment. Since most of our streams are relatively small, impacts from pollution are more apparent, and damage occurs more quickly. Because all our streams eventually flow into Puget Sound or Hood Canal, polluted streams also have the potential to impact marine water and shellfish growing areas.

To protect public health and prevent pollution of Kitsap County surface waters, the Health District conducts water quality monitoring, pollution source identification and correction projects, public education, and regulatory enforcement.

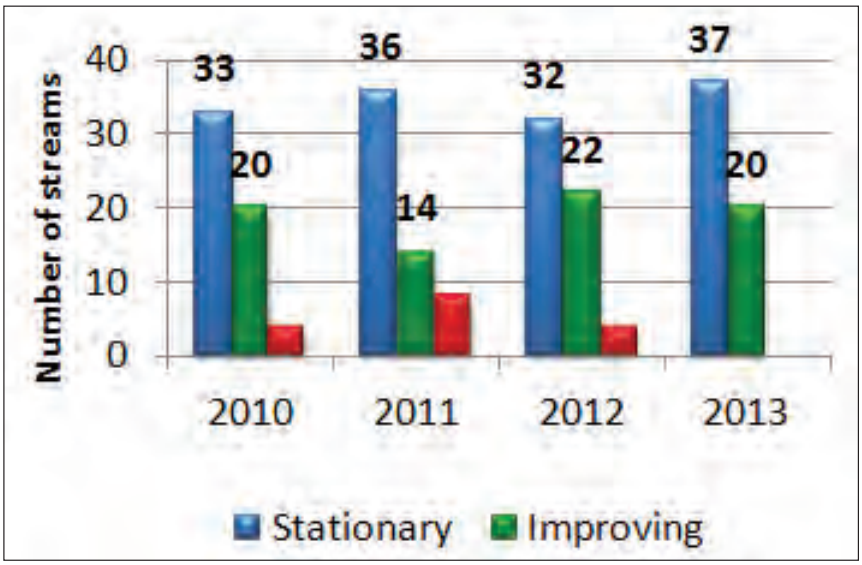
OVERALL KITSAP COUNTY WATER QUALITY ISSUES

There are water quality problems in many areas of Kitsap County. These are generally more common in developed areas, where stream and marine water quality can be significantly impacted by human activity. The good news is that bacteria levels are improving, with no streams showing worsening trends, due to PIC projects focused on finding and correcting pollution sources.

STREAM WATER QUALITY TRENDS

Streams are sampled monthly to determine which are being affected by bacterial pollution, and whether conditions are getting better or worse. This data is also used to prioritize areas for our Pollution Investigation and Correction (PIC) projects. Trend analysis shows that the number of streams with statistically significant improvements in water quality has increased since 2011. There were no streams showing worsening trends in 2013.

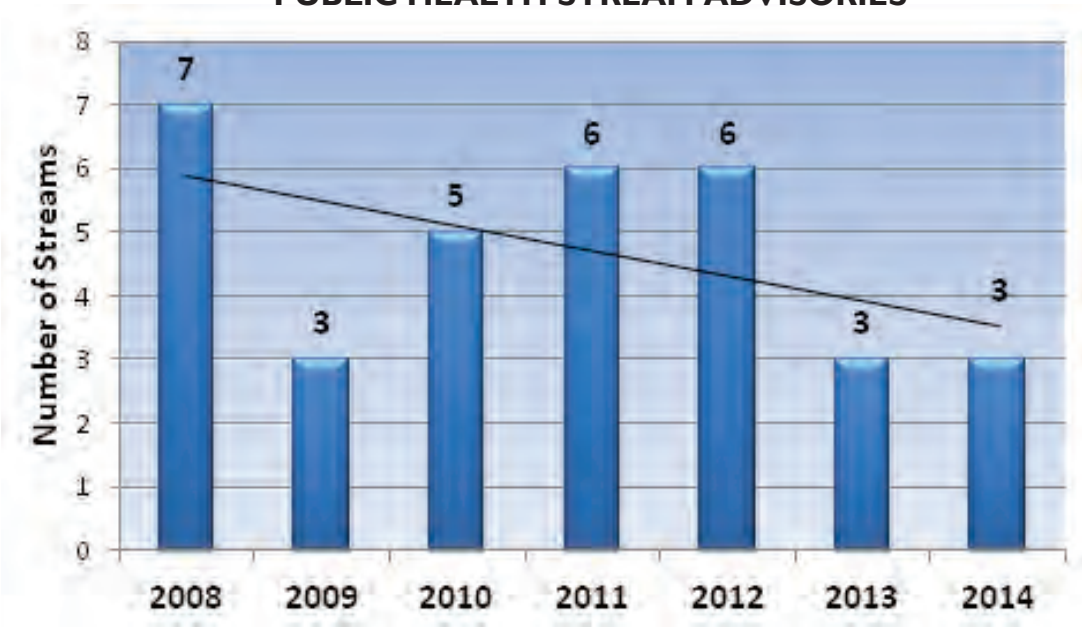
STREAM WATER QUALITY TRENDS



STREAM PUBLIC HEALTH ADVISORIES

The Health District issues public health advisories when streams have water quality problems that increase the risk of illness, especially for children who might play in the streams during the summer months. Based on the water quality sampling results from 2013, 3 streams will have health advisories in 2014.

PUBLIC HEALTH STREAM ADVISORIES



SOURCES OF WATER POLLUTION IN KITSAP COUNTY

Although there are many types of pollutants, the Health District focuses on fecal coliform bacteria as our primary indicator of surface water quality. High levels of fecal coliform have been correlated with the presence of viruses or other pathogens that can cause human illness.

The primary cause of pollution in Kitsap County's streams, lakes, and marine water is "nonpoint source" pollution. Nonpoint source pollution can generally be defined as pollutants that come from many smaller sources, rather than a few large sources. This accumulation of pollutants is typically caused by problems in both urban and rural areas that can often be prevented by using best management practices. Nonpoint source pollution includes human and animal waste, sediments, and a variety of chemicals as presented on the following page.

- Human Sewage and Animal Waste can originate from failing on-site sewage systems, inadequate livestock keeping practices, pet and wildlife waste, sewage spills, combined sewer overflows, and sewage discharges from boats. Human and animal waste may contain organisms that can cause a variety of diseases and illnesses including giardia, cholera, hepatitis A, shigella, salmonella, and viral gastroenteritis. Humans are exposed to these pathogens through direct water contact, such as swimming, or eating shellfish from contaminated waters.

- Soil erosion and sedimentation from improper land clearing activities, poor construction practices, inadequate livestock keeping practices, insufficient stream buffers, high stormwater flows, wetlands elimination, and the re-channeling of natural streams. degrade water quality. Sedimentation buries salmon and shellfish habitat. Insufficient stream buffers can increase stream temperatures (due to a lack of shade) and decrease dissolved oxygen levels (due to elevated stream temperatures). Fine sediments may also increase survival of bacteria within stream beds and beaches.

- Chemicals from vehicles, excess fertilizer, pesticides, industrial and military wastewater discharges, urban runoff, and the illegal dumping or mismanagement of solid and hazardous wastes can all pollute storm water, streams and Puget Sound. Chemicals can be toxic to aquatic life, can alter water pH (acidity) or lower the oxygen levels that support aquatic life. Excess nutrients can trigger harmful algae blooms.

HEALTH DISTRICT MONITORING GOALS

The Health District conducts water quality monitoring to accomplish several different goals, which are summarized in the outline below. These efforts also support the goals and objectives of Kitsap County's Surface and Stormwater Management (SSWM) Program. For more detailed information about our monitoring plans, please contact the Health District.

Stream and Marine Water Quality Trend Monitoring:

- Assess surface water quality trends through long-term monitoring.
- Compare results against applicable standards.
- Prioritize problem areas for corrective actions.
- Identify public health concerns.
- Issue public health advisories.
- Provide input to other agencies for evaluation of Kitsap County water bodies.
- Provide input to other agencies about shellfish resources.
- Provide water quality data to the public and other interested parties.

KPHD staff collecting a stream sample

Swimming Beach Monitoring (lakes):

- Monitor public swimming beaches for E.coli bacteria.
- Track and respond to reports of swimmer's itch and toxic algae blooms.
- Track and respond to reports of waterborne illness.
- Coordinate with swimming beach owners/operators regarding public health issues.
- Inform and educate swimming beach owners/operators and the public about health and safety issues at public swimming beaches.

Lake Nutrient Monitoring:

- Assess nutrient enrichment from human sources.
- Compare nutrient levels with other local lakes and state water quality standards.
- Prioritize lakes with high nutrient levels for cleanup projects.

MONITORING FREQUENCY

During the 2013 water year, both stream and marine stations were typically sampled once each month. Fewer samples may be collected at a monitoring station due to lack of flow during the dry season, hazardous weather conditions, equipment failures, or other circumstances. Sampling frequency for lake swimming beaches was based on beach usage; more popular lakes were sampled more frequently during the summer. Lake nutrient monitoring was conducted in September at Kitsap Lake.

Stormwater Flow

BACTERIAL WATER POLLUTION CLEANUP PROGRAMS

The Health District's water quality programs have three primary functions: water quality monitoring, issuing public health advisories, and cleanup of polluted waters. Pollution Identification and Correction (PIC) projects are conducted in an effort to improve the water quality and protect public health. These projects are generally short-term comprehensive programs, lasting 3-4 years, which work with property owners around polluted waters. The goal of each project is to identify possible pollution sources and correct these problems to reduce the overall amount of bacteria and other pollutants. Every other year the Health District evaluates and revises the Priority Area Work List based on the level of pollution and a variety of other ranking factors in each watershed. Clean up projects are often supported by funds from the Kitsap County SSWM Program and grants from the state or federal government.

Each watershed section of this report contains brief summaries of Health District PIC projects in that area. Other agency cleanup programs may also be mentioned in the applicable watersheds.

SHELLFISH CLASSIFICATIONS

The Washington State Department of Health (DOH) Office of Shellfish and Water Protection is responsible for classifying commercial shellfish growing areas in Washington State. Areas are classified as Approved, Con-

ditionally Approved, Restricted, or Prohibited. These classifications are based on DOH shoreline inspections for potential contamination sources, and marine water monitoring for bacterial pollution. Some areas are left Unclassified until enough data is collected to determine another classification. Applicable shellfish classifications are listed in each chapter.

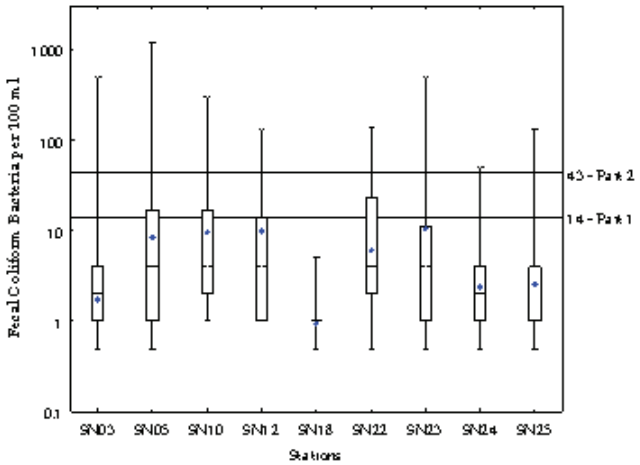
BACTERIAL POLLUTION TREND ANALYSIS: STREAM TREND ANALYSIS

Long term and short term trend analysis is performed on the FC data collected at all stream mouth stations. For a given station, long term trend is determined over the entire data set (up to 18 years) and a short term trend is determined over the last three (3) years. Trends are identified as "stationary", "worsening", or "improving". In each watershed section, the water quality summary chart displays both the long and short term trend for each stream. A trend graph may also be provided for streams that have shown statistically significant trends either long or short term.

MARINE WATER TREND ANALYSIS

Trend analysis is performed on the FC data collected at all marine water sampling stations with a minimum of 36 samples. In addition to trend analysis for individual marine stations, the overall trend for the watershed is also analyzed. In each watershed section, a box plot is provided to show the distribution of all FC results. An example is shown below.

For each listed station, the diamond is the most recent 12-sample geometric mean. The horizontal line (within the box) is the median. The median is the middle value of all FC results; 50% of the FC results are below it, and 50% of the FC results are above it. The vertical lines that extend from the box show the minimum and maximum values. The lines that mark the bottom and top of the box represent the 25th percentile and 75th percentile values, respectively. Consequently, the middle 50% of the FC values fall within the box. The 25th and 75th percentile values are similar to the median value, for example the 25th percentile means that 25% of the FC values are below and 75% of the FC values are above the number.



BACTERIAL ANALYSIS METHOD

The Health District uses the membrane filtration (or MF) method for bacterial analysis of water samples. The MF results for marine water range from less than one (<1) to greater than two hundred (>200). Freshwater samples are diluted by a factor of 1:10, so the results range from less than ten (<10) to greater than two thousand (>2000).

WASHINGTON STATE WATER QUALITY STANDARDS

Surface water quality standards are established by the Washington Department of Ecology, and described in Chapter 173-201A of the Washington Administrative Code (WAC). Having specific standards also sets pollution limits, and provides goals for water clean-up projects. The water quality standards which apply in Kitsap County are summarized below. State law also places bodies of water in different classifications, e.g. Primary or Extraordinary, depending on designated beneficial uses such as human recreation or fish habitat. Classifications for more pristine areas, like Extraordinary, are generally more stringent.

	Freshwater Standard		**Marine Water Standard**	
Parameters	Extraordinary Primary Contact Geometric Mean (GMV)	Primary Contact Geometric Mean (GMV)	Extraordinary Aquatic, Primary Contact	Excellent Aquatic, Primary Contact
Fecal Coliform Bacteria (FC)	**Part 1: ≤50 FC**/100 ml **Part 2:** Not more than 10% of all samples **>100 FC**/100 ml	**Part 1: ≤100 FC**/100 ml **Part 2:** Not more than 10% of all samples **>200 FC**/100 ml	**Part 1: ≤14 FC**/100 ml **Part 2:** Not more than 10% of all samples **>43 FC**/100 ml	Same as Extraordinary Aquatic - Primary Contact waters
Dissolved Oxygen	> 9.5 mg/L	> 8.0 mg/L	> 7.0 mg/L	> 6.0 mg/L
pH	6.5 – 8.5 units	6.5 – 8.5 units	7.0 – 8.5 units	7.0 – 8.5 units
Temperature	≤16.0˚ C [1]	≤18.0˚ C [1]	≤13.0˚ C [1]	≤16.0˚ C [1]

[1] Temperatures shall not exceed standard due to human activities. When natural conditions exceed these standards, no temperature increases are allowed which will raise the receiving water temperature by greater than 0.30 C.

These standards use a geometric mean value (or GMV) for bacteria, which measures the central tendency of a data set. The geometric mean is especially useful for groups of data that contain a broad range of values. Since sample results for bacterial concentrations tend to be highly variable, the geometric mean is a more appropriate tool for analyzing this type of data than using an arithmetic mean or average.

BACTERIA LEVELS IN KITSAP COUNTY STREAMS

The following table summarizes stream monitoring results for the 2013 water year. The table is sorted alphabetically by stream. The colors used in the "Sampling Station" column indicate whether or not streams met the applicable state water quality standards for fecal coliform bacteria.

Red	- the stream frequently had high levels of bacteria and failed Part 1 & 2 of the standard.
Yellow	- the stream had periodic bacteria problems, and failed only Part 2 of the standard.
Green	- the stream had consistently low levels of bacteria & met both parts of the standard.

Each stream is also evaluated to determine whether there is a statistically significant change, or trend, in bacteria levels over time. A long-term trend is calculated for the entire data set, approximately 18 years for most stations, and short-term trend for the most recent 3 year period. Please note that while stream water quality may change from year to year, it can still have a stationary trend if the changes are not statistically significant different over time.

2013 KITSAP COUNTY STREAM WATER QUALITY SUMMARY									
Extraordinary Primary (Washington State Water Quality Designation)								Overall WQ criteria	Stream Advisory?
Watershed	**Stream Name**	**Station**	**# Samples**	**Range**	**FC GMV**	**Long Trend**	**3 yr Trend**		
UHC	Lofall	LF01	12	70-2001	296	Stationary	Stationary	very poor	2014
LBMB	Little Scandia	LS01	12	10-2001	113	Stationary	Stationary	very poor	
UHC	Vinland	VC01	12	10-2001	90	Stationary	Stationary	poor	
LBMB	South Dogfish	SF01	12	20-2001	87	Stationary	Stationary	poor	
LBMB	Bjorgen	BN01	12	4-2001	79	Stationary	Stationary	poor	
BM	Burley	BL01	12	10-400	74	Stationary	Stationary	moderate	
SIN	Beaver	BV01A	10	10-2001	74	started sampling Dec 2012		moderate	
SIN	Karcher	KA01	12	4-740	66	Stationary	Stationary	moderate	
LBMB	Grovers	GC01	12	4-2001	60	Stationary	Stationary	moderate	
POBB	Steele	ST01	12	4-1870	60	Stationary	Stationary	moderate	
LBMB	Big Scandia	BS01	12	4-740	54	Stationary	Stationary	moderate	
LBMB	Indianola	IN01	12	4-700	48	Improving	Stationary	good	
CPYH	Wilson	WN01	12	4-1240	47	Improving	Stationary	good	
POBB	State Park	SP01	12	4-960	46	Improving	Stationary	good	

continued

2013 KITSAP COUNTY STREAM WATER QUALITY SUMMARY									
Extraordinary Primary (Washington State Water Quality Designation)								Overall WQ criteria	Stream Advisory?
Watershed	**Stream Name**	**Station**	**# Samples**	**Range**	**FC GMV**	**Long Trend**	**3 yr Trend**		
POBB	Enetai	DE01	12	4-650	43	Improving	Stationary	good	
UHC	Kinmann	KN01	12	4-1090	41	Stationary	Improving	good	
SIN	Sacco	SC01	12	4-2001	40	Improving	Stationary	good	
CPYH	Salmonberry	SM01	12	4-940	36	Improving	Stationary	good	
LBMB	Dogfish	DF01	12	4-680	36	Improving	Stationary	good	
LBMB	Kitsap	KT01	12	4-490	33	Stationary	Stationary	good	
LBMB	Daniels	DC01	12	4-310	30	Improving	Stationary	good	
CPYH	Curley	CY01	12	4-2001	29	Stationary	Stationary	good	
LBMB	Johnson	JC01	12	4-790	28	Improving	Stationary	good	
FBAC	Carpenter	CA02	12	4-560	27	Stationary	Stationary	good	
LBMB	Cowling	CW01	12	4-270	25	Improving	Stationary	good	
BM	Huge	HG01	12	4-160	24	Stationary	Stationary	very good	
UHC	Jump Off Joe	JJ01	12	4-880	22	Improving	Stationary	good	
LBMB	Kleabel	KL01	12	4-80	19	Stationary	Stationary	very good	
BM	Minter	MN01	12	4-160	18	Stationary	Improving	good	
BM	Purdy	PR01	12	4-170	17	Stationary	Stationary	very good	
TUR	Union	UN01	12	4-100	17	Stationary	Stationary	very good	
CPYH	Olalla	OC02	12	4-170	16	Improving	Stationary	good	
POBB	Illahee	IC01	12	4-100	16	Improving	Stationary	very good	
UHC	Boyce	BY01	12	4-120	15	Stationary	Stationary	very good	
UHC	Stavis	SV01	12	4-110	14	Stationary	Stationary	very good	
UHC	Seabeck	SB01	12	4-90	13	Stationary	Stationary	very good	
CPYH	Fragaria	FG01	12	4-70	11	Stationary	Stationary	very good	
UHC	Big Anderson	BA01	12	4-90	10	Stationary	Stationary	very good	
UHC	Little Anderson	LA02	12	4-70	10	Stationary	Stationary	very good	
CCRC	Coulter	CU01	12	4-40	8	Stationary	Stationary	very good	
UHC	Big Beef	BB01	12	4-40	8	Improving	Stationary	very good	
TUR	Tahuyeh	TR01	12	4-30	6	Improving	Stationary	very good	

2013 KITSAP COUNTY STREAM WATER QUALITY SUMMARY									
Primary (Washington State Water Quality Designation)								Overall WQ criteria	Stream Advisory?
Watershed	**Stream Name**	**Station**	**# Samples**	**Range**	**FC GMV**	**Long Trend**	**3 yr Trend**		
DYES	Phinney	PH01	12	4-2001	271	Stationary	Stationary	very poor	2014
SIN	Annapolis	AP01	12	10-2001	93	Improving	Stationary	poor	
DYES	Ostrich Bay	OB01	12	4-2001	85	Improving	Stationary	poor	2014
DYES	Strawberry	SR01	12	4-1630	64	Stationary	Stationary	moderate	
DYES	Kitsap Mall West	KW01	12	4-2001	56	Stationary	Stationary	moderate	
SIN	Blackjack	BJ01	12	4-2001	47	Stationary	Stationary	good	
DYES	Barker	BK01	12	4-2001	44	Improving	Stationary	good	
DYES	Chico	CH01	12	4-620	44	Stationary	Stationary	good	
DYES	Mosher	MS01	12	4-880	42	Stationary	Stationary	good	
DYES	Clear	CC01	12	4-2001	41	Stationary	Stationary	good	
SIN	Gorst	GR01	12	4-2001	32	Improving	Stationary	good	
UHC	Port Gamble	PG01	12	4-850	30	Stationary	Stationary	good	
SIN	Ross	RS02	11	4-1745	29	Stationary	Stationary	good	
DYES	Pahrmann	PA01	9	4-1320	26	Stationary	Stationary	very good	
UHC	Martha John	MJ01	12	4-420	26	Improving	Stationary	very good	
SIN	Anderson	AN01	12	4-2001	20	Stationary	Stationary	very good	

WASHINGTON STATE'S WATER QUALITY ASSESSMENT

The federal Clean Water Act, adopted in 1972, requires that all states restore their waters to be "fishable and swimmable." Washington's Water Quality Assessment lists the water quality status for water bodies in the state. This assessment meets the federal requirements for a report under Sections 303(d) and 305(b) of the Clean Water Act, which is submitted to the federal Environmental Protection Agency (EPA).

The 303(d) list includes areas for which beneficial uses such as recreation or aquatic habitat are impaired by pollution. This impairment may be due to such things as high bacteria levels, increased temperature, or low dissolved oxygen. The most current assessment was finalized and approved by the EPA in December 2013. Streams and marine waters are listed in different categories, depending on the frequency of water quality problems;

- Category 2 (waters of concern)
- Category 4B (impaired waters with a cleanup plan)
- Category 5 (impaired waters without a cleanup plan)

Waterbody	Long term trend	Short term trend	Meets WQ Standard?	2012 Annual FC Bacteria GMV	2013 Annual FC Bacteria GMV	Health Advisory?
Stream Name (XX01)	→	→		##	##	No
Stream Name (XX01)	↘	→		##	##	No
Stream Name (XX01)	→	⊘		##	##	No
Stream Name (XX01)	→	↗		##	##	Yes
Overall marine water	↘	None	**3 of 4 Stations**			

Waterbody – Lists the stream name and associated monitoring station ID (example: Big Anderson Creek, BA01). If there are marine water quality monitoring stations in the watershed, the overall marine water quality summary will be listed in the last row.

Trends - Fecal coliform data are shown as "Long Term" (all 18 years of data) or "Short Term" (most recent 3 years) in separate columns. Only long term trends are calculated for marine water. The symbols and their meanings are:

↘ **Green arrow**: Improving trend; bacteria levels **decreasing**

→ **Blue, level arrow**: Stationary trend; no change

↗ **Red arrow**: Worsening trend: bacteria levels **rising**

⊘ **"No" symbol**: Insufficient data for trend analysis

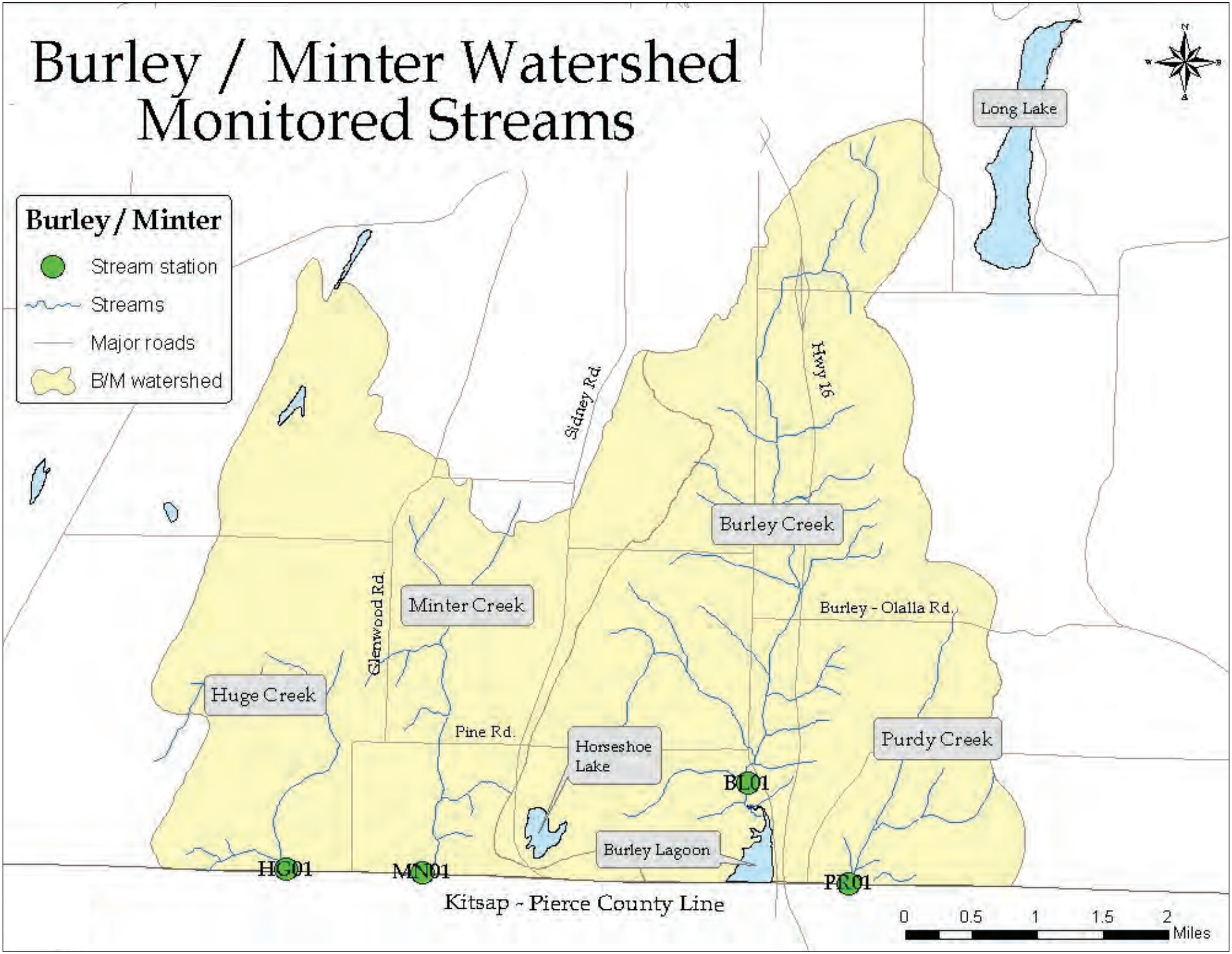
Meets WQ Standard? – These symbols indicate whether a stream met the State water quality standard for fecal coliform bacteria, with the same color scheme used in the County summary table. See page 8 for an explanation of these standards. In the overall marine water summary, the number of marine water monitoring stations that met the FC standard will be listed.

- the stream frequently had high levels of bacteria and failed part 1 of the standard.

- the stream had periodic bacteria problems, and failed only part 2 of the standard.

- the stream had consistently low levels of bacteria & met both parts of the standard.

BURLEY / MINTER WATERSHED


Burley / Minter Watershed
Monitored Streams
Burley / Minter
Stream station
Streams
Major roads
B/M watershed
Long Lake
Hwy 16
Sidney Rd.
Burley Creek
Minter Creek
Glenwood Rd.
Burley - Olalla Rd.
Huge Creek
Pine Rd.
Horseshoe Lake
Purdy Creek
BL01
Burley Lagoon
HG01
MN01
PR01
Kitsap - Pierce County Line
0
0.5
1
1.5
2
Miles

BURLEY / MINTER WATERSHED

The Burley Creek / Minter Creek (B/M) watershed, designated as Extraordinary Primary Contact waters by the State, is located in southern Kitsap County. The Health District began water quality monitoring in this watershed on a regular basis in 1996. There is no marine water located within the Kitsap County portion of the watershed.

2013 WATER QUALITY SUMMARY

Waterbody	Long term trend	Short term trend	Meets WQ Standard?	2012Annual FC Bacteria GMV	2013Annual FC Bacteria GMV	Health Advisory?
Burley Creek (BL01)	→	→		57	74	No
Huge Creek (HG01)	→	→		25	24	No
Minter Creek (MN01)	↘	→		15	18	No
Purdy Creek (PR01)	→	→		15	17	No

WATER QUALITY IMPROVEMENT EFFORTS

HEALTH DISTRICT WATERSHED PIC PROJECTS

Health District staff have worked on numerous projects over the years to correct bacterial pollution in Burley Creek. This creek drains into Burley Lagoon where shellfish harvesting has been limited by pollution problems, and the area has been identified as a Marine Recovery Area. During the 2013 water year, 12 properties in the Burley watershed were inspected, and 4 failing on-site septic systems were identified and have either been repaired or in the process of being corrected. PIC staff also conducted shoreline surveys along the north and eastern shores of Burley lagoon. The Kitsap Conservation District installed BMPs at one high priority farm through NEP funding. Two farms improved management practices and corrected 2012 violations. Another high priority farm installed a manure bin.

WASHINGTON STATE WATER QUALITY ASSESSMENT: LISTED PARAMETER(S) AND CATEGORIES

Bear Creek	Dissolved Oxygen (5), Fecal coliform bacteria (4B)
Burley Creek	Dissolved Oxygen (5), Fecal coliform bacteria (4B), pH (2)
Huge Creek	Dissolved Oxygen (5), Fecal coliform bacteria (2)
Minter Creek	Dissolved Oxygen (5), Fecal coliform bacteria (5)
Purdy Creek	Dissolved Oxygen (5), Fecal coliform bacteria (4B)

SHELLFISH CLASSIFICATIONS

Although not located in Kitsap County, Burley Lagoon receives flow from Burley and Purdy Creeks. The southeast portion of the lagoon is classified Approved, the central portion of the lagoon is Conditional and the northern area closest to Kitsap County is Restricted.

Maps of shellfish closure areas are available on the Washington State Department of Health Website. For specific information on shellfish classifications in Burley Lagoon, see the most recent report from the State Department of Health.

INDIVIDUAL STREAM DATA

BURLEY CREEK

Burley Creek originates in wetlands just north of Mullenix Road. The main stem and its tributaries combine for over nine miles of stream corridor. It flows south and discharges into Burley Lagoon near commercial shellfish growing areas in Pierce County. Land use in the Burley Creek drainage is a combination of rural residential and agricultural. Statistical analysis for the creek shows both long and short term **stationary trends.**

Burley Creek monitoring station BL01, downstream of the Spruce Road bridge.

HUGE CREEK

Huge Creek originates north of SW Hunter Road in south Kitsap, flows across the Kitsap/Pierce County line, and discharges into Minter Creek. It is approximately 3.7 miles long. Land use in the Huge Creek drainage is a combination of rural residential and agricultural. Long and short term trend analysis for the creek show **stationary trends.**

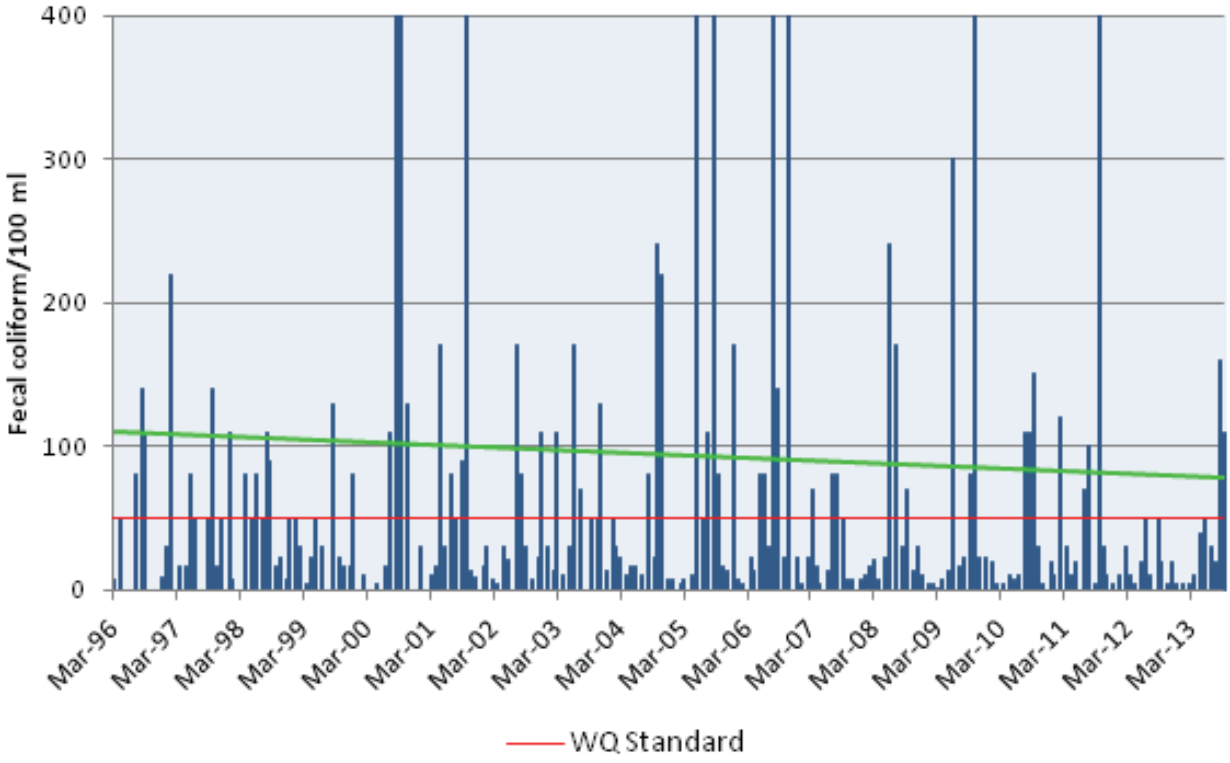
Monitoring Station HG01 at County Line Road

MINTER CREEK

Minter Creek originates north of Minterbrook Road in south Kitsap. The main stem and its two major tributaries, Huge Creek and Little Minter Creek, combine to form over 13 miles of stream corridor. Minter Creek flows south into Pierce County where it discharges into Henderson Bay. Land use in the Minter Creek drainage is a combination of rural residential and agricultural. Statistical analysis for the creek shows a short-term **improving trend** as shown by the green line in the graph below.

Minter Creek monitoring station MN01, upstream of Glenwood Road.

MINTER CREEK 1996-2013



PURDY CREEK

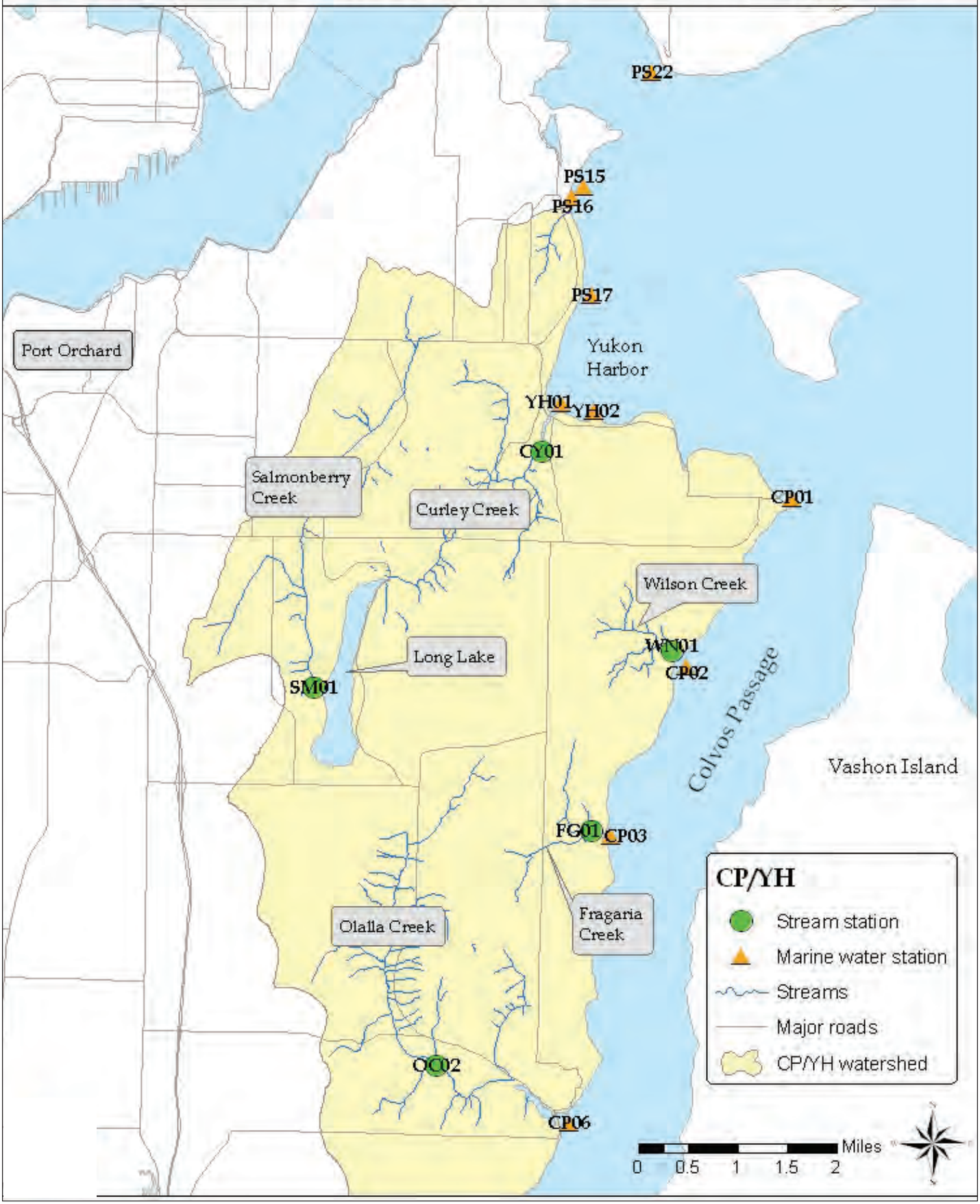
Purdy Creek originates north of SE Burley Olalla Road in south Kitsap. The main stem and its tributaries combine for over 5 miles of stream corridor. The stream flows in a southerly direction, enters Pierce County and discharges into Burley Lagoon near the town of Purdy. Land use in the Purdy Creek drainage is a combination of rural residential and agricultural. Water quality over the last year has been good. Statistical analysis for the creek shows both short and long-term **stationary trends.**

Purdy Creek monitoring station PR01

COLVOS PASSAGE / YUKON HARBOR WATERSHED

Colvos Passage / Yukon Harbor Watershed

Monitored Streams and Marine Water Monitoring Stations



COLVOS PASSAGE / YUKON HARBOR WATERSHED

The Colvos Passage / Yukon Harbor (CP/YH) watersheds, designated as Extraordinary Primary Contact waters by the State, are located in southeastern Kitsap County, as shown in the watershed map. The Health District began water quality monitoring in the watersheds on a regular basis in 1996. Water quality in three creeks, Olalla, Salmonberry and Wilson creek show improving trends, with remaining creeks showing stationary trends.

2013 WATER QUALITY SUMMARY

Waterbody	Long term trend	Short term trend	Meets WQ Standard?	2012Annual FC Bacteria GMV	2013Annual FC Bacteria GMV	Health Advisory?
Curley Creek (CY01)	→	→		48	29	No
Fragaria Creek (FG01)	→	→		13	11	No
Olalla Creek (OC02)	↘	→		24	16	No
Salmonberry Creek (SM01)	↘	→		27	36	No
Wilson Creek (WN01)	↘	→		26	47	No
Overall marine water	→	→	9 of 10 Stations			

[1] CP/YH watershed marine waters include Yukon Harbor, Colvos Passage, and Puget Sound

WATER QUALITY IMPROVEMENT EFFORTS

HEALTH DISTRICT WATERSHED PIC PROJECTS

- The Shellfish Restoration and Protection Project funded by a grant from the Environmental Protection Agency began in late 2010 and is scheduled for completion in 2014. The purpose for this grant is to protect Approved shellfish growing areas and restore those that are closed around Fragaria and

Wilson creeks.. This will be done through shoreline monitoring to identify and correct sources of fecal bacteria. To date, Kitsap Public Health staff have completed 179 property inspections in the Yukon Harbor and Colvos Passage shoreline areas and have identified 20 failing onsite septic systems. 13 (65%) of the failing septic systems have been repaired and the others are in the process of repair.

- The Enhanced Implementation of the Pollution Identification and Correction project for Upper Yukon Harbor watershed began in 2012. This project includes pollution identification and correction activities of upland properties that may be impacting the shoreline areas of Yukon Harbor. To date there have been 139 property inspections completed with 9 onsite septic system failures identified and 5 (55%) repaired. The remaining systems are in the process of being repaired.

WASHINGTON STATE WATER QUALITY ASSESSMENT: LISTED PARAMETER(S) AND CATEGORIES

Curley Creek	Dissolved Oxygen (5), Fecal coliform bacteria (5) , Temperature (5),
Duncan Creek	Dissolved Oxygen (5), Fecal coliform bacteria (5)
Salmonberry Creek	Dissolved Oxygen (5), Fecal coliform bacteria (5)
Olalla Creek	Dissolved Oxygen (5)
Wilson Creek	Dissolved Oxygen (5), Fecal coliform bacteria (5)

SHELLFISH CLASSIFICATIONS

In Yukon Harbor, a permanent shellfish closure zone exists around the discharge pipe from the Manchester sewage treatment plant, located between the Manchester dock and the navy fuel depot. A few small closure zones also remain along the shoreline near failing septic systems. This information has been provided to the state Department of Health, with a request to lift the small closure zones when the repairs have been made.

On Blake Island, there is a Prohibited area on the eastern side of the island near the marina, and the rest of the island is classified as Approved or Conditionally Approved.

Maps of shellfish closure areas are available on the Washington State Department of Health Website. For specific information on shellfish classifications in the Yukon Harbor area, see the most recent report from the State Department of Health.

INDIVIDUAL STREAM DATA

CURLEY CREEK

The headwaters of Curley Creek are located at the north end of Long Lake. From there, the stream flows for approximately five miles before discharging into Yukon Harbor due west of Blake Island. Land use in the Curley Creek drainage is a combination of rural residential and agricultural. Current water quality is good. Statistical analysis for the creek shows both short and long term **stationary trends.**

Curley Creek monitoring station CY01

FRAGARIA CREEK

Fragaria Creek originates due west of the small waterfront community of Fragaria. Two tributaries, one from the north and the other from the southwest join together about a quarter mile from the creek's discharge point along the west shore of Colvos Passage. Land use in the Fragaria Creek drainage is rural residential. Water quality over the last year has been very good, and the stream meets the state water quality standard. Statistical analysis for the creek

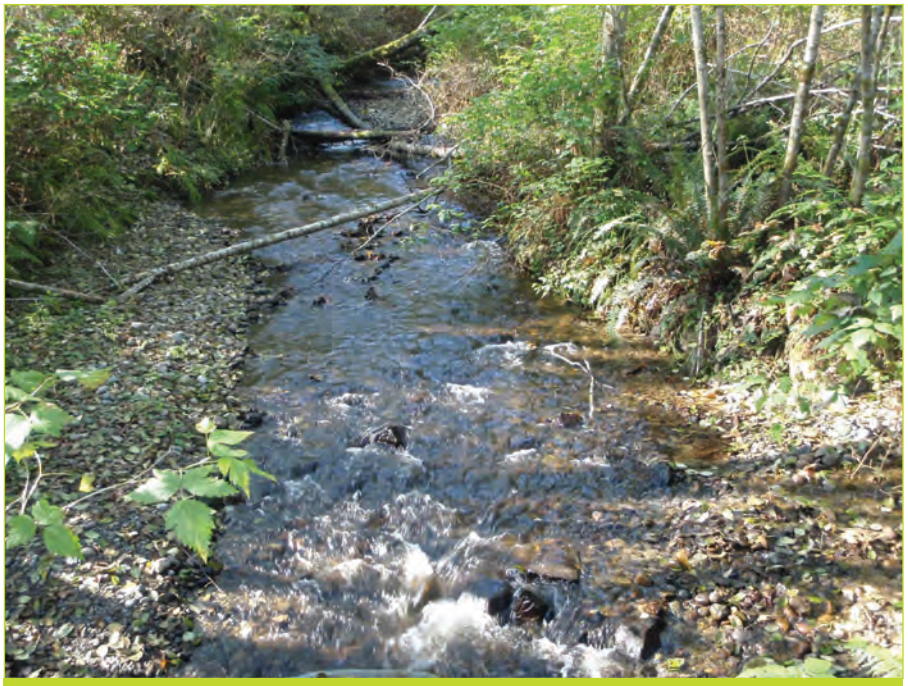
Fragaria Creek downstream of monitoring station FG01 near Fragaria Road

The mouth of Fragaria Creek at its discharge into Colvos Passage.

shows both long and short term **stationary trends.**

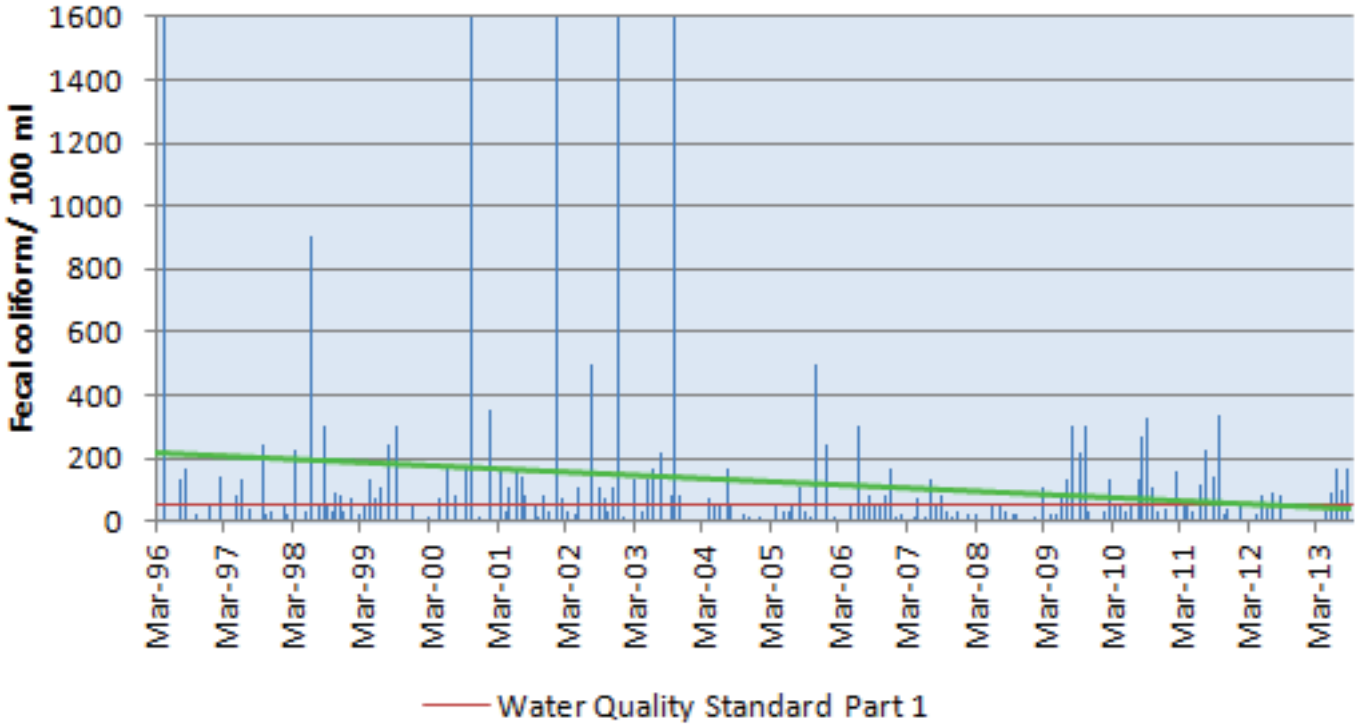
OLALLA CREEK

Olalla Creek is comprised of more than four miles of stream corridor flowing southeast of Long Lake and entering Colvos Passage at the community of Olalla. Land use in the Olalla Creek drainage is predominately rural residential and agricultural. Water quality over the last year has been very good. Bacteria levels have generally dropped since 2003, and statistical analysis for the creek shows an **improving long term trend** as shown by the green line in the graph below.



Olalla Creek at monitoring station OC02 upstream of Forsman Road

OLALLA CREEK 1996-2013



SALMONBERRY CREEK

Salmonberry Creek originates northwest of Yukon Harbor and flows south to its discharge point along the west shoreline of Long Lake. Land use in the Salmonberry Creek drainage is predominately a combination of rural residential and agricultural. Water quality over the last year has been good, with a few periods of elevated bacteria. Statistical

Salmonberry Creek monitoring station SM01 downstream of Clover Valley Road.

The mouth of Salmonberry Creek where it enters Long Lake, just downstream of station SM01.

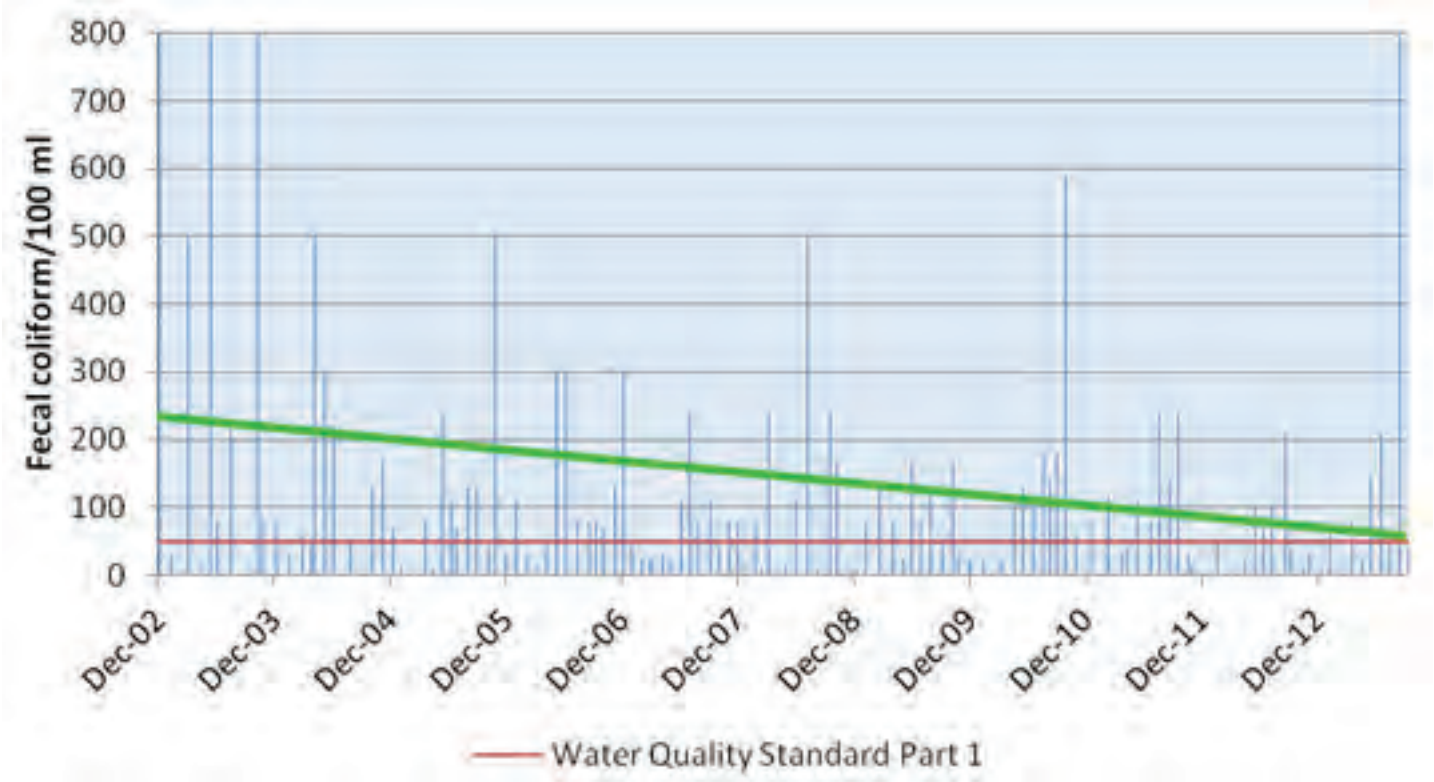
analysis for the creek shows an **improving long term trend** and stationary short term trend.

WILSON CREEK

Wilson Creek originates just north of Overra Road in southern Kitsap County and flows east to its discharge point into Colvos Passage at Driftwood Cove. Land use in the Wilson Creek drainage is predominately rural residential. Health District staff have been working in the Wilson Creek watershed for the past few years as part of the Shellfish Restoration and Protection project. Water qual-

Wilson Creek monitoring station WN01

WILSON CREEK 2002-2013



ity shows an **improving long term trend** and stationary short term trend.

MARINE WATER MONITORING DATA SUMMARY

Please see the watershed map for specific marine water monitoring station locations.

MARINE WATER MONITORING STATIONS TREND ANALYSIS

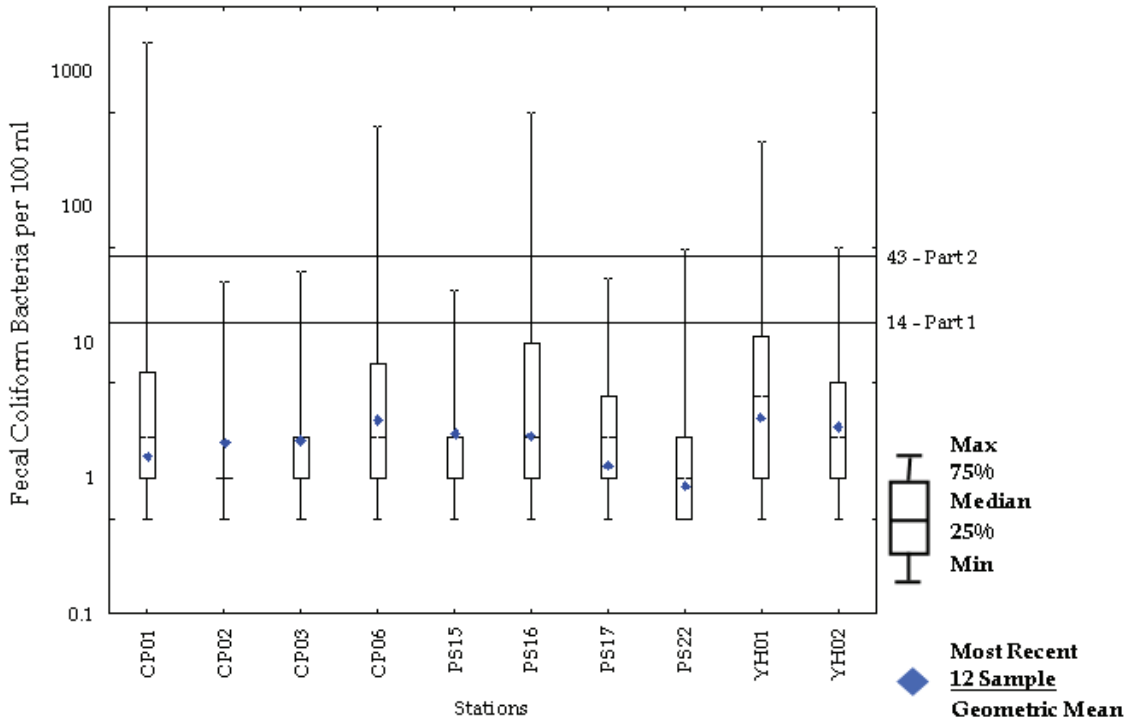
- Improving Trend – CP06, PS22
- Stationary Trend – CP01, CP02, CP03, PS15, PS16, PS17, YH01, YH02
- No Trend (new sampling station) – PS21

MARINE WATER QUALITY STANDARDS VIOLATIONS

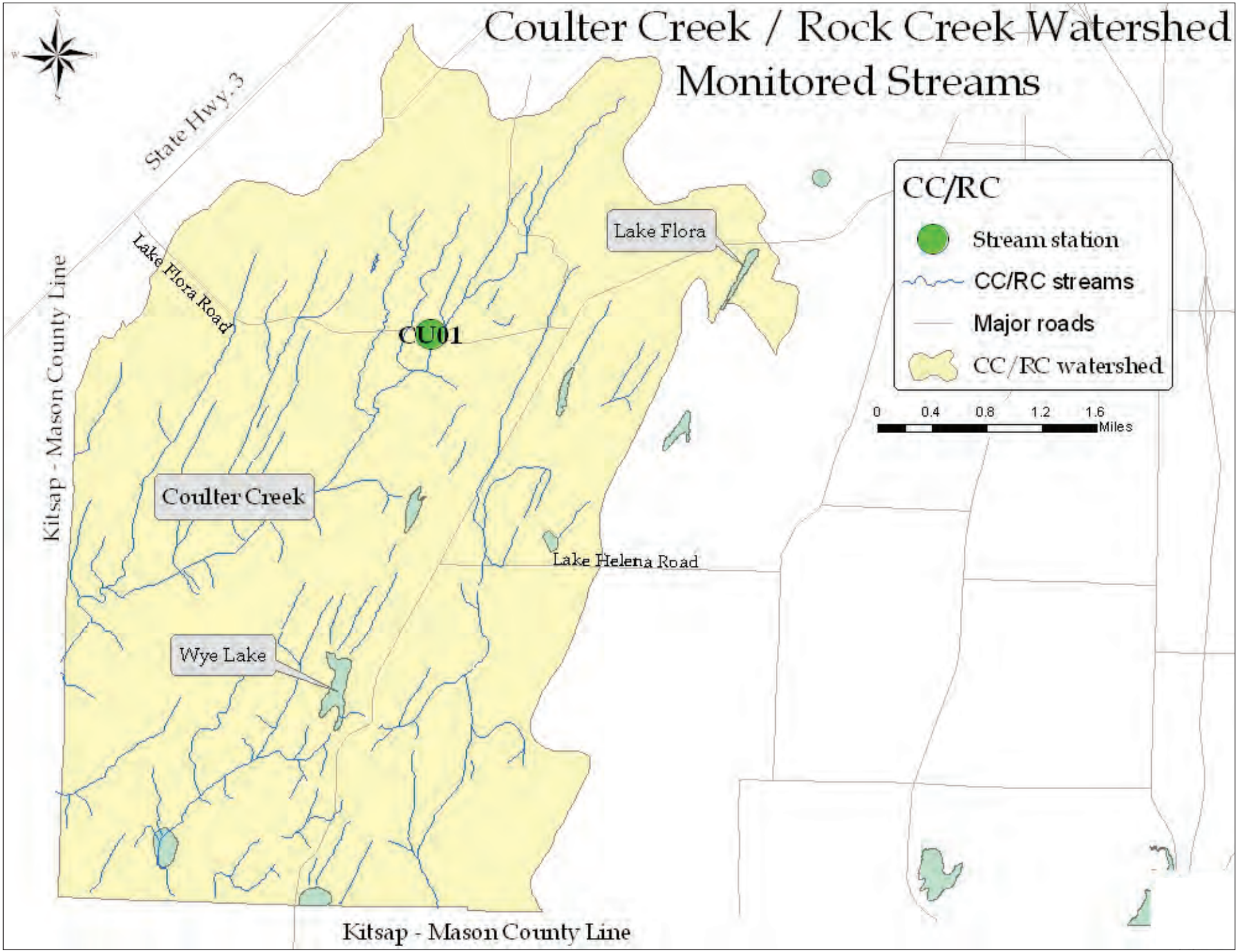
Nine of the ten marine stations in this watershed met the state water quality standard for Fecal coliform bacteria during the 2012-13 monitoring period. One station PS21, failed Part 2 of the standard. The state temperature standard was exceeded at several stations, while there were no exceedances for pH or dissolved oxygen.

OVERALL MARINE WATER TREND

Colvos Passage/Yukon Harbor marine waters as a whole show a significant global trend. Two of ten individual stations (CP06 and PS22) showed a significant improving long-term trend.



COULTER CREEK / ROCK CREEK WATERSHED


Coulter Creek / Rock Creek Watershed
Monitored Streams
State Hwy 3
Lake Flora Road
Kitsap - Mason County Line
Lake Flora
CU01
Coulter Creek
Lake Helena Road
Wye Lake
Kitsap - Mason County Line
CC/RC
Stream station
CC/RC streams
Major roads
CC/RC watershed
0
0.4
0.8
1.2
1.6
Miles

COULTER CREEK / ROCK CREEK WATERSHED

The Coulter Creek / Rock Creek (CC/RC) watershed, designated as Extraordinary Primary Contact waters by the State, is located in southwestern Kitsap County. The Health District began water quality monitoring in the watershed on a regular basis in 1996. Water quality is good.

2013 WATER QUALITY SUMMARY

Waterbody	Long term trend	Short term trend	Meets WQ Standard?	2012Annual FC Bacteria GMV	2013Annual FC Bacteria GMV	Health Advisory?
Coulter Creek (CU01)	→	→	●	5	8	No

WATER QUALITY IMPROVEMENT EFFORTS

HEALTH DISTRICT WATERSHED PIC PROJECTS

None

WASHINGTON STATE WATER QUALITY ASSESSMENT: LISTED PARAMETER(S) AND CATEGORIES (see page 1-10 for a more detailed explanation)

Coulter Creek Dissolved Oxygen (5), pH (5), Temperature (2)

SHELLFISH CLASSIFICATIONS

Coulter Creek discharges into North Bay in Mason County. The area nearest the mouth of the creek is Unclassified for commercial shellfish harvesting, while most of the rest of the bay is classified as Approved. The area near the town of Allyn, on the west shoreline, is classified as Prohibited. For specific information on shellfish classifications in the North Bay area, see the most recent report from the state Department of Health.

INDIVIDUAL STREAM DATA

COULTER CREEK

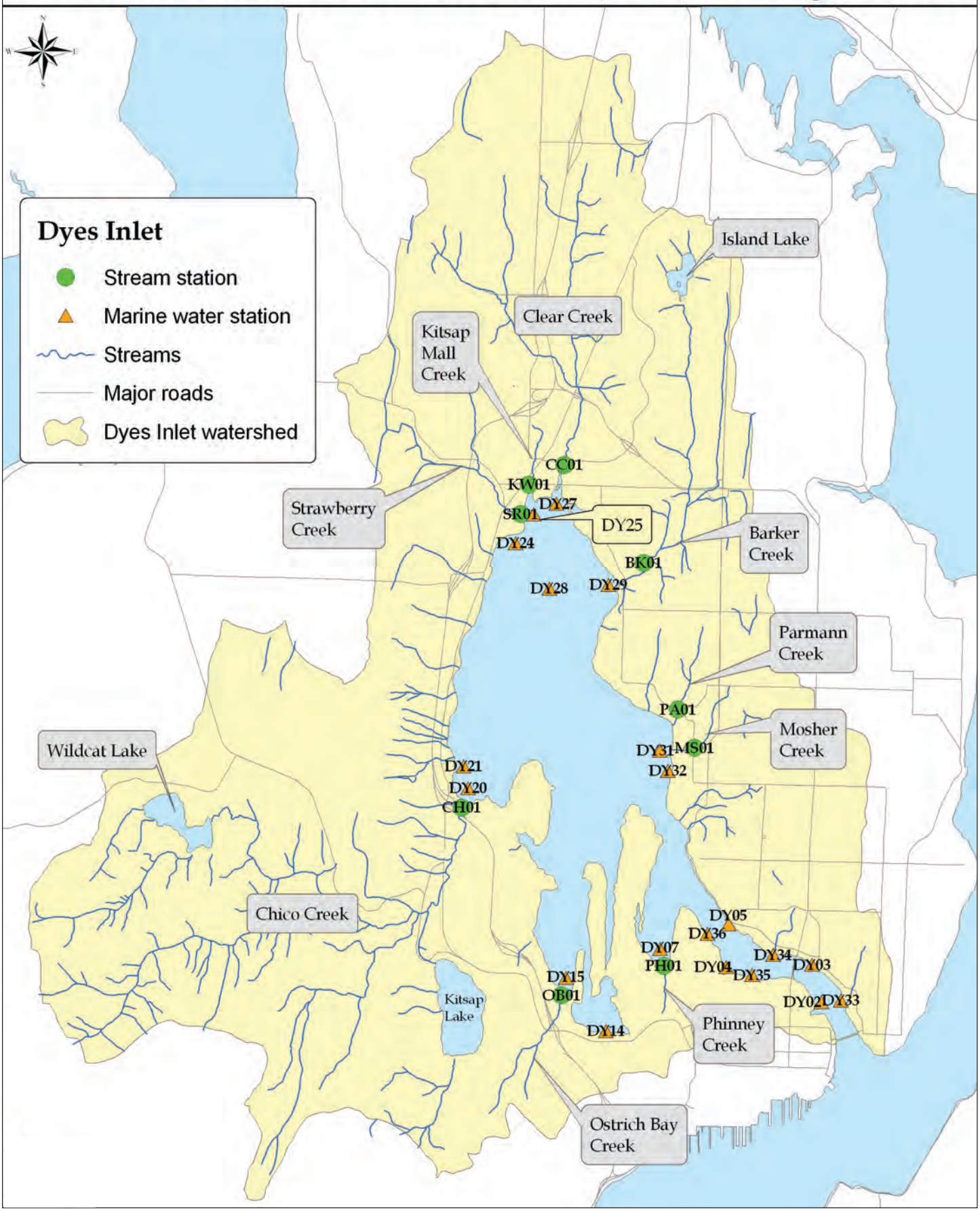
The upper tributaries of Coulter Creek within Kitsap County contain nearly nine miles of stream corridor. The headwaters are located north of Lake Flora Road near Sunnyslope. From there, the stream flows in a southerly direction to the Mason County line and eventually discharges into North Bay. Land use in the Coulter Creek drainage is predominately forest land with some rural residential and agricultural, and current water quality is generally very good. Statistical analysis for the creek shows both long and short term **stationary trends**, with the stream meeting the state water quality standard. in 2013

Monitoring station CU01 upstream of Lake Flora Road

DYES INLET WATERSHED

Dyes Inlet Watershed

Monitored Streams and Marine Water Monitoring Stations



DYES INLET WATERSHED

The Dyes Inlet watershed, designated as Primary Contact waters by the State, is located in central Kitsap County. The Health District began monitoring water quality in the Dyes Inlet watershed on a regular basis in 1996. Long term water quality trends remain stationary in many creeks, with improving trends noted in both Barker creek and at the mouth of Ostrich creek. Phinney creek however continues to be one of the most polluted creeks in the County, therefore the public health advisory will remain in effect in 2014. The Health District is continuing clean up efforts in the watershed.

2013 WATER QUALITY SUMMARY

Waterbody	Long term trend	Short term trend	Meets WQ Standard?	2012Annual FC Bacteria GMV	2013Annual FC Bacteria GMV	Health Advisory?
Barker Creek (BK01)	↘	→	●	80	44	No
Chico Creek (CH01)	→	→	●	23	44	No
Clear Creek (CC01)	→	→	●	42	41	No
Kitsap Mall Creek (KW01)	→	→	●	81	56	No
Mosher Creek (MS01)	→	→	●	32	42	No
Ostrich Bay Creek (OB01)	↘	→	●	175	85	No
Pahrmann Creek (PA01)	→	→	●	39	26	No
Phinney Creek (PH01)	→	→	●	185	271	Yes
Strawberry Creek (SR01)	→	→	●	43	64	No
Overall marine water[1]	→	⊘	**11 of 14 Stations**			

[1] Dyes Inlet watershed marine waters include Dyes Inlet and Port Washington Narrows

MONITORED TRIBUTARY STREAM(S) WITHOUT TREND ANALYSIS

- Kitsap Creek (tributary to Chico Creek)
- Ridgetop Creek (tributary to Clear Creek)

WATER QUALITY IMPROVEMENT EFFORTS

HEALTH DISTRICT WATERSHED PIC PROJECTS

The Dyes Inlet Pathogen Reduction project began in 2012 concentrating on pollution identification and reduction in Ostrich Bay Creek, Ridgetop Creek, the southern Dyes marine shoreline, and Kitsap Lake. Kitsap Public Health was awarded a Centennial Clean Water Fund grant from the Department of Ecology to conduct the project. This project follows up on the Kitsap Public Health's 2005-2009 Dyes Inlet Restoration Project and implements actions specified in the Dyes/Sinclair TMDL Implementation Plan. A total of 105 properties have been inspected and 28 failing septic systems identified as of the end of December 2013. The project will be completed in 2015.

OTHER WATERSHED PROJECTS

In 2011 Kitsap County Surface and Stormwater Management (SSWM) completed the Silverdale Low Impact Development Retrofit Plan. The plan identified 9 high priority stormwater retrofit projects using stormwater treatment methods such as infiltration and adsorption which reduce bacterial pollution. One project will be constructed in 2014, installation of planter media filtration boxes on Silverdale Way. Two projects are in the design phase – a stormwater treatment wetland near the outlet of Clear Creek and multiple rain gardens in the medians on Ridgetop Boulevard between Waaga Way and Silverdale Way. Additional projects are in the planning pipeline. It is expected that installation of stormwater retrofits will result in cleaner wet weather runoff flowing into Clear Creek, Kitsap Mall Creek and Northern Dyes Inlet.

WASHINGTON STATE WATER QUALITY ASSESSMENT: LISTED PARAMETER(S) AND CATEGORIES

Barker Creek	Dissolved oxygen (5), Fecal coliform bacteria (5), pH (2)
Chico Creek	Dissolved oxygen (5), FC bacteria (5), Temperature (5)
Clear Creek	Dissolved oxygen (5), Fecal coliform bacteria (5), pH (2)
Dickerson Creek	Dissolved oxygen (2), pH (2), Temperature (5)
Dyes Inlet	Dissolved oxygen (2), FC bacteria (5), Temperature (2)
Kitsap Creek	Dissolved oxygen (5), FC bacteria (5), Temperature (5), pH (2)
Kitsap Lake	Fecal coliform bacteria (5), Total phosphorous (5)
Ostrich Bay Creek	Dissolved oxygen (5), Fecal coliform bacteria (5)
Strawberry Creek	Dissolved oxygen (2), Fecal coliform bacteria (5)

SHELLFISH CLASSIFICATIONS

- North Dyes Inlet near Silverdale – Prohibited
- Central Dyes Inlet - Conditionally Approved
- Chico Bay –Approved
- The rest of Dyes Inlet and Port Washington Narrows –Prohibited or Conditionally Approved

Maps of shellfish closure areas and shellfish classifications in the Dyes Inlet area are available on the Washington State Department of Health Office of Shellfish and Water Protection website at: http://www.doh.wa.gov/Portals/1/Documents/4400/dyes.pdf.

INDIVIDUAL STREAM DATA

BARKER CREEK

The headwaters of Barker Creek originate at Island Lake. As the stream flows south, Hoot Creek and other smaller tributaries combine with the main channel which then discharges on the east shore of Dyes Inlet. The total length of the main channel and tributaries extend more than six miles. Land use in the Barker Creek drainage is a combination of agricultural, rural residential, urban residential, and commercial. Water quality over the previous year has been good with some elevated bacteria levels resulting in the creek failing Part 2 of the primary contact water quality standard. However statistical analysis for the creek shows short term stationary trend and a long term **improving trend.**

Barker Creek monitoring station BK01

CHICO CREEK

Chico Creek monitoring station CH01

Chico Creek is composed of nearly 68 miles of streams and tributaries. This includes four major tributaries; Kitsap, Wildcat, Dickerson, and Lost Creek. Wildcat Lake and Kitsap Lake discharge into Chico Creek as well. All these streams and tributaries combine to form the main stem, which flows into Chico Bay on the west shore of Dyes Inlet. Land use in the Chico Creek drainage is a variety of rural residential, urban residential and commercial. Current water quality is generally good, with statistical analysis showing both short and long term **stationary trends.**

Chico Creek monitoring station CH01

CLEAR CREEK

Clear Creek is composed of nearly 12 miles of streams and tributaries. The headwaters of Clear Creek originate at Naval Submarine Base Bangor, it flows through a variety of areas including agricultural properties, residential properties then through the urbanized area of Silverdale to its discharge point at the northern end of Dyes Inlet. Water quality over the last year has been good, with some periods of elevated fecal bacteria levels. The stream has both short and long term a **stationary trends.**

Clear Creek monitoring station CC01, downstream of Ridgetop Blvd in Silverdale.

KITSAP MALL CREEK

Kitsap Mall Creek is a small drainage on the west side of Silverdale. There are two branches to the creek, one which runs under Kitsap Mall, and the other which flows parallel to Randall Way to the west of the mall. Due to the urbanization of Silverdale, Kitsap Mall creek flows through a series of pipes and serves as a stormwater collection system. Statistical analysis for the creek shows both short and long term **stationary trends.**

Kitsap Mall Creek monitoring station KW01, where it flows into Dyes Inlet.

MOSHER CREEK

Mosher Creek is a small 1.25-mile long stream, which originates at wetlands north of McWillams Rd. The stream travels in a westerly direction to its discharge point into Dyes Inlet just north of Tracyton. Land use in the Mosher Creek drainage includes a variety of agricultural, rural and urban residential. Water quality over the last year has been good, with statistical analysis showing both short and long term **stationary trends.**

OSTRICH BAY CREEK

Mosher Creek monitoring station MS01, upstream of the Tracyton Blvd culvert

OSTRICH BAY CREEK

Ostrich Bay Creek in Bremerton is a two mile long stream that travels in a northerly direction from the Harlow Drive area, crosses Kitsap Way, and discharges into the southern shore of Ostrich Bay. Land use in the Ostrich Creek drainage includes commercial and urban residential properties. While historically water quality has been poor, recent data shows improvement at the mouth station which supports removal of the public health advisory. However two upstream stations (OB02 & OB03) will be posted with public health advisories due to the continuing elevated bacteria levels. Statistically the creek has a long term **stationary trend.**

Health Advisory warning sign posted at Ostrich Bay Creek OB02

PAHRMANN CREEK

Pahrmann Creek is located north of Tracyton. The creek is a 1.25 mile long drainage, with seasonal flow that travels in a southwestern direction from the Central Valley area. It parallels Stampede Boulevard, then discharges into the eastern side of Dyes Inlet. Land use in the Pahrmann Creek drainage is primarily residential. Water quality over the last year has been very good, with statistical analysis showing both short and long term **stationary trends.**

Pahrmann Creek monitoring station PA01 downstream of Tracyton Road.

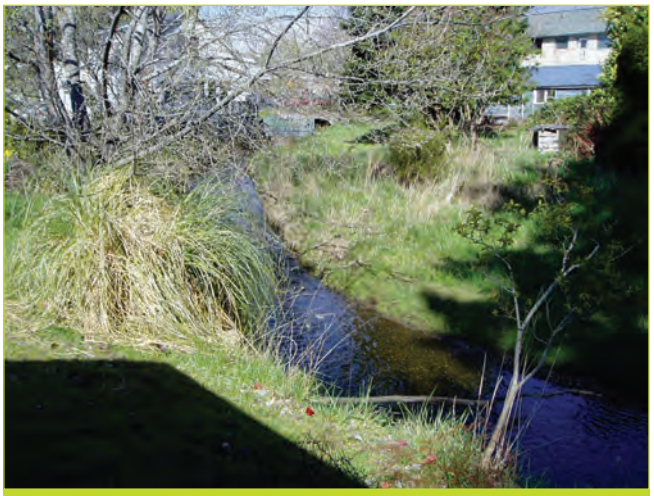
PHINNEY CREEK

Phinney Creek is one of the most polluted drainages in Kitsap County, located near Bremerton. This small year-round stream travels north from the Kitsap Way area, and discharges into Phinney Bay. Land use in the Phinney Creek drainage is urban residential, with commercial use along Kitsap Way. Water quality is very poor. To protect the public from contact with Phinney creek, the public health advisory will remain in effect in 2014. Long term statistical analysis indicates both short and long term **stationary trends.**

Health Advisory sign on Phinney Creek PH01.

STRAWBERRY CREEK

Strawberry Creek is composed of approximately 3.8 miles of streams and tributaries that flow through the Silverdale area and discharge into the northern end of Dyes Inlet. Land use in the Strawberry Creek drainage is a variety of urban residential, rural residential, commercial, light industrial, and agricultural. Statistical analysis for the creek shows both short and long term **stationary trends.**



Strawberry Creek monitoring station SR01 near old town Silverdale

Strawberry Creek where it discharges into Dyes Inlet

MARINE WATER MONITORING DATA SUMMARY

Please see the map at the beginning of this chapter for locations of our marine water monitoring stations.

MARINE WATER MONITORING STATIONS TREND ANALYSIS:

- Improving long-term trends - DY07, DY14, DY24, DY27, DY28, DY29 and DY31
- Improving short-term trends – none
- Remaining stations had a stationary trend, indicating no statistically significant change

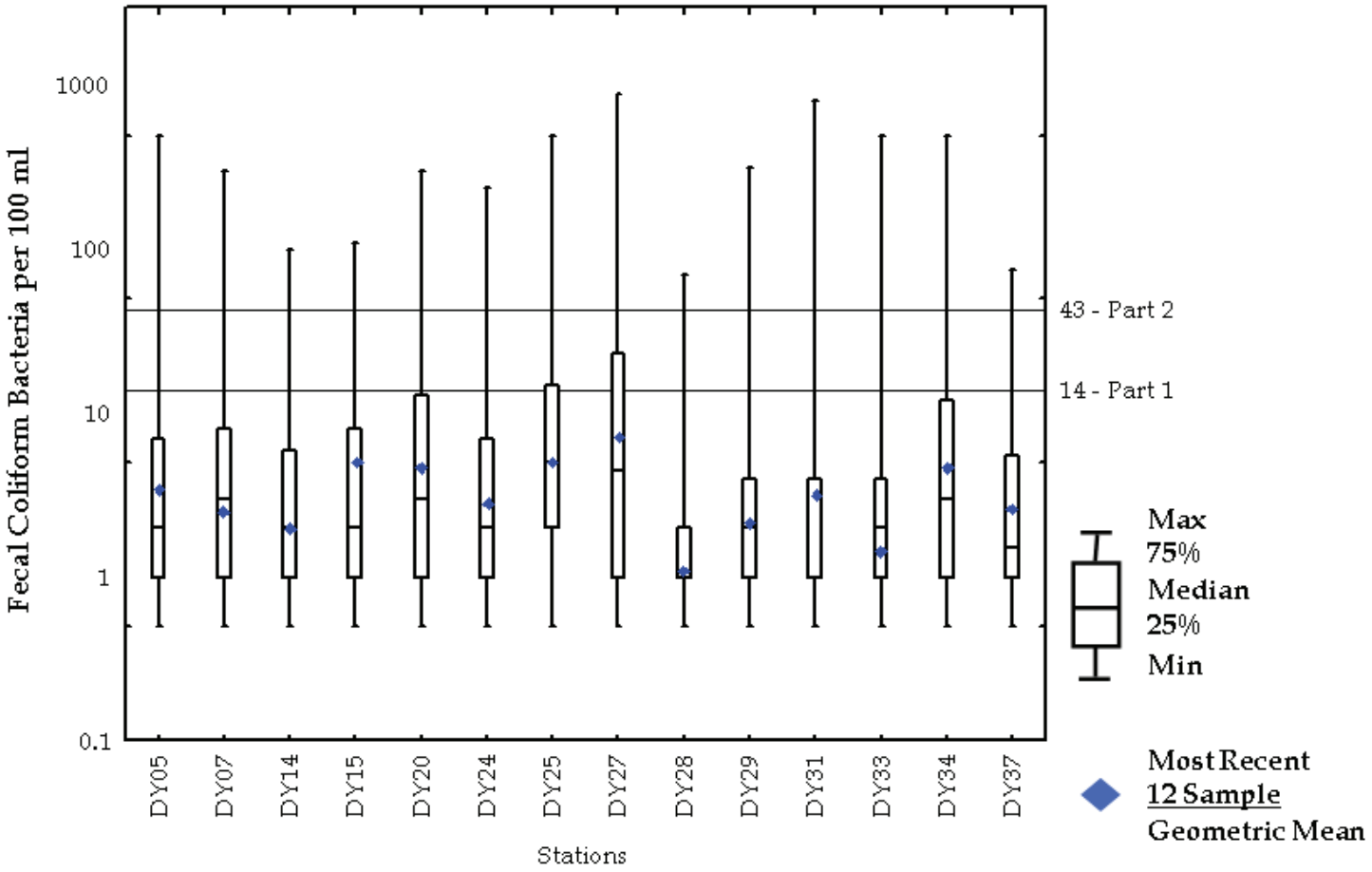
MARINE WATER QUALITY STANDARDS VIOLATIONS

Three (3) of the fourteen (14) marine stations (DY05, DY27, DY37) in Dyes Inlet failed to meet Part 2 of the water quality standards during the 2012-2013 monitoring year, due to periods of high bacteria levels. In addition, thirteen stations exceeded the state marine water standard for temperature. These typically occurred during the summer months.

OVERALL MARINE WATER TREND

Dyes Inlet marine waters as a whole show a stationary global trend, indicating no significant change over time for the water body.

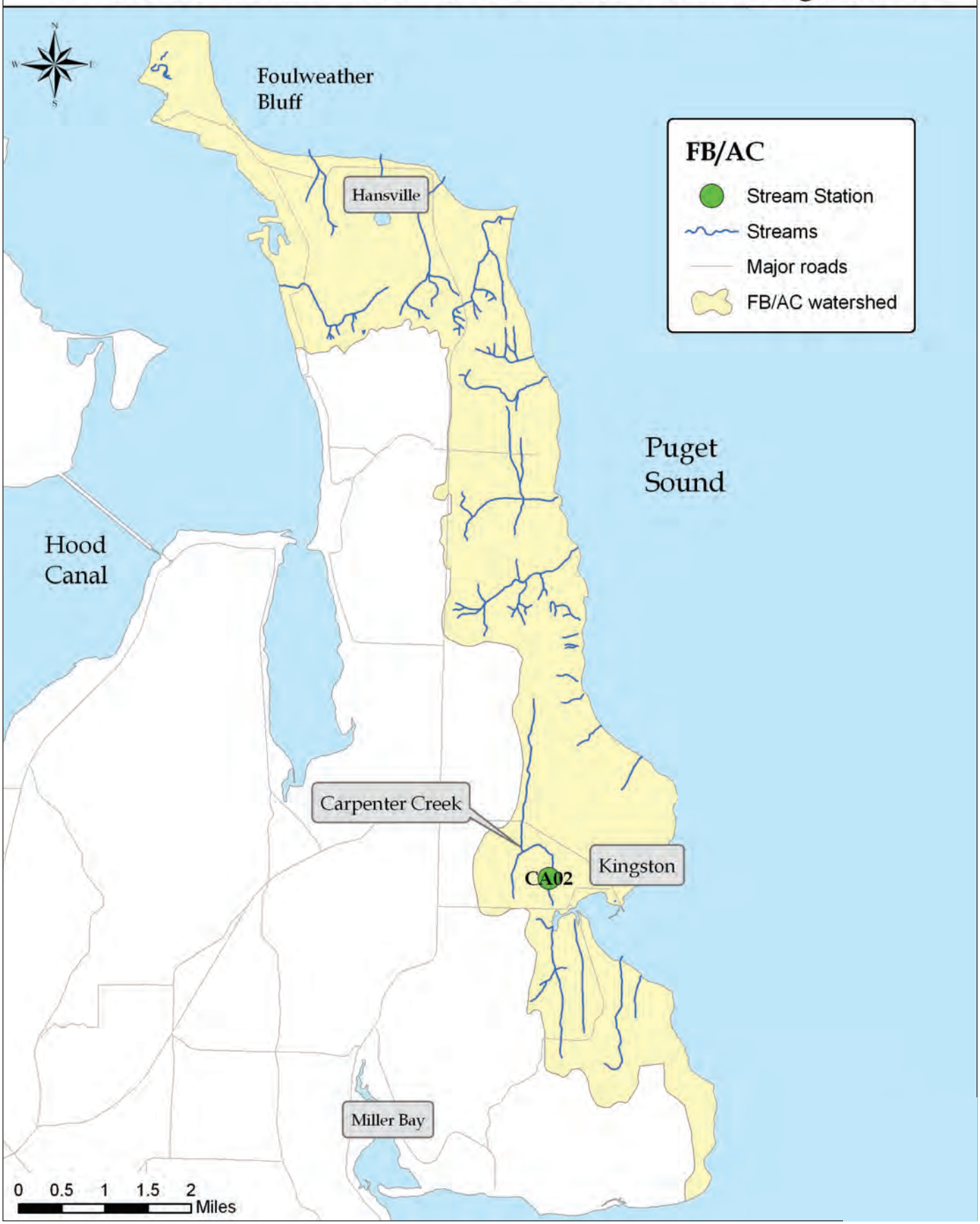
DYES INLET MARINE WATER SUMMARY



FOULWEATHER BLUFF / APPLETREE COVE WATERSHED

Foulweather Bluff / Appletree Cove Watershed

Monitored Streams and Marine Water Monitoring Stations



FOULWEATHER BLUFF / APPLETREE COVE WATERSHED

The Foulweather Bluff / Appletree Cove (FB/AC) watershed, designated as Extraordinary Primary Contact waters by the State, is located in northern Kitsap County. The Health District began water quality monitoring in the watershed on a regular basis in 1996. However, the Health District has not collected any marine water samples in this watershed since 2006.

2013 WATER QUALITY SUMMARY

Waterbody	Long term trend	Short term trend	Meets WQ Standard?	2012Annual FC Bacteria GMV	2013Annual FC Bacteria GMV	Health Advisory?
Carpenter Creek (CA02	→	→		19	27	No

WATER QUALITY IMPROVEMENT EFFORTS

HEALTH DISTRICT WATERSHED PIC PROJECTS
The District did not conduct any PIC projects in this watershed.

WASHINGTON STATE WATER QUALITY ASSESSMENT: LISTED PARAMETER(S) AND CATEGORIES

Carpenter Creek Dissolved Oxygen (5), FC bacteria (5), Temperature (5), pH (2)

SHELLFISH CLASSIFICATIONS

- Appletree Cove and the area around the Kingston Wastewater Treatment Plant outfall (near ferry dock) –Prohibited.
- Area north of Kingston to Point No Point, and south to Point Jefferson – Approved. Maps of shellfish classifications in the Kingston area are available on the state Department of Health website.

An aerial view of the Appletree Cove estuary at the mouth of Carpenter Creek

INDIVIDUAL STREAM DATA

CARPENTER CREEK

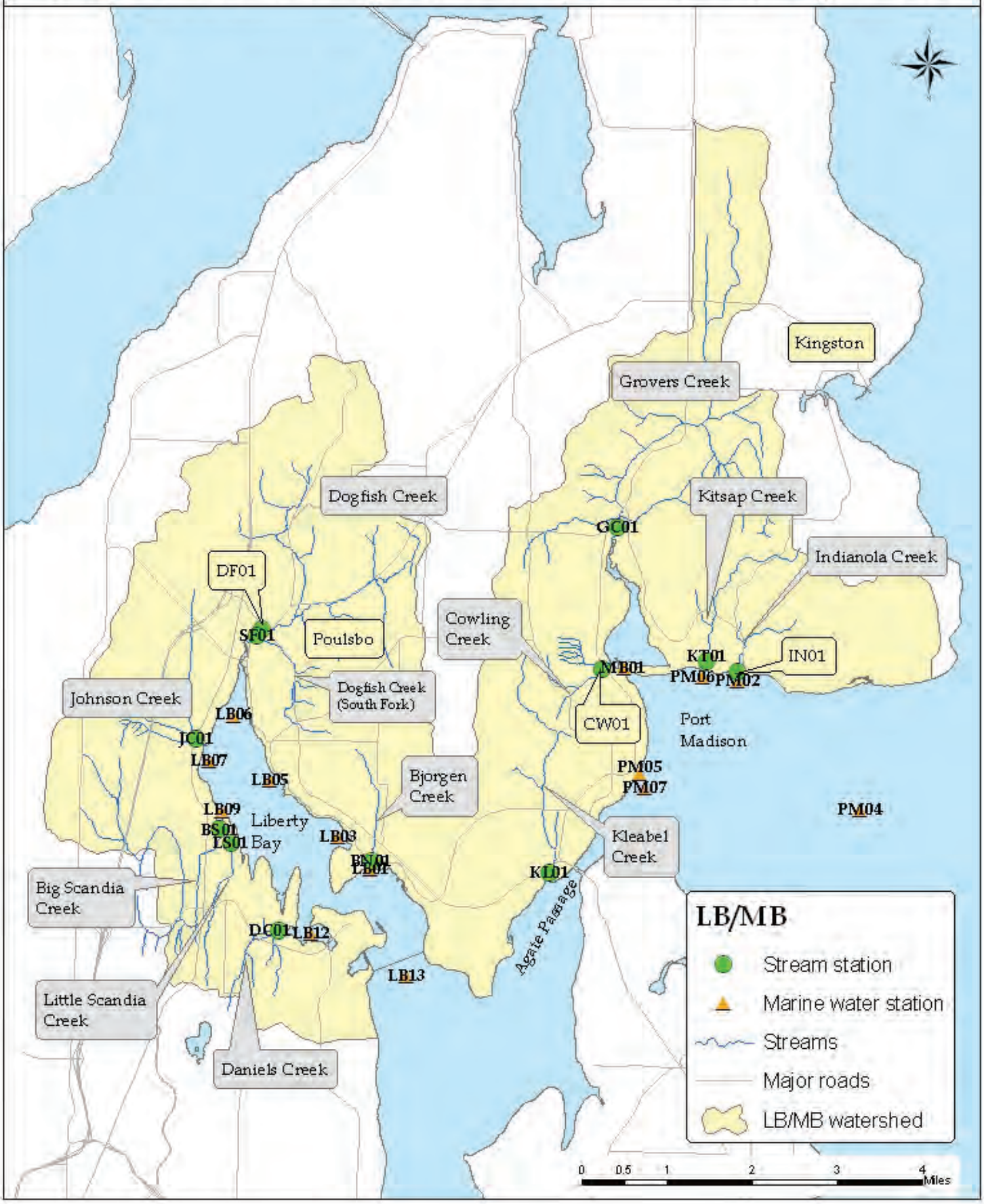
Carpenter Creek flows in a southerly direction for 2.9 miles and enters the northwest corner of Appletree Cove near Kingston. Land use in the Carpenter Creek drainage includes rural residential and agricultural. Water quality during the past year was good, with statistical analysis for the creek showing a **stationary trend**. Carpenter Creek is monitored by volunteers from the Stillwaters Environmental Center near Kingston.

Monitoring station CA02
downstream of Barber Cutoff Road.

LIBERTY BAY / MILLER BAY WATERSHED

Liberty Bay / Miller Bay Watershed

Monitored Streams and Marine Water Monitoring Stations



LIBERTY BAY / MILLER BAY WATERSHED

The Liberty Bay / Miller Bay (LB/MB) watersheds, designated as Extraordinary Primary Contact waters by the State, are located in northern Kitsap County. The Health District began water quality monitoring in the watersheds on a regular basis in 1996. Water quality is good in several streams, as shown in the summary below, with improving water quality trends in Cowling, Daniels, Dogfish, Indianola and Johnson creeks

2013 WATER QUALITY SUMMARY

Waterbody	Long term trend	Short term trend	Meets WQ Standard?	2012Annual FC Bacteria GMV	2013Annual FC Bacteria GMV	Health Advisory?
Big Scandia Creek (BS01)	→	→	🔴	26	54	No
Bjorgen Creek (BN01)	→	→	🔴	48	79	No
Cowling Creek (CW01)	↘	→	🟡	22	25	No
Daniels Creek (DC01)	↘	→	🟡	36	30	No
Dogfish Creek (DF01)	↘	→	🟡	45	36	No
Dogfish Creek (South Fork) (SF01)	→	→	🔴	60	87	No
Grovers Creek (GC01)	→	→	🔴	21	60	No
Indianola Creek (IN01)	↘	→	🟡	13	48	No
Johnson Creek (JC01)	↘	→	🟡	13	28	No

Waterbody	Long term trend	Short term trend	Meets WQ Standard?	2012Annual FC Bacteria GMV	2013Annual FC Bacteria GMVV	Health Advisory?
Kitsap Creek (KT01)	→	→		24	33	No
Kleabel Creek (KL01)	→	→		21	19	No
Little Scandia Creek (LS01)	→	→		115	113	No
Overall marine water[1]			**13 of 14 Stations**			

[1]LB/MB watershed marine waters include Liberty Bay, Miller Bay, Agate Passage, and Port Madison Bay

WATER QUALITY IMPROVEMENT EFFORTS

HEALTH DISTRICT WATERSHED PIC PROJECTS

- From 2009-2011, commercial storm water systems were inspected under the Kitsap Regional Illicit Discharge Detection and Elimination Clean Runoff Project. Within the City of Poulsbo, 311 properties were inspected, 109 needed maintenance, and 14 illicit discharges were confirmed.
- The Liberty Bay Restoration Project began in 2009. To date, Health District staff have completed four shoreline surveys (covering 48 miles) and investigations of sites with high bacteria levels are in progress. There have been 852 onsite sewage systems inspected with 24 onsite sewage system failures identified, and 21 corrected as of the end of 2013. The Liberty Bay Marina study was completed in 2010 as part of this project. Additionally public meetings informing the public about the project and onsite sewage systems workshops have also been completed.
- The Shellfish Restoration and Protection Project, an EPA grant funded project was launched in 2011 and continues through the end of 2014. There are several shoreline areas throughout the County included in this project. One of the project areas is Miller Bay. Four shoreline surveys of Miller Bay have been completed. Discharges with high bacteria levels have been investigated. There have been 83 onsite sewage systems investigated. Three onsite systems were found to be failing and all have been repaired.

WASHINGTON STATE WATER QUALITY ASSESSMENT: LISTED PARAMETERS AND CATEGORIES

Big Scandia Creek	Dissolved Oxygen (5), Fecal coliform bacteria (5), pH (2)
Bjorgen Creek	Dissolved Oxygen (5), Fecal coliform bacteria (5), pH (2)
Dogfish Creek	Dissolved Oxygen (5), FC bacteria (4B), Turbidity (2)
Grovers Creek	Dissolved Oxygen (5), FC bacteria (5), Temperature (2), Turbidity (2)
Johnson Creek	Dissolved Oxygen (5), Fecal coliform bacteria (5), pH (2)
Kleabel Creek	Dissolved Oxygen (2), Fecal coliform bacteria (5)
Liberty Bay	Dissolved Oxygen (5), FC bacteria (5), Temperature (2)
Little Scandia Creek	Dissolved Oxygen (5), Fecal coliform bacteria (5)

SHELLFISH CLASSIFICATIONS

- The east side of Liberty Bay, adjacent to the City of Poulsbo – Prohibited.
- The northern end of Agate Passage, near the Suquamish treatment plant outfall – Prohibited.
- All of Miller Bay - Prohibited.
- Agate Passage, from Pt. Bolin north to the Hwy. 305 bridge and the northern shoreline of Port Madison Bay (except the area near Indianola) – Approved.
- Lemolo Bay - Approved.

Maps of shellfish classifications are available on the Washington State Department of Health website.

INDIVIDUAL STREAM DATA

BIG SCANDIA CREEK

Big Scandia Creek and its tributaries combine for over three miles of stream corridor. The headwaters of the stream are located near Clear Creek Rd. The stream then flows north and discharges into the south shore of Liberty Bay near Scandia. Land use in the Big Scandia Creek drainage is predominately rural residential and agricultural. Statistical analysis shows the water quality of the creek has both short and long term **stationary trends.**

Big Scandia Creek monitoring station BS01

The stream mouths of Little Scandia Creek and Big Scandia Creek near Scandia Point.

BJORGEN CREEK

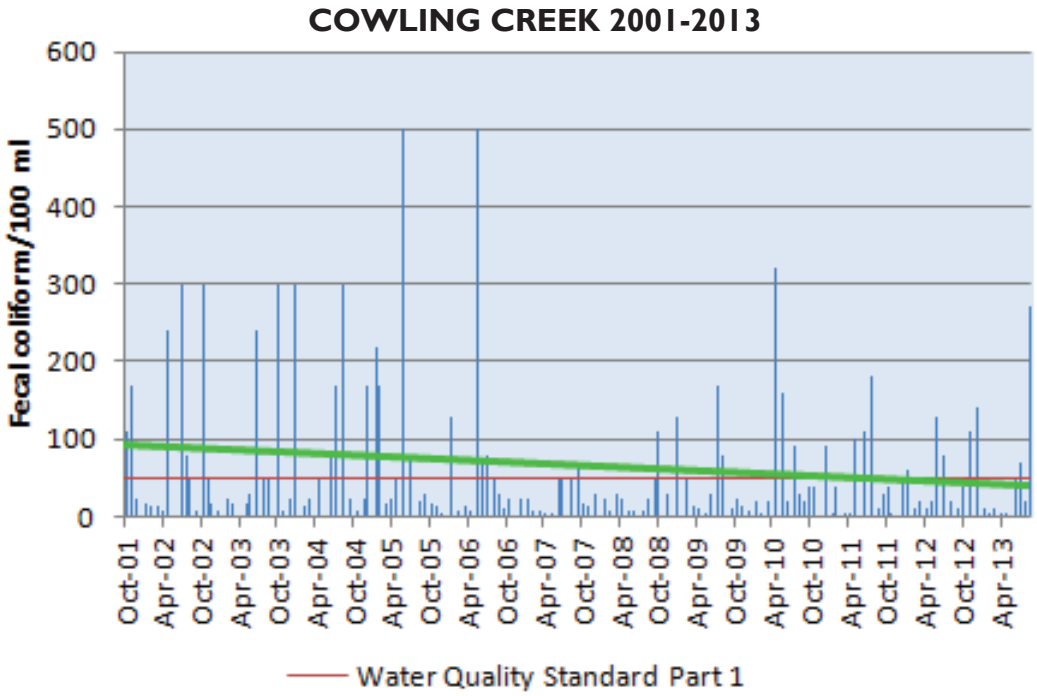
Bjorgen Creek originates near North Kitsap High School in Poulsbo. The creek flows approximately 1.5 miles to the south-southeast, crosses Highway 305 and discharges into Liberty Bay near Lemolo. Land use in the drainage is mainly rural residential. Water quality was poor during the last water year and the creek failed both parts of the water quality standard. However long term statistical analysis for the creek shows a **stationary trend.**

The mouth of Bjorgen Creek where it discharges into Liberty Bay.

COWLING CREEK

Cowling Creek is a small stream which originates just east of the Port Gamble Suquamish Road. From there it flows eastward to its discharge point along the west shore of Miller Bay. Land use in the Cowling Creek drainage is rural residential and agricultural. Chum hatchery operations take place on this stream. Recent water quality is good. Statistical analysis for the creek shows a long term **improving trend** as shown by the green line in the graph that follows.

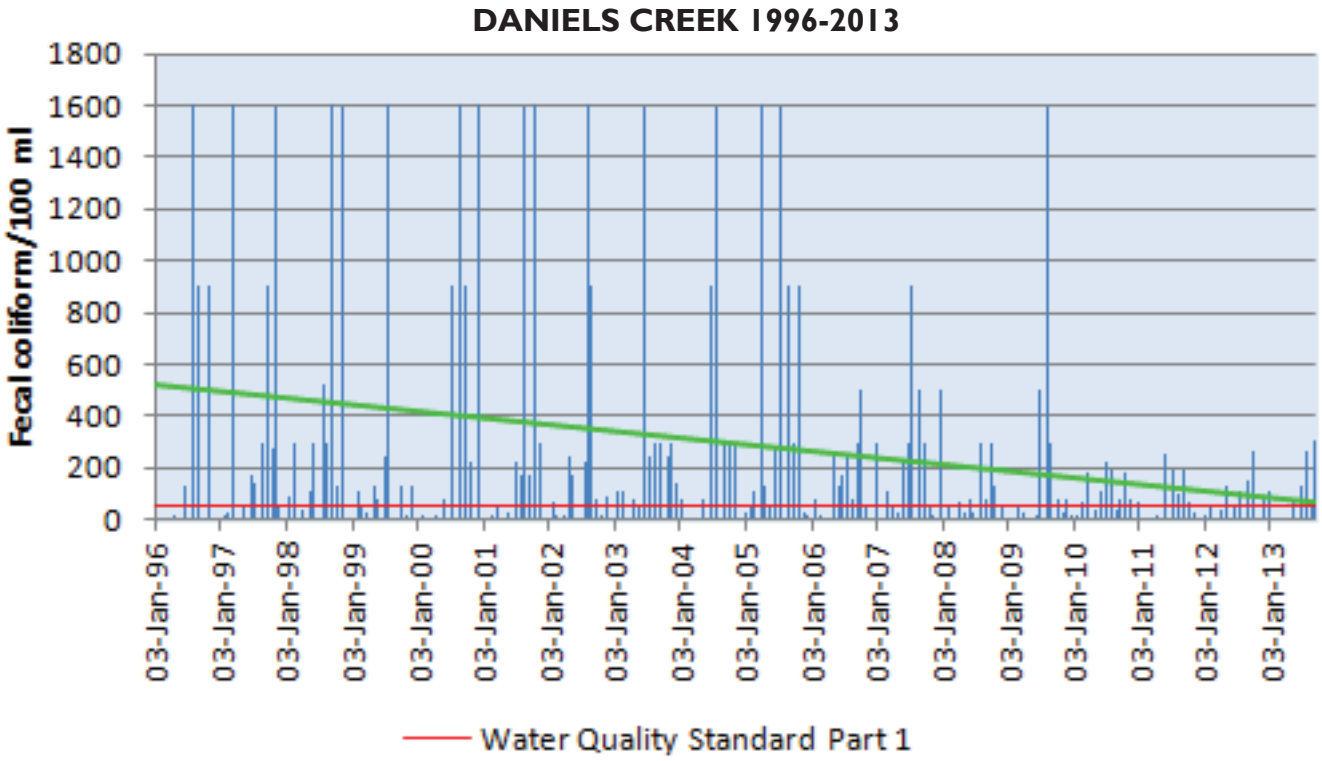
The Cowling Creek fish rearing pond upstream of monitoring station CW01.



DANIELS CREEK

Daniels Creek is a small stream approximately two miles in length that flows north from Central Valley Road to its discharge into the west shore of Dogfish Bay near Keyport. Land use in the drainage is rural residential and agricultural. Recent water quality is good, and statistical analysis indicates the creek is showing an **improving long term trend.** The trend is depicted by the green line in the following graph.

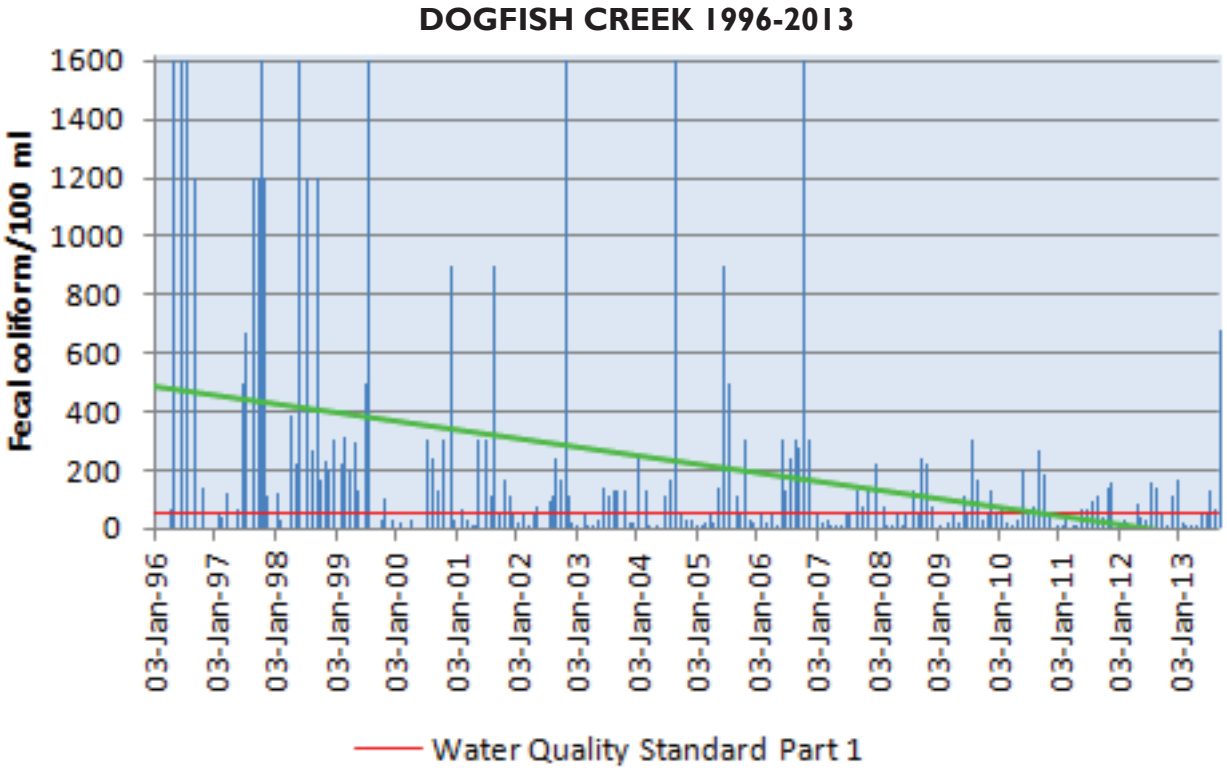
Daniels Creek monitoring station DC01


DANIELS CREEK 1996-2013
Fecal coliform/100 ml
1800
1600
1400
1200
1000
800
600
400
200
0
03-Jan-96
03-Jan-97
03-Jan-98
03-Jan-99
03-Jan-00
03-Jan-01
03-Jan-02
03-Jan-03
03-Jan-04
03-Jan-05
03-Jan-06
03-Jan-07
03-Jan-08
03-Jan-09
03-Jan-10
03-Jan-11
03-Jan-12
03-Jan-13
Water Quality Standard Part 1

DOGFISH CREEK

Dogfish Creek and its tributaries (the east, west and south forks) combine for over seven miles of stream corridor. The stream discharges into the northern end of Liberty Bay near Poulsbo. Land uses in the drainage include agricultural, rural and urban residential, commercial, and light industrial. Water quality in this creek has improved significantly over the years. Dogfish Creek shows a statistically significant **improving trend**, which is indicated by the green line in the graph below. This can be attributed in part to several clean up efforts by Health District staff working on such projects as the Liberty Bay Restoration Project.

Dogfish Creek monitoring station
DF01 downstream of Bond Road



DOGFISH CREEK (SOUTH FORK)

The South Fork of Dogfish Creek enters the main flow of Dogfish Creek below the Health District's monitoring station DF01. Water quality in this creek was poor and did not meet Part 1 or 2 of the water quality standard during the recent water year. However, long term statistical analysis shows that it has a **stationary trend.** Health District staff are continuing their efforts to identify and correct sources of bacterial water pollution.

South fork Dogfish Creek monitoring station SF01 near Bond Road, showing culvert.

GROVERS CREEK

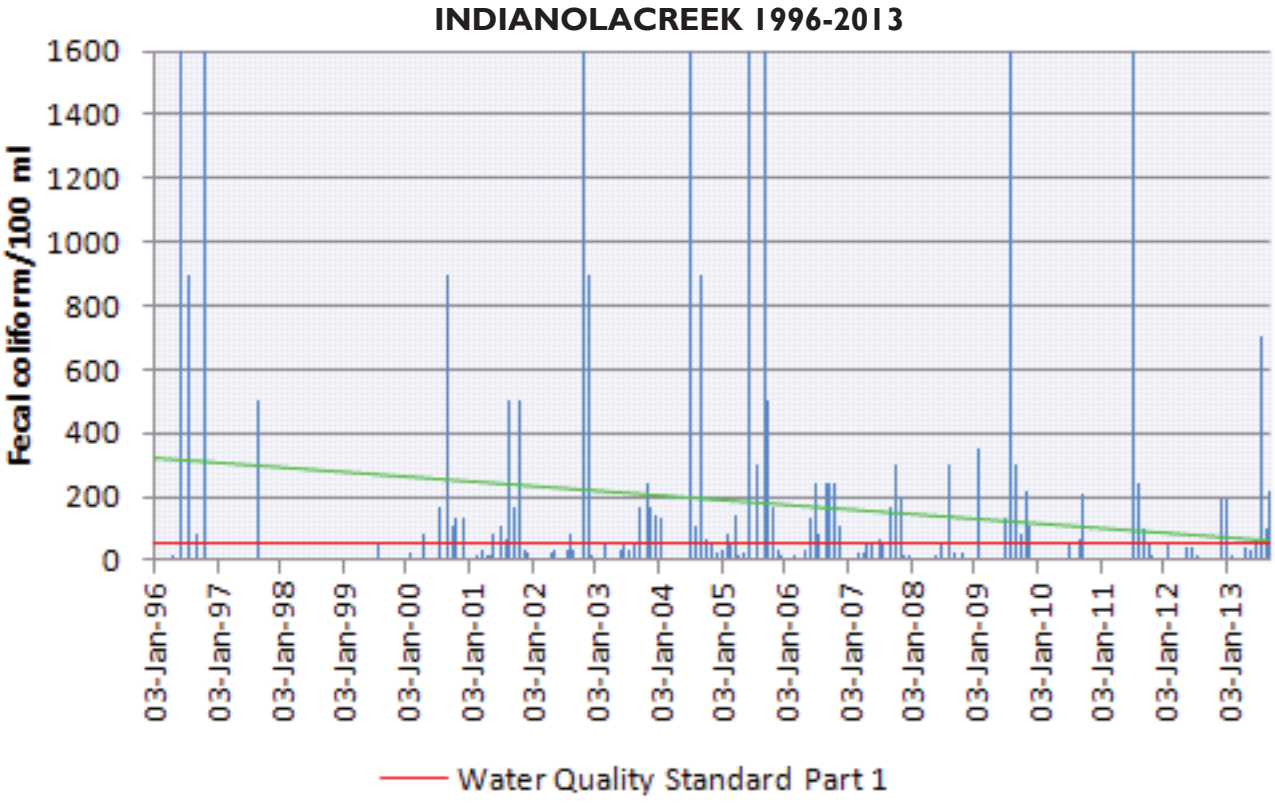
The headwaters of Grovers Creek are located one mile north of Highway 104 near Kingston. The stream flows south for four miles, through the Suquamish Fish Hatchery, and discharges into the north end of Miller Bay. Land use in the Grovers Creek drainage is rural residential and agricultural. Water quality over the last year has declined from very good to moderate and failed both parts of the water quality standard. However long term statistical analysis indicates a **stationary trend**.

Monitoring station GC01

INDIANOLA CREEK

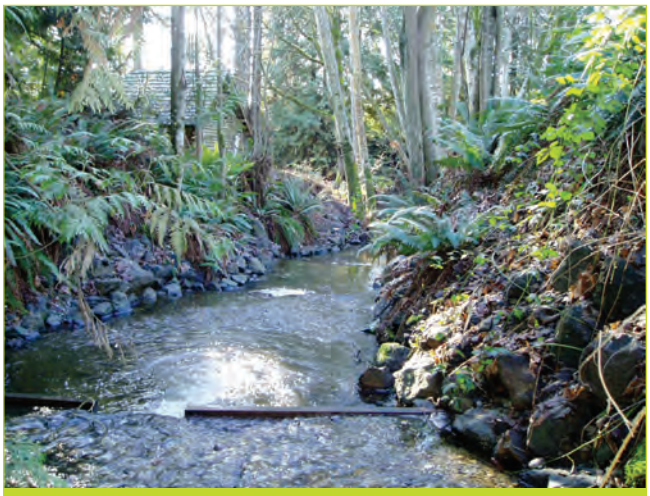
Indianola Creek is approximately one mile in length and a relatively small creek. It flows into Port Madison Bay, west of the Indianola Dock. Land use in the Indianola Creek drainage is rural residential. Water quality in this creek is good and statistical analysis indicates an **improving long term trend** as shown by the green line in the graph below.

Monitoring station IN01 located at the mouth of Indianola Creek as it flows onto the beach.

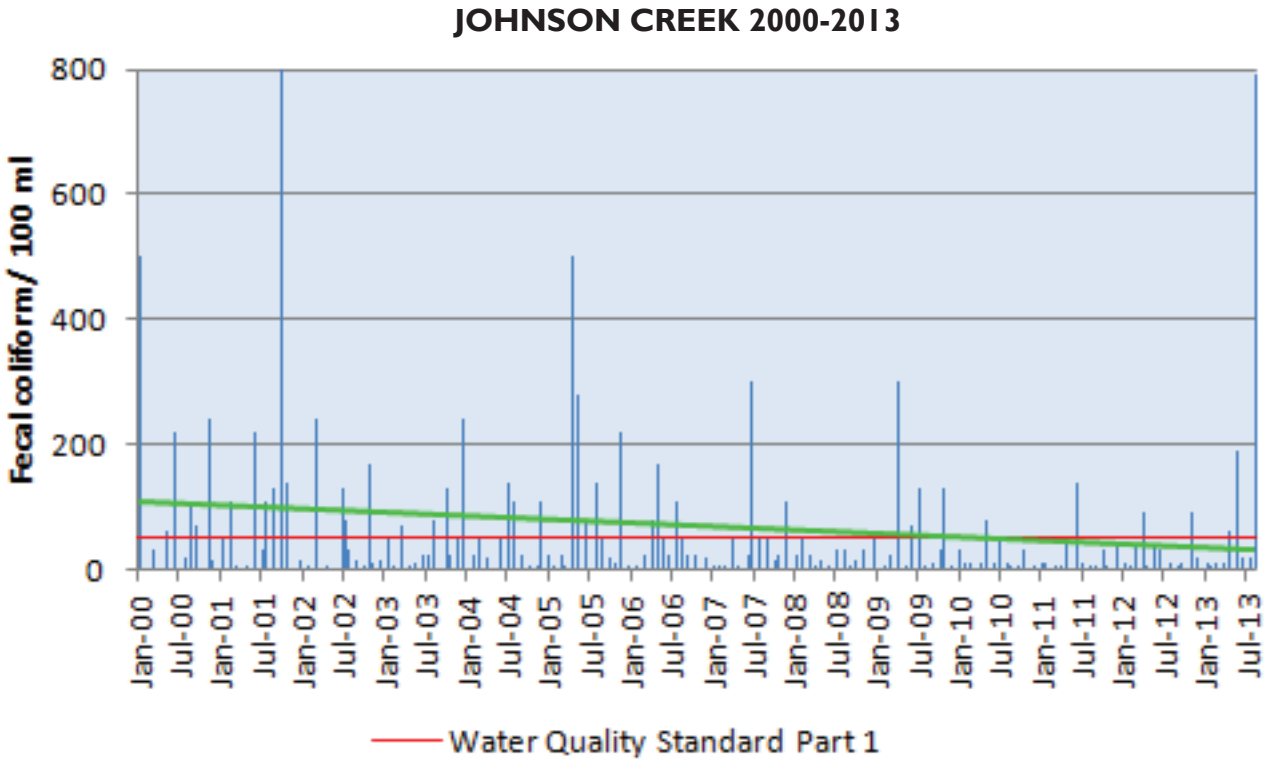


JOHNSON CREEK

The headwaters of Johnson Creek are located west of Highway 3 and discharge into the western shore of Liberty Bay. The three major tributaries of this stream travel in an easterly direction and make up nearly four miles of stream corridor. Land use in the Johnson Creek drainage is rural residential and agricultural. Water quality is good, and statistical analysis for the creek shows an **improving long term trend** as indicated by the green line in the graph below.



Johnson Creek monitoring station JC01 downstream of Viking Way



KITSAP CREEK

Kitsap Creek is a small stream approximately three miles in length. The stream flows from north to south and discharges into Port Madison Bay west of the Indianola Dock. Land use in the Kitsap Creek drainage is predominately rural residential and agricultural, with the Whitehorse Golf Course development in the upper portion of the drainage. Water quality in this creek is good and statistical analysis shows both short and long term **stationary trends.**

The mouth of Kitsap Creek as it flows into Port Madison, downstream of monitoring station KT01

KLEABEL CREEK

The headwaters of Kleabel Creek are located near Gunderson Road north of Suquamish. The creek travels almost due south for approximately 3 miles and discharges into Agate Passage near the Clearwater Casino. The majority of the land in the drainage is undeveloped, although some rural residential and commercial properties are located within the area. Water quality has been very good in the last year and statistical analysis shows a **stationary trend.**

The mouth of Kleabel Creek as it flows into Agate Passage, south of the Agate Pass bridge

LITTLE SCANDIA CREEK

Little Scandia Creek flows from the Central Valley area north to Liberty Bay. The creek's headwaters are located north of Island Lake, and then flows north approximately 2 miles crossing Highway 308, until it discharges into the bay near Scandia. Land use in the drainage is rural residential with some agricultural land use. Water quality was very poor during the recent water year, and the stream failed both parts of the water quality standard. However long term statistical analysis shows a **stationary trend.**

The mouth of Little Scandia Creek near Scandia Point in Liberty Bay.

MARINE WATER MONITORING DATA SUMMARY

Please see the Liberty Bay / Miller Bay watershed map for specific marine water monitoring station locations.

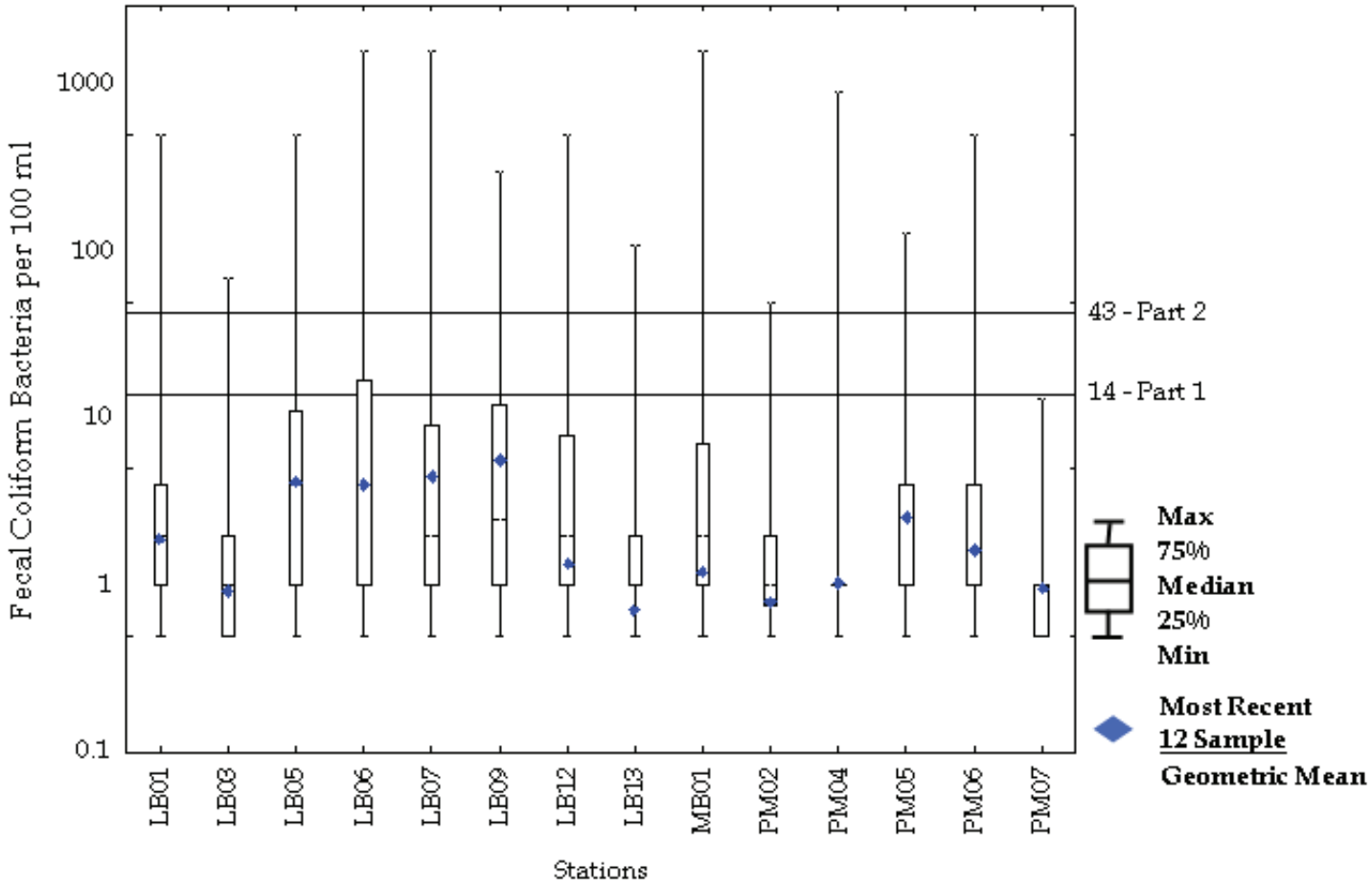
MARINE WATER MONITORING STATIONS WITH A
SIGNIFICANT TREND OR INSUFFICIENT DATA FOR TREND ANALYSIS

- Improving long–term trends: LB01, LB05, LB06, LB12, LB13, MB01, PM02, PM04, and PM07.
- Remaining stations had a stationary trend.

MARINE WATER QUALITY STANDARDS VIOLATIONS
All but one of the marine stations met the state water quality standard for fecal coliform during the water year. However, sample results exceeded state temperature standards for marine water at all stations. Most of these occurred during the summer months, since shallow nearshore waters are more easily influenced by seasonal variations in temperature.

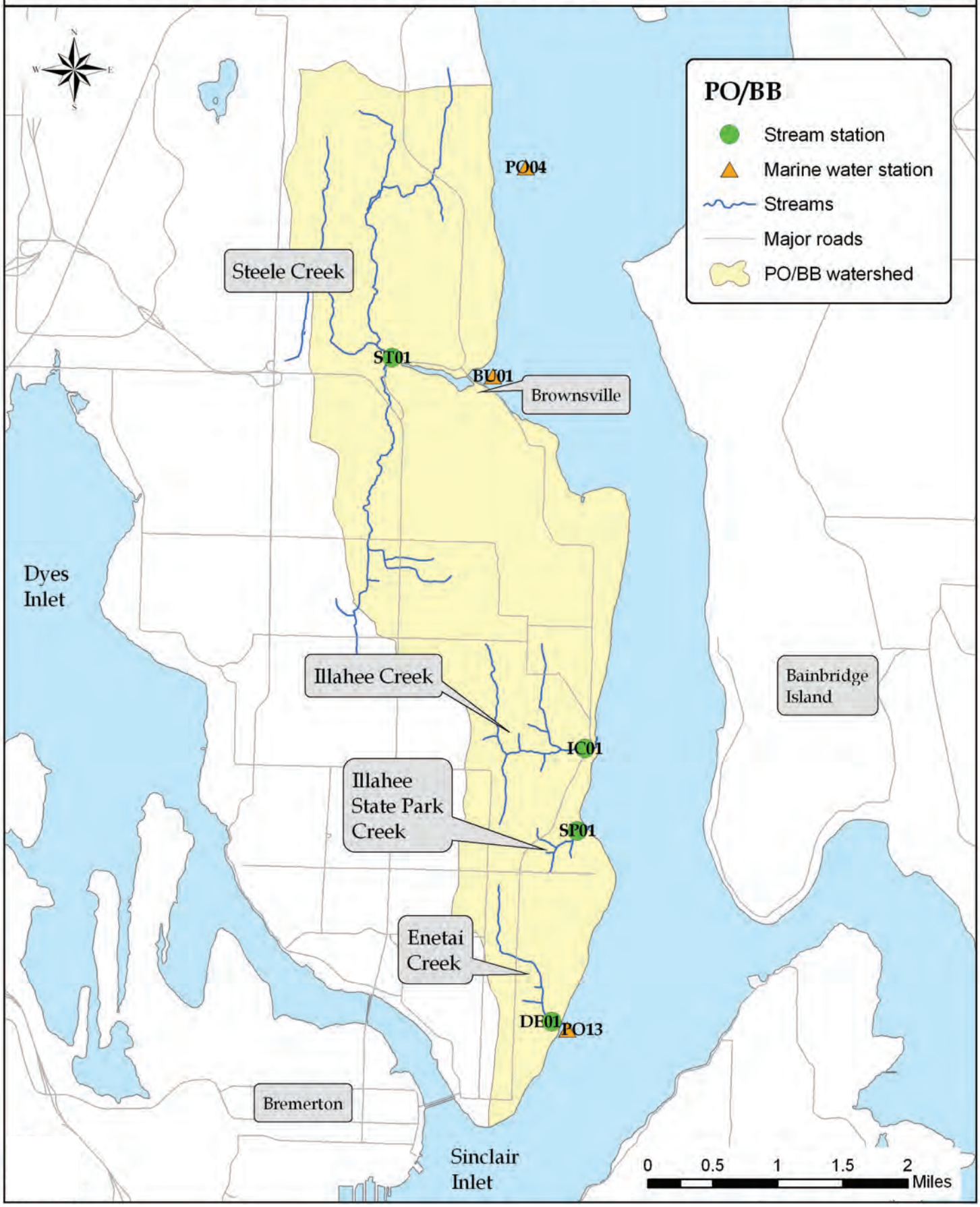
OVERALL MARINE WATER TREND
Liberty Bay / Miller Bay marine waters are showing a **stationary global trend**. Nine of the fourteen stations (LB01, LB05, LB06, LB12, LB13, MB01, PM02, PM04, PM07) are showing a significantly **improving trend**.

LIBERTY BAY / MILLER BAY MARINE WATER SUMMARY



PORT ORCHARD PASSAGE/ BURKE BAY WATERSHED

Port Orchard / Burke Bay Watershed
Monitored Streams and Marine Water Monitoring Stations



PORT ORCHARD PASSAGE/ BURKE BAY WATERSHED

The Port Orchard / Burke Bay (PO/BB) watershed, designated as Extraordinary Primary Contact waters by the State, is located in central Kitsap County. The Health District began water quality monitoring in the watershed on a regular basis in 1996. Overall water quality is moderate with some improving trends, and Health District cleanup projects in the watershed have improved water quality as corrective actions were implemented. Dense residential development may be a principal cause of poor water quality in some areas of the watershed.

2013 WATER QUALITY SUMMARY

Waterbody	Long term trend	Short term trend	Meets WQ Standard?	2012Annual FC Bacteria GMV	2013Annual FC Bacteria GMV	Health Advisory?
Enetai (Dee) Creek (DE01)	↘	→	🟡	130	43	No
Illahee Creek (IC01)	↘	→	🟢	14	16	No
Illahee State Park Creek (SP01)	↘	→	🟡	41	46	No
Steele Creek (ST01)	→	→	🔴	106	60	No
Overall marine water[1]	↘	⊘	**3 of 3 Stations**			

[1]PO/BB watershed marine waters include Port Orchard Passage and Burke Bay.

WATER QUALITY IMPROVEMENT EFFORTS

HEALTH DISTRICT WATERSHED PIC PROJECTS

In response to recent shellfish harvesting closures, the Health District sampled drainages along several miles of shoreline between 2010 and 2012 under the Port Orchard Passage Restoration Project. Inspections were done on 172 properties, and 15 failing septic systems were found and 14 repaired to date.

To address emerging pollution sources and protect previous improvements in water quality, additional work will be done in this watershed over the next few years. The Health District was awarded a Centennial Clean Water Fund grant at the end of 2013 to focus its PIC efforts on Enetai Creek, Steele Creek, and shoreline areas not covered in the earlier projects.

WASHINGTON STATE WATER QUALITY ASSESSMENT: LISTED PARAMETER(S) AND CATEGORIES

Burke Bay	Dissolved Oxygen (5), Temperature (2)
Enetai Creek	Dissolved Oxygen (5), Fecal coliform bacteria (4B), pH (2)
Illahee Creek	Dissolved Oxygen (5)
Port Orchard Bay	Dissolved Oxygen (5), FC bacteria (5), Temperature (2), pH (2)
State Park Creek	Dissolved Oxygen (5), Fecal coliform bacteria (5)
Steele Creek	Dissolved Oxygen (5), Fecal coliform bacteria (5)

SHELLFISH CLASSIFICATIONS

- Burke Bay and the area around the Brownsville Marina - Prohibited.
- The area south of Keyport and north of Brownville in Port Orchard Passage (near the Central Kitsap sewage treatment plant outfall) – Prohibited.
- The area south of Brownsville to Illahee State Park - Approved.
- From Illahee State Park south to Point Bolin – Unclassified.
- On Bainbridge Island: Point White to Crystal Springs - Approved.
  The northern portion of Crystal Springs Drive – Prohibited.

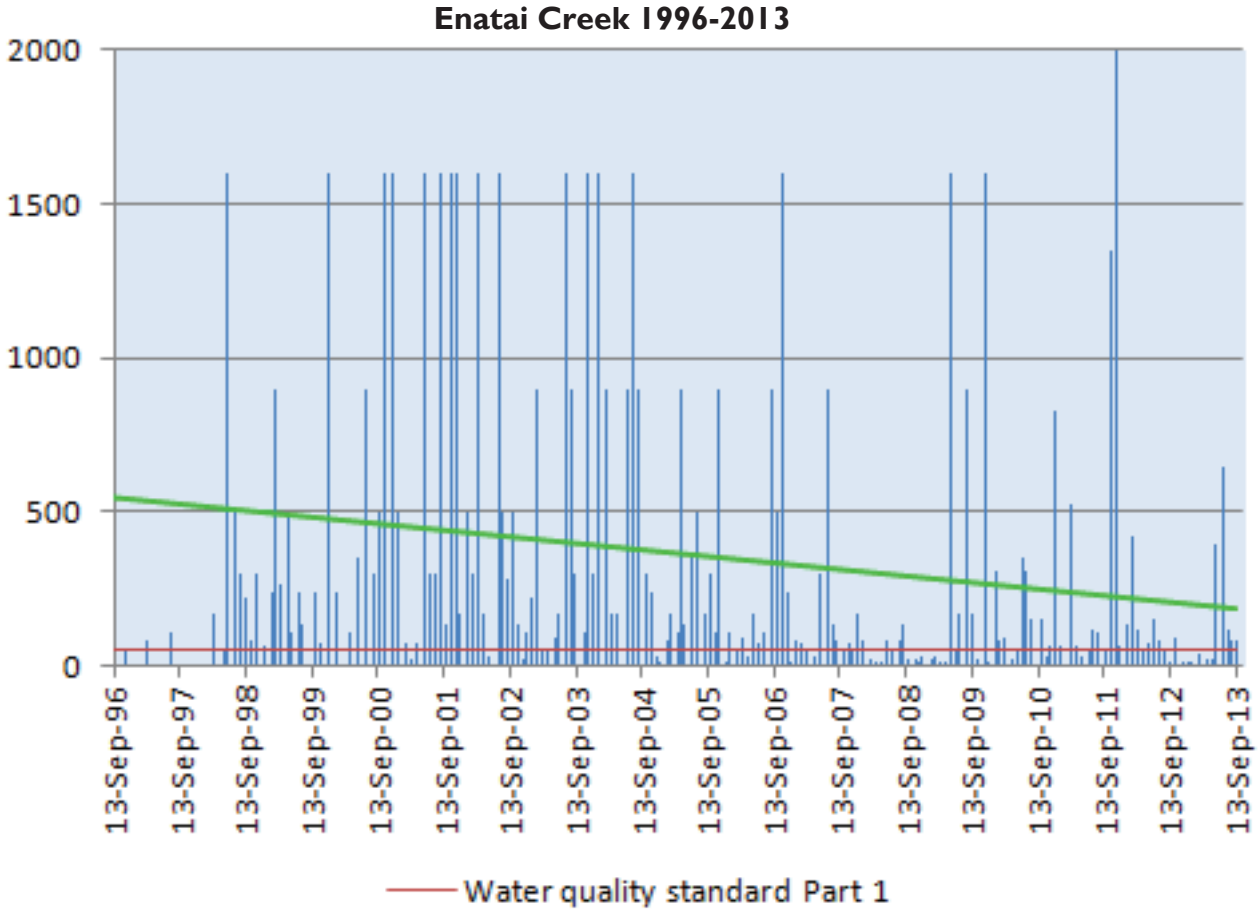
For specific information on shellfish classifications in the Port Orchard Passage area, see the most recent report from the Washington State Department of Health.

INDIVIDUAL STREAM DATA

ENETAI CREEK

Enetai Creek is a small stream located in east Bremerton. The stream is approximately two miles long, flowing south between Perry Avenue and Trenton Avenue, then discharging into Port Orchard Bay. Land use in the drainage is predominately urban residential and commercial. Due to the efforts of PIC projects in the area over the past several years there is a statistically significant **improving trend** in water quality as shown by the green trend line shown in the graph below.

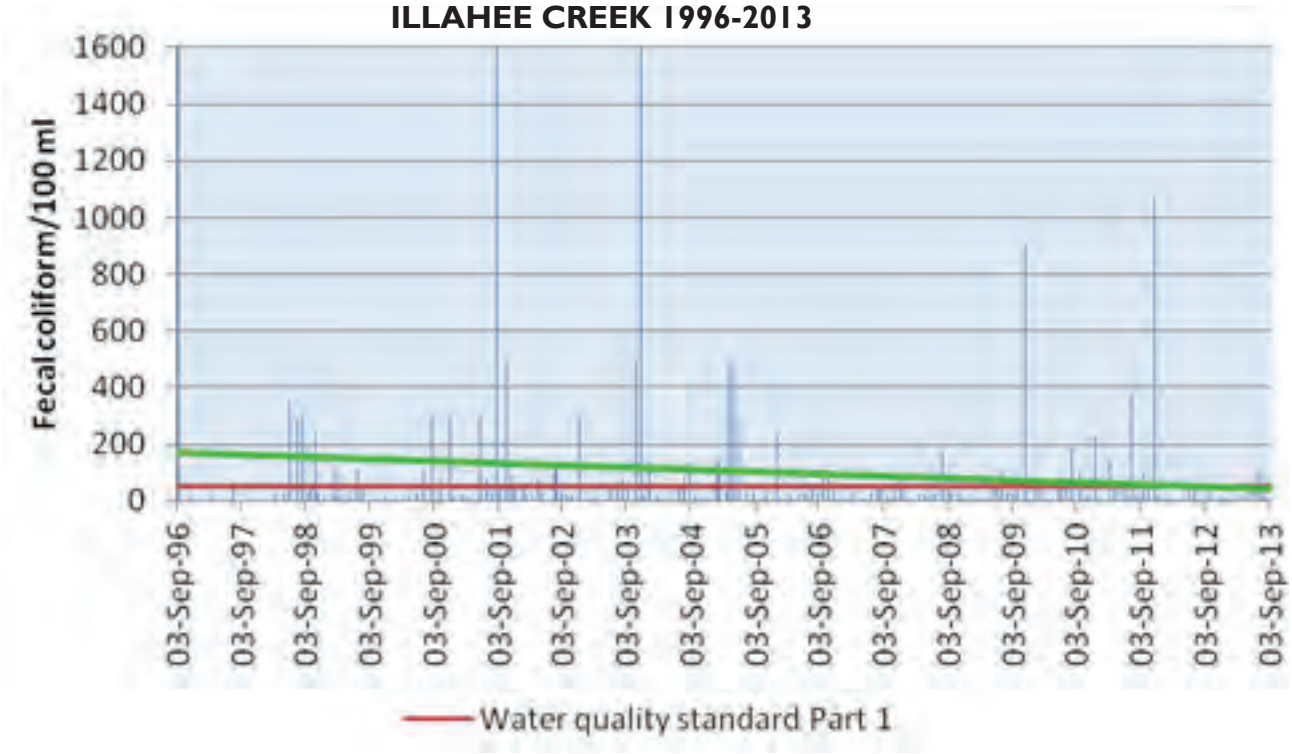
Station DE01 down stream of Enetai Beach Road



ILLAHEE CREEK

Illahee Creek originates near the Rolling Hills golf course in east Bremerton and travels for approximately 3.7 miles to its discharge point into Port Orchard Bay near Illahee. Land use in the Illahee Creek drainage is urban residential, commercial, light industrial, and forestland. This includes the Illahee Forest Preserve, a 352 acre conservation area. The Health District has supported monitoring efforts on Illahee Creek conducted by volunteers and the Port of Illahee. Water quality over the last year has been very good, and shows a statistically significant **improving trend**, as depicted by the green trend line in the graph.

Station DE01 down stream of Enetai Beach Road



ILLAHEE STATE PARK CREEK

Illahee State Park Creek is a small spring fed stream less than one mile in length. The headwaters are located near the Illahee Mobile Home Park, and the stream flows northeast to its discharge point in Port Orchard Bay, just north of Illahee State Park. Land use in the Illahee State Park Creek drainage is urban residential and commercial. Water quality over the last year has been good and shows a statistically significant long term **improving trend**.

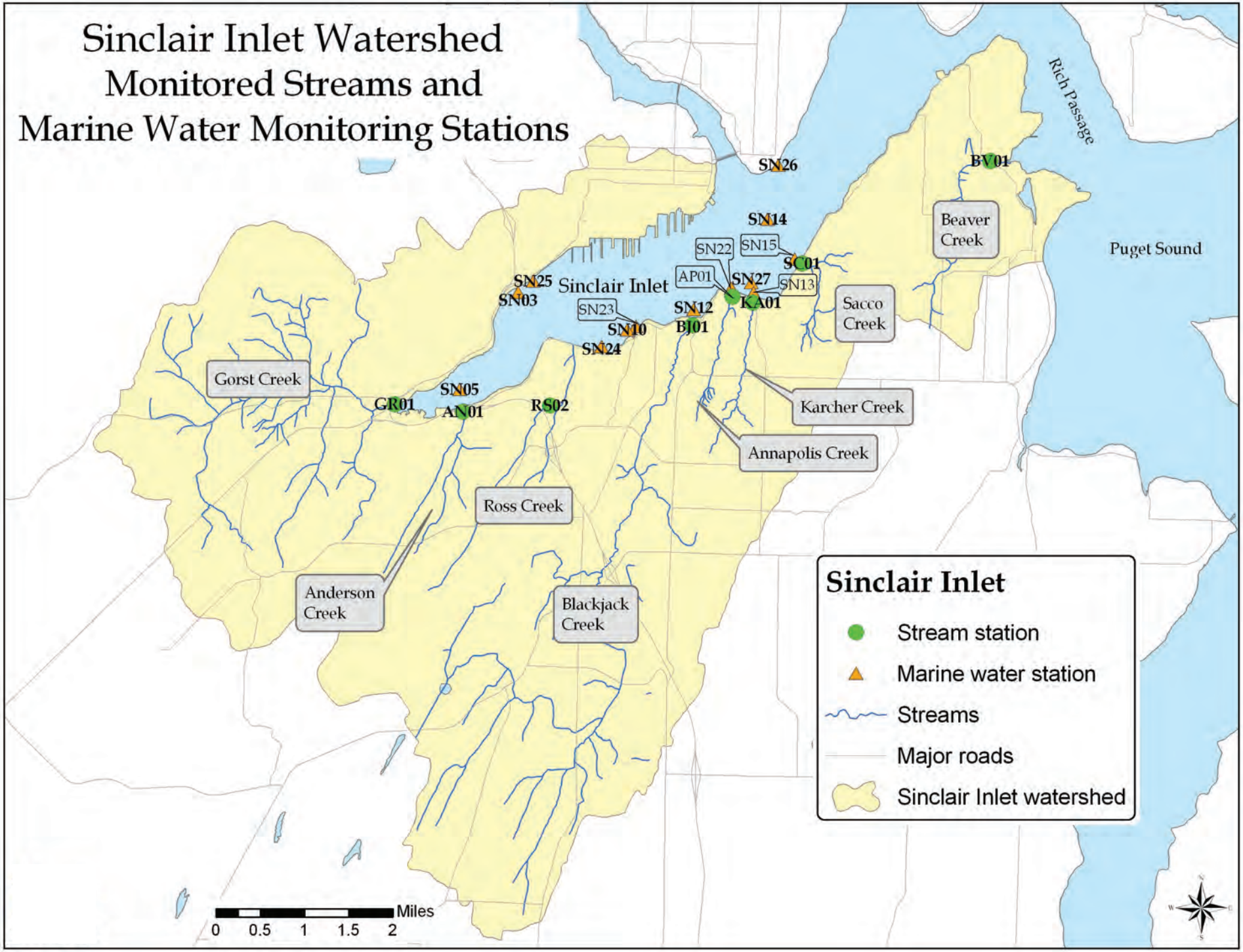
Illahee State Park Creek where it flows into Port Orchard Bay, monitoring station SP01

STEELE CREEK

Steele Creek and its tributaries combine for over six miles of stream corridor. These flow from the north and south and then discharge into Burke Bay near Brownsville. Land use in the Steele Creek drainage is a combination of rural and urban residential, agricultural, commercial, and light industrial. Steele Creek has previously been posted with a public health advisory due to high levels of bacteria. Water quality over the last year has been moderate with periods of elevated bacteria concentrations. Although the creek failed both parts of the water quality standard in this past water year, long term statistical analysis for the creek shows a **stationary trend**.

Steele Creek monitoring station ST01 near Brownsville

SINCLAIR INLET WATERSHED


Sinclair Inlet Watershed
Monitored Streams and
Marine Water Monitoring Stations
Rich Passage
Puget Sound
Sinclair Inlet
SN26
BV01
SN14
SN22
SN15
SC01
AP01
SN27
SN13
KA01
SN25
SN03
SN23
SN12
BJ01
SN10
SN24
Beaver Creek
Sacco Creek
Gorst Creek
SN05
GR01
AN01
RS02
Karcher Creek
Annapolis Creek
Ross Creek
Anderson Creek
Blackjack Creek
Sinclair Inlet
Stream station
Marine water station
Streams
Major roads
Sinclair Inlet watershed
Miles
0
0.5
1
1.5
2

SINCLAIR INLET WATERSHED

The Sinclair Inlet watershed is located in central Kitsap County. While most of this watershed is designated as Primary Contact waters by the State, several streams are classified as Extraordinary Primary Contact since they drain into marine water east of the boundary line for Primary Contact marine waters. These streams include; Beaver Creek, Karcher Creek and Sacco Creek. The Health District began water quality monitoring in the watershed in 1996.

The Sinclair Inlet Restoration Project was completed in 2013 and corrective actions implemented. The Washington Department of Ecology also completed a Total Maximum Daily Load study for Sinclair Inlet.

2013 WATER QUALITY SUMMARY

Waterbody	Long term trend	Short term trend	Meets WQ Standard?	2012Annual FC Bacteria GMV	2013Annual FC Bacteria GMV	Health Advisory?
Anderson Creek (AN01)	→	→	Yellow	14	20	No
Annapolis Creek (AP01)	↘	→	Yellow	99	93	No
Beaver Creek 1, 2 (BV01A)	⊘	⊘	Red	49	74	No
Blackjack Creek (BJ01)	→	→	Green	173	47	No
Gorst Creek (GR01)	↘	→	Yellow	30	32	No
Karcher Creek 1 (KA01)	→	→	Red	76	66	No
Ross Creek (RS02)	→	→	Yellow	15	29	No
Sacco Creek 1 (SC01)	↘	→	Yellow	48	40	No

Waterbody	Long term trend	Short term trend	Meets WQ Standard?	2012 Annual FC Bacteria GMV	2013 Annual FC Bacteria GMV	Health Advisory?
Overall marine water[1]	→	⊘	**4 of 5 Stations**			Temperature (16)
Overall Primary marine water[2]	↘	⊘	**5 of 8 Stations**			Temperature (17)

[1] These streams are designated as Extraordinary Primary Contact for state water quality standards.

[2] Beaver Creek sampling moved upstream to BV01A in December 2011 due to loss of access at the original site therefore short and long term trends are not yet available for this station.

WATER QUALITY IMPROVEMENT EFFORTS

HEALTH DISTRICT WATERSHED PIC PROJECTS

- Kitsap Public Health was awarded a Washington State Centennial Clean Water Fund grant in 2009 to conduct the Sinclair Inlet Restoration Project. This project was completed in 2013. During this project 784 onsite sewage system inspections were completed; 79 of 84 failing onsite sewage systems were repaired. 52 high priority agricultural properties were investigated and 30 installed best management practices; four shoreline surveys of Sinclair Inlet were completed (two during wet weather conditions and two during dry weather conditions); education and outreach activities included several public meetings providing project update information, onsite sewage system workshops and outreach to schools and other community groups. A final report was published about this project and is available on Kitsap Public Health's website.

OTHER WATERSHED PROJECTS

A Total Maximum Daily Load study (or TMDL), required by the Clean Water Act, was completed for Dyes and Sinclair Inlets.

The City of Bremerton constructed a municipal sewer system in the Gorst area to connect 105 residences, many of which had septic system problems. In addition, 28 of 34 commercial properties have been connected. Two pump stations, and 5 ½ miles of sewer main were installed. This work was funded by the American Recovery and Reinvestment Act.

WASHINGTON STATE WATER QUALITY ASSESSMENT: LISTED PARAMETER(S) AND CATEGORIES

Annapolis Creek	Dissolved Oxygen (5), Fecal coliform bacteria (5)
Beaver Creek	Dissolved Oxygen (5), Fecal coliform bacteria (5)
Blackjack Creek	Dissolved Oxygen (5), Fecal coliform bacteria (5), pH (2)
Gorst Creek	Dissolved Oxygen (5), Fecal coliform bacteria (4B)
Karcher Creek	Dissolved Oxygen (2), Fecal coliform bacteria (5), pH (2)
Rich Passage	Dissolved Oxygen (5), Fecal coliform bacteria (5)
Ross Creek	Dissolved Oxygen (5)
Sacco Creek	Fecal coliform bacteria (5), pH (5)
Sinclair Inlet	Dissolved Oxygen (2), FC (5), Temperature (2), pH (2)

SHELLFISH CLASSIFICATIONS

- All of Sinclair Inlet west of Point Herron is classified as Prohibited due to potential pollution from sewer outfalls, combined sewer overflows, industrial activities within Sinclair Inlet, and significant non-point pollution sources.
- Marine water east of Point Herron is Unclassified.
- Clam Bay, on Rich Passage, is Prohibited south of Middle Point (in Manchester State Park).

Maps of shellfish classifications are available on the state Department of Health website.

INDIVIDUAL STREAM DATA

ANDERSON CREEK

The Anderson Creek originates south of Old Clifton Road and discharges into the south shore of Sinclair Inlet approximately 0.75 miles east of Gorst. Land use in the Anderson Creek drainage is a combination of rural residential, urban residential, and commercial timber. Parts of the watershed are undergoing change as forestland is developed for residential lots. Water quality in Anderson Creek has been very good during this water year and statistical analysis for the creek shows both short and long term **stationary trends.**

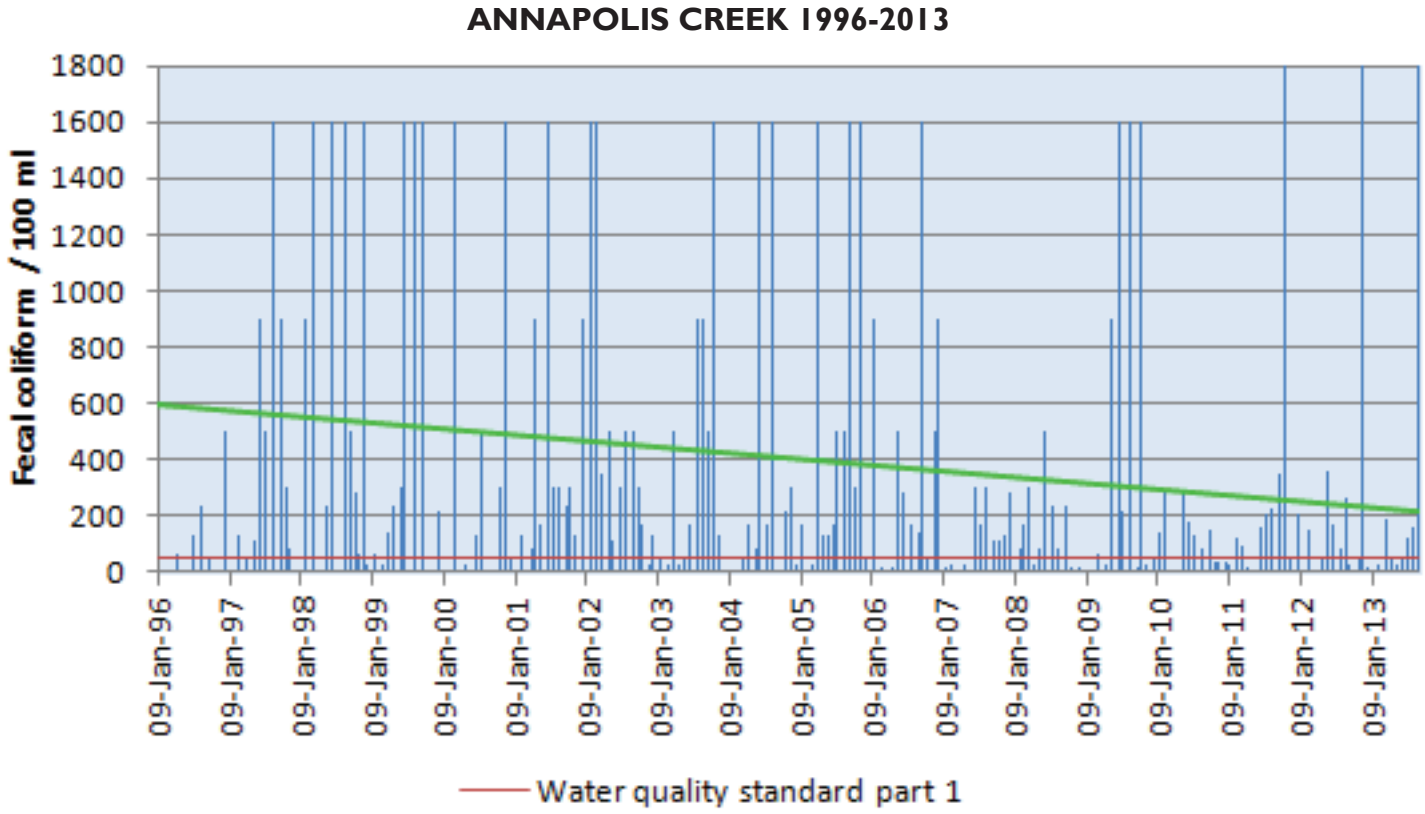
Anderson Creek as it flows from one culvert to another beneath Highway 16

Anderson Creek station AN01, near its discharge into Sinclair Inlet

ANNAPOLIS CREEK

Annapolis Creek originates above the South Kitsap Mall, travels north approximately 1.2 miles and discharges into Sinclair Inlet. Land use in the Annapolis Creek drainage is urban residential, commercial, and light industrial. While there are still periods of elevated bacteria levels in this creek, water quality has improved over the years, and statistical analysis shows a long term **improving trend** as shown by the green line in the graph below.

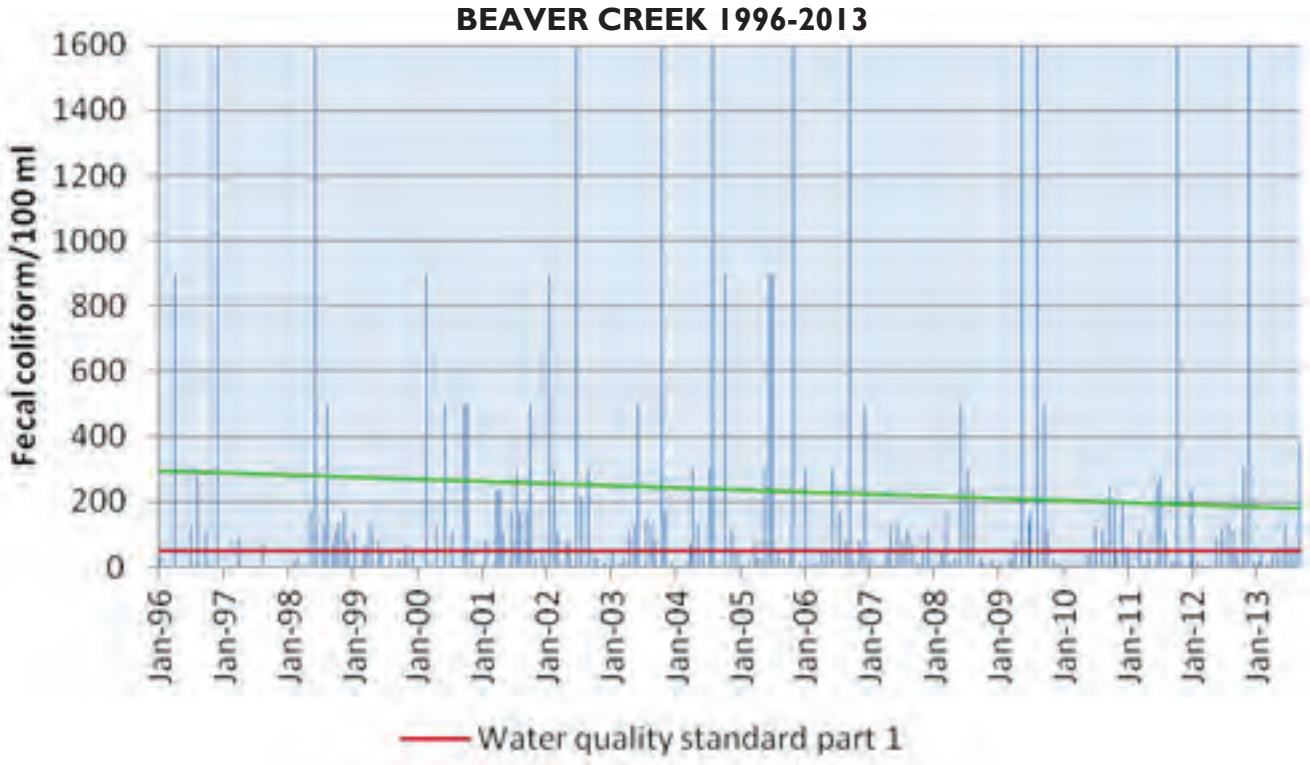
Annapolis Creek monitoring station AP01



BEAVER CREEK

Beaver Creek is composed of approximately 2.8 miles of stream corridor. The stream originates west of Manchester and flows northeast to its discharge point in Clam Bay within Rich Passage. Land use in the Beaver Creek drainage is a combination of agricultural, rural residential, urban residential, commercial, light industrial and military reservation. Water quality over the last year has been moderate with statistical analysis showing a long term i**mproving trend** as shown by the green line in the graph below.

Beaver Creek monitoring station BV01A



BLACKJACK CREEK

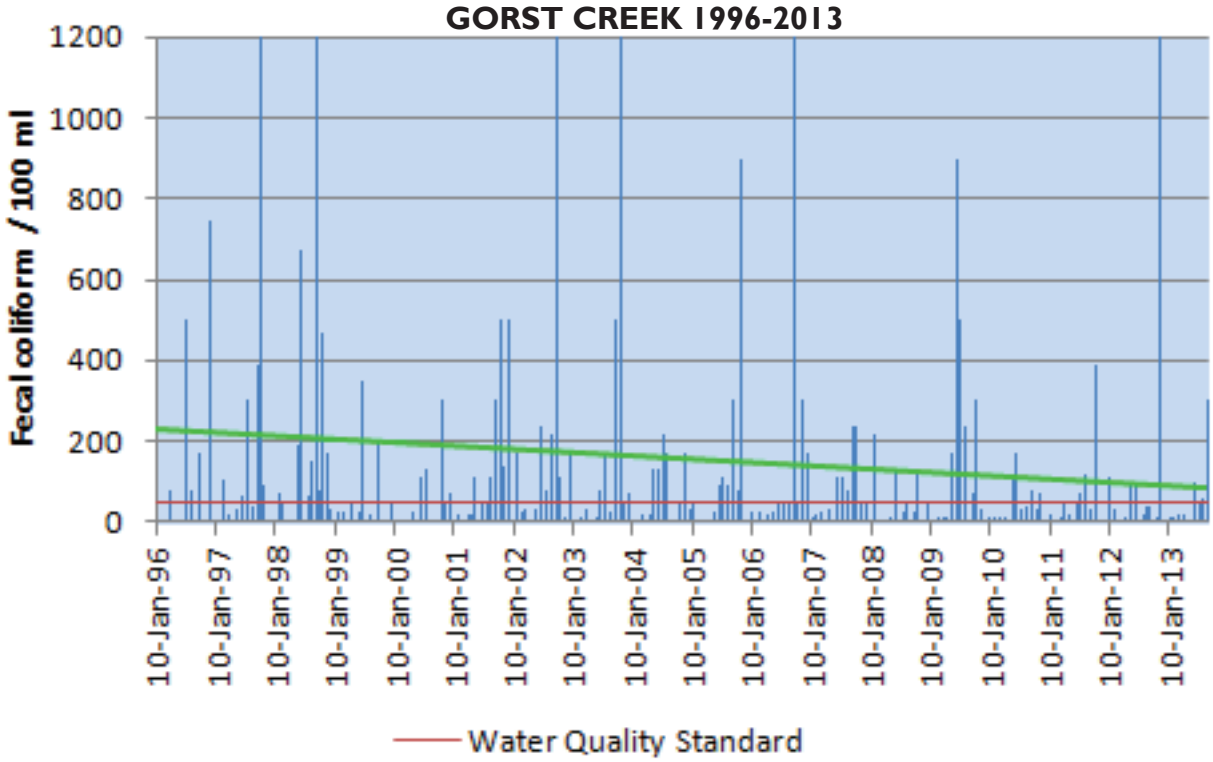
Blackjack Creek and its two major tributaries, Ruby Creek and Square Creek, are a large drainge with approximately 17 miles of stream corridor. From its headwaters, Blackjack Creek travels north through several small farms and a deep ravine before discharging into Sinclair Inlet. Land use in the drainage is a combination of agricultural, rural residential, urban residential, commercial, and light industrial. Water quality in 2013 has been good. Statistical analysis shows both short and long term **stationary trends.**

Blackjack Creek as it flows through downtown Port Orchard, near monitoring station BJ01

GORST CREEK

Gorst Creek and its tributaries combine for over 17 miles of stream corridor. A majority of the stream is located in the City of Bremerton Water Utility Forest Lands. The last one-mile of the stream flows through the community of Gorst and then discharges into the head of Sinclair Inlet. Land use in the Gorst Creek drainage is predominately managed forestlands, with the remainder consisting of rural residential, urban residential, and commercial. Water quality has been good. Clean up work in the watershed, such as the construction of a sewer system by the City of Bremerton, has helped reduce pollution levels and statistical analysis for the creek shows an **improving trend** as shown by the green trend line in the graph below.

Gorst Creek as it flows into Sinclair Inlet, downstream of monitoring station GR01



KARCHER CREEK

Karcher Creek, located east of Port Orchard, is composed of approximately two miles of streams and tributaries. The stream discharges into the southern shoreline of Sinclair Inlet near the West Sound Utility sewer treatment plant. Land use in the Karcher Creek drainage is a combination of protected water resource lands, rural residential, urban residential, and commercial. The Karcher creek monitoring station failed both parts of the water quality standard in 2013. The area is being investigated to identify sources of the high levels of fecal contamination. Long term statistical analysis shows a **stationary trend.**

Karcher Creek KA01

ROSS CREEK

Ross Creek and its tributaries combine to make up nearly two miles of stream corridor. The stream originates south of Highway 16, then flows north to its discharge point into Sinclair Inlet near Ross Point. A seasonal tributary also drains from the McCormick Woods development. Land use in the Ross Creek drainage is a combination of rural residential, urban residential, and commercial. Water quality over the last year has been good, and statistical analysis for the creek shows both short and long term **stationary trends.**

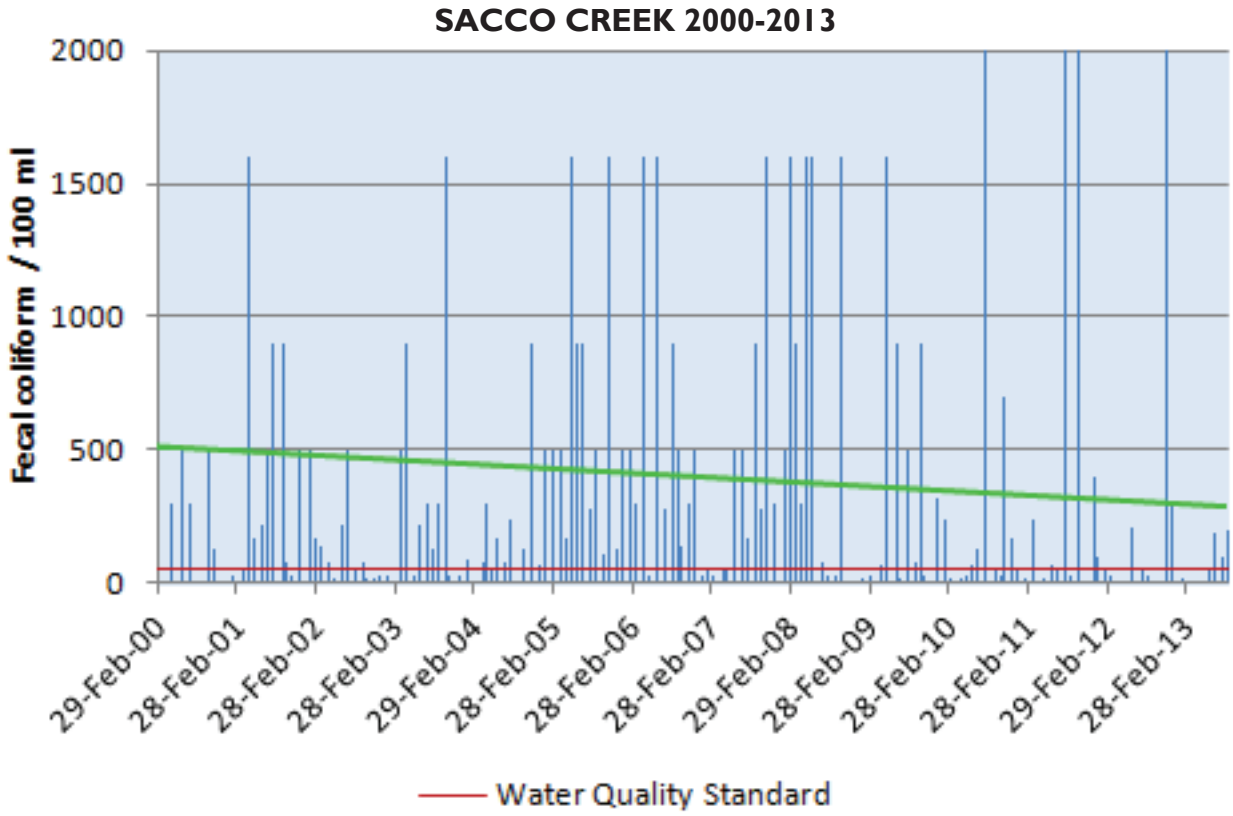
Ross Creek monitoring station RS02

The mouth of Ross Creek where it drains into Sinclair Inlet.

SACCO CREEK

Sacco Creek and its tributaries combine to make up nearly two miles of stream corridor. The headwaters are located near Lidstrom Road. The stream flows north and west where it discharges into a small estuary just north of Retsil on Sinclair Inlet. Land use in the Sacco Creek drainage is a combination of agricultural, rural residential, and urban residential. Over the last year water quality has still been good. Long term statistical analysis for the creek shows an **improving trend.**

Sacco Creek as it flows under Beach drive and into Sinclair Inlet downstream of monitoring station SC01



MARINE WATER MONITORING DATA SUMMARY

Water quality standards for marine waters are based on classifications for recreational uses and aquatic life as defined by Washington State. There are two marine water quality classifications; "Excellent aquatic, primary contact" and "Extraordinary aquatic, primary contact." The description of marine water quality standards for both classifications are found in the Introduction of this report. In the Sinclair Inlet watershed the waters west of Point Herron are classified as Excellent aquatic primary contact, and the rest of the watershed is listed as Extraordinary aquatic primary contact.

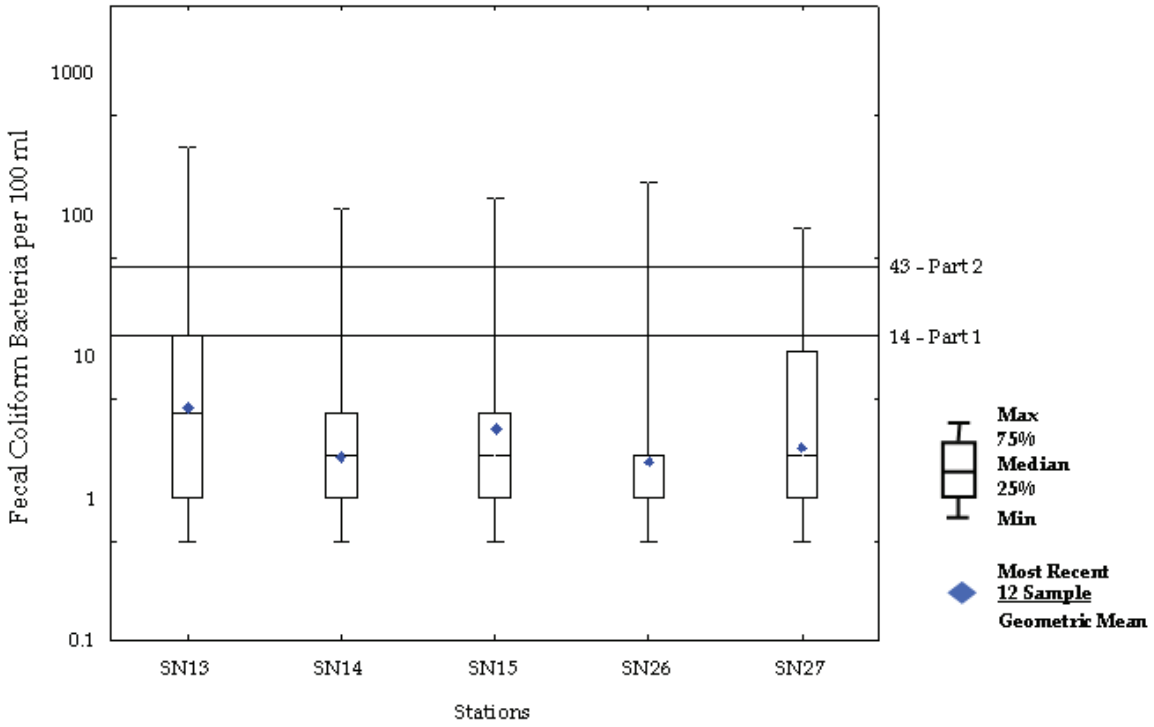
MARINE WATER QUALITY STANDARDS COMPLIANCE FOR EXTRAORDINARY AQUATIC, PRIMARY CONTACT STATIONS

Four of the five monitoring stations in this watershed met the state Fecal coliform bacteria standard over the last year, with SN13 failing to meet Part 2 of the water quality standards. Temperature exceedences were recorded at all stations during the summer months.

MARINE WATER QUALITY TREND OF EXTRAORDINARY AQUATIC, PRIMARY CONTACT

Two of the five individual sampling stations (SN14, SN26), in Sinclair Inlet marine waters showed significant long-term improvement. The remaining stations had a stationary trend, indicating no statistically significant change over time.

SINCLAIR INLET EXTRAORDINARY CLASS MARINE WATER SUMMARY, 1996-2013



MARINE WATER QUALITY STANDARDS COMPLIANCE FOR
EXCELLENT AQUATIC PRIMARY CONTACT STATIONS

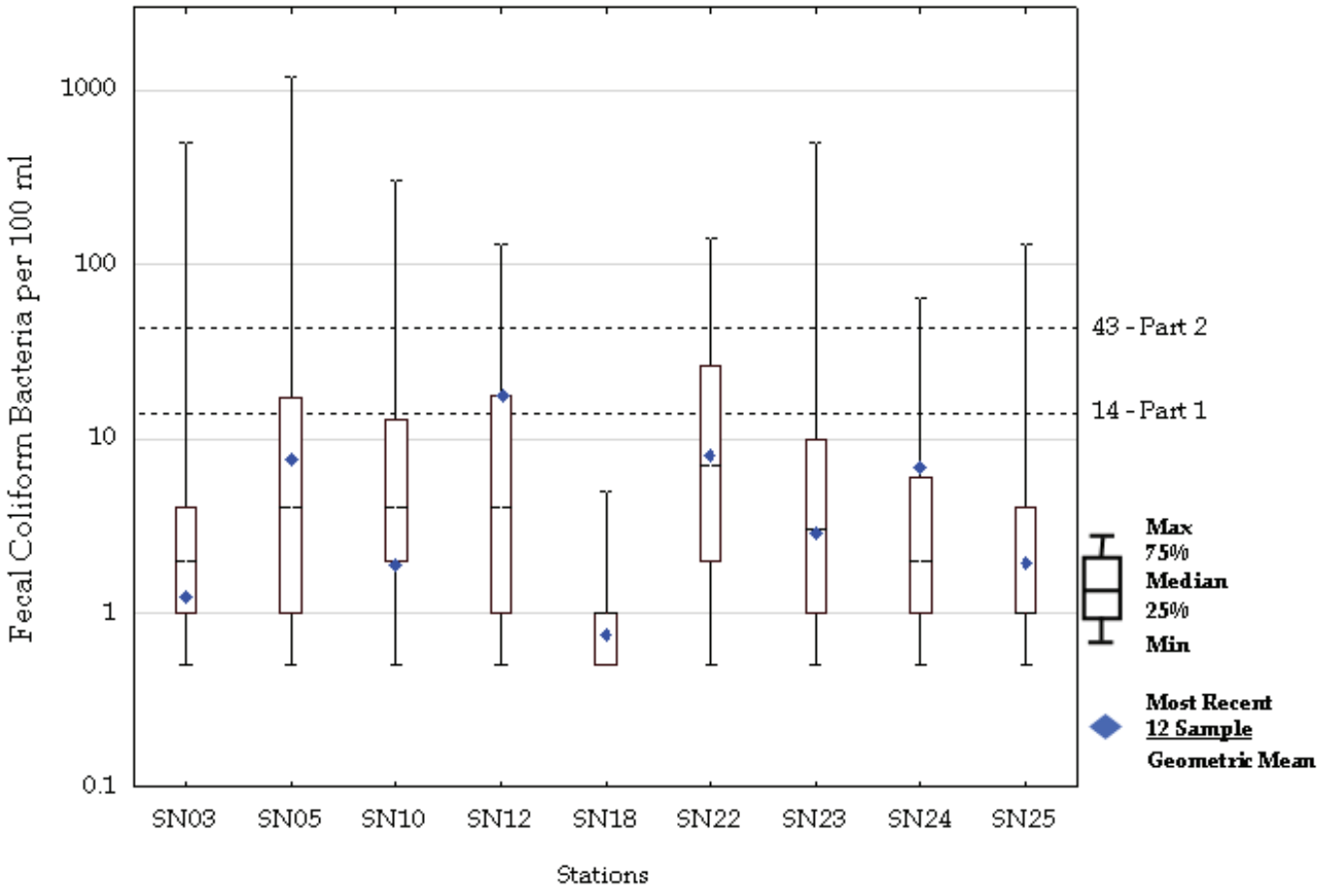
Five of the eight monitoring stations in this portion of the watershed met the state Fecal coliform bacteria standard over the 2012-2013 water year. Three sampling stations (SN05, SN22, SN23) failed part 2 of the standard.

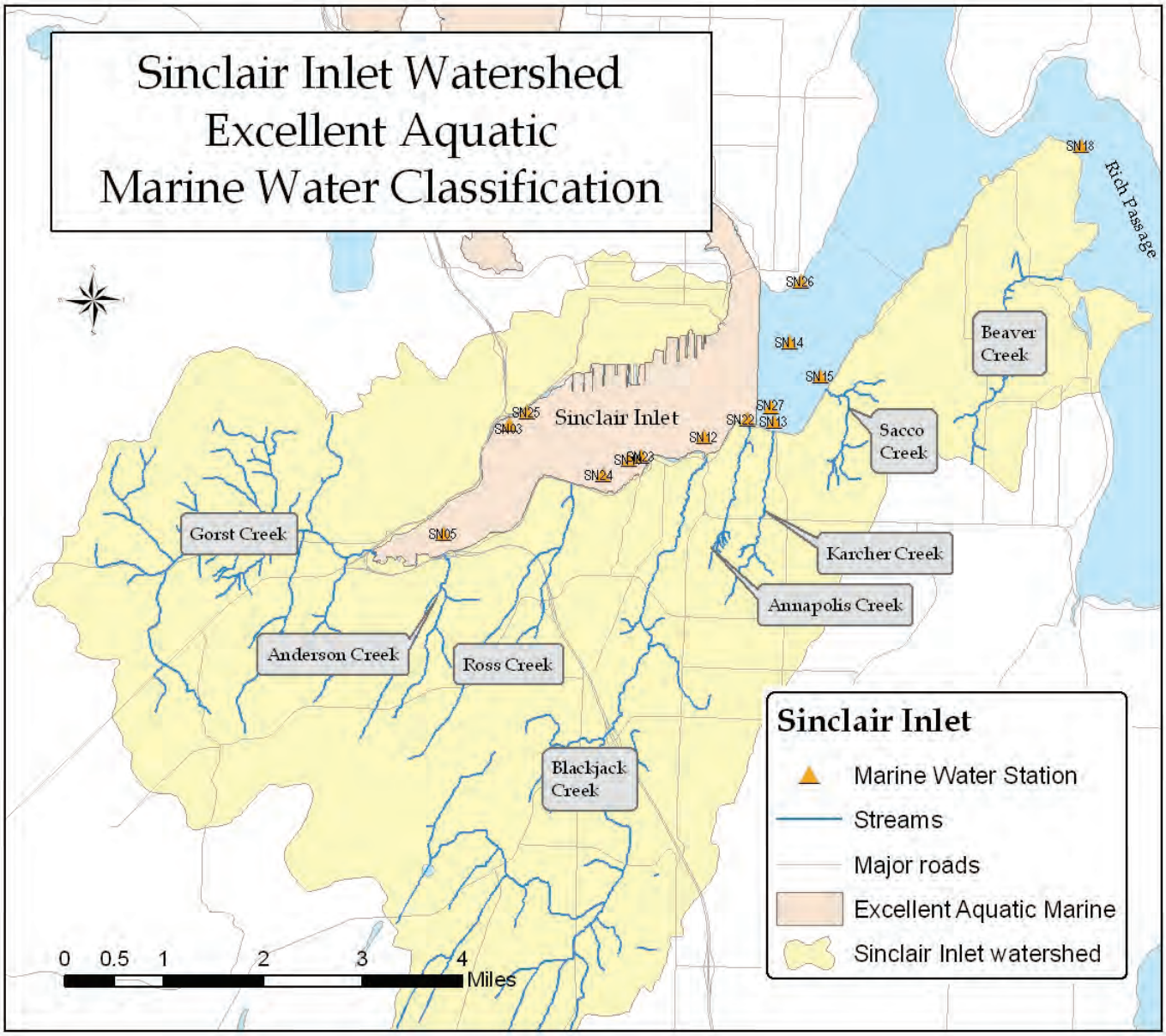
All stations in this water classification exceeded temperature standards during 2013. These often occur during the summer when nearshore waters are more easily influenced by seasonal temperature variations.

MARINE WATER QUALITY TREND OF EXTRAORDINARY AQUATIC, PRIMARY CONTACT

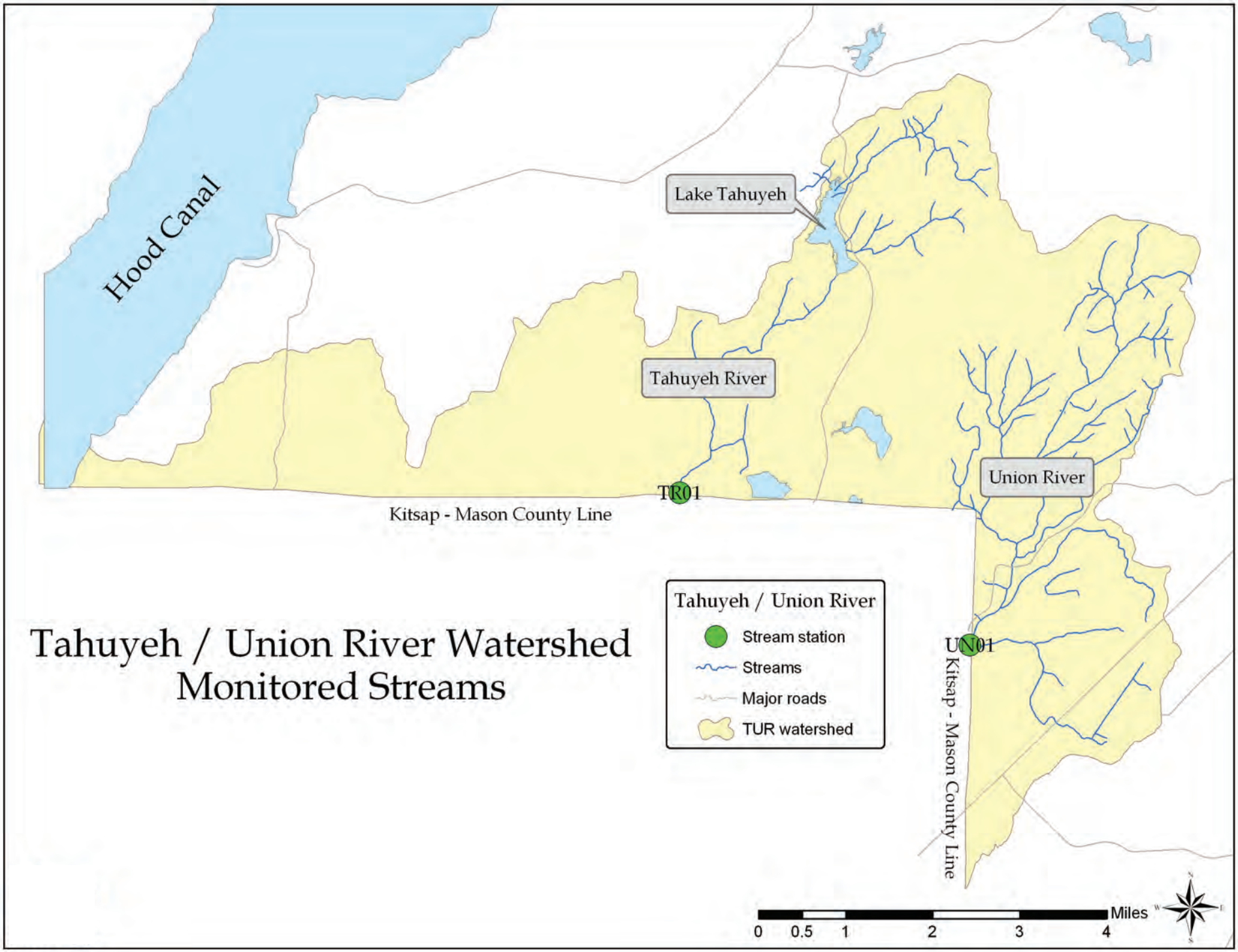
The portion of Sinclair Inlet classified as Excellent Aquatic marine waters currently have a stationary trend. This area is shown on the following page. Two of the nine individual sampling stations (SN03, SN10) showed significant long-term improvement. The remaining stations had a stationary trend, indicating no statistically significant change over time.

SINCLAIR INLET EXCELLENT CLASS MARINE WATER SUMMARY, 1996-2013




Sinclair Inlet Watershed
Excellent Aquatic
Marine Water Classification
Rich Passage
SN18
SN26
SN14
SN15
SN27
SN13
SN22
SN12
SN25
SN03
Sinclair Inlet
SN23
SN24
SN05
Beaver Creek
Sacco Creek
Karcher Creek
Annapolis Creek
Gorst Creek
Anderson Creek
Ross Creek
Blackjack Creek
Sinclair Inlet
Marine Water Station
Streams
Major roads
Excellent Aquatic Marine
Sinclair Inlet watershed
0 0.5 1 2 3 4
Miles

TAHUYEH / UNION RIVER WATERSHED



Tahuyeh / Union River Watershed
Monitored Streams

TAHUYEH / UNION RIVER WATERSHED

The Tahuyeh River / Union River (TUR) watershed, designated as Extraordinary Primary Contact class waters by the State, is located in southwestern Kitsap County. The Health District began water quality monitoring in the watershed on a regular basis in 1996. There are no marine water bodies within the Kitsap County portion of the watershed.

2013 WATER QUALITY SUMMARY

Waterbody	Long term trend	Short term trend	Meets WQ Standard?	2012 Annual FC Bacteria GMV	2013 Annual FC Bacteria GMV	Health Advisory?
Tahuyeh River (TR01)	→	↘	●	6	6	No
Union River (UN01)	→	→	●	23	17	No

WATER QUALITY IMPROVEMENT EFFORTS

HEALTH DISTRICT WATERSHED PIC PROJECTS

There are no current PIC projects in the watershed.

WASHINGTON STATE WATER QUALITY ASSESSMENT: LISTED PARAMETER(S) AND CATEGORIES

Tahuyeh River	pH (2)
Union River	Dissolved Oxygen (5), Fecal coliform bacteria (4A), pH (2)

SHELLFISH CLASSIFICATIONS

Although not located in Kitsap County, Lynch Cove near Belfair is at the mouth of the Union River. This area is classified as Prohibited for commercial shellfish harvest due to elevated levels of fecal coliform bacteria contamination.

Maps of shellfish classifications are available on the state Department of Health website.

INDIVIDUAL STREAM DATA

TAHUYEH RIVER

The headwaters of the Tahuyeh River are located at Gold Mountain and Lake Tahuyeh. The stream flows south into Mason County and discharges into lower Hood Canal. The Health District monitors the Tahuyeh River at the Kitsap - Mason County line. Land use in the Tahuyeh River drainage is a combination of rural residential, agricultural, and commercial timber. The water quality over the last year has been very good and long term statistical analysis shows an **improving trend**.

Monitoring station TR01 upstream of Bear Creek -Dewatto Road.

UNION RIVER

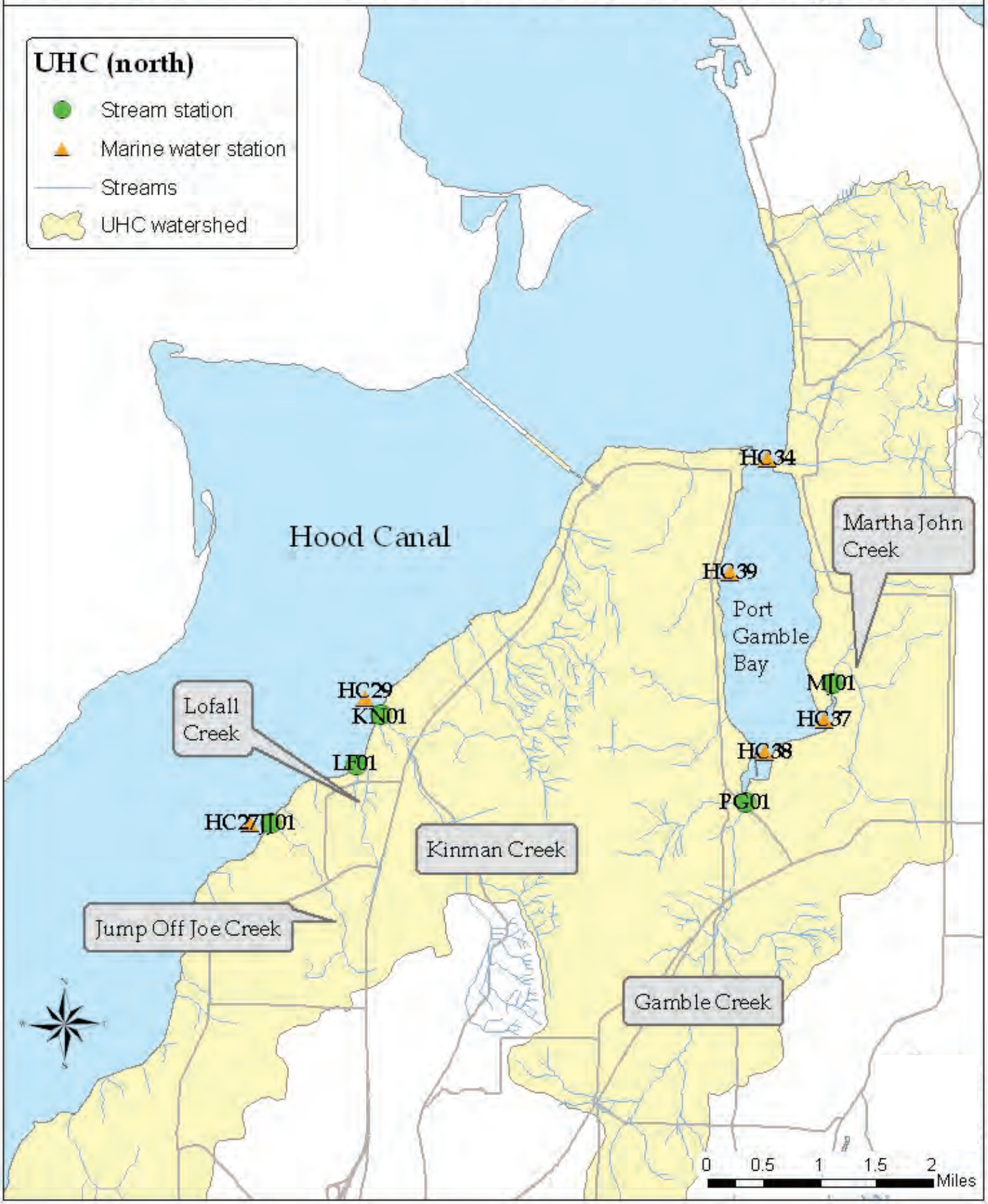
The Union River originates at the Union River Reservoir, the City of Bremerton's primary drinking water source. There are two major tributaries, Hazel Creek and East Fork, that combine for over 13 miles of stream corridor. The river travels southwest to Mason County where it discharges into the Hood Canal at Lynch Cove near Belfair. Land use in the Union River drainage is a combination of protected forest land, rural residential, agricultural, commercial timber, and light industrial. Water quality over the last year has been very good. Statistical analysis for the river shows a **stationary trend.**

Monitoring station UN01 near the entrance bridge to KBH archery on Old Belfair Hwy.

UPPER HOOD CANAL WATERSHED

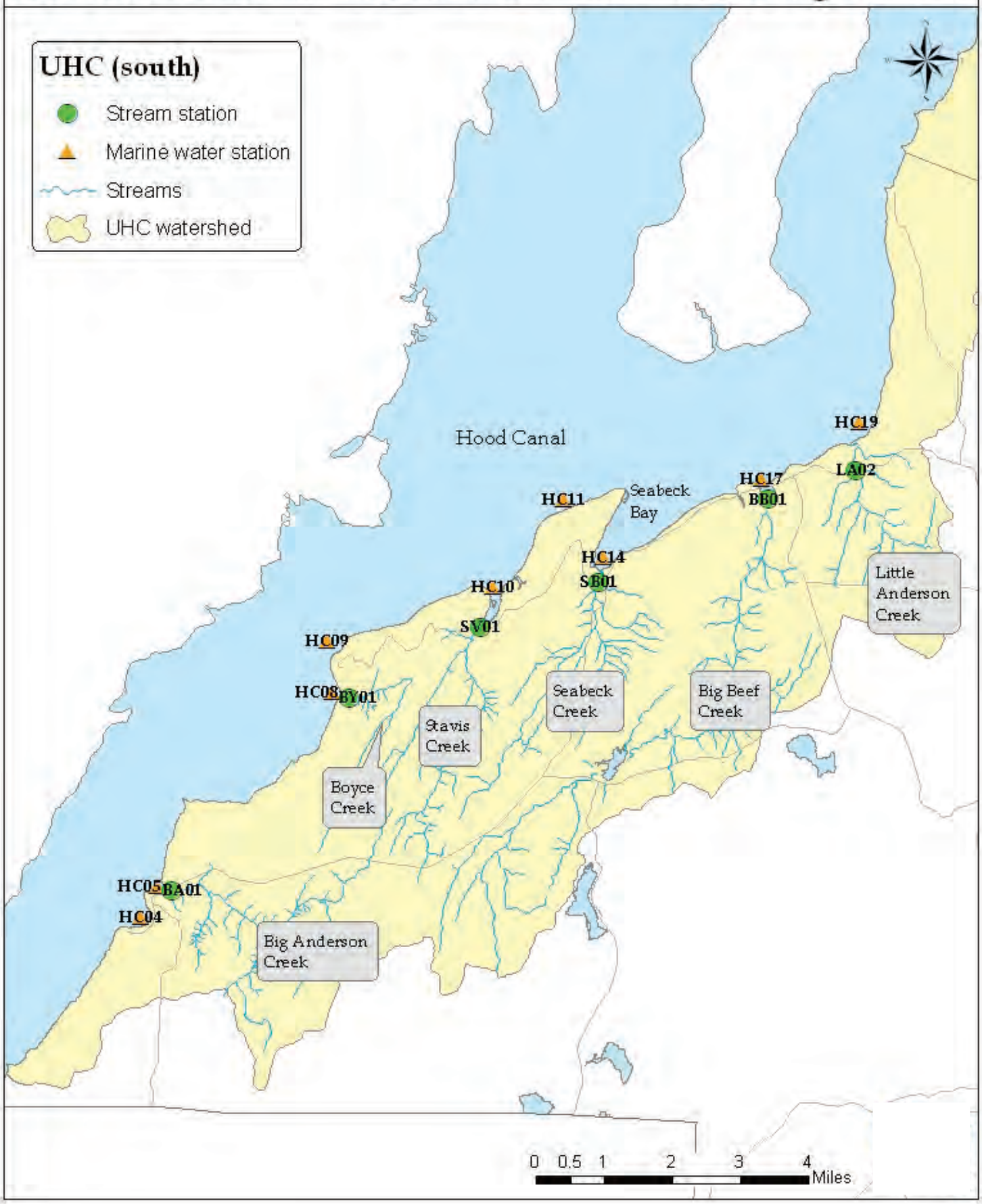
Upper Hood Canal Watershed (north)

Monitored Streams and Marine Water Monitoring Stations



Upper Hood Canal Watershed (south)

Monitored Streams and Marine Water Monitoring Stations



UPPER HOOD CANAL WATERSHED

The Upper Hood Canal (UHC) watershed, most of which is designated as Extraordinary Primary Contact waters by the State, runs the entire length of the western border of Kitsap County, as shown in the watershed maps. The only portions of the watershed designated as Primary Contact waters include Port Gamble Bay, Martha John Creek, and Gamble Creek.

2013 WATER QUALITY SUMMARY

Waterbody	Long term trend	Short term trend	Meets WQ Standard?	2012 Annual FC Bacteria GMV	2013 Annual FC Bacteria GMV	Health Advisory?
Big Anderson Creek (BA01)	→	→		19	10	No
Big Beef Creek (BB01)	→	→		9	8	No
Boyce Creek (BY01)	→	→		43	15	No
Gamble Creek (PG01)	→	→		37	30	No
Jump Off Creek (JJ01)	↘	→		23	22	No
Kinman Creek (KN01)	→	→		50	41	No
Little Anderson Creek (LA02)	→	→		9	10	No
Lofall Creek (LF01)	→	→		242	296	Yes
Martha John Creek (MJ01)	↘	→		28	26	No
Seabeck Creek (SB01)	→	→		7	13	No

Waterbody	Long term trend	Short term trend	Meets WQ Standard?	2012Annual FC Bacteria GMV	2013Annual FC Bacteria GMV	Health Advisory?
Stavis Creek (SV01)	→	→		18	14	No
Vinland Creek (VC01)	→	→		43	90	No
Overall marine water[1]	→		**4 of 4 Stations**			Tempera-ture (3)
Extraordinary marine water[2]	→		**10 of 11 Stations**			Tempera-ture (21)

[1] Port Gamble Bay is classified as Excellent marine water
[2] Extraordinary marine waters include the rest of Hood Canal.

WATER QUALITY IMPROVEMENT EFFORTS

HEALTH DISTRICT WATERSHED PIC PROJECTS

- Pollution identification and correction (PIC) work by the Health District in 2008 and 2009 resulted in decreasing fecal coliform (FC) concentrations in Jump off Creek. (formerly known as Jump Off Joe creek). FC concentrations at the mouth of Jump off Creek met Part 1 and Part 2 of the Washington State Surface Water Quality Standards for fecal coliform. Consequently, DOH removed the shellfish closure zone at the mouth of Jump off Creek in October 2009. The Jump Off Joe Restoration Project was completed in 2011, with 430 properties inspected in the Vinland, Lofall, Kinman and Jump off Joe areas and 28 failing onsite septic systems identified and repaired. The final report of this project may be found at the Health District's website.

- During 2011-2013 Health District staff completed four shoreline surveys including the 27 miles of shoreline between Holly and Bangor naval base as part of the EPA grant funded Shellfish Restoration and Protection project. Property inspections were completed at 88 properties, six failing onsite septic systems were identified with 5 repaired to date.

WASHINGTON STATE WATER QUALITY ASSESSMENT: LISTED PARAMETER(S) AND CATEGORIES

Big Anderson Creek	Fecal coliform bacteria (5), pH (5)
Big Beef Creek	Dissolved Oxygen (5), FC (2), pH (2), Temperature (5)
Boyce Creek	Dissolved Oxygen (5), Fecal coliform bacteria (5)
Gamble Creek	Dissolved Oxygen (5), FC (4B), pH (2), Temperature (5)
Jump Off Joe Creek	Dissolved Oxygen (5), Fecal coliform bacteria (4B)
Kinman Creek	Dissolved Oxygen (5), Fecal coliform bacteria (4B)
Little Anderson Creek	Dissolved Oxygen (2), Fecal coliform bacteria (2)
Lofall Creek	Fecal coliform bacteria (4B)
Martha John Creek	Dissolved Oxygen (5), FC bacteria (4B), Temperature (2)
Seabeck Creek	Dissolved Oxygen (5)
Stavis Creek	Dissolved Oxygen (5), Fecal coliform bacteria (5)
Port Gamble Bay	Dissolved Oxygen (2), FC bacteria (2), Temperature (2)
Hood Canal	Dissolved Oxygen (5), FC bacteria (2), pH (2), Temperature (2)

SHELLFISH CLASSIFICATIONS

The majority of waters south of the Hood Canal Bridge and in Port Gamble Bay are classified as Approved for shellfish harvest. The exceptions are noted below.

- Coon Bay, near Driftwood Keys is classified as Prohibited.
- In the Port Gamble area, there is a permanent closure zone around the sewage treatment plant outfall.
- Harvesting is Prohibited in small closure areas around the Seabeck Marina, and Floral Point (near the north end of Bangor Navy Base).
- In 2004, the state Department of Health also created small shellfish closure zones around the mouths of several creeks due to bacterial pollution, which remain in effect:
    - Kinman Creek (50 feet on either side of the mouth), and
    - Lofall Creek (360 feet on either side of the creek mouth).
- There are also two unclassified areas; one is located at the south end of naval base Bangor, extending about a mile south of King Spit. The other unclassified area is along the shoreline near the community of Holly. Commercial shellfish harvesting is not allowed in these areas.

For information on shellfish classifications in different areas of Hood Canal, see the most recent reports from the state Department of Health.

INDIVIDUAL STREAM DATA

BIG ANDERSON CREEK

Big Anderson Creek watershed is located in the western most part of Kitsap County and discharges near Holly. The creek and its tributaries make up 17 miles of stream corridor within its 3000 acre watershed. Land use in the Big Anderson Creek drainage is primarily commercial timber with some rural residential. Water quality is very good, and is maintaining both a short and long term statistically significant **stationary trend.**

Big Anderson monitoring station BA01 upstream of Holly Road

BIG BEEF CREEK

Big Beef Creek and its tributaries combine for over 15 miles of stream corridor including Lake Symington and Morgan's Marsh. The stream discharges into the eastern shoreline of Hood Canal near Lone Rock. Land use in the Big Beef Creek drainage is a combination of rural residential, agricultural, and commercial timber. The University of Washington (UW) operates a fisheries research and field station near the mouth of Big Beef Creek. Water quality statistical anaylysis shows both short and long term **stationary trends.**

Big Beef Creek monitoring station BB01 with University of Washington facility in background

BOYCE CREEK

Boyce Creek is a small stream of approximately 2.5 miles in length. Its headwaters are located in wetlands near Seabeck Highway. The stream discharges along the eastern shore of Hood Canal into Guillemot Cove. Land use in the Boyce Creek drainage is a combination of rural residential, agricultural, and commercial timber. Water quality in Boyce creek is very good, and shows both short and long term statistically significant **stationary trends**.

Boyce Creek BY01 monitoring stations

GAMBLE CREEK

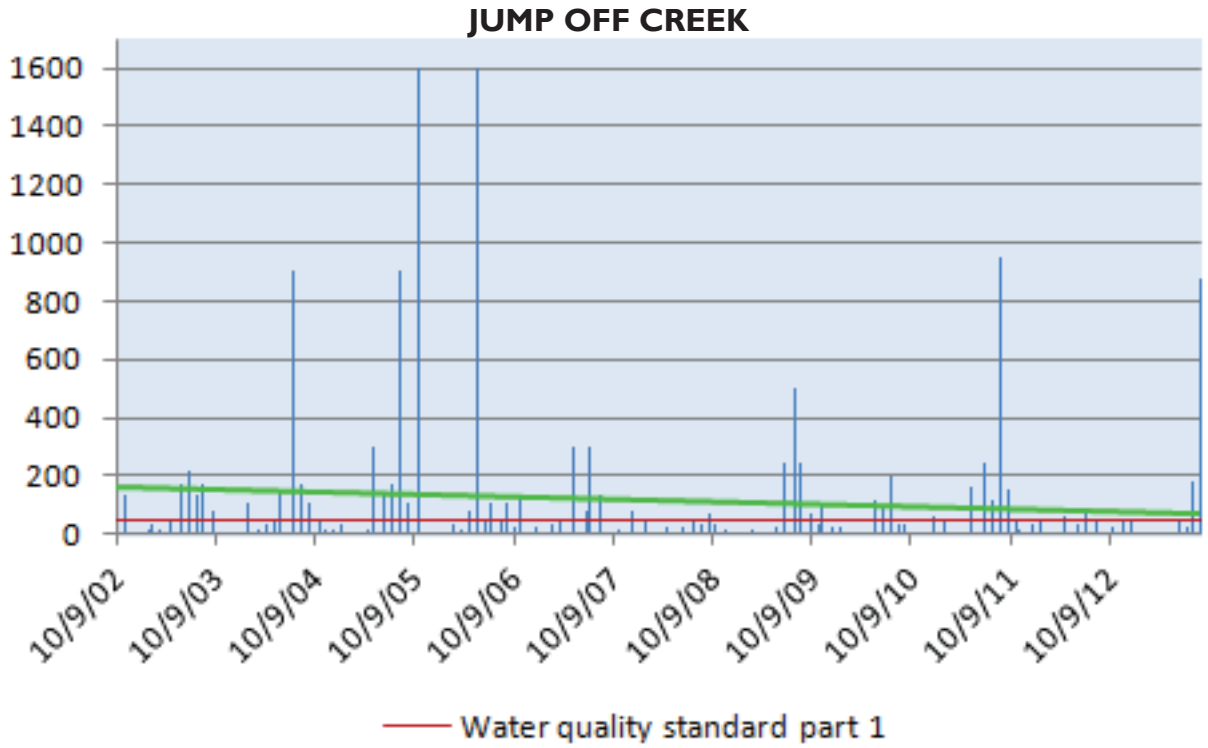
Gamble Creek is one of two streams in the Upper Hood Canal Watershed designated as Primary Contact waters by the state. (The rest of the watershed is classified as Extraordinary Primary Contact.) The stream's headwaters are located northeast of Poulsbo, due east of Stottlemeyer Road. Gamble Creek's main stem and tributaries consist of almost four miles of stream corridor, which discharge into the southern end of Gamble Bay. Land use in the Gamble Creek drainage is rural residential and agricultural. Recent water quality has been good, and statistical analysis for the creek shows both short and long term **stationary trend**s.

Gamble Creek PG01 monitoring stations

JUMP OFF CREEK

The headwaters of Jump Off Creek (formerly known as Jump Off Joe) are located near the Pioneer Hill Industrial Park. From there, it flows north approximately one mile to Hood Canal, near the Edgewater Community area. Land use in the Jump Off Creek drainage is residential with some commercial/light industrial. The Washington State Department of Health lifted a shellfish closure around the mouth of Jump Off Creek in 2009 . Current water quality is very good, and statistical analysis for the creek shows an **improving trend** as shown by the green line in the graph below.

Jump Off Creek as it flows into
Hood Canal downstream of monitoring station JJ01



KINMAN CREEK

Kinman Creek flows approximately three miles in a northerly direction from its headwaters on Big Valley Road, to its discharge into Hood Canal north of Kitsap Memorial State Park. Land use in the Kinman Creek drainage is rural residential and agricultural. Water quality has been good over the last year, and statistical analysis for the creek shows both short and long term **stationary trends.**

Kinman Creek monitoring station KN01

LITTLE ANDERSON CREEK

Little Anderson Creek and its tributaries originate near Newberry Hill Road and combine for over three miles of stream corridor. The stream discharges into the east shore of central Hood Canal near the area known as Lone Rock. Land use in the Little Anderson Creek drainage is a combination of rural residential, agricultural, and commercial timber. Current water quality is very good, and statistical analysis for the creek shows both short and long term **stationary trends.**

Little Anderson Creek upstream of monitoring station LA02 near Anderson Hill Road

LOFALL CREEK

Lofall Creek is a small stream that starts near the intersection of Highway 3 and Lofall Road and travels in a northerly direction for about a mile. The stream discharges through a long culvert into Hood Canal just north of the Lofall Community dock. Land use in the creek drainage is rural residential and agricultural. Water quality is very poor, and a public health advisory remains in effect. Health District staff are continuing to investigate the drainage to identify and correct sources of bacterial water pollution. Statistical analysis shows both short and long term **stationary trends.**

Lofall Creek monitoring station LF01
at the creek's discharge into Hood Canal

MARTHA JOHN CREEK

Martha John Creek is one of two streams in the Upper Hood Canal Watershed designated as Primary Contact waters by the state. The rest of the watershed is classified as Extraordinary Primary Contact. Martha John's primary headwaters are located in Miller Lake and wetlands due south of NE 288th Street. It travels approximately two miles to the north where it discharges into Cedar Cove, in the southeast corner of Port Gamble Bay. Land use in the Martha John Creek drainage is rural residential, agricultural and commercial timber. Recent water quality has been very good, and statistical analysis for the creek shows a short term **improving trend.**

Martha John Creek downstream
of monitoring station MJ01

SEABECK CREEK

Seabeck Creek and its tributaries combine for over six miles of stream corridor. The headwaters are located between Hite Center Road and Larson Lane. The stream flows northwest and discharges into Seabeck Bay in central Hood Canal. Land use in the Seabeck Creek drainage is rural residential, agricultural and commercial timber. Current water quality is very good and statistical analysis shows both short and long term **stationary trends.**

Seabeck Creek monitoring station SB01 upstream of Miami Beach Road

STAVIS CREEK

Stavis Creek originates north of the Seabeck-Holly Road, at Albert Pfundt Road, and flows approximately four miles to its discharge point along the eastern shore of central Hood Canal. Land use in the Stavis Creek drainage is rural residential, agricultural and commercial timber. Recent water quality has been very good, and statistical analysis for the creek shows both short and long term **stationary trends.**

Below Stavis Creek monitoring station SV01

VINLAND CREEK

Vinland Creek is a small stream located just north of the Bangor submarine base on Hood Canal. It has two tributaries, shown in the adjacent photo, which combine for a total of 0.75 miles of stream corridor. Land use in the area is rural residential, with some forest land to the south. Water quality has declined during the past year and is poor. Health District staff are conducting investigative work to identify and correct bacterial water pollution sources. Statistical analysis indicates a long term **stationary trend.**

MARINE WATER MONITORING DATA SUMMARY

Water quality standards for marine waters are based on classifications for recreational uses and aquatic life as defined by Washington State. There are two marine water quality classifications; "Excellent aquatic, primary contact" and "Extraordinary aquatic, primary contact." The marine water quality standards for both classifications are found in the Introduction of this report.

In the Hood Canal watershed Port Gamble Bay is classified as Excellent aquatic primary contact, and the rest of the Hood Canal watershed is listed as Extraordinary. The two areas are discussed separately in the following section.

The Health District has a cooperative marine water sampling agreement with the Washington State Department of Health (DOH). DOH collects the Health District's marine water samples in Hood Canal, while the Health District collects samples for DOH in other watersheds. The data referred to in this chapter was collected by DOH staff. Please see the watershed map at the beginning of this chapter for locations of specific marine water monitoring stations.

TREND ANALYSIS FOR EXTRAORDINARY CLASS MARINE WATER MONITORING STATIONS

- One station, HC19 at the mouth of Little Anderson Creek, showed a worsening long term trend.
- Remaining stations had both short and long term **stationary trends.**

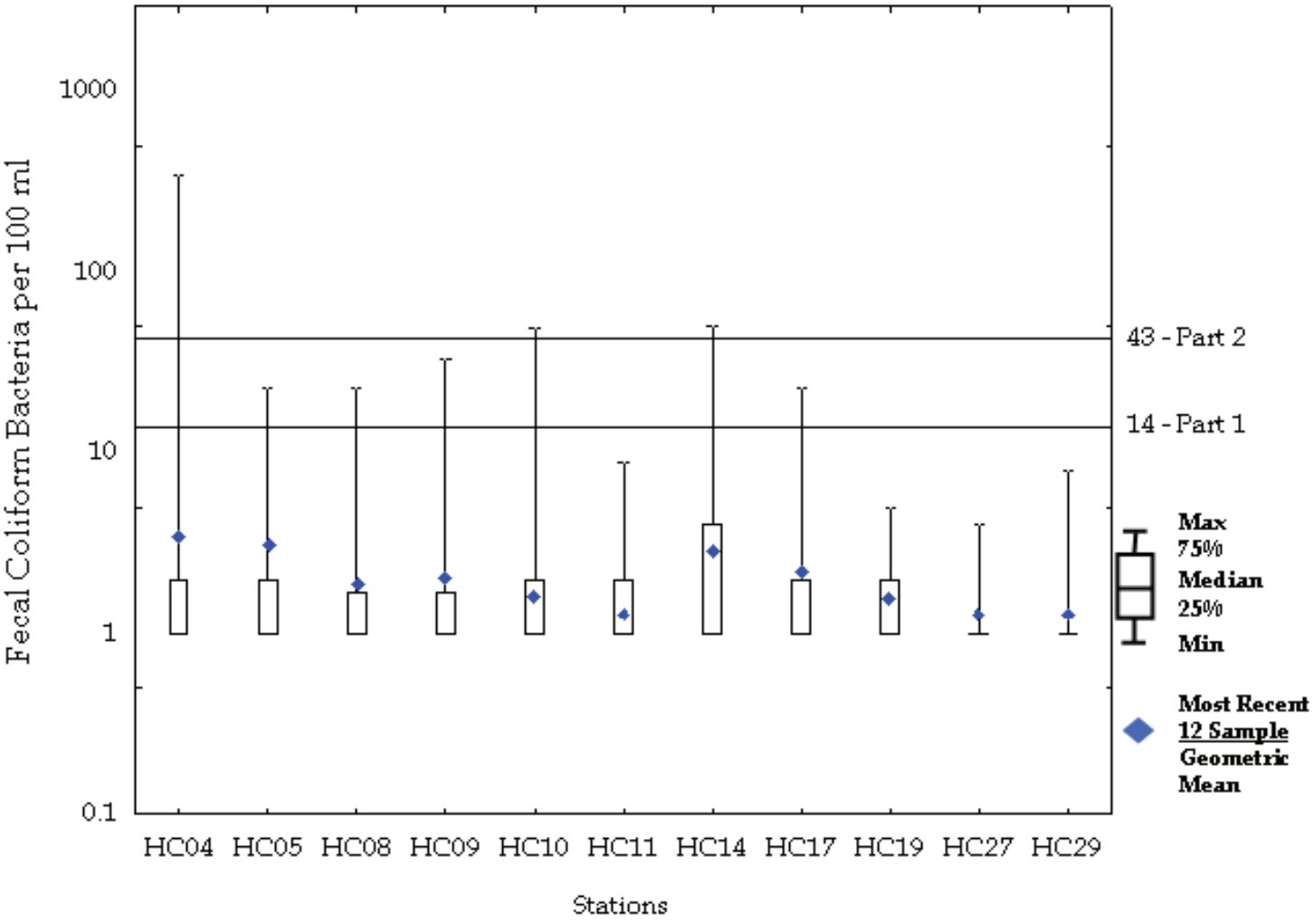
MARINE WATER QUALITY STANDARDS COMPLIANCE FOR EXTRAORDINARY CLASS STATIONS

All stations in this area met the state bacterial standards during the 2012-2013 water year, with the exception of HC04, located in Holly cove which failed Part 2. Temperature exceedences were recorded at all stations during the summer months.

OVERALL MARINE WATER TREND

Upper Hood Canal Extraordinary marine waters as a whole show a **stationary trend.**

UPPER HOOD CANAL EXTRAORDINARY MARINE WATER SUMMARY, 1996-2013



TREND ANALYSIS FOR EXCELLENT AQUATIC CLASS MARINE WATER MONITORING STATIONS

- All stations showed a stationary trend, indicating there were no statistically significant changes over time.

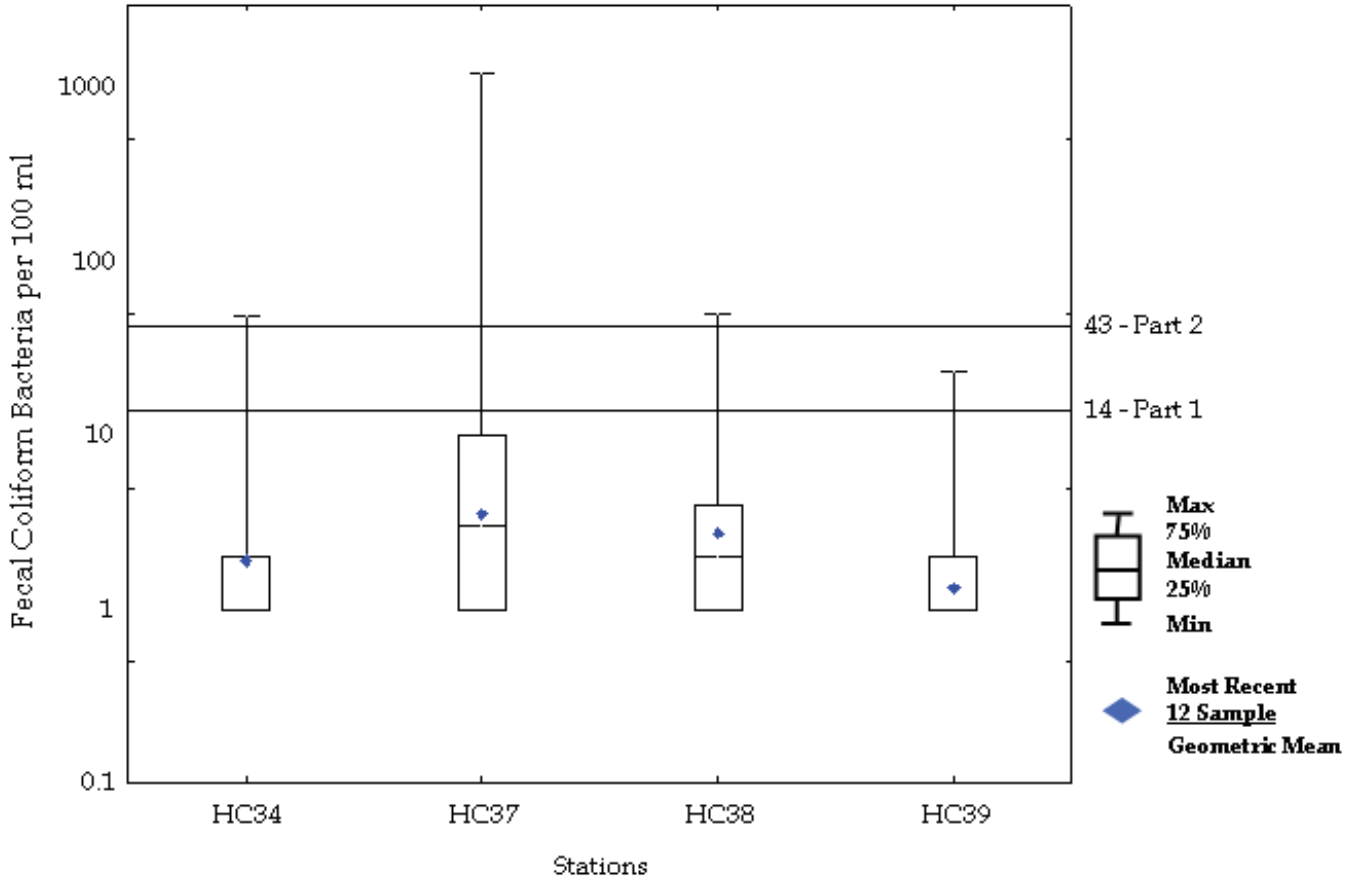
MARINE WATER QUALITY STANDARDS COMPLIANCE FOR EXCELLENT AQUATIC CLASS STATIONS

All stations in Port Gamble Bay met the state bacterial standards during the 2012-2013 water year. There were temperature exceedances at three of the four stations during the summer months

OVERALL MARINE WATER TREND

Upper Hood Canal marine waters at all four of the sampling stations showed a stationary long-term trend.

UPPER HOOD CANAL EXCELLENT AQUATIC MARINE WATER SUMMARY, 1996-2013



LAKE MONITORING PROGRAMS

LAKE MONITORING PROGRAMS

BACKGROUND

In 2013, the Kitsap Public Health District collected water samples at 22 swimming beaches or other public access areas on 17 lakes in Kitsap County. Most of the public swimming beaches are located in public parks. During the summer, these parks and swimming beaches are visited by thousands of people. The goal of the Lake Monitoring Program is to protect the health and safety of recreational swimmers, and to promote stewardship of lake resources through public involvement and education.

With funding provided by the Kitsap County Surface and Storm Water Management Program, 600 lake water samples were collected from swimming beaches and public fishing access areas from May through September. These samples were analyzed for the presence of Escherichia coli (E. coli) bacteria. This type of bacteria is used as an indicator for the presence of human and/or animal fecal material in fresh water. Fecal material may contain bacteria and viruses which can make people sick. This is explained in greater detail in the methodology section of this report.

Long Lake County Park

Swimming beaches and/or public fishing access areas were monitored monthly at the following lakes: Buck, Carney, Mission, Panther, Square, Symington, Tahuya, Tiger, Wicks, and Wye Lake. Due to a history of more frequent water quality problems and higher swimmer usage, weekly monitoring was conducted at Horseshoe, Island, Wildcat, Kitsap, and Long Lake. Samples were also collected from swimming beaches at private camp facilities on Lake Flora and Lake Helena. In addition, the Health District responded to reports of algae blooms.

MONITORING OBJECTIVES

The Health District's lake monitoring efforts include two different components: swimming beach monitoring and nutrient monitoring.

SWIMMING BEACH MONITORING

The objectives of the swimming beach monitoring program are different from the Health District's other water quality monitoring activities. Our swimming beach monitoring is intended to determine the potential health risk of swimming at a given location at a certain point in time. The results of our lake monitoring are not intended to establish water quality trends or identify specific pollution sources. The objectives of the swimming beach monitoring program include:

- Monitor public swimming beaches for water quality related public health indicators.
- Track and respond to reports of swimmer's itch and potentially toxic cyanobacteria blooms.
- Track and respond to reports of waterborne illness.
- Coordinate with swimming beach owners/operators regarding public health issues.
- Inform and educate swimming beach owners/operators and the public about public health and safety issues at swimming beaches.

NUTRIENT MONITORING

Since lakes are water-filled depressions in the earth's crust, they act as traps for organic and inorganic materials moved by water and wind. The ultimate fate of a lake basin is to become filled with sediment and eventually revert back to terrestrial vegetation - a process known as lake "succession". Lake succession consists of the following steps: (1) creation of the lake basin and filling with water (e.g., through glacial action); (2) aging, or eutrophication, of the lake; (3) transformation of the lake into a wetland or marsh; and (4) filling of the wetland or marsh with sediment and growth of terrestrial vegetation (Dion, N.P., 1978).

Aging, or "eutrophication," of a lake is a natural process driven by sedimentation in the lake and nutrient enrichment from numerous sources. As nutrients collect in a lake, the production of plant material increases. The primary stages of lake eutrophication are:

Oligotrophic – Very low nutrients; characterized by very clear water, with very few aquatic plants and fish.

Mesotrophic – Moderate amounts of nutrients; characterized by mostly clear water, with some aquatic plants and fish.

Eutrophic – High levels of nutrients; characterized by poor visibility in the water column, with many aquatic plants and fish. Algae blooms can be a problem in these lakes.

Classifications of oligo-mesotrophic and meso-eutrophic can be used for lakes which are judged to be in between the three basic stages (Rector & Hallock, 1994). Cultural eutrophication is the acceleration of the lake aging process by human activities. Some human activities which can accelerate eutrophication include failing on-site sewage systems, leaking sewer lines, improper use of fertilizers, sedimentation caused by uncontrolled runoff from development activities, and improper agricultural waste management practices on farms in the lake's drainage area.

Eutrophic conditions are characterized by shallower waters and invasion of the lake by shoreline vegetation, replacement of green algae and diatoms with blue-green algae blooms, seasonal deficiencies of dissolved oxygen, and replacement of game fish by other species such as carp, suckers and catfish. These conditions often diminish the lake's ability to support beneficial uses, such as swimming and fishing.

To protect or restore beneficial uses to a lake, mesotrophic, meso-eutrophic and eutrophic lakes generally require some type of intervention to correct sedimentation and nutrient enrichment problems. Therefore, the Health District monitors nutrients levels in some lakes to determine their current "trophic" status.

In 2013, the Health District conducted trophic monitoring at Island Lake, Kitsap Lake, and Wildcat Lake.

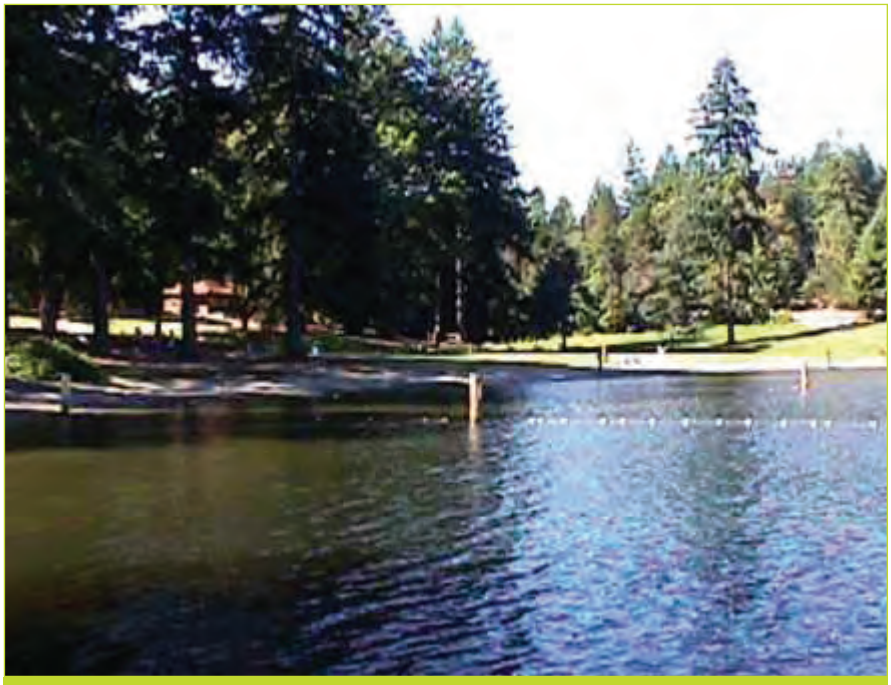
METHODOLOGY

This section includes a discussion of the methodology used in the Health District's swimming beach monitoring, and a brief discussion of our nutrient monitoring efforts.

SWIMMING BEACHES

Swimming beaches are monitored according to procedures outlined in the Health District's "Swimming Beach Monitoring Plan." The key to the program is regular monitoring for the concentration of E.coli bacteria – an indicator of the presence of viruses and pathogens that can make people sick.

Lake swimming beaches are monitored either monthly or weekly, depending on how many people tend to swim at a given location. If more people swim at a certain beach, the Health District sampled it more frequently. Sampling frequencies for each beach are described in the individual lake summaries.



Long Lake County Park

The U.S. Environmental Protection Agency (EPA) recommends that E.coli be used as the water quality indicator at freshwater swimming beaches. (Ambient Water Quality Criteria for Bacteria - 1986, EPA-440/5-84-002, 1986). E. coli is preferred over fecal coliform bacteria because E. coli concentrations demonstrate the highest correlation to cases of human gastrointestinal illness. E. coli is also superior to fecal coliform because it is more specific to fecal sources. For example, it does not enumerate Klebsiellae bacteria, a possible source of error in the fecal coliform analysis.

Because of the EPA recommendation, the Health District uses E. coli bacteria as an indicator of human health risk in our lake swimming beach monitoring program. Samples are collected from a minimum of three locations within each public swimming beach area, and when applicable from two locations in public fishing accesses or other non-swimming areas. A geometric mean, or "geomean", of the bacteria concentration is calculated from the sample results.

When the samples collected during a sampling event are high, and the geomean exceeds 126 bacteria colonies per 100 ml, the area is posted with warning signs. A confirmation sampling event is conducted the next business day to reassess the bacteria concentrations in that area. If, after the confirmation sampling event, the geomean still exceeds 126 organisms/100ml then the Health District closes the beach area. Closed beaches are monitored until the geomean is less than 126 organisms/100ml for two consecutive sampling events. If most of the results from a sampling event are low, but one sample exceeds 406 organisms/100ml, warning signs are not posted immediately. Instead a confirmation sampling event is conducted the next day.

NUTRIENT OR "TROPHIC" MONITORING

Trophic state monitoring generally involves monitoring lakes for nutrients (nitrogen and phosphorous), algae, and aquatic plants. Algae concentration is evaluated through estimates of transparency obtained from secchi disk measurements and analysis of lake water for the presence and concentration of chlorophyll A. Additionally, a physical survey of the type and abundance of aquatic weeds in the lake is helpful for estimating its trophic state. For more detailed information on our trophic monitoring, please see the Health District's Lake Trophic Assessment Monitoring Plan.

In addition to monitoring water quality, the Health District may survey public swimming beaches for safety hazards and forward recommendations to the organization that manages the area. The Health District also responds to blue-green algae blooms, complaints of swimming-related water-borne illness, and swimmer's itch. Table 1, on the following page, summarizes the closure criteria used by the Health District when evaluating risks from bacteria concentrations, cyanobacteria, or swimmer's itch.

TABLE 1
SUMMARY OF LAKE ACTION LEVELS AND CLOSURE CRITERIA
LAKES MONITORING PROGRAM 2013

Parameter	Action Level	Response/Action
***E. coli* Bacteria**	Single sample ≥406	Resample beach on next work day.
	Event geomean ≥126	Post "Unsafe for Swimming" warning signs, resample next work day.
	Resample event geomean <126	Remove "Unsafe for Swimming" warning signs, no formal closure advisory.
	Resample event geomean still ≥126	Close beach, issue press release, revise hotline message. Resample at least weekly until reopened.
	After closure, event geomean <126 for 2 consecutive events.	Reopen beach, change/remove warning signs, issue press release, revise hotline message.
Blue-green Algae or Cyanobacteria	Significant bloom of potentially toxic species observed in lake water.	Post "Potentially Toxic Algae" advisory signs. Collect algae samples to confirm species and screen for weekly toxicity, update hotline.
	Toxin present, Anatoxin-a greater than than 1 ug/ml or Mycrocystin greater than 6 ug/ml.	Post "Toxic Algae" warning signs, issue press release, revise hotline message.
	Toxin present and animal deaths or confirmed human illness report	Post "DANGER Toxic Algae" warning signs, close lake to swimming, fishing, and boating, issue press release, revise hotline message.
	Visible algae bloom dissipates potentially toxic species absent and/or toxin samples negative.	Reopen beach, change/remove warning signs, issue press release, revise hotline message.
Swimmers Itch	Ongoing	Issue seasonal swimmer's itch advisory for all lakes. Ensure that all lake beaches are posted with warning signs.
	Multiple reports from the same beach or lake	Post additional signage or (if the situation is severe) close the beach, address source(s), if possible, reopen when source(s) have been corrected and if E.coli sample results are within standard.
Safety Hazards	Safety hazard present that is an immediate threat to life or health	Notify the owner/operator of the hazard and close the beach until the safety hazard is corrected.
	Safety hazard present that is not an immediate threat to life or health	Notify the owner/operator verbally and in writing, follow-up inspections until hazard is corrected.
Waterborne Illness	Receive 2 or more illness reports from same beach or lake on same day	Evaluate for beach closure, issue press release, revise hotline message. Coordinate with Communicable Disease Clinic and DOH

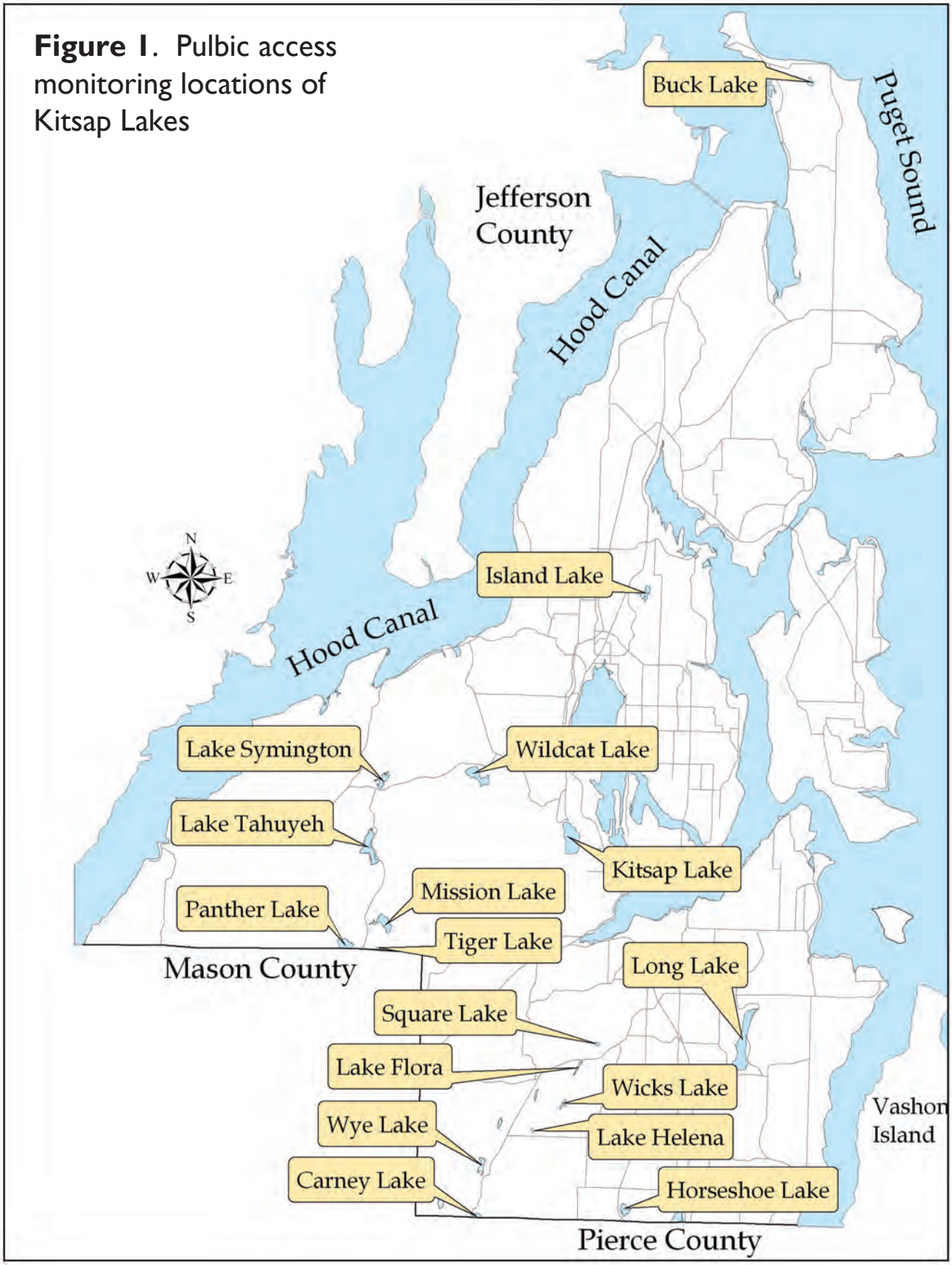


Figure 1. Pulbic access monitoring locations of Kitsap Lakes

SUMMARY OF PUBLIC HEALTH ADVISORIES

The Health District's lake monitoring activities resulted in the following public health advisories in 2013:

Lake	Swimming Beach	Health Advisory	Reason for Advisory	Duration of Advisory
Buck Lake	County Park			
Carney Lake	Public Fishing Access			
Lake Flora	Pilgrim Firs			
Lake Helena	Camp Niwana			
Horseshoe Lake	County Park			
Horseshoe Lake	Miracle Ranch			
Island Lake	County Park			
Island Lake	Crista Camp			
Kitsap Lake	Kitsap Lake Park		Potentially Toxic Algae Bloom	8/28/2013 through 12/15/2013
Long Lake	County Park		Potentially Toxic Algae Bloom	11/13/2013 through 12/15/2013
Mission Lake	Public Fishing Access			

Lake	Swimming Beach	Health Advisory	Reason for Advisory	Duration of Advisory
Panther Lake	Public Fishing Access			
Square Lake	State Park			
Lake Symington	Spillway Park			
Lake Symington	Division 5 Park			
Lake Tahuya	Community Park			
Tiger Lake	Public Fishing Access			
Wicks Lake	County Park			
Wildcat Lake	County Park			
Wildcat Lake	Lutherhaven North			
Wildcat Lake	Lutherhaven South			
Wye Lake	Shirey Park			

INDIVIDUAL LAKE SUMMARIES

BUCK LAKE

Buck Lake is located at the northern tip of the Kitsap Peninsula, near Hansville, in the Foulweather Bluff/ Appletree Cove watershed. The Health District monitored the public swimming beach at Buck Lake County Park monthly between May and September. Monitoring station locations are shown in Figure 2 and sample results are summarized in Table 2.

Water quality at Buck Lake County Park met the E. coli standard throughout the 2013 season. No complaints of swimmers itch from Buck Lake were documented in 2013.

Nutrient Summary

The most recent data for this lake, combined with recent observations, indicates the trophic state of Buck Lake is "meso-eutrophic." This classification is characterized by mostly clear water with moderately high plant and animal production.

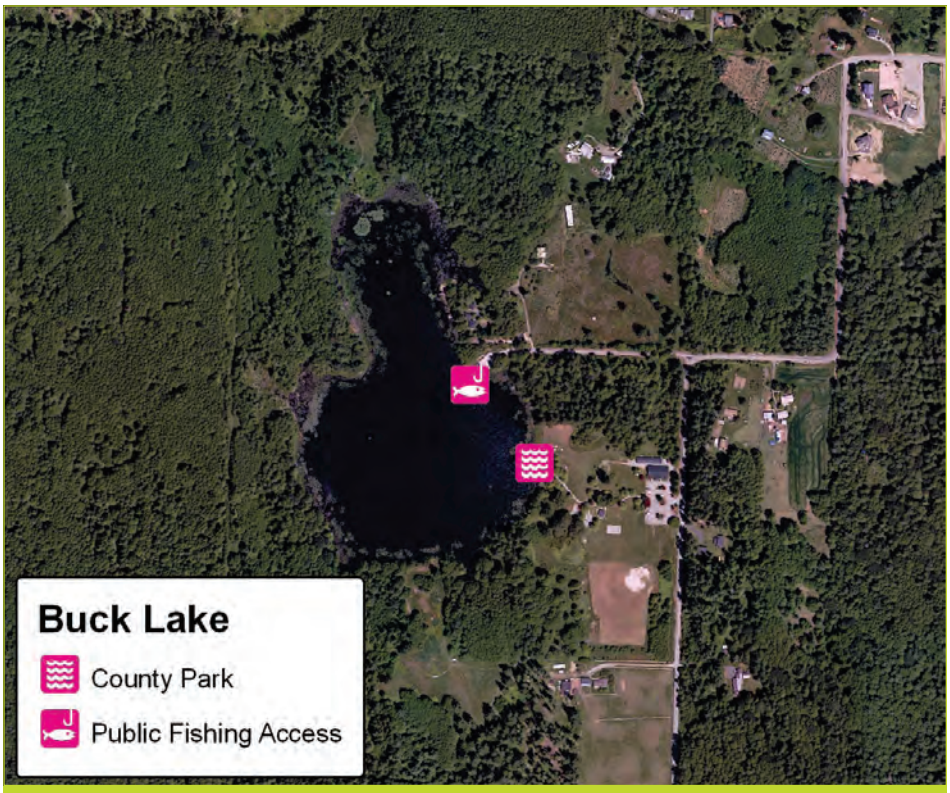


Figure 2. Buck Lake sampling station locations.

TABLE 2 - *E. COLI* BACTERIA RESULTS SUMMARY - BUCK LAKE, 2013

Sampling Location	Number of Samples	*E. coli* Range	*E. coli* Geomean [1]	Swimming Beach Health Advisories [2]
Buck Lake County Park	9	2 - 75	16	0

[1] Reported as a geometric mean for the entire sampling season.

[2] The Health District issues health advisories when there is an increased risk of illness from bacteria or potentially toxic algae blooms.

ISLAND LAKE

Island Lake is located within the Dyes Inlet watershed in central Kitsap County. The Health District monitored two stations on Island Lake: the swimming beaches at Island Lake County Park and Crista Camp (a private camp). The beaches at Island Lake were monitored weekly between May and September. Monitoring station locations are shown in Figure 3 with results summarized in Table 3.

The beaches at Island Lake met the E. coli standard throughout the 2013 season.

No complaints of swimmers itch were reported from Island Lake in 2013. The organism that causes swimmer's itch has been prevalent at Island Lake's swimming beaches in past years.

Nutrient Summary

The most recent data for this lake, combined with recent observations, indicates the trophic state of Island Lake is "mesotrophic." This indicates a moderate amount of nutrients; characterized by mostly clear water, with some aquatic plants and fish.

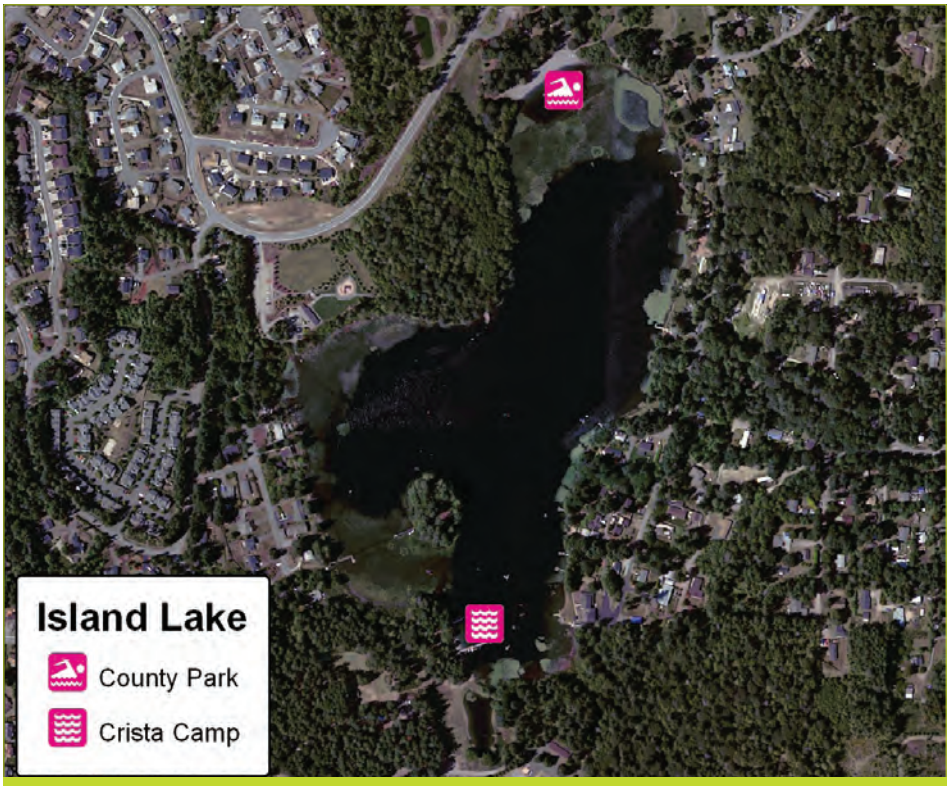


Figure 3. Island Lake sampling station locations.

TABLE 3 - *E. COLI* BACTERIA RESULTS SUMMARY - ISLAND LAKE 2013

Sampling Location	Number of Samples	*E. coli* Range	*E. coli* Geomean [1]	Swimming Beach Health Advisories [2]
Island Lake County Park	84	<2 – 2419.6	22	0
Crista Camp	45	< 2 – 82	4	0

[1] Reported as a geometric mean for the entire sampling season.

[2] The Health District issues health advisories when there is an increased risk of illness from bacteria or potentially toxic algae blooms. .

ISLAND LAKE

Island Lake is located within the Dyes Inlet watershed in central Kitsap County. The Health District monitored two stations on Island Lake: the swimming beaches at Island Lake County Park and Crista Camp (a private camp). The beaches at Island Lake were monitored weekly between May and September. Monitoring station locations are shown Figure 4 and results summarized in Table 4.

The beaches at Island Lake met the E. coli standard throughout the 2013 season.

No complaints of swimmers itch were reported from Island Lake in 2013. The organism that causes swimmer's itch has been prevalent at Island Lake's swimming beaches in past years.

Nutrient Summary

The most recent data for this lake, combined with recent observations, indicates the trophic state of Island Lake is "mesotrophic." This indicates a moderate amount of nutrients; characterized by mostly clear water, with some aquatic plants and fish. .

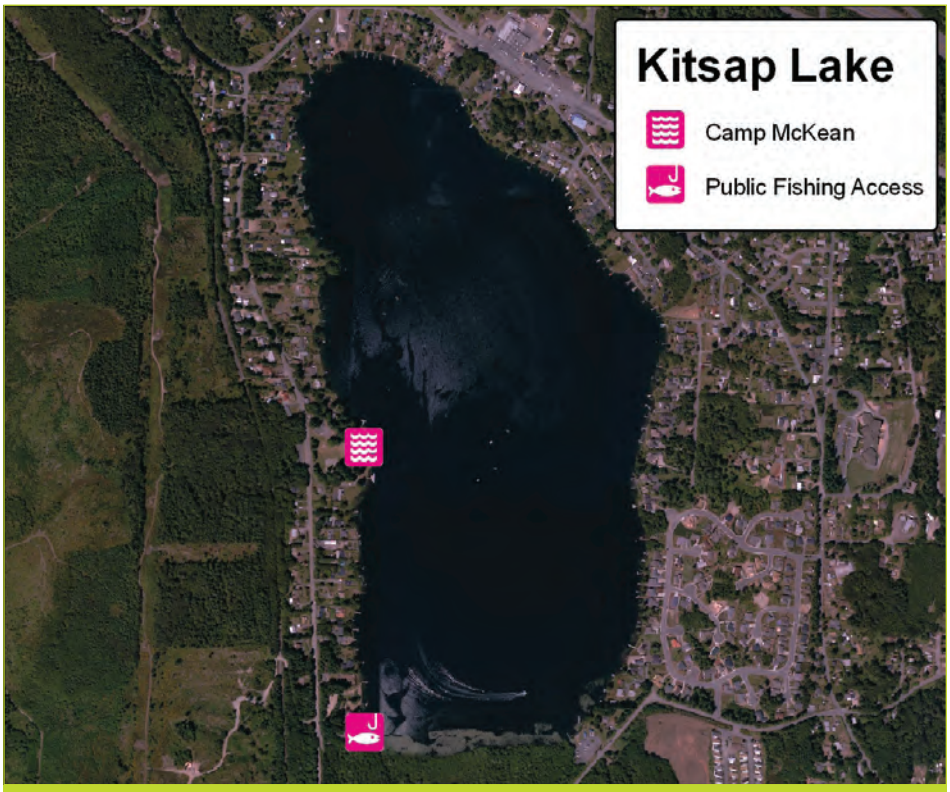


Figure 4. Kitsap Lake sampling station locations. (The Camp McKean sampling site was not sampled this year due to the camp being closed.)

TABLE 4 - *E. COLI* BACTERIA RESULTS SUMMARY - KITSAP LAKE, 2013

Sampling Location	Number of Samples	*E. coli* Range	*E. coli* Geomean [1]	Swimming Beach Health Advisories [2]
Kitsap Lake Park	28	< 2 – 63.1	2	Potentially toxic harmful algae bloom from 8/28/13 to 12/15/13

[1] Reported as a geometric mean for the entire sampling season.

[2] The Health District issues health advisories when there is an increased risk of illness from bacteria or potentially toxic algae blooms.

IWILDCAT LAKE

Wildcat Lake is located within the Dyes Inlet watershed in central Kitsap County. The Health District monitored three areas on Wildcat Lake; the public swimming beach at Wildcat Lake County Park, and two beaches at Lutherhaven (a private camp). Each site was sampled weekly between May and September. Monitoring stations are shown in Figure 5 and results are summarized in Table 5.

Water quality at the county park and the Lutherhaven swimming beaches met the E. coli standard during 2013.

No reports of swimmers itch from Wildcat Lake were documented in 2013.

Nutrient Summary

The most recent data for this lake, combined with recent observations, indicates the trophic state of Wildcat Lake is "oligo-mesotrophic." This classification is characterized by mostly clear water, and relatively few aquatic plants.

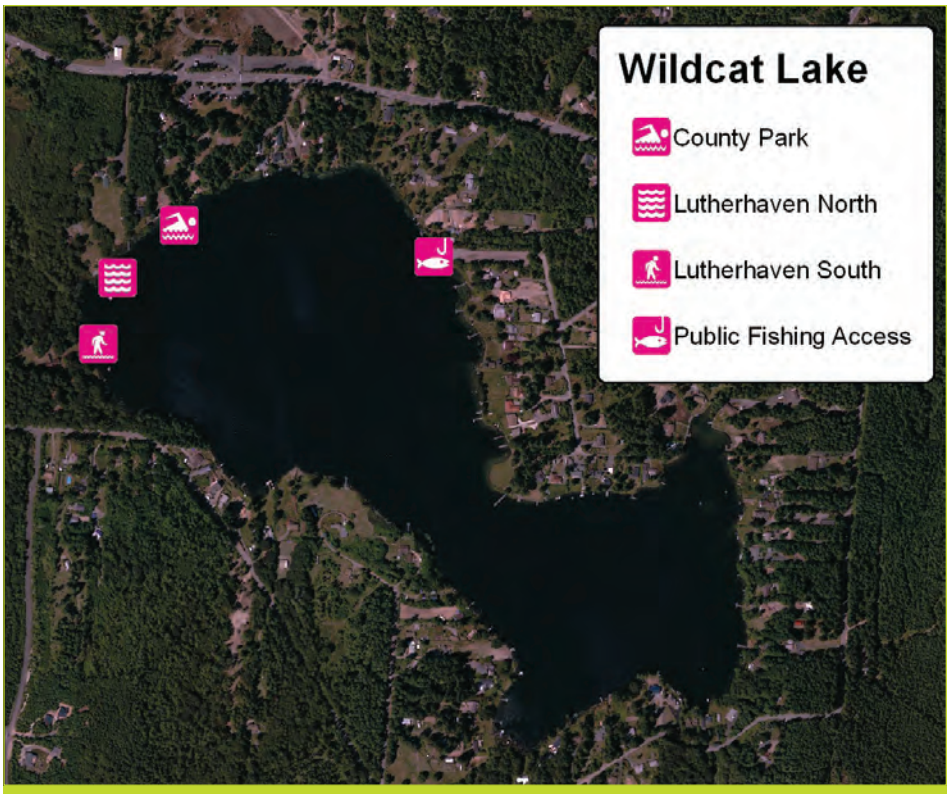


Figure 5. Wildcat Lake sampling station locations.

TABLE 5 - *E. COLI* BACTERIA RESULTS SUMMARY - WILDCAT LAKE, 2013

Sampling Location	Number of Samples	*E. coli* Range	*E. coli* Geomean [1]	Swimming Beach Health Advisories [2]
Wildcat lake County Park	64	< 2 – 238.2	3	0
Lutherhaven Camp – North	48	< 2 – 95.9	3	0
Lutherhaven Camp – South	44	< 2 – 85.5	5	0

[1] Reported as a geometric mean for the entire sampling season.

[2] The Health District issues health advisories when there is an increased risk of illness from bacteria or potentially toxic algae blooms.

LAKE SYMINGTON

Lake Symington is located within the Upper Hood Canal watershed in western Kitsap County. The Health District monitored two stations on Lake Symington: the swimming beach at the Community Park near the spillway and Division 5 Community Park. Each of these sites was monitored at least once monthly between May and September. Monitoring station locations are shown in Figure 6, and sample results are summarized in Table 6.

Water quality at the Lake Symington swimming beaches met the E. coli standard throughout the 2013 season.

No complaints of swimmers itch from Lake Symington were documented in 2013.

Nutrient Summary

The most recent data for this lake, combined with recent observations, indicates the trophic state of Lake Symington is "mesotrophic." This classification is characterized by mostly clear water. However, abundant aquatic plant growth is a concern for residents of Lake Symington.

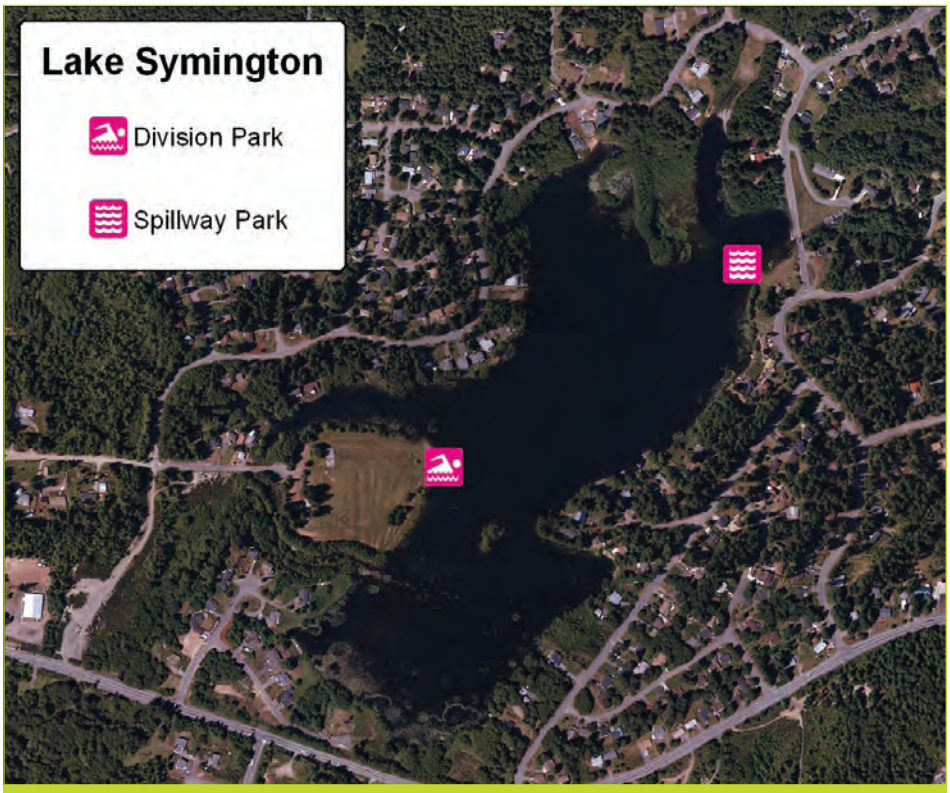


Figure 6. Lake Symington sampling station locations.

TABLE 6 - *E. COLI* BACTERIA RESULTS SUMMARY - LAKE SYMINGTON, 2013

Sampling Location	Number of Samples	*E. coli* Range	*E. coli* Geomean [1]	Swimming Beach Health Advisories [2]
Division 5 Park	12	2 – 37.3	8	0
Community Park (Spillway)	12	3 – 20.1	7	0

[1] Reported as a geometric mean for the entire sampling season.

[2] The Health District issues health advisories when there is an increased risk of illness from bacteria or potentially toxic algae blooms.

LAKE TAHUYA

Lake Tahuya is located within the Tahuya/Union River watershed in southwestern Kitsap County. The Health District monitored the Community Park swimming beach at least once monthly between May and September. Monitoring station locations are shown in Figure 7, and sample results are summarized in Table 7.

Water quality at the community park on Lake Tahuya met the E. coli standard throughout the 2013 season. No complaints of swimmers itch from Lake Tahuya were documented in 2013.

Nutrient Summary

As discussed on the previous page the aging or "eutrophication" of a lake is a natural process driven by sedimentation of the lake and nutrient enrichment from numerous sources. This process can be accelerated by human activities affecting the lake. The most recent data for this lake indicates it is "meso-eutrophic." This classification is characterized by water that is sometimes clouded by algae growth, with moderate plant and animal production.

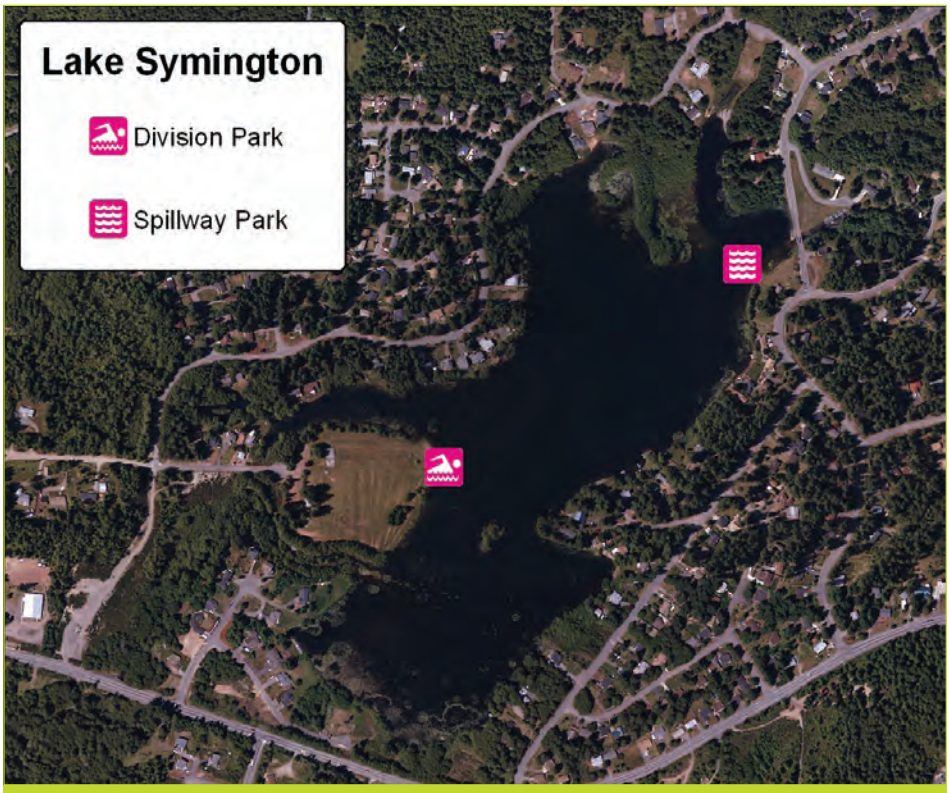


Figure 7. Lake Tahuya sampling station locations.

TABLE 7 - *E. COLI* BACTERIA RESULTS SUMMARY - LAKE TAHUYAE, 2013

Sampling Location	Number of Samples	*E. coli* Range	*E. coli* Geomean [1]	Swimming Beach Health Advisories [2]
Division 5 Park	12	< 2 – 146.7	9	0

[1] Reported as a geometric mean for the entire sampling season.

[2] The Health District issues health advisories when there is an increased risk of illness from bacteria or potentially toxic algae blooms.

MISSION LAKE

Mission Lake is located within the Tahuya/Union River watershed in southwestern Kitsap County. The Health District monitored the state public fishing access at least once every month between May and September.

Monitoring station locations are shown in Figure 8, and sample results are summarized in Table 8.

Water quality at the Mission Lake public fishing access met the E. coli standard throughout the 2013 season.

No complaints of swimmers itch from Mission Lake were reported in 2013.

Nutrient Summary

The aging or "eutrophication" of a lake is a natural process driven by sedimentation of the lake and nutrient enrichment from numerous sources. This process can be accelerated by human activities affecting the lake. The most recent data for this lake indicates it is "mesotrophic." This classification is characterized by mostly clear water, with moderate plant and animal production.

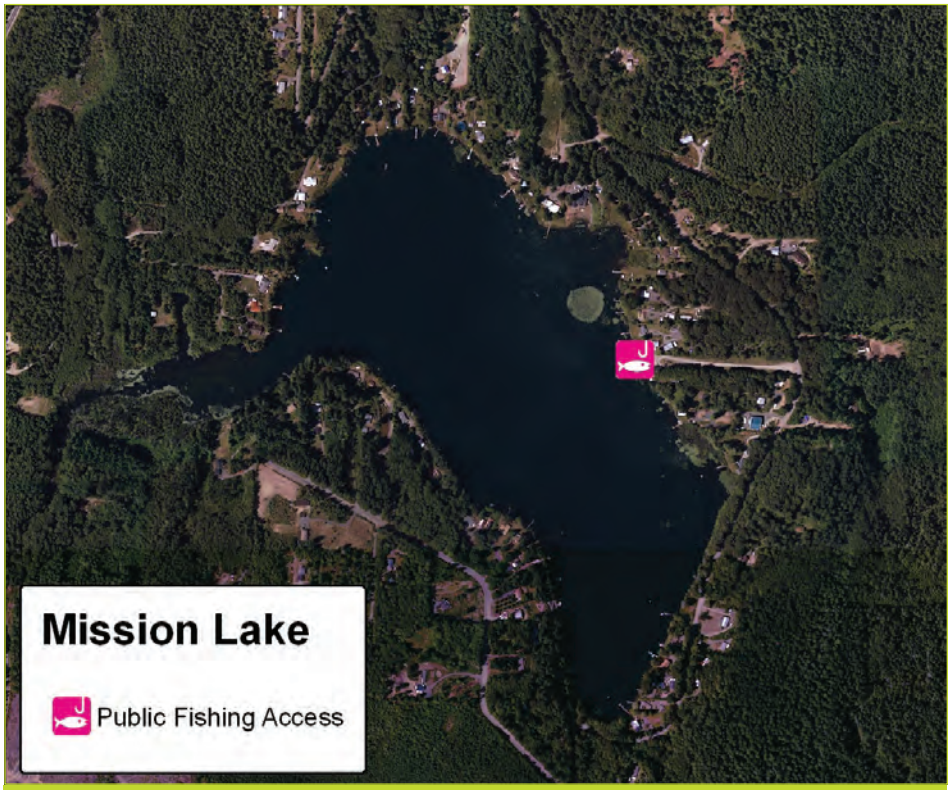


Figure 8. Mission Lake sampling station locations.

TABLE 8 - *E. COLI* BACTERIA RESULTS SUMMARY - MISSION LAKE, 2013

Sampling Location	Number of Samples	*E. coli* Range	*E. coli* Geomean [1]	Swimming Beach Health Advisories [2]
Mission Lake PFA[3]	8	<2 – 517.2	15	0

[1] Reported as a geometric mean for the entire sampling season.

[2] The Health District issues health advisories when there is an increased risk of illness from bacteria or potentially toxic algae blooms.

[3] Public Fishing Access (PFA).

TIGER LAKE

Tiger Lake is located within the Tahuya/Union River watershed in southwestern Kitsap County. Although the southern half of Tiger Lake is in Mason County, the public fishing access is located in Kitsap County. The Health District monitored the state public fishing access at least once every month between May and September.

Monitoring station locations are shown in Figure 9, and sample results are summarized in Table 9.

Water quality at the Tiger Lake public fishing access met the E. coli standard throughout the 2013 season.

No complaints of swimmers itch associated with Tiger Lake were reported in 2013.

Nutrient Summary
The aging or "eutrophication" of a lake is a natural process driven by sedimentation of the lake and nutrient enrichment from numerous sources. This process can be accelerated by human activities affecting the lake. The most recent data for this lake indicates it is "oligo-mesotrophic." This classification is characterized by clear water, with limited plant and animal production.

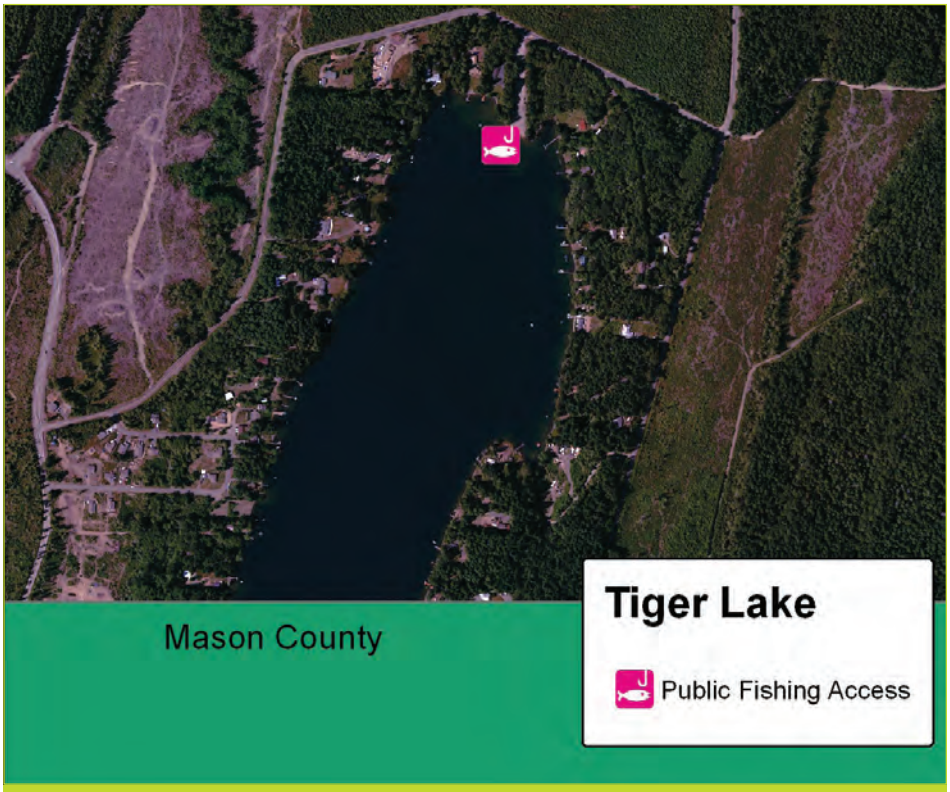


Figure 9. Tiger Lake sampling station locations.

TABLE 12-9 - *E. COLI* BACTERIA RESULTS SUMMARY - TIGER LAKE, 2013

Sampling Location	Number of Samples	*E. coli* Range	*E. coli* Geomean [1]	Swimming Beach Health Advisories [2]
Tiger Lake PFA[3]	12	< 2 – 7.5	< 2	0

1 Reported as a geometric mean for the entire sampling season.
2 The Health District issues health advisories when there is an increased risk of illness from bacteria or potentially toxic algae blooms.
3 Public Fishing Access (PFA).

PANTHER LAKE

Panther Lake is located within the Tahuya/Union River watershed in southwestern Kitsap County. The Health District monitored the state public fishing access at least once every month between May and September.

Although the majority of Panther Lake is located within Kitsap County, the only public access is located on the Mason County side of the lake. Therefore the only sampling location available is actually within Mason County. Monitoring station locations are shown in Figure 10, and sample results are summarized in Table 10.

Water quality at the public fishing access met the E. coli standard throughout the 2013 season. No complaints of swimmers itch from Panther Lake were reported in 2013.

Nutrient Summary

The aging or "eutrophication" of a lake is a natural process driven by sedimentation of the lake and nutrient enrichment from numerous sources. This process can be accelerated by human activities affecting the lake. The most recent data for this lake indicates it is "oligo-mesotrophic." This classification is characterized by clear water, with limited plant and animal production. For a more detailed explanation of the Health District's nutrient monitoring, see page 12-6.

Figure 10. Panther Lake sampling station locations.

TABLE 10 - *E. COLI* BACTERIA RESULTS SUMMARY - PANTHER LAKE, 2013

Sampling Location	Number of Samples	*E. coli* Range	*E. coli* Geomean [1]	Swimming Beach Health Advisories [2]
Panther Lake PFA[3]	8	2 – 118.7	9	0

[1] Reported as a geometric mean for the entire sampling season.

[2] The Health District issues health advisories when there is an increased risk of illness from bacteria or potentially toxic algae blooms.

[3] Public Fishing Access (PFA).

SQUARE LAKE

Square Lake is located within the Sinclair Inlet watershed in southern Kitsap County. The Health District monitored the swimming beach at Square Lake State Park at least once every month between May and September. Monitoring station locations are shown in Figure 11, and sample results are summarized in Table 11.

Water quality at Square Lake State Park met the E. coli standard throughout the 2013 season.

No complaints of swimmers itch from Panther Lake were reported in 2013.

The Health District does not have any nutrient data for Square Lake.

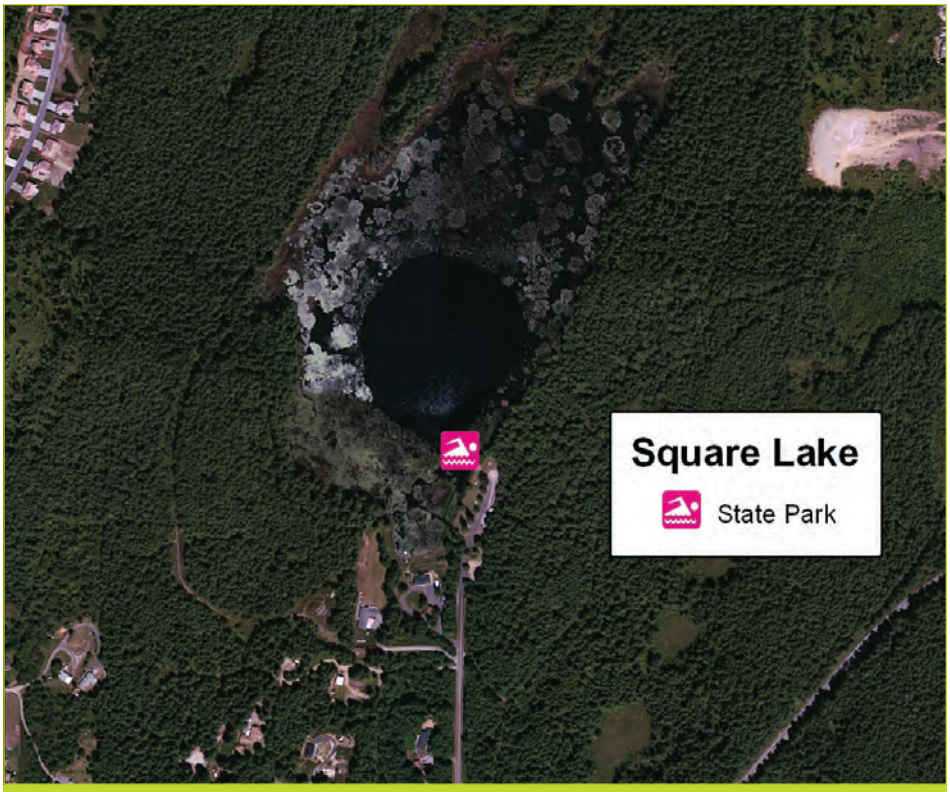


Figure 11. Square Lake sampling station locations.

TABLE 11 *E. COLI* BACTERIA RESULTS SUMMARY - SQUARE LAKE, 2013

Sampling Location	Number of Samples	*E. coli* Range	*E. coli* Geomean [1]	Swimming Beach Health Advisories [2]
Square Lake State Park	12	<2 – 63.1	8	0

[1] Reported as a geometric mean for the entire sampling season.

[2] The Health District issues health advisories when there is an increased risk of illness from bacteria or potentially toxic algae blooms.

WYE LAKE

Wye Lake is located within the Rock Creek/Coulter Creek watershed in southern Kitsap County. The Health District monitored Shirey Community Park at least once every month between May and September. Monitoring station locations are shown in Figure 12 and sample results are summarized in Table 12.

Water quality at the Shirey Community Park met the E. coli standard throughout the 2013 season.

No complaints of swimmers itch from Wye Lake were reported in 2013.

Nutrient Summary

The aging or "eutrophication" of a lake is a natural process driven by sedimentation of the lake and nutrient enrichment from numerous sources. This process can be accelerated by human activities affecting the lake. The most recent data for this lake indicates it is "Meso-oligotrophic." This classification is characterized by mostly clear water, with moderate plant and animal production.

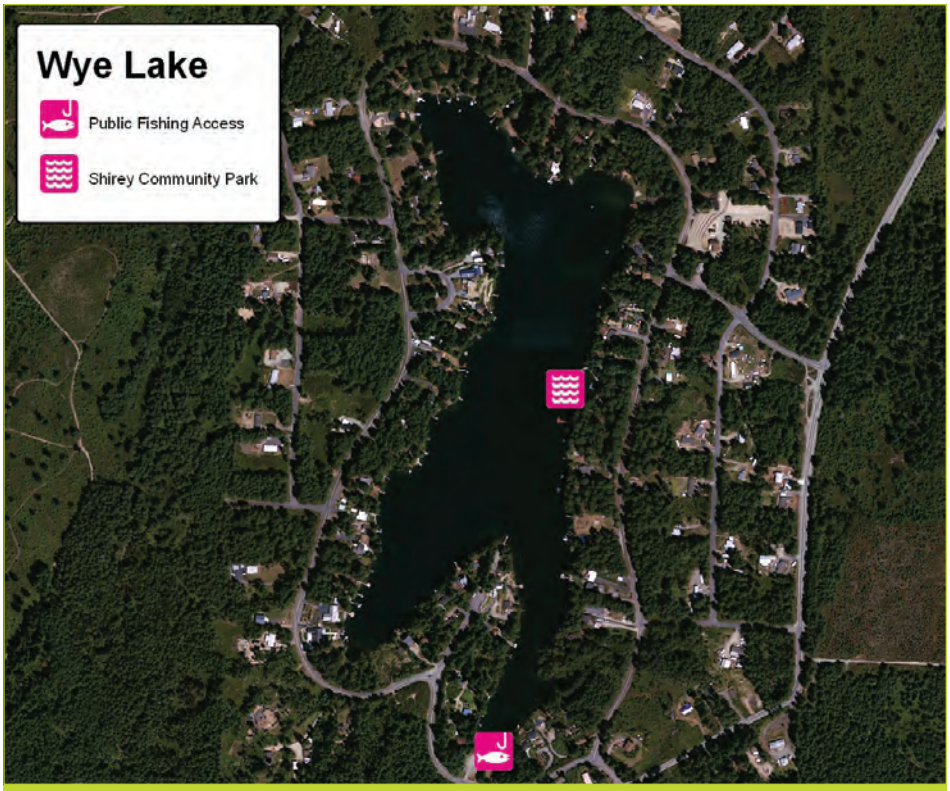


Figure 12. Wye Lake sampling station locations.

TABLE 12 - *E. COLI* BACTERIA RESULTS SUMMARY - WYE LAKE, 2013

Sampling Location	Number of Samples	*E. coli* Range	*E. coli* Geomean [1]	Swimming Beach Health Advisories [2]
Shirey Community Park	4	< 2 – 8.5	3	0

[1] Reported as a geometric mean for the entire sampling season.

[2] The Health District issues health advisories when there is an increased risk of illness from bacteria or potentially toxic algae blooms.

CARNEY LAKE

Carney Lake is located within the Rock Creek/Coulter Creek watershed on the southern boundary of Kitsap County. Monitoring station locations are shown in Figure 13, and sample results are summarized in Table 13.

Figure 13. Carney Lake sampling station locations.

Although a large portion of Carney Lake is located within Kitsap County, the only public access is located on the Pierce County side of the lake. Therefore the Health District monitored the state public fishing access in Pierce County at least once every month starting in May. This continued while the access was open for fishing.

The station met the E. coli water quality standard throughout the 2013 season.

No complaints of swimmers itch from Carney Lake were reported in 2013.

Nutrient Summary

The aging or "eutrophication" of a lake is a natural process driven by sedimentation of the lake and nutrient enrichment from numerous sources. This process can be accelerated by human activities affecting the lake. The most recent data for this lake indicates it is "Meso-oligotrophic." This classification is characterized by mostly clear water, with moderate plant and animal production.

TABLE 13 - *E. COLI* BACTERIA RESULTS SUMMARY - CARNEY LAKE, 2013

Sampling Location	Number of Samples	*E. coli* Range	*E. coli* Geomean [1]	Swimming Beach Health Advisories [2]
Carney Lake PFA[3]	4	< 2 – 2	< 2	0

[1] Reported as a geometric mean for the entire sampling season.

[2] The Health District issues health advisories when there is an increased risk of illness from bacteria or potentially toxic algae blooms.

[3] Public Fishing Access (PFA).

LONG LAKE

Long Lake is located within the Colvos Passage/Yukon Harbor watershed in southern Kitsap County. The Health District monitored the swimming beach access weekly at Long Lake County Park. Monitoring station locations are shown in Figure 14, and sample results are summarized in Table 14.

Water quality at Long Lake met the E. coli standard the 2013 season.

The Kitsap County Public Health District posted "Potentially Toxic Algae "advisory signs periodically through summer beginning on May 29, 2013 when potentially toxic species were observed in lake water.

On November 13, 2013 a Potentially Toxic Cyanobacteria advisory was posted along signs near fishing and boating accesses. This advisory was in effect through December 15, 2013.

Changes in water quality in regards to algae blooms is likely due to the loss of funds to support alum treatments to the lake water which limits the amount of phosphorous available for algae growth.

No reports of swimmers itch were reported in from Long Lake in 2013.

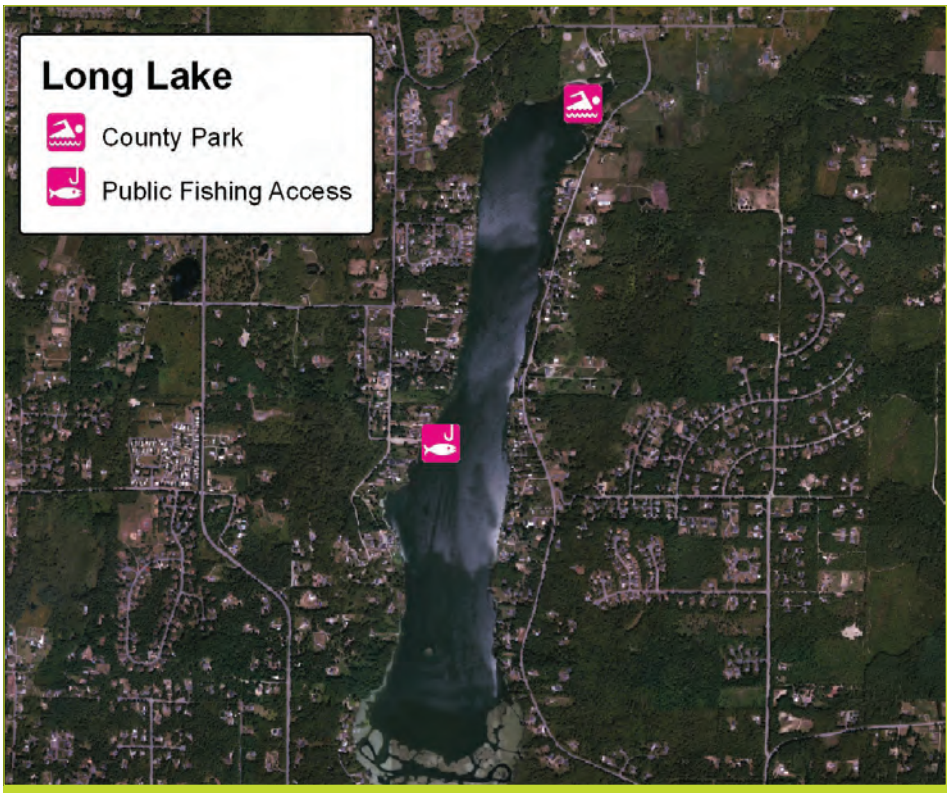


Figure 14. Long Lake sampling station locations

TABLE 14 - *E. COLI* BACTERIA RESULTS SUMMARY - LONG LAKE, 2013

Sampling Location	Number of Samples	*E. coli* Range	*E. coli* Geomean [1]	Swimming Beach Health Advisories [2]
Long Lake County Park	68	< 2 – 238.2	4	Potentially toxic harmful algae bloom from 11/13/13 to 12/15/13

[1] Reported as a geometric mean for the entire sampling season.

[2] The Health District issues health advisories when there is an increased risk of illness from bacteria or potentially toxic algae blooms. See page 12-3 for a more detailed explanation.

HORSESHOE LAKE

Horseshoe Lake is located within the Burley Creek watershed in southern Kitsap County. The Health District monitored three stations on Horseshoe Lake; the State Public Fishing Access (PFA), Horseshoe Lake County Park, and Miracle Ranch (a private camp). All beaches were sampled weekly between May and September. Monitoring station locations are shown in Figure 15, and sample results are summarized in Table 15.

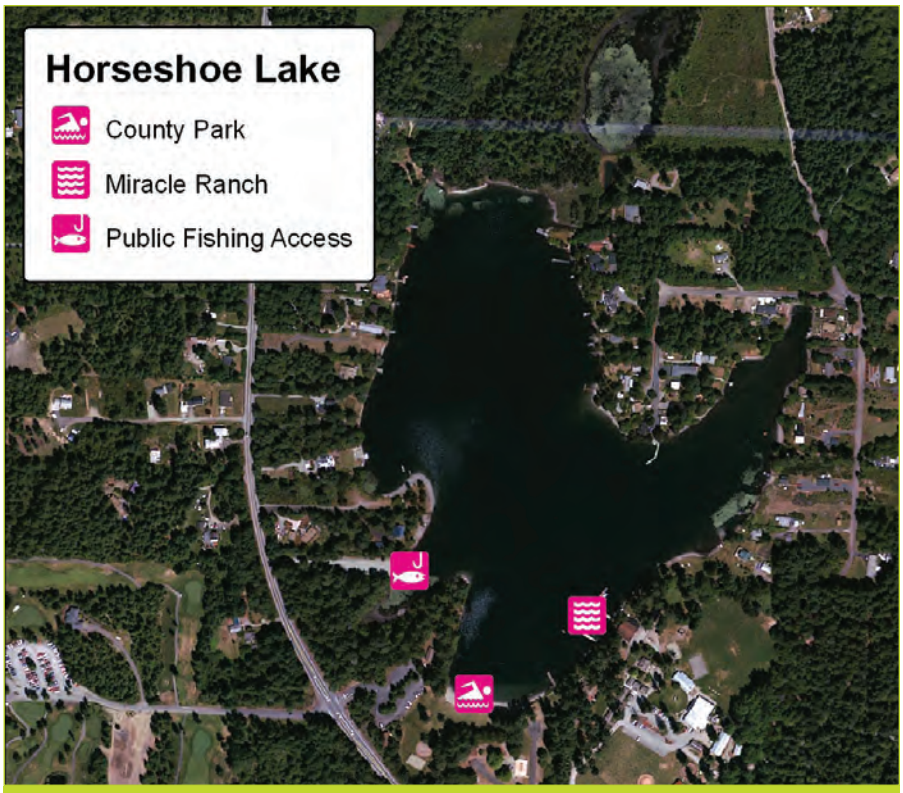


Figure 15. Horseshoe Lake sampling station locations.

Water quality at Horseshoe Lake met the E. coli standard throughout the 2013 season. The Health District did not receive any complaints of swimmers itch at Horseshoe Lake in 2013.

Nutrient Summary

The aging or "eutrophication" of a lake is a natural process driven by sedimentation of the lake and nutrient enrichment from numerous sources. This process can be accelerated by human activities affecting the lake. The most recent data for this lake indicates it is "meso-eutrophic." This classification is characterized by water that is periodically cloudy with algae growth, and has moderate plant and animal production.

TABLE 15 - *E. COLI* BACTERIA RESULTS SUMMARY - HORSESHOE LAKE, 2013

Sampling Location	Number of Samples	*E. coli* Range	*E. coli* Geomean [1]	Swimming Beach Health Advisories [2]
Horseshoe Lake County Park	73	< 2 – 980.4	12	0
State Public Fishing Access[3]	2	2	2	0
Miracle Ranch	48	< 2 – 1986.3	8	0

[1] Reported as a geometric mean for the entire sampling season.

[2] The Health District issues health advisories when there is an increased risk of illness from bacteria or potentially toxic algae blooms. See page 12-3 for a more detailed explanation.

[3] Public Fishing Access (PFA).

WICKS LAKE

Wicks Lake is located within the Minter Creek watershed in southern Kitsap County. The there is an undeveloped county park next to the lake with beach access. The Health District monitored the swimming beach at Wicks Lake County Park monthly between May and September.

Monitoring station locations are shown in Figure 16, and sample results are summarized in Table 16.

This station met the E. coli bacteria standard throughout the 2013 season.

The Health District did not receive any complaints of swimmers itch at Wicks Lake in 2013.

The Health District does not have any nutrient data for Wicks Lake.

Figure 16. Wicks Lake sampling station locations.

TABLE 12-16 - *E. COLI* BACTERIA RESULTS SUMMARY - WICKS LAKE, 2013

Sampling Location	Number of Samples	*E. coli* Range	*E. coli* Geomean [1]	Swimming Beach Health Advisories [2]
Wicks Lake County Par	12	5.2 – 108.1	24	0

[1] Reported as a geometric mean for the entire sampling season.

[2] The Health District issues health advisories when there is an increased risk of illness from bacteria or potentially toxic algae blooms.

LAKE FLORA

Lake Flora is located within the Coulter Creek watershed in southern Kitsap County. The Health District monitored the swimming beach at Pilgrim Firs, a private retreat facility on Lake Flora, every month during their typical swimming season in July and August.

Monitoring station locations are shown in Figure 17, and sample results are summarized in Table 17.

The swimming beach met the E. coli bacteria standard throughout the 2013 season.

The Health District did not receive any complaints of swimmers itch at Lake Flora in 2013.

The Health District does not have any nutrient data for Lake Flora.

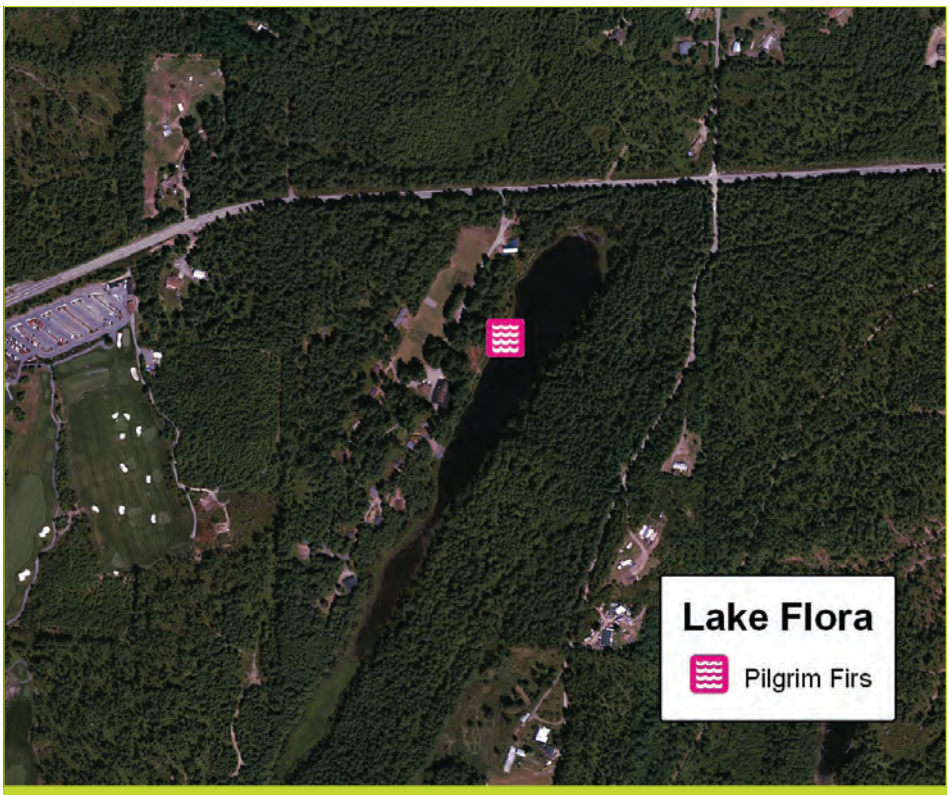


Figure 17. Lake Flora sampling station locations.

TABLE 12-17 - *E. COLI* BACTERIA RESULTS SUMMARY - WICKS LAKE, 2013

Sampling Location	Number of Samples	*E. coli* Range	*E. coli* Geomean [1]	Swimming Beach Health Advisories [2]
Pilgrim Firs	6	< 2 –5.2	< 2	0

[1] Reported as a geometric mean for the entire sampling season.

[2] The Health District issues health advisories when there is an increased risk of illness from bacteria or potentially toxic algae blooms.

LAKE HELENA

Lake Helena is located within the Coulter Creek watershed in southern Kitsap County. The Health District monitored the swimming beach at Camp Niwana, a Campfire Camp, every month during their typical swimming season from July through August. In 2013 the camp was only open during one month.

Monitoring station locations are shown in Figure 18, and sample results are summarized in Table 18.

The swimming beach at Camp Niwana met the E. coli bacteria standard throughout the 2013 season.

The Health District did not receive any complaints of swimmers itch at Lake Helena in 2013.

The Health District does not have any nutrient data for Lake Helena.

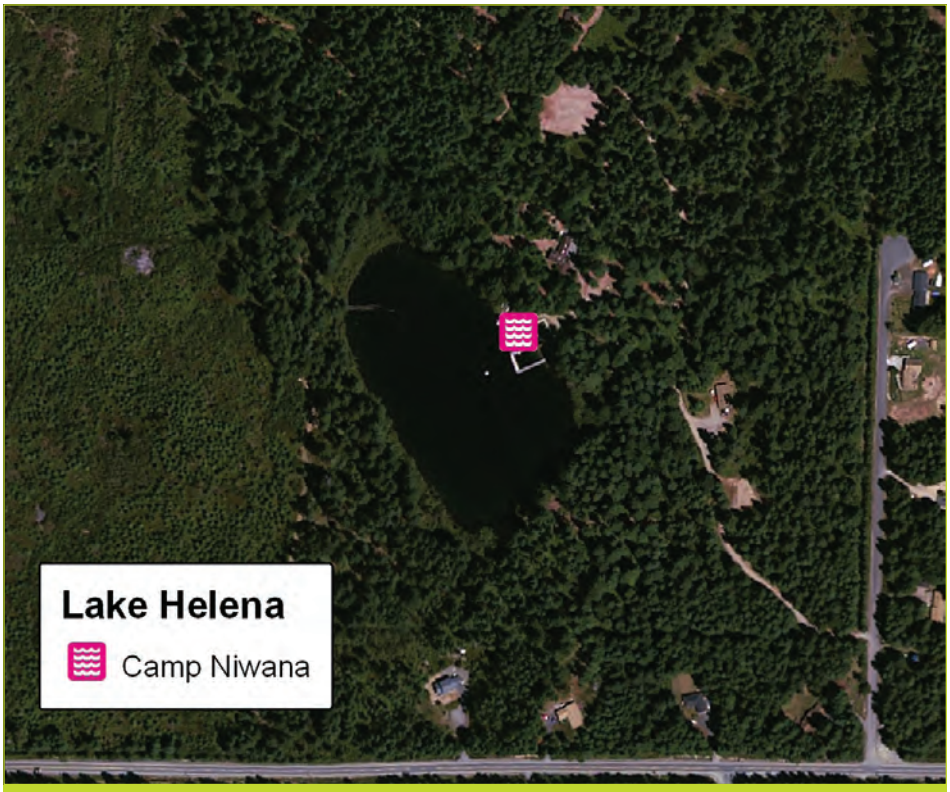


Figure 18. Lake Helena sampling station locations.

TABLE 18 - *E. COLI* BACTERIA RESULTS SUMMARY - LAKE HELENA, 2013

Sampling Location	Number of Samples	*E. coli* Range	*E. coli* Geomean [1]	Swimming Beach Health Advisories [2]
Camp Niwana	3	< 2 –5.2	< 2	0

[1] Reported as a geometric mean for the entire sampling season.

[2] The Health District issues health advisories when there is an increased risk of illness from bacteria or potentially toxic algae blooms.