

COMPLETED MATRIX 3-2011

Note: This document tracks which action steps have been completed, the task that an action step is part of may or may not be completed, read both matrixes to determine if a task is complete . Lead Agencies underlined

3-2011 Oakland Bay Action Plan Strategy Completed Tasks

Objectives and Tasks	Action Steps	Lead Agency/Partners	Performance Measures	Timeline	Product/Outcome	Fund Source & amount (include intra-agency funding)
Objective 1: Identify Responsible Lead Agencies, Action Steps and Performance Measures						
Develop closure response plan	Write draft plan. Distribute updated drafts. Final draft	<u>MCPH</u> , other agency partners & landowners		Met 2007	Compliance with amended RCW 90.72.045	EH Program budgeted staff work load redirected to Oakland Bay
Designation of Oakland Bay as "area of special concern" or "marine protected area"	1st draft of On-Site Plan	<u>BOCC</u> , MCPH		Met 2007	Designation included in On-Site Plan as required by WAC 246-272A	DOH, Puget Sound Counties initiative
	Draft to DOH & public for comments			Met 2008		
	On-Site Plan adopted			Met 2008		

Objective 2: Identify District Boundaries, Oversight and Finance

Adopt ordinance creating the District	CRP committee provide recommendations to BOCC Adopt district boundaries	<u>BOCC</u> , MCPH		Met 2007	District established	EH 2007 budget for EH staff time
Develop & adopt a system of oversight	Agree on principals of oversight Form Oakland Bay Board Establishment of advisory committee Committee establishes by-laws	<u>BOCC</u> through organizational principals agreed to by group		Met 2008	Oakland Bay Closure Response Committee provides inter-jurisdictional oversight of district	BOCC and MCPH
Investigate septic or sewer options in Oakland Bay area	Consultant assessing feasibility of septic or sewer district	<u>MCUWM</u>	Report provided to MCUWM	Met 2008	Infrastructure planning	

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Objective 3: Develop and implement Public/Private partnerships, public education and involvement and evaluation plans for Closure Response Plan Development

Develop new educational materials and a public involvement plan regarding water quality in Oakland Bay	Hire consultant	MCD, <u>WSU</u> , Sea Grant, MCPH, other educational working group members & members & MCUWM		Met 2008	Educate public about water quality & the CRP process outcome: community support, public comment & education	MCPH contributed funding to hire a part time professional through WSU
	Develop notices, fliers, postcards, a letter & a notice for the MC website			Met 2008		
	Closure response public outreach meeting			Met 10/8/2008		
	Develop public information & education piece of Western Estuaries Initiative Grant; identified tasks within this to execute, including workshops, conservation planning & technical assistance, BMP implementation, & Low Impact Development technical assistance			Met 2008		
	Final Oakland Bay Social Marketing Plan- ask Emily first			October 09		

Objective 4: Monitor Water Quality, Conduct Shoreline and Upland Surveys, and Conduct Research

Marine sampling	Determine if non-point identification & remediation have improved marine water quality in Oakland Bay enough to re-open/ keep open portions of Oakland Bay for	<u>DOH</u> , MCPH, Taylor	Increase from 12 to 30-35 samples a year	Met 2007	Systematic random sampling of stations: additional studies	DOH, MCPH
			2008 changed to 12 sample runs a year	Met 2008		
			DOH will sample small tribs at North monthly	Met 2008		
	Implement studies			Met 2008		
Freshwater sampling	MCD, BMP sampling started Dec. 2006	<u>SIT</u> , MCPH & MCD		Met 4/08	Pollution identification	EH 2007 budget, ECY grant, EPA/DOH grants
MST data	Sampling completed 11/2006	EPA, <u>SIT</u> , DOH, ECY	Design a 2008 follow up to the 2006 MST study to assess changes in FC sources	Met 2008	Report on sources of human/ruminant sources of bacteria at sample stations	EPA

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Sediment study & aquaculture BMP sampling	Design study	<u>SII</u> , Shellfish industry	Results given to CRC	Met 2008	Investigate role of sediment as a bacteria incubator or amplifier	SIT, EPA
	Establish a weather station at Pioneer school			Done 2008		
Investigate dioxin contamination of shellfish tissue and determine if health advisory is necessary		<u>DOH</u>		Met 2009	Report	
Oakland Bay Sediment Characterization Study	Ecology evaluated results	<u>ECY</u>	Briefing to stakeholders Public Review Draft report Final report	Presentation spring 2009 Early Spring 2010 Summer 2010	Presentation- done Ecology decision regarding approach to sediment cleanup in 2011	

Objective 5: Identify and Remediate Agricultural Sources

Identify all sites with livestock & poultry	Update existing inventory to identify number of parcels with livestock or poultry	<u>MCD</u>	updates w/inventory & GIS map revision as needed: 2/08, 9/08	Met 2008	GIS map of inventory	
Contact all livestock & poultry operations	Targeted mailing Public meeting	<u>MCD</u>	Direct mailing twice yearly 9 workshops in 2008	Met 2008		Centennial Grant & Cost Share
Require any application for a new agriculture building permit to either: (1) request a permit fee exemption by developing a farm plan with MCD or (2) to submit a standard fee & application for a MC Environmental Permit as part of the permit process.	Develop regulation, Adopt regulation	DCD, <u>MCD</u>	MCD will assist DCD, Track & report to DCD	Not Met	Permit application & fee waiver request submitted w/MCD letter or MEP submitted. Waiver concept failed. No regulation was developed.	2.5 million in loans
Develop conservation plan for farmers	Design BMP's Implement BMP"s	<u>MCD</u>	Conservation plans	Met 2008 Met 2008	BMP's that protect water quality	DOE ORAP Centennial Grant through 4/2010 MCD
Anaerobic Digester construction	Find funding	<u>MCD</u>	Collect & process organic wastes from	Met 2008	Make the Anaerobic Digester available as a waste reduction tool in the watershed	

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Identify all sites with livestock & poultry	Update existing inventory to identify number of parcels with livestock or poultry	<u>MCD</u>	The last of 3 updates w/ inventory & GIS map revision as needed	Met 12/9/2009	GIS map of inventory	EH 2007 budget
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Objective 6: Identify and Remediate OSS Sources

Parcel Research	Merge parcel data into O & M database	<u>MCPH</u>	Inventory of all closure area parcels in O & M database, searchable by stream, shoreline or upland designation	Met 2007	O & N database can be used to determine complaint with O & M and target areas for investigative work education or other outreach	EH 2007 Budget
	Create list of all named stream parcels, all marine shoreline parcels & other parcels to import to O & M database			Met 2007		
	GPS all large storm water culverts that input to the bay			Met 2007		
	Create a GIS layer			Met 2007		
Oss Sanitary Surveys- Marine shoreline, stream & upland	Use DOH shoreline SS as base, review records	<u>MCPH</u>		Met 2007 & 2008	Outcome-to eliminate potential source of OSS FC pollution	
Dye tracing as required by sanitary survey results, complaint investigation results or unsatisfactory maintenance reports	Dye traces will be prioritized according to department policy for sanitary surveys & complaints. # depends on number of sites identified	<u>MCPH</u>	100% follow up with sampling & referral to enforcement as needed	Met 2007 & 2008	OSS will be confirmed or eliminated as failing dye test.	OSS program
Regular O & M notification, monitoring, recording & follow-up for all OSS	Notify all septic system users of septic system maintenance schedule according to system type	<u>MCPH</u>	100% of residents notified of O & M requirements	Met 2008	Contact shellfish protection district residents about new O & M requirements & provide routine program activities in the area. Septic users notified of O & M requirements. Maintenance activities are recorded, monitored & follow-up is provided	WEI Grant
	Record responses in O&M database		Record monthly as received	Met 2008		
Enforcement of OSS code	Update of enforcement policies	<u>MCPH</u>	Enforcement of new state code begun	Met 2008	Improved enforcement	OSS program funding
Upgrade of components of existing OSS	Develop proposal for O&M improvement project (risers, alarms & effluent filters, etc.)	Sea Grant, <u>MCPH</u>	Proposal to pilot O&M improvements	Met 2008	OSS function better due to system improvements & ease of doing O&M.	<u>MCPH</u> Environmental Health program budget
	Find funding for O&M improvements project.		Apply for Centennial/other grants	Met 2008		

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Regular O & M notification, monitoring, recording & follow-up for all OSS	Contact all Clean Water District residents about O&M requirements Rewrite of regulations. Mandatory O & M requirements for homesales	MCPH		Met 2009 2/24/2009		
Parcel Research Make GIS layer searchable by stream, shoreline or upland designation. Supply match for scanning purchase.	Create GIS layer MCPH	MCPH	Inventory of all closure area parcels in O & M database, searchable by stream, shoreline or upland designation Done Done	Done Accuracy is being improved as errors are found and corrected. Equipment Purchased	O & M database can be used to determine complaints, and target areas for investigative work, education or other outreach MCPH- 09 fund- \$ 12,000	
AmeriCorp volunteer	Secure grant, match funding	MCPH, and partners		9/09 - 8/15/10	Additional administrative and natural resource work done	Grant, 09 money for match- \$ 5000

Objective 7: Identify and Remediate other sources

Shelton WWTP source reduction is additional treatment	Upgrade treatment plant	COS	Design consultant hired Fund treatment plant upgrade	Met 2008 Met 2008		
Pet waste control	Research pet waste station needs	Sea Grant, COS, MCPH		Met 2008	Observations and ideas of locations given verbally to group	
Goldsborough and Shelton stream sources identification	Identified through monthly stream sampling.	COS, MCPH	Report on Oakland Bay website	Met 2009	Testing to confirm that Shelton sewer basin work has controlled infiltration/exfiltration. Identification of other sources	09 Fund in samples
	WSDOT shall implement pollution prevention measures contained in its HWY 3 Stormwater Management Plan MCPH providing current data through regular culvert testing WSDOT will give a presentation on how the newly developed illicit discharge program will work to the OBCWD Advisory Committee when program is developed	WSDOT		Waiting for TMDL Met 2009		
Within the City of Shelton projects to improve the function of Goldsborough and Shelton Creek	Track data Turning Pointe project Riparian Planting project near Hwy 3 connected to mouth of Shelton Creek	COS, MCD		Met 2009/2010	LID Demonstration Project with Pervious Concrete Pavement constructed 10/2008	COS, Squaxin WEI grant MCD- DOE SMDP Grant through 4/2011

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Oakland Bay Park Property Riparian Restoration	Partnership with PUD #3, Capitol Land Trust to develop & implement phased riparian restoration along Malaney Creek	MCD, PUD #3, CLT, MC Parks & Trails, WA Conservation Corps Crew		2009, 2010	Phase 2 site preparation complete; planting to take place with volunteers this spring.
Oakland Bay Park Property Low Impact Development Projects	Partnered with MC Parks & Trails to submit RCO grant for LID development at park	MCD & MC Parks & Trails		2010	Grant awarded to MC Parks; MCD will design LID entry road, parking area, rain gardens etc. for implementation in summer 2011-2012
Port of Shelton Oakland Bay Marina Rain Garden	Rain Garden installed to manage parking lot stormwater adjacent to Yacht Club	MCD		2010	Rain Garden installed.
Non-Governmental Land Acquisitions	Twin River Ranch acquisition Johns Creek acquisition Coffee Creek acquisition Hammersley Inlet acquisition Goldsborough Creek acquisition Trevo Oakland Bay acquisition	CLT CLT CLT CLT CLT		6/30/10 Done Done Done Done Done	Acquire 125 acre property w/ OB shoreline and creek frontage

Objective 8: Identify Land Use Policies and other Statutory Interventions that will Protect, Restore and Preserve

Property acquisition into conservancy	Evaluate feasibility & approaches	DCD, Capitol Land Trust, PSP		Met 2008	Two properties acquired in 2008
Develop incentives for: (1) natural shoreline protection including reduction of existing hard armoring (2) shoreline repair and other buffer enhancement with native plantings	Explore different approaches for providing homeowner incentives for natural shoreline, riparian & other buffer protection & enhancement, such as property tax incentives, Research & identify potential incentives, Research & identify potential incentives, Research & identify potential incentives	DCD, MCD	MCD held 1 native plant workshop in 2008	Met 2008	Not funded & not feasible Requires action by legislature before property tax incentives could be considered
			MCD prepared & distributed a brochure/mailler for shoreline/stream side landowners in 2008	Met 2008	
			MCD prepared 9 conservation plans focused on restoration in 2008	Met 2008	
Small Parcel Storm Water Site Plan requirements	MCPW has developed them, DCD intake staff to be trained in reviewing applications	DCD	Implemented fall 2008	Met 2008	The Storm Water Site Plan is a condition of the permit Onsite inspection is variable
	MCD can provide BMP technical assistance	MCD	MCD will provide technical assistance to landowners requesting assistance with BMP implementation	Met 2008	Small Parcel Stormwater BMP implementation
County wide stormwater ordinance	Developed by consultant (OTAK)	MCUWM	TBD MCPW	Met 2008	Adopted stormwater plan for Allyn & Belfair DCD, MCD + individual Squaxin WEI grant through 9/2012; MC Stormwater Implementation Grant through 4/2011

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Adopt MC Stormwater Management Ordinance	Adopted by BOCC			Met, 6/17/2008	Adoption of ordinance #81-08 forming a stormwater & surface water utility	MCUWM Stormwater Implementation Grant
City develop revised stormwater plan	The city will be finished by the end of the year	COS	TBD city	Met, Jan 2008	Revised stormwater plan adopted	MCUWM Stormwater Implementation Grant & MC matching funds DCD, COS
Enhanced stormwater code enforcement	DCD & MCPW to clearly identify internally which dept. is responsible for enforcing stormwater regulations & provide stricter enforcement	MCUWM		2007-2008	Improved stormwater practices on parcels where stormwater violations exist	\$1,000,000 USF&W NCWCG (Federal) \$572,050 RCO SRFB (State)
Small Parcel Storm Water Site Plan requirements	MCPW has developed them, DCD intake staff to be trained in reviewing applications	DCD, MCD		Met 2009		TBD, potential grant sources
Small Parcel Stormwater Site Plan requirements	MCD can provide stormwater BMP technical assistance	DCD, MCD	MCD will work with DCD to inform the public of the new requirements	June 2009	MCD provided technical assistance on stormwater issues to 15 landowners.	TBD, potential grant sources TBD, potential grant sources
County wide stormwater plan presentation to MC BOCC	Recommend BOCC form Surface and Stormwater Management District	MCUWM		April 2009	Formation of Surface and Stormwater Management District	TBD, potential grant sources
Formation of Surface and Stormwater Management District	Memorandum of Understanding for roles & responsibilities	MCUWM, MCPW, MCPH, WSU, MCD, DCD		June 2009	Understanding of each agency's or dept. role & responsibilities within the Surface and Stormwater Management District	DCD, COS
Countywide stormwater ordinance to include LID standards	Explore how reduced impervious surface provisions could be incorporated into ordinances Implement ordinances	DCD, COS	Limits development Implement began December 2008	Jul-08 Dec-08	Less runoff, better stormwater treatment, more vegetative cover	MCD:PUD #3 funding; DOE ORAP Centennial Grant funding
Objective 9: Key Enforcement Elements (Note: Enforcement tasks may be found in other parts of this table. These tasks have been given a separate objective)						
Nonpoint ordinance & stormwater enforcement	Project research & scoping; EH, DCD,PW, MCUWM, discuss how inclusive of nonpoint sources ordinance should be & if ordinance is to be developed as part of the comp plan. Write, review, & revise Draft review Adopt	MCPH, DCD, MCPW, MCUWM, BOCC	Research local nonpoint ordinances	Met 2008, however change is ongoing. Met 6/1/2008 Met 7/15/2008 Met 9/1/2008		MCD: EPA WEI grant funding; MC Parks & Trails: RCO Land & Water Conservation Funding MCD NFWF Salmon Safe Marina Grant; EPA WEI grant funding

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Objective 10: Program Evaluation

Establish measurable goals to track APS effectiveness	Set TMDL limits for FC bacteria	MCPH, all members of OBCWD Advisory Committee	Semi-annual review by Board of OBCWD	on-going	The Education Subcommittee will take this on for our spring Advisory Board Meeting. Plan to meet about format on Feb. 3rd and being collecting indicators
			Annual shellfish protection district report		
			Annual review by DOH	met	

All- OBCWD meeting time
MCPH 09 fund

LIST OF ACRONYMS

- APS= Oakland Bay Action Plan Strategy
- BMP= Best Management Practices
- BOCC = Mason County Board of County Commissioners
- COS= City of Shelton
- CRP= Closure Response Plan
- DCD = Mason County Department of Community Development
- DOH = Washington Department of Health
- ECY = Washington Department of Ecology
- EH= Mason County Public Health Environmental Health Program
- EPA = United States Environmental Protection Agency
- GIS= Geographic Information System
- MCD = Mason Conservation District
- MCPH = Mason County Public Health
- MCPW = Mason County Public Works
- MCUWM= Mason County Utilities and Wastewater Management
- NP= Non-point
- O & M = Operation and Maintenance
- OSS= On- site sewage system
- PSP= Puget Sound Partnership
- Sea Grant= Washington State Sea Grant, University of Washington
- SIT = Squaxin Island Tribe
- TMDL= Total Maximum Daily Load
- WSDA = Washington State Department of Agriculture
- WSU = Washington State University Mason County Extension
- WQ= Water Quality

Note:

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In the event any portion of this plan is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portions shall be deemed a separate provision of this plan and such designation shall not affect the validity of the remaining portions of this plan.

10/8/2009

Note: Lead Agencies underlined

Table 1 Oakland Bay Action Plan Strategy

Objectives and Tasks	Action Steps	Lead Agency/Partners	Performance Measures	Timeline	Product/Outcome
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Objective 1: Identify Responsible Lead Agencies, Action Steps and Performance Measures

Hold regular meetings of OBCWD Advisory Committee. Include all entities involved in Oakland Bay restoration projects	Regular meeting date	<u>MCPH</u> , all partners	Hold at least 4 quarterly meetings per year	On-going	Coordination of Action Plan Strategy
Update OBCWD Advisory Committee on grant work related to APS	Each agency or group reports APS work to Advisory Committee Evaluate reports for alignment with public outreach goals & objectives & include relevant updates in public outreach	<u>MCPH</u> , MCD, WSU		Quarterly Quarterly	Clear communication between stakeholders
Provide quarterly reports and monthly verbal update to OBCWD Advisory Committee on MCPH water quality & on-site activities within the boundaries of the district	MCPH water quality and on-site program staff develop the report & post online	<u>MCPH</u>		Monthly	Timely updates on MCPH Environmental Health program activities

Objective 2: Identify District Boundaries, Oversight and Finance

Develop & adopt a system of oversight	Determine needed functions of committee & develop subcommittee to provide oversight, address or report on specific issues	<u>BOCC</u> , all partners			Educational working group formed Other groups form on ad-hoc basis
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Objectives and Tasks	Action Steps	Lead Agency/Partners	Performance Measures	Timeline	Product/Outcome
	Report feedback to the Advisory Committee				
Develop new educational materials & a public involvement plan regarding water quality in Oakland Bay	Hold periodic public outreach/update meetings or workshops/trainings Continue to build Oakland Bay website. SIT will add OB news to their Twitter when appropriate.	MCD, <u>WSU</u> , Sea Grant, MCPH, COS, Taylor Shellfish, ECY, SIT	Quarterly, format based on WEI grant messaging research	On-going On-going	Educate public about water quality & the Advisory Committee process. outcome: community support, public comment & education

Objective 4: Monitor Water Quality, Conduct Shoreline and Upland Surveys, and Conduct Research

Additional North Oakland Bay circulation study	Conduct additional studies as needed	DOH, <u>SIT</u>			Understand the circulation patterns under calm and windy flood tide & windy ebb conditions
Freshwater sampling	MCPH & SIT ambient & intensive sampling	<u>SIT</u> , MCPH, DOH	Quarterly review of number & location of samples taken by MCPH & SIT, quarterly fact sheet on trends in FC levels, # of hot spots ID'd & investigated w/ analysis & recommendations to MCPH	On-going	Pollution Identification
MST data	Phase II: resample after upper Oakland Bay is opened as conditional	EPA, <u>SIT</u> , DOH, ECY	Design a 2011 follow up to the 2006 MST study to assess changes in FC sources	2014	Assess the effectiveness of the correction measures & test method

Objectives and Tasks	Action Steps	Lead Agency/Partners	Performance Measures	Timeline	Product/Outcome
Marine sampling	Determine if non-point identification & remediation have improved marine water quality in Oakland Bay enough to re-open/keep open portions of Oakland Bay for shellfish harvesting	<u>DOH</u> , MCPH, Taylor	Decrease sampling to 12 sample runs a year Sample small tribs at North to start summer of 2009		Systematic random sampling of stations; additional studies
Establish Oakland Bay ORCA buoy	Contact PSP to follow up (initial response positive, will cost 20K to deploy & .5 FTE to maintain)	<u>ECY</u> , PSP, UW Congressman Norm Dicks		On-going	Long term water quality data for additional parameters
Sediment bacterial regrowth study & aquaculture BMP sampling	Implement designed study Report to Advisory Committee	<u>SIT</u> , Shellfish industry		On-going 2009-2011	Identify transport mechanisms that resuspend bacteria from sediment into the water column Report on the relationship of sediment & water column FC at DOH station 614 during the summer, & the effect of wind speed, wind direction, tidal action, & shellfish bed management activities
Oakland Bay & tributaries combination water cleanup & implementation plan (TMDL)	Draft technical report Draft clean up plan Public comment & outreach	<u>ECY</u>	Public draft of technical report & clean up plan	fall/winter 09 fall/winter 09 fall/winter 09	Data analysis & modeling. A combination Water Quality Improvement Report (WQIR) & Water Quality Implementation Plan (WQIP). The appropriate sections of the APS will be included in this report. Public meeting & availability of draft report for public comment

Objectives and Tasks	Action Steps	Lead Agency/Partners	Performance Measures	Timeline	Product/Outcome
	Final plan submitted to EPA			winter 09/10	
Periodic nutrient budget assessment.	Regular research of feasibility & need for nitrogen/phosphorus removal	<u>PSP</u>		On-going	
Oakland Bay Sediment Characterization Study	ECY contract for characterizing surface & subsurface sediments in Oakland Bay & Shelton Harbor for chemical contamination & wood waste concerns.	<u>ECY</u>	Briefing to stakeholders Draft report Final report	spring 09 fall 09 winter 09	presentation- done

Objective 5: Identify and Remediate Agricultural Sources

Identify all sites with livestock & poultry	Update existing inventory to identify number of parcels with livestock or poultry	<u>MCD</u>	The last of 3 updates w/ inventory & GIS map revision as needed	Dec-09	GIS map of inventory
Contact all livestock & poultry operations	Targeted mailing Public meetings	<u>MCD</u>	Direct mailing twice yearly Workshops planned	On-going	newsletter mailed summer 09 on manure exchange, 2nd newsletter in winter 09 4 native plant workshops scheduled, 1 or 2 ag workshops scheduled
Develop conservation plans for farmers	Design BMP's Implement BMP's	<u>MCD</u>		On-going	Best management practices that protect water quality

Objectives and Tasks	Action Steps	Lead Agency/Partners	Performance Measures	Timeline	Product/Outcome
	Quarterly reporting of results			through 7/09	5 Conservation Plans completed for landowners in Oakland Bay Watershed. 8 Agricultural BMPs were implemented (1 "heavy use area" winter confinement paddock, 1 manure composting structure, 2 Fencing/use exclusion projects, 2 Gutter Projects for agricultural buildings, 1 Drainage management project, 1 Pasture management program (rotational grazing). 15 land owners received other technical assistance.
Anaerobic Digester construction	Construct facility at Eels Hill transfer station Working on permitting	<u>MCD</u>	Collect & process organic wastes from baseline of 0; what amount of waste will be processed?	6/09	Make the Anaerobic Digester available as a waste reduction tool in the watershed
Respond to animal feeding operations or pasture based water quality complaints. (ECY/ Ag. Complaint line 360-407-6300)	Coordination between ECY & WSDA. WSDA will work with dairies, all other livestock operations are ECY jurisdiction. Referral to MCD if there is no immediate impact or potential for impact to waters of the state	<u>ECY</u> , WSDA, MCD	Timeline & policy established as a PM for ECY? (Ag. has 3 day response policy) Idea, also possible to get a monthly report from ECY; # complaints, # follow ups, # informal action, # formal actions for the area MCD will respond to ECY, WSDA referrals within 48 hrs of receipt of agency notice or landowner request.	On-going On-going	Identify & respond to water quality risks. ECY response as needed.

Objectives and Tasks	Action Steps	Lead Agency/Partners	Performance Measures	Timeline	Product/Outcome
	State enforcement action in cases with an immediate impact or potential for impact to waters of the state.			Schedule for action depends on the issue	

Objective 6: Identify and Remediate OSS Sources

Parcel Research	Create GIS layer Make GIS layer searchable by stream, shoreline or upland designation, supply match for scanning purchase	<u>MCPH</u>	Inventory of all closure area parcels in O & M database, searchable by stream, shoreline or upland designation	6/30/2009 6/30/2009	O & M database can be used to determine complaints, and target areas for investigative work, education or other outreach
Scan OSS records- first priority shoreline and stream parcels (and any dense development in proximity)	Supply match for scanning purchase. Scan Update Carmody with type, age, records and < 100 ft to surface water	<u>MCPH</u>		2009	OSS design records available online Information about system type, age, records and < or > to surface water is tracked electronically and easily displayed using GIS
Tracking OSS complaints and repairs	complaint and repair fields added to permit tracking database	<u>MCPH</u>	Monthly report to DOH and Oakland Bay Advisory Committee	On-going	countywide public health standard tracked and info to Advisory Committee
OSS Sanitary Surveys- marine shoreline, stream & upland	Conduct shoreline sampling. Segment streams with excessive fecal coliform levels & review septic records.	<u>MCPH</u>	Sample 1/3 of Clean Water District shoreline yearly	On-going On-going	Eliminate potential sources of onsite system fecal coliform

Objectives and Tasks	Action Steps	Lead Agency/Partners	Performance Measures	Timeline	Product/Outcome
	Use results for voluntary compliance or code enforcement. Upland , investigation based on complaint or unsatisfactory maintenance report			On-going On-going	Reports are done regularly
AmeriCorp volunteer	secure grant, match funding train in natural resource work and administrative assistance work work independently in variety of projects	<u>MCPH</u> , and partners		9/09 - 7/15/10	Additional administrative and natural resource work done
Dye tracing as required by sanitary survey results, complaint investigation results or unsatisfactory maintenance reports	Dye traces will be prioritized according to department policy for sanitary surveys & complaints. # depends on number of sites identified	<u>MCPH</u>	100% follow up	On-going Dec-June	OSS will be confirmed or eliminated as failing dye test.
Regular O & M notification, monitoring, recording & follow-up for all OSS	Regular notification Record responses in O & M database Send notices to systems to correct maintenance problems.	<u>MCPH</u>	Record monthly as received	On-going On-going	Maintenance activities recorded, follow-up provided.

Objectives and Tasks	Action Steps	Lead Agency/Partners	Performance Measures	Timeline	Product/Outcome
Upgrade components of existing OSS	<p>Obtain funding for 100 systems in the Oakland Bay area to upgrades that will make O & M easier (risers/ effluent filters)</p> <p>Promote septic system upgrades to public until 100 upgrades funded</p> <p>Work with local businesses to stock supplies needed & promotion of O & M improvements to public. (Sea Grant)- ?????</p>	MCPH, SIT, WSU	<p>Done</p> <p>Promotion on Oakland Bay website and in O & M classes- done</p>	7/08- 7/12	OSS function better due to system improvements & ease of doing O & M

Objective 7: Identify and Remediate other sources

Goldsborough and Shelton stream sources identification	Identified through monthly stream sampling.	COS, MCPH		ongoing	<p>Testing to confirm that Shelton sewer basin work has controlled infiltration/exfiltration. Identification of other sources</p> <p>Reduce stream pollution</p>
Shelton WWTP source reduction is additional treatment	<p>Reduce infiltration /inflow</p> <p>Upgrade treatment plant</p>	COS	<p>Sewer line replacement</p> <p>Complete construction of plant upgrade</p>	<p>On-going</p> <p>2010</p>	
Pet waste control strategy	<p>Research- regulatory needs, implementation needs and enforcement needs and funding possibilities (Teri has reseach paper- ask her to provide)</p> <p>Propose plans to stakeholders</p>	Sea Grant, COS, MCPH,DCD <u>MCD</u>			<p>Increased convenience for pet owners</p> <p>Ability to enforce pet waste clean up</p>

Objectives and Tasks	Action Steps	Lead Agency/Partners	Performance Measures	Timeline	Product/Outcome
	fund/ implement				Improved public response Report provided to COS/MC Increased compliance with pet waste disposal regulations
Research using mycoremediation to reduce fecal coliform	test for Klebsiella- set up & test negative controls test for evidence of fungal growth Test sufficiently in wet season conditions. Test precip vs. dry efficacy. test efficacy of mycoremediation for reducing fecal coliform, pathogenic bacteria, viruses and protozoa (Last priority if effectiveness of treatment established)	MCPW, MCPH, MCUWM, MCD	report on result	2009	adding to database for evaluation
Reduce bacterial conveyance from HWY 3 stormwater discharges	WSDOT shall implement pollution prevention measures contained in its HWY 3 Stormwater Management Plan WSDOT will give a presentation on how the newly developed illicit discharge program will work to the OBCWD Advisory Committee when program is developed	WSDOT			
Within the City of Shelton projects to improve the function of Goldsborough and Shelton Creek	Track data Turning Pointe project Riparian Planting project near Hwy 3 connected to mouth of Shelton Creek	COS, MCD		Done Done	LID Demonstration Project with Pervious Concrete Pavement constructed 10/2008

Objectives and Tasks	Action Steps	Lead Agency/Partners	Performance Measures	Timeline	Product/Outcome
Pioneer school LID demo project	construction of LID features	MCD		starts 11/09	

Objective 8: Identify Land Use Policies and other Statutory Interventions that will Protect, Restore and Preserve

Property acquisition into conservancy	Evaluate feasibility & approaches identify land and funding for acquisitions in the John Creek corridor Eagle Point Twin River Ranch acquisition	DCD, Capitol Land Trust, Cascade Land Conservancy, Port of Shelton, City of Shelton CLC CLC CLT		On-going 12/31/09	
	Both CLC and CLT are working on additional protections along Goldborough Creek in partnership with the County	CLC, CLT			
Develop incentives for: (1) natural shoreline protection including reduction of existing hard armoring (2) shoreline riparian & other buffer enhancement with native plantings	Explore different approaches for providing homeowner incentives for natural shoreline, riparian & other buffer protection & enhancement. Research & identify potential funding sources & approaches Develop a plan for implementation Implement incentives Note: MCD can provide technical assistance to property owners	PSP, DCD, MCD	MCD will hold at least 2 native plant workshops annually MCD will prepare & distribute a brochure/mailer for shoreline/stream side landowners MCD will prepare conservation plans focused on restoration	On-going	MCD held 4 native plant workshops MCD completed 2 brochures on native plants for shoreline/streamside landowners, which are distributed regularly 3 Planting Plans completed for landowners in Oakland Bay Watershed. 22 Riparian BMPs have been implemented

Objectives and Tasks	Action Steps	Lead Agency/Partners	Performance Measures	Timeline	Product/Outcome
Respond to water quality complaints that involve land uses in critical areas	Investigate all WQ complaints in critical areas within 2 working days of referral	<u>DCD</u> , MCD	MCD will respond to DCD referrals within 48 hrs of receipt of agency notice or landowner request.	On-going	Timely investigation of land use activities Since 2007 MCD has assisted 11 referrals from Mason County who live within the Oakland Bay watershed, resulting in 1 conservation plan and 6 planting restoration projects.
Small Parcel Stormwater Site Plan requirements	MCD can provide stormwater BMP technical assistance	<u>DCD</u> , MCD	MCD will work with DCD to inform the public of the new requirements	June 2009	MCD provided technical assistance on stormwater issues to 9 landowners.
County wide stormwater plan presentation to MC BOCC	Recommend BOCC form Surface and Stormwater Management District			April 2009	Formation of Surface and Stormwater Management District
Formation of Surface and Stormwater Management District	Memorandum of Understanding for roles & responsibilities Establish Surface and Stormwater Management District boundaries Establish Surface and Stormwater Management District funding	<u>MCUWM</u> , MCPW, MCPH, WSU, MCD, DCD		June 2009 Dec 2009 2011	Understanding of each agency's or dept. role & responsibilities within the Surface and Stormwater Management District BOCC adoption of Surface and Stormwater Management District boundaries Stable funding source established
Updated Oakland Bay stormwater regulations	Develop stormwater regulations for Oakland Bay Present to BOCC Adopt regulations	<u>MCUWM</u>	Comprehensive plan update	Dec-09	Oakland Bay stormwater regulations meet the MC Stormwater Ordinance #81-08 adopted 6/17/08
Within the City of Shelton Critical Areas Ordinance changes to improve the function of Goldsborough and Shelton Creek		<u>COS</u>			

Objectives and Tasks	Action Steps	Lead Agency/Partners	Performance Measures	Timeline	Product/Outcome
Implement NPDES 2 requirements	COS is working to be proactive & do this before it is required	<u>COS</u>			Improved stormwater control
Countywide stormwater ordinance to include LID standards	Explore how reduced impervious surface provisions could be incorporated into ordinances Implement ordinances	<u>DCD, COS</u>	Limits development Implement began December 2008	Jul-08 Dec-08	Less runoff, better stormwater treatment, more vegetative cover
Evaluate the need for special overlay protection	Using land tools such as carrying capacity & performance standards to assess land use activities & vegetative cover removal within the closure area Implement policy that adequately protects closure area	<u>DCD</u>	Tools ID'd by December 2007 Evaluation complete & recommendations to BOCC	12/31/08 07/30/09	Improved land use practices

Objective 9: Key Enforcement Elements (Note: Enforcement tasks may be found in other parts of this table. These tasks have been given a separate objective because they are considered critical to the success of the Closure Response Plan.)

Nonpoint ordinance & stormwater enforcement	Project research & scoping; EH, DCD, PW, MCUWM, discuss how inclusive of nonpoint sources ordinance should be & if ordinance is to be developed as part of the Mason County Comprehensive Plan.	MCPH, DCD, MCPW, MCUWM, BOCC	Set up scoping meeting (Vicki) for NP ordinance; Barb, Charlie, Debbie, Emmett		Provide enforcement options
Update the MCPH Enforcement Policy & Procedures	Review Provide recommendations to BOH Implementation	<u>MCPH</u> , BOCC		2010	Policy & Procedures aligned with Oakland Bay Action Plan

Objectives and Tasks	Action Steps	Lead Agency/Partners	Performance Measures	Timeline	Product/Outcome
Review the Oakland Bay Action Plan to ensure consistency with the Administrative Plan required under RCW 70.118.030	Review after Action Plan is approved by land use attorney	MCPA	Consistency between Action Plan Administrative Search Warrant requirements.		Oakland Bay Action Plan provides for part of Administrative Plan requirements

Objective 10: Program Evaluation

Establish measurable goals to track APS effectiveness	Set TMDL limits for FC bacteria	MCPH, all members of OBCWD Advisory Committee	Semi-annual review by Board of OBCWD Annual shellfish protection district report Annual review by DOH	on-going	
Testing to determine if goals are being reached					
Review & revise APS yearly		MCPH			

LIST OF ACRONYMS

APS= Oakland Bay Action Plan Strategy
 BMP= Best Management Practices
 BOCC = Mason County Board of County Commissioners
 COS= City of Shelton
 CLC= Cascade Land Conservancy
 CLT= Capitol Land Trust
 DCD = Mason County Department of Community Development
 DOH = Washington Department of Health
 ECY = Washington Department of Ecology
 EH= Mason County Public Health Environmental Health Program
 EPA = United States Environmental Protection Agency

Objectives and Tasks	Action Steps	Lead Agency/Partners	Performance Measures	Timeline	Product/Outcome
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GIS= Geographic Information System
 MCD = Mason Conservation District
 MCP= Mason County Prosecutor
 MCPH = Mason County Public Health
 MCPW = Mason County Public Works
 MCUWM= Mason County Utilities and Wastewater Management
 NP= Nonpoint
 PSP= Puget Sound Partnership
 OBCWD= Oakland Bay Clean Water District
 O & M = Operation and Maintenance
 OSS= On- site sewage system
 Sea Grant= Washington State Sea Grant, University of Washington
 SIT = Squaxin Island Tribe
 TMDL= Total Maximum Daily Load
 WEI= Western Estuaries Initiative
 WSDA = Washington State Department of Agriculture
 WSU = Washington State University Mason County Extension
 WQ= Water Quality

Note:

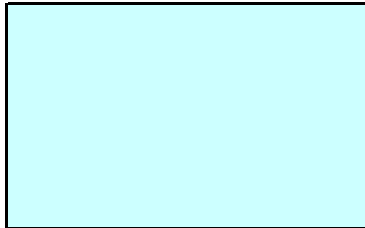
In the event any portion of this plan is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portions shall be deemed a separate provision of this plan and such designation shall not affect the validity of the remaining portions of this plan

**Fund Source & amount
(include intra-agency
funding)**

MCPH- 09 fund

MCPH-09 fund

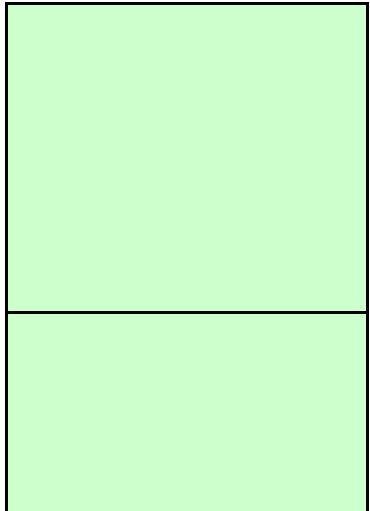
MCPH 09 fund



**Fund Source & amount
(include intra-agency
funding)**

Governmental funding as a surface
& stormwater program

09 fund will fund 2 MCPH staff to
work full time on Oakland Bay. 09
Funding ends Dec 2010. WSU,
WEI and other grants that need
coordinated will go here (get grant
info- staffing and start and end
dates to Stephanie for inclusion)



Fund Source & amount (include intra-agency funding)
MCD, WSU, Sea Grant, MCPH (09 fund), MCUWM, SIT (WEI grant) & other educational working group members

MCPH 09 fund
SIT- EPA grant, DOH
EPA

Fund Source & amount (include intra-agency funding)
DOH, MCPH
Federal Government
SIT, EPA
Funded

Fund Source & amount (include intra-agency funding)

Centennial Grant through 4/2010
Centennial Grant through 4/2010
Centennial Grant through 4/2010, Squaxin WEI grant through 9/2012, limited cost share and technical assistance are available through Conservation Commission

**Fund Source & amount
(include intra-agency
funding)**

Centennial Grant through 4/2010.
Squaxin WEI grant through
9/2012. Limited cost share and
technical assistance are available
through Conservation
Commission.

2.5 million in loans

Agency operating budget

Fund Source & amount (include intra-agency funding)

MCPH Environmental Health program budget
09 fund- \$ 12,000
09 fund
09 Fund
09 Fund

Fund Source & amount (include intra-agency funding)
Grant, 09 money for match- \$ 5000 dollars
09 fund
OSS program funding

Fund Source & amount (include intra-agency funding)
WEI grant, O9 fund

09 Fund
COS, MC

**Fund Source & amount
(include intra-agency
funding)**

Funding needed

COS, Squaxin WEI grant
MCD- DOE SMDP Grant through
4/2011

Fund Source & amount (include intra-agency funding)
Grant

TBD, potential grant sources
Centennial Grant through 4/2010
Centennial Grant through 4/2010
Centennial Grant through 4/2010

Fund Source & amount (include intra-agency funding)
Squaxin WEI grant through 9/2012; MC Stormwater Implementation Grant through 4/2011
Stormwater Implementation Grant
Stormwater Implementation Grant & MC matching funds
COS

Fund Source & amount (include intra-agency funding)
COS
DCD, COS

Agency budget

Fund Source & amount (include intra-agency funding)

MCPH 09 fund
ECY, DOH, SIT, MCPH
All

**Fund Source & amount
(include intra-agency
funding)**