

10-08-09 Oakland Bay Action Plan Strategy update

Note: Lead Agencies underlined

Table 1 Oakland Bay Action Plan Strategy

Objectives and Tasks	Action Steps	Lead Agency/Partners	Performance Measures	Timeline	Product/Outcome	Fund Source & amount (include intra-agency funding)
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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	MCPH- 09 fund
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	MCPH-09 fund
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	MCPH 09 fund

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	
Develop integrated financial strategy	BOCC process. They are looking at options such as sales tax, Public Health money & private funding	<u>BOCC</u> through budget & contributions from other agencies or entities		On-going	Improved ability to obtain funding	Governmental funding as a surface & stormwater program

Objectives and Tasks	Action Steps	Lead Agency/Partners	Performance Measures	Timeline	Product/Outcome	Fund Source & amount (include intra-agency funding)
White paper from Teri on funding sources	Regular discussions to coordinate grants and to determine support for funding requests			On-going		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)
	Develop recommendations for funding and bring to BOCC, regular discussion with BOCC	MCPH, all Advisory Committee members SeaGrant		On-going		

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

Invite area residential landowners to be part of the OBCWD Advisory Committee	Identify key stakeholder groups as part of public involvement strategy	Agencies in the Education Group lead to be assigned when advisory group membership is established		On-going	Input from all stakeholders	
Invite key stakeholders that are not attending the Advisory Committee meetings to provide input on issues that might affect them	Provide additional participant names to Stephanie/education working group for outreach. Part of establishing advisory group. Contact stakeholder, provide information Report feedback to the Advisory Committee	MCD, WSU & MCPH		On-going	Input from all stakeholders	
Develop new educational materials & a public involvement plan regarding water quality in Oakland Bay	Hold periodic public outreach/update meetings or workshops/trainings	MCD, WSU, Sea Grant, MCPH, COS, Taylor Shellfish, ECY, SIT	Quarterly, format based on WEI grant messaging research	On-going	Educate public about water quality & the Advisory Committee process. outcome: community support, public comment & education	MCD, WSU, Sea Grant, MCPH (09 fund), MCUWM, SIT (WEI grant) & other educational working group members

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	Continue to build Oakland Bay website.SIT will add OB news to their Twitter when appropriate.			On-going		

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	MCPH 09 fund SIT- EPA grant, DOH
MST data	Phase II: resample afterupper 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	2011	Assess the effectiveness of the correction measures & test method	EPA
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	DOH, MCPH
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	Federal Government
Sediment bacterial regrowth study & aquaculture BMP sampling	Implement designed study	<u>SIT</u> , Shellfish industry		On-going	Identify transport mechanisms that resuspend bacteria from sediment into the water column	SIT, EPA

Objectives and Tasks	Action Steps	Lead Agency/Partners	Performance Measures	Timeline	Product/Outcome	Fund Source & amount (include intra-agency funding)
	Report to Advisory Committee			2009-2011	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 Final plan submitted to EPA	<u>ECY</u>	Public draft of technical report & clean up plan	fall/winter 09 fall/winter 09 fall/winter 09 winter 09/10	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	Funded
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	
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Objectives and Tasks	Action Steps	Lead Agency/Partners	Performance Measures	Timeline	Product/Outcome	Fund Source & amount (include intra-agency funding)
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	Centennial Grant through 4/2010 Centennial Grant through 4/2010
Develop conservation plans for farmers	Design BMP's Implement BMP's Quarterly reporting of results	<u>MCD</u>		On-going through 7/09	Best management practices that protect water quality 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 landowners received other technical assistance.	Centennial Grant through 4/2010, Squaxin WEI grant through 9/2012, limited cost share and technical assistance are available through Conservation Commission. Centennial Grant through 4/2010. Squaxin WEI grant through 9/2012. Limited cost share and technical assistance are available through Conservation Commission.
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	2.5 million in loans
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.	<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	Identify & respond to water quality risks. ECY response as needed.	Agency operating budget

Objectives and Tasks	Action Steps	Lead Agency/Partners	Performance Measures	Timeline	Product/Outcome	Fund Source & amount (include intra-agency funding)
	Referral to MCD if there is no immediate impact or potential for impact to waters of the state State enforcement action in cases with an immediate impact or potential for impact to waters of the state.			On-going 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	MCPH Environmental Health program budget
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	09 fund- \$ 12,000 09 fund
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	09 Fund
OSS Sanitary Surveys- marine shoreline, stream & upland	Conduct shoreline sampling. Segment streams with excessive fecal coliform levels & review septic records. Use results for voluntary compliance or code enforcement.	<u>MCPH</u>	Sample 1/3 of Clean Water District shoreline yearly	On-going On-going On-going	Eliminate potential sources of onsite system fecal coliform	09 Fund

Objectives and Tasks	Action Steps	Lead Agency/Partners	Performance Measures	Timeline	Product/Outcome	Fund Source & amount (include intra-agency funding)
	Upland , investigation based on complaint or unsatisfactory maintenance report			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 project:	<u>MCPH</u> , and partners		9/09 - 7/15/10	Additional administrative and natural resource work done	Grant, 09 money for match- \$ 5000 dollars
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.	09 fund
Regular O & M notification, monitoring, recording & follow-up for all OSS	Regular notification Record responses in O & M databases 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.	OSS program funding
Upgrade components of existing OSS	Obtain funding for 100 systems in the Oakland Bay area to upgrades that will make O & M easier (risers/ effluent filters) Promote septic system upgrades to public until 100 upgrades funded	<u>MCPH</u> , SIT, WSU	Done Promotion on Oakland Bay website and in O & M classes- done	7/08- 7/12	OSS function better due to system improvements & ease of doing O & M	WEI grant, 09 fund

Objectives and Tasks	Action Steps	Lead Agency/Partners	Performance Measures	Timeline	Product/Outcome	Fund Source & amount (include intra-agency funding)
	Work with local businesses to stock supplies needed & promotion of O & M improvements to public. (Sea Grant)- ?????					

Objective 7: Identify and Remediate other sources

Goldsborough and Shelton stream sources identification	Identified through monthly stream sampling.	COS, MCPH		ongoing	Testing to confirm that Shelton sewer basin work has controlled infiltration/exfiltration. Identification of other sources Reduce stream pollution	09 Fund
Shelton WWTP source reduction is additional treatment	Reduce infiltration /inflow Upgrade treatment plant	COS	Sewer line replacement Complete construction of plant upgrade	On-going 2010		
Pet waste control strategy	Research- regulatory needs, implementation needs and enforcement needs and funding possibilities (Teri has reseach paper- ask her to provide) Propose plans to stakeholders fund/ implement	Sea Grant, COS, MCPH,DCD MCD			Increased convenience for pet owners Ability to enforce pet waste clean up Improved public response Report provided to COS/MC Increased compliance with pet waste disposal regulations	COS, MC

Objectives and Tasks	Action Steps	Lead Agency/Partners	Performance Measures	Timeline	Product/Outcome	Fund Source & amount (include intra-agency funding)
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	Funding needed
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	COS, Squaxin WEI grant MCD- DOE SMDP Grant through 4/2011
Pioneer school LID demo project	construction of LID features	MCD		starts 11/09		Grant

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		TBD, potential grant sources
	Both CLC and CLT are working on additional protections along Goldborough Creek in partnership with the County	CLC, CLT				

Objectives and Tasks	Action Steps	Lead Agency/Partners	Performance Measures	Timeline	Product/Outcome	Fund Source & amount (include intra-agency funding)
Develop incentives for: (1) natural shoreline protection including reduction of existing hard armoring (2) shoreline riparian & other buffer enhancement with native plantings	<p>Explore different approaches for providing homeowner incentives for natural shoreline, riparian & other buffer protection & enhancement.</p> <p>Research & identify potential funding sources & approaches</p> <p>Develop a plan for implementation</p> <p>Implement incentives</p> <p>Note: MCD can provide technical assistance to property owners</p>	PSP, DCD, MCD	<p>MCD will hold at least 2 native plant workshops annually</p> <p>MCD will prepare & distribute a brochure/mailer for shoreline/stream side landowners</p> <p>MCD will prepare conservation plans focused on restoration</p>	On-going	<p>MCD held 4 native plant workshops</p> <p>MCD completed 2 brochures on native plants for shoreline/streamside landowners, which are distributed regularly</p> <p>3 Planting Plans completed for landowners in Oakland Bay Watershed. 22 Riparian BMPs have been implemented</p>	<p>Centennial Grant through 4/2010</p> <p>Centennial Grant through 4/2010</p> <p>Centennial Grant through 4/2010</p>
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	DCD, 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	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 9 landowners.	Squaxin WEI grant through 9/2012; MC Stormwater Implementation Grant through 4/2011
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	Stormwater Implementation Grant
Formation of Surface and Stormwater Management District	<p>Memorandum of Understanding for roles & responsibilities</p> <p>Establish Surface and Stormwater Management District boundaries</p>	MCUWM, MCPW, MCPH, WSU, MCD, DCD		<p>June 2009</p> <p>Dec 2009</p>	<p>Understanding of each agency's or dept. role & responsibilities within the Surface and Stormwater Management District</p> <p>BOCC adoption of Surface and Stormwater Management District boundaries</p>	Stormwater Implementation Grant & MC matching funds

Objectives and Tasks	Action Steps	Lead Agency/Partners	Performance Measures	Timeline	Product/Outcome	Fund Source & amount (include intra-agency funding)
	Establish Surface and Stormwater Management District funding			2011	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>				COS
Implement NPDES 2 requirements	COS is working to be proactive & do this before it is required	<u>COS</u>			Improved stormwater control	COS
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	DCD, COS

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.)

Objectives and Tasks	Action Steps	Lead Agency/Partners	Performance Measures	Timeline	Product/Outcome	Fund Source & amount (include intra-agency funding)
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	Agency budget
Update the MCPH Enforcement Policy & Procedures	Review Provide recommendations to BOH Implementation	MCPH, BOCC		2010	Policy & Procedures aligned with Oakland Bay Action Plan	
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		MCPH 09 fund
Testing to determine if goals are being reached						ECY, DOH, SIT, MCPH
Review & revise APS yearly		MCPH				All

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

Objectives and Tasks	Action Steps	Lead Agency/Partners	Performance Measures	Timeline	Product/Outcome	Fund Source & amount (include intra-agency funding)
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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
 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