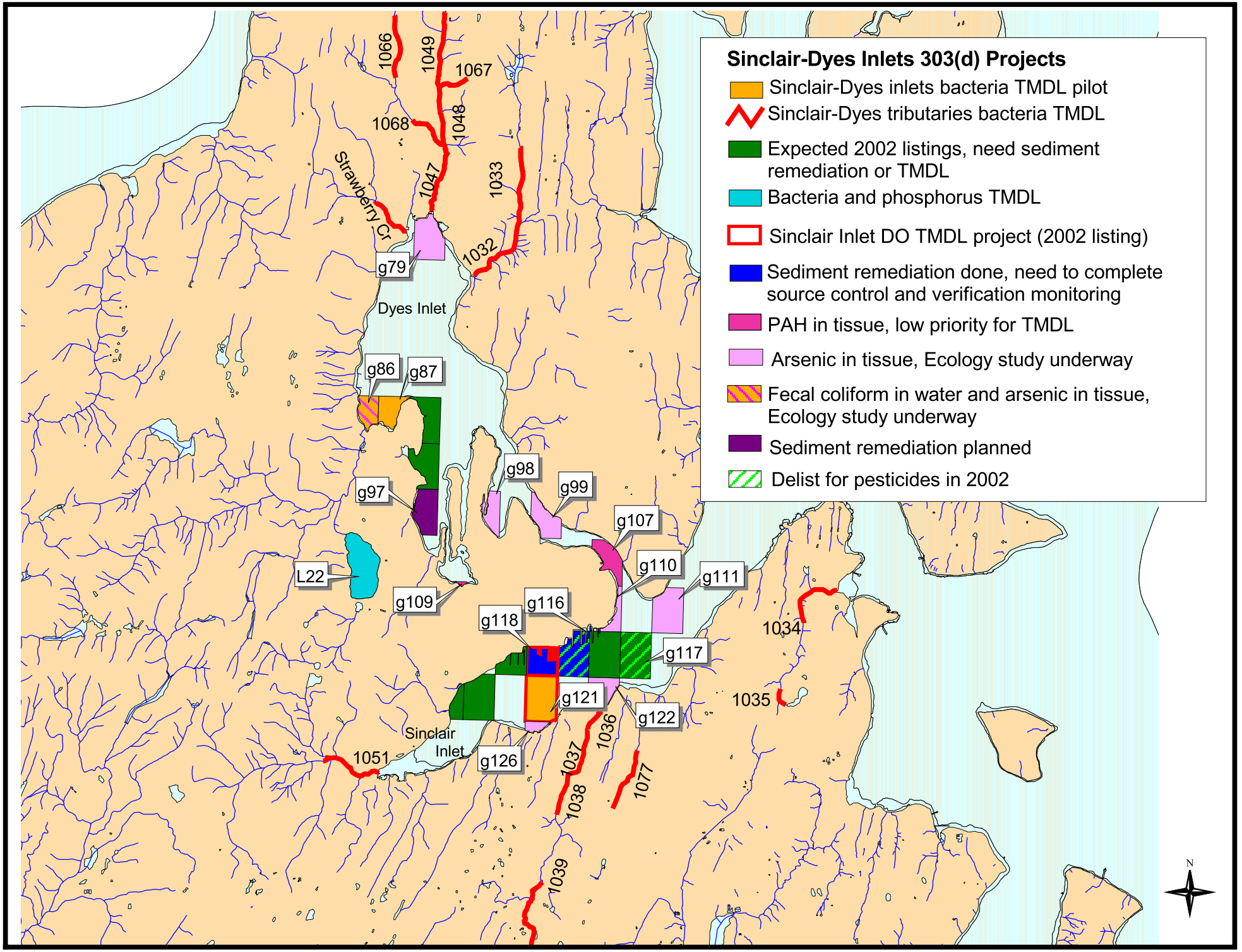
303d Scoping Summary for Sinclair & Dyes Inlets and Watershed

Sinclair and Dyes inlets feature 62 marine water grids on Washington State's 1998 303d list of impaired waters. Their tributaries have an additional 16 impaired freshwater segments. These 78 listings are shown on the attached 2-page map and legend. Most listings depicted on the map can be keyed against the legend using either the grid number (g79) or segment number (1032). The state's 2002 303d list is expected to add several new impaired grids and segments, some of which are included on the map because they were relevant to this TMDL scoping analysis. These expected listings do not have grid or segment numbers, but are color-coded on the map and legend for ease of reference.

The inset on the map groups the 78 listed grids and segments into about 10 projects that are intended to address the 303d listings. Most of the projects are proposed or underway, while a few have already been completed. The projects or proposed actions are described further in the accompanying table. The table groups the activities into priority categories, where high indicates work that is scheduled to begin this year, medium indicates work projected to occur in future years, and low indicates work that is either unscoped or largely completed. The table also provides the rationale behind the proposed actions and their relative priority.

The two high-priority 303d projects will develop TMDLs for all fecal coliform listings in the basin. These projects were selected to move forward this year due to high stakeholder interest and also because they are less complex to undertake than toxics TMDLs. Among the medium-priority projects, existing and projected sediment toxics listings dominate. These will be addressed through either sediment cleanup projects or TMDLs. Many of the low-priority projects are being addressed through ongoing toxics verification monitoring and other studies by Ecology. Findings from these projects will result in some 303d de-listings, because current environmental conditions no longer exceed water or sediment quality standards.


Sinclair-Dyes Inlets 303(d) Projects
Sinclair-Dyes inlets bacteria TMDL pilot
Sinclair-Dyes tributaries bacteria TMDL
Expected 2002 listings, need sediment remediation or TMDL
Bacteria and phosphorus TMDL
Sinclair Inlet DO TMDL project (2002 listing)
Sediment remediation done, need to complete source control and verification monitoring
PAH in tissue, low priority for TMDL
Arsenic in tissue, Ecology study underway
Fecal coliform in water and arsenic in tissue, Ecology study underway
Sediment remediation planned
Delist for pesticides in 2002
1066
1049
1067
1068
1048
1047
1033
Strawberry Cr
1032
g79
Dyes Inlet
g86
g87
g98
g99
g97
g107
g110
g111
L22
g109
g116
g118
1034
g117
g121
1035
g122
Sinclair Inlet
1051
g126
1037
1036
1038
1077
1039
N

Sinclair-Dyes Inlets 1998 Section 303(d) Listings


g79 Arsenic in clam tissue.


g86 Fecal coliform in water and arsenic in clam tissue.


g87 Fecal coliform in water.


g97 Ostrich Bay sediment contamination: phenol, mercury, silver, cadmium, bis(2-ethythexyl)phthalate, bioassay. Toxics in crab: antimony, arsenic, chrysene, mercury, bis(2-ethythexyl)phthalate, benzo(b)fluoranthene, PCP, benzo(a)anthracene. Toxics in clam: antimony, arsenic, bis(2-ethythexyl)phthalate, 3,3-dichlorobenzidine.


g98 Arsenic in clam tissue.


g99 Arsenic in clam and fish tissue.


g107 Port Washington Narrows arsenic and benzo(b)fluoranthene in clam tissue.


g109 Oyster Bay arsenic and benzo(b)fluoranthene in clam tissue.


g110 Port Orchard, Agate Passage, and Rich Passage arsenic in fish tissue.


g111 Port Orchard, Agate Passage, and Rich Passage arsenic in fish tissue.


g116 Toxics in sediment: arsenic, benzo(a)anthracene, bioassay, butylbenzyl phthalate, cadmium, chrysene, copper, indeno(1,2,3-cd)pyrene, lead, phenol, mercury, zinc, 1-4 dichlorobenzene, 2-4 dimethylphenol, 4 methylphenol.


g116 PCB1254 in mussels, PCB1260 and aldrin in English sole.


g117 Dieldrin in fish tissue, sediment toxicity from bioassay.


g118 Toxics in sediment: arsenic, benzoic acid, benzo(g,h,i)perylene, bis(2-ethylhexyl)phthalate, butylbenzyl phthalate, cadmium, chrysene, copper, fluoranthene, indeno(1,2,3-cd)pyrene, lead, phenanthrene, mercury, zinc.


g118 Expected 2002 listing for low dissolved oxygen.


g121 Fecal coliform and expected 2002 listing for low dissolved oxygen.


g122 Arsenic in fish and clam tissue.


g126 Arsenic in fish tissue.


Expected 2002 listings for toxics in sediment.


L22 Kitsap Lake fecal coliform and phosphorus.


1032 -1033 Barker Creek bacteria.
1034 -1035 Beaver Creek bacteria.
1047-1049 Clear Creek bacteria.
1051 Gorst Creek bacteria.
1066 -1068 Clear Creek bacteria.
1077 Annapolis Creek bacteria.
Strawberry Creek expected 2002 listing for bacteria.

Sinclair-Dyes inlets and watershed
1998 303(d) listings and proposed actions

Priority	303d listings (#)	Proposed action	Rationale
High	Fecal coliform in Sinclair-Dyes inlets (3)	Envvest bacteria TMDL pilot project, summer '02 start	High stakeholder interest, less complexity than toxics TMDLs
	Fecal coliform in Barker (2), Clear (6), Strawberry (?), Gorst (1), Blackjack (4), Annapolis (1), and Beaver (2) creeks	Ecology TMDL project for Sinclair-Dyes tributaries, spring '03 start	Sinclair-Dyes inlets pilot TMDL will establish load allocations for tributary mouths
Medium	Toxics in Sinclair Inlet sediment (40)	Remediation or TMDL needed	Ecology review of recent sediment chemistry data indicates 6 new grids may be listed in '02
	Sinclair Inlet sediment toxicity, grid 117 (1+10)	Remediation or TMDL needed	Likely will be 10 toxic chemical listings added to this grid in '02 (current listing based on sediment bioassay)
	Fecal coliform & phosphorus in Kitsap Lake	Ecology TMDL project	Insufficient resources to do TMDL now
	Dissolved oxygen in Sinclair Inlet (2)	Envvest DO TMDL project	Will be added to 303d list in '02
	Toxics in Sinclair Inlet sediment, grids 116 & 118 (30)	Complete source controls and effectiveness monitoring, remove from 303d list if warranted (does not require TMDL)	Sediment remediation completed, source control nearly completed, effectiveness monitoring partially completed
	PCBs in Sinclair Inlet fish & shellfish, grid 116 (2)	Complete source controls, conduct effectiveness monitoring in mussel & sole, delist if warranted	Sediment remediation completed, source control nearly completed
Low	PAH in Oyster Bay and Port WA Narrows shellfish, grids 107 & 109 (2)	Delist Oyster Bay (1) but add 2 new PAH listings in Port WA Narrows in '02; low priority for TMDL due to marginal exceedance of standards	Verification sampling completed by Ecology
	Arsenic in Sinclair-Dyes-Port Orchard fish, shellfish (11)	Await results of Ecology arsenic speciation study	Arsenic may be naturally high in marine water/tissue
	Toxics in Ostrich Bay sediment, grid 97 (6)	Conduct effectiveness monitoring after sediment remediation and source control completed	Sediment remediation in planning stage
	Toxics in Ostrich Bay shellfish, grid 97 (9)	Delist all toxics except mercury in crab in '02, conduct effectiveness monitoring after sediment remediation and source control completed	Verification sampling completed by Ecology, sediment remediation in planning stage
	Pesticides in Sinclair Inlet fish, grids 116 & 117 (2)	Delist in '02	Verification sampling completed by Ecology