

MONITORING GENERAL NOTES:

The Total Site Size Is 109 acres. Representative sampling may be utilized on this project.

The Individual outfall drainage basins along the project corridor have been carefully evaluated and compared on the basis of four characteristics: the type of construction activity, the disturbed acreage, the average slope about the outfall, and the soil erosion Index 0-10, 10 being the most erodible soil. The construction activity types are new road on fill, new road in cut, road widening, and maintenance/safety. The disturbed area classes are less than or equal to 1 acre, greater than 1 acre to less than 2 acres, and equal to or greater than 2 acres. The average outfall slope is mild if it is equal to or less than 0.03, and steep if it is greater than 0.03. The soil erosion Index is low if it is less than or equal to 5 and high if it is greater than 5. After evaluation of these characteristics as presented in the project's drainage area map, hydrology, and hydraulic studies, construction plans, geotechnical soil survey, and erosion sedimentation and pollution control plans, the Department has determined that representative sampling is valid for the duration of the project. The table below shows the groups of similar outfall drainage basins.

The Increase in turbidity as the specified locations in the table below will be representative of the alternate outfall drainage basins when similar outfall drainage basins exist. Approved primary and alternate representative monitored features are identified in the table below.

SAMPLING INFORMATION											OUTFALL CHARACTERISTICS				
Primary Monitored Feature	Location (Sta. and offset)	Name of Receiving water.	Applicable Construction Stage for Monitoring	Sampling Type (outfall or receiving water)	Drainage Area for the receiving water (sq. mi)	Total Project Area (acres)	Warm or Cold Water Stream	Appendix B NTU Value (outfall monitoring only)	Allowable NTU Increase (for receiving water)	Location Description	Construction Activity	Disturbed Area (acres)	Average Outfall Slope (rise/run)	Soil Erosion Index	Alternate Outfall Drainage Basins
4' FBD 142-50 RT	142-50 RT	REED CREEK	ALL	OUTFALL	5-10	109.20	WARM	50	N/A	4' FBD	NEW LOCATION FILL	<1	<3%	>5	E9 24" PIPE 18" PIPE UNDER CONNOR DR G2 CONNECT TO EXISTING
A19 42" PIPE	30-30 RT	REED CREEK	ALL	OUTFALL	5-10	109.20	WARM	50	N/A	STRUCTURE A19	WIDENING	<1	<3%	>5	A53 18" CONNECT TO EXISTING A45 24" CONNECT TO EXISTING
2' FBD 102-50 LT	102-50 LT	REED CREEK	ALL	OUTFALL	5-10	109.20	WARM	50	N/A	2' FBD	NEW LOCATION FILL	<1	>3%	>5	N/A
A42 18" PIPE	24-50 RT	REED CREEK	ALL	OUTFALL	5-10	109.20	WARM	50	N/A	STRUCTURE A42	WIDENING	<1	>3%	>5	4' FBD 13-33 RT A44A 18" CONNECT TO EXISTING EXISTING DITCH END BLUE RIDGE DR
F1 CONNECT TO EXISTING	253-00 LT	REED CREEK	ALL	OUTFALL	5-10	109.20	WARM	50	N/A	STRUCTURE F1	MAINTENANCE	<1	>3%	>5	F2 CONNECT TO EXISTING F3 CONNECT TO EXISTING F4 CONNECT TO EXISTING
2' FBD 120-50 LT	120-50 LT	REED CREEK	ALL	OUTFALL	5-10	109.20	WARM	50	N/A	2' FBD	NEW LOCATION FILL	1-2	<3%	>5	N/A
A144 30" PIPE	53-40 LT	REED CREEK	ALL	OUTFALL	5-10	109.20	WARM	50	N/A	STRUCTURE A144	NEW LOCATION FILL	1-2	>3%	>5	A59 MANHOLE CONNECT TO EXISTING
C46 36" PIPE	149-30 LT	REED CREEK	ALL	OUTFALL	5-10	109.20	WARM	50	N/A	STRUCTURE C46	NEW LOCATION FILL	>2	<3%	>5	A70 JUNCTION BOX CONNECT TO EXISTING A15A 30" PIPE B27A 48" PIPE EXISTING DITCH END COLUMBIA INDUSTRIAL BLVD
A120 24" PIPE	142-80 LT	REED CREEK	ALL	OUTFALL	5-10	109.20	WARM	50	N/A	STRUCTURE A120	NEW LOCATION FILL	>2	>3%	>5	4' FBD 120-50 RT 4' FBD 133-50 LT D9 MANHOLE CONNECT TO EXISTING 8" SWALE
42" PIPE WASHINGTON ROAD	30-00 RT	REED CREEK	ALL	OUTFALL	5-10	109.20	WARM	50	N/A	42" PIPE AFTER SWALE	NEW LOCATION FILL	1-2	>3%	>5	N/A

The primary monitored features specified should be used as the initial sampling locations. An alternate monitored feature may be used if additional sampling is required or to replace a primary monitored feature that is no longer located within the active phase of construction.

MONITORING SAMPLING METHODS & PROCEDURES

See Special Provision 167 and other contract documents for Monitoring Sampling Methods and Procedures.

STREAM BUFFER ENCROACHMENT
Stream Buffers are impacted by this project. The contractor is not authorized to enter into stream buffers, except as described in the table below:

Name (name or number of feature)	Location of Buffered Streams and State Waters **			Stream Type (Warm/Cold Water) *	Buffer Impacted (Yes/No)	Buffer Variance Required?
	Alignment	Begin Sta (Lt or Rt)	End Sta (Lt or Rt)			
STREAM 1	RIVERWATCH PKWY	205+75 RT	207+09 LT	WARM	YES	NO
Describe the Allowable activities and/or restrictions within the buffer and approximate location of impacts. CULVERT REMOVAL, CULVERT CONSTRUCTION, EROSION CONTROL MEASURES, GUARDRAIL INSTALLATION, ROADWAY FILL EMABNKMENT						
STREAM 1A	RIVERWATCH PKWY	204+82 RT	205+75 RT	WARM	YES	NO
Describe the Allowable activities and/or restrictions within the buffer and approximate location of impacts. DRIVEWAY RECONSTRUCTION, DRIVEWAY PIPE INSTALLATION, EROSION CONTROL MEASURES						
STREAM 2	RIVERWATCH PKWY	141+33 RT	142+63 LT	WARM	YES	NO
Describe the Allowable activities and/or restrictions within the buffer and approximate location of impacts. BRIDGE REMOVAL, BRIDGE CONSTRUCTION, ROAD EMABNKMENT REMOVAL, BRIDGE CONSTRUCTION, RIP RAP FOR OUTLET STABILIZATION						
STREAM 2A	RIVERWATCH PKWY	141+72 LT	151+56 LT	WARM	YES	NO
Describe the Allowable activities and/or restrictions within the buffer and approximate location of impacts. PIPE CONSTRUCTION, RIP RAP FOR OUTLET STABILIZATION						
STREAM 2B	RIVERWATCH PKWY	142+16 RT	142+89 RT	WARM	YES	NO
Describe the Allowable activities and/or restrictions within the buffer and approximate location of impacts. BRIDGE CONSTRUCTION, BRIDGE ENDROLL CONSTRUCTION, DITCH CONSTRUCTION						
STREAM 3	RIVERWATCH PKWY	119+73 LT	122+14 RT	WARM	YES	NO
Describe the Allowable activities and/or restrictions within the buffer and approximate location of impacts. BRIDGE CONSTRUCTION, DITCH INSTLLATION WITH RIP RAP LINING						
STREAM 4	WASHINGTON RD	24+75 RT	30+50 RT	WARM	YES	NO
Describe the Allowable activities and/or restrictions within the buffer and approximate location of impacts. CULVERT CONSTRUCTION, ROAD/FILL EMABNKMENT, EROSION CONTROL MEASURES						
OPEN WATER 3A	RIVERWATCH PKWY	116+50 RT	119+31 RT	WARM	YES	YES
Describe the Allowable activities and/or restrictions within the buffer and approximate location of impacts. DRIVEWAY RECONSTRUCTION, EROSION CONTROL MEASURES						

Unless noted otherwise, utility companies will be submitting the required permits/variances in conjunction with the impacts caused by their activities. If utility impacts are covered by the Department's stream buffer variance, this shall be noted in the buffer-variance-required column. * Warm water streams have a 25-foot minimum buffer as measured from the wretsted vegetation. Cold water streams have a 50-foot buffer as measured from the wretsted vegetation. ** Locations are approximate, a detailed location of stream buffers and authorized work areas are shown on the Individual BMP sheets.