

## ROUGE RIVER OUTFALL - PROJECT TIMELINE

1993	1993-2003	2003-2009	2009-2013	2013-2014	2015-2016
	DRO-2	MOD DRO-2	RRO-2	RRO-2, Segment 1	
	<b>CS-1150</b> (CCJM), \$4.8M	<b>CS-1448</b> (PB), \$8M		<b>CS-1541</b>	
	<b>PC-709</b> , (Traylor-Jay Dee), (original \$122M & final \$98.1M)	<b>PC-771</b> , \$299M	<b>PC-786 (Walsh)</b> , \$13.1M		
Only the flow to Detroit River Outfall (DRO) has disinfection. As part of the CSO Wet Weather Plan, Disinfection of <u>all</u> the discharges to the open waters (Detroit River and Rouge River) was planned.	A study was initiated for feasibility. Subsequently, a final design was completed in 1998 and then construction started in 1999 to build new outfall DRO-2 and deep tunnel to carry excess flow to DRO-2. Entrance shaft, two access shafts, six diffuser riser shafts and outfall diffusers were also built. In 2003, when half of the length of the tunnel was complete, uncontrollable ground water flooded the tunnel and the project was abandoned.	Utilizing the DRO-2 outfall shaft and the diffusers that were previously constructed, a new project was initiated to build a new rock tunnel to DRO-2 at a higher elevation than the failed tunnel. The design was completed in 2007 and the construction started in Nov. 2008. However, during the FY 2008-09, due to economic hardship, the project was cancelled.	Immediately after, DWSD began an evaluation of a possible second Rouge River Outfall (RRO-2) ground level conduit as a potential substitute project. It was evident from the start of the evaluation process that the RRO-2 Conduit (~2500') would be less expensive and easier to build since it did not rely on sophisticated tunneling technology.  This project was to be constructed in two parts. RRO-2, Segment-1 was initiated under PC-786 to rehabilitate movable dams, modification of stop logs and chlorination/de-chlorination valves before starting Segment-2 to build the box-conduit to carry the flows to the new outfall RRO-2 at the confluence of the old Rouge River and the cut channel.	RRO-2 Segment-2 work was advertised under CS-1541 and later it was closed for alternative disinfection feasibility study utilizing the existing Rouge River Outfall conduits.  The study from Applied Science Inc. concluded that the project is feasible as the existing conduits had sufficient contact time to disinfect and would be much cheaper to build. This was presented to MDEQ.	RRO-2 Segment 1 work completed under PC786.  RRO alternative disinfection project was technically approved by MDEQ in late 2014 and the project deliverables were included in a revised NPDES permit issued in June 2015.  A new project was initiated under PC-797.