

Location	Effluent Flow	Season	Results							Comments	
			Limiting Dilution (Qa + Qe)/Qe	Predicted Mixing Ratio @ NFR/Acute Zone	NFR/Acute Zone Distance (m)	Max Predicted Dilution Where Plume is Fully Mixed	Distance Downstream Where Plume is Fully Mixed (m)	5x Nearfield Distance (m)	Predicted Mixing Ratio @ 5X Nearfield Distance		
Existing Diffuser	Existing: 10 MGD	Summer	13	4	70.3	9.3	2,074.5	351.4	6.4	Distance downstream where max predicted dilution is met (CORMIX results indicate plume is fully vertically/laterally fully mixed) is immensely large. In this case, predicted mixing ratio at 5x NFR distance may be more appropriate for establishing chronic mixing zone.	
		Winter	13	2	33.0	12.2	85,508.9	164.9	5.8		
	Tier 1: 13 MGD	Summer	10.3	4.5	109.0	7.1	7,542.6	544.8	4.9	Distance downstream where max predicted dilution is met (CORMIX results indicate plume is fully vertically/laterally fully mixed) is fairly large. It may be more appropriate to use 5x NFR distance for establishing chronic mixing zone.	
		Winter	10.3	7.2	158.1	7.2	158.1	-	-	CORMIX results state plume becomes vertically and laterally fully mixed in nearfield; however, it is also noted that plume re-stratifies downstream in the far field and is not mixed.	
	Proposed Diffuser	Tier 2: 22 MGD	Summer	6.5	8.5	201.2	Max predicted dilution is equal to or greater than limiting dilution. Chronic zone dilution ratio is established at edge of NFR.				
			Winter	6.5	11.7	269.1					
Tier 3: 32 MGD	Summer	4.8	7.2	260.05							
	Winter	4.8	10.9	353.0							