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NOT YOUR TYPICAL DISCHARGER: CASE STUDIES FOR LOCAL LIMITS

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Deer Island Treatment Plant

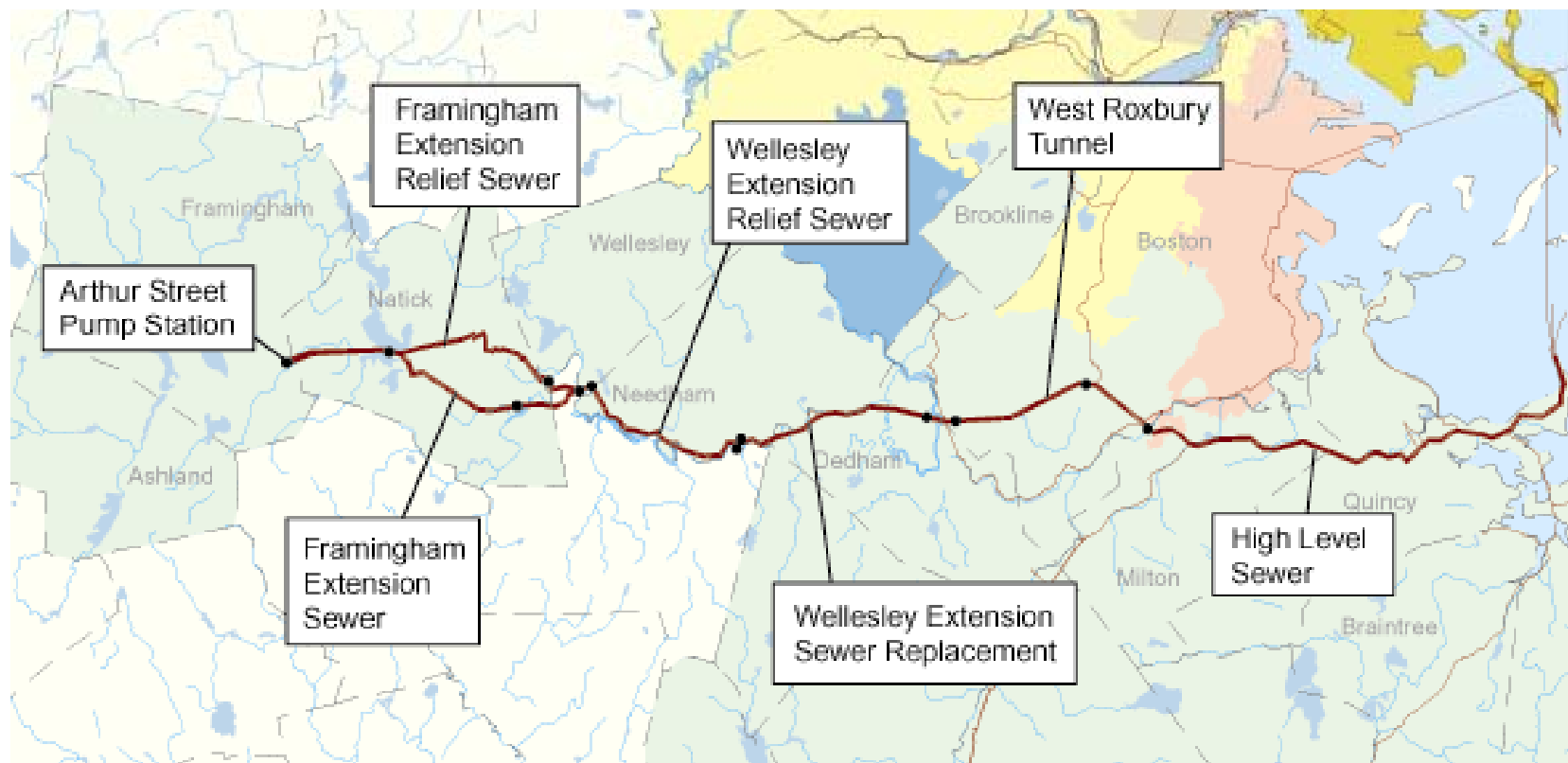






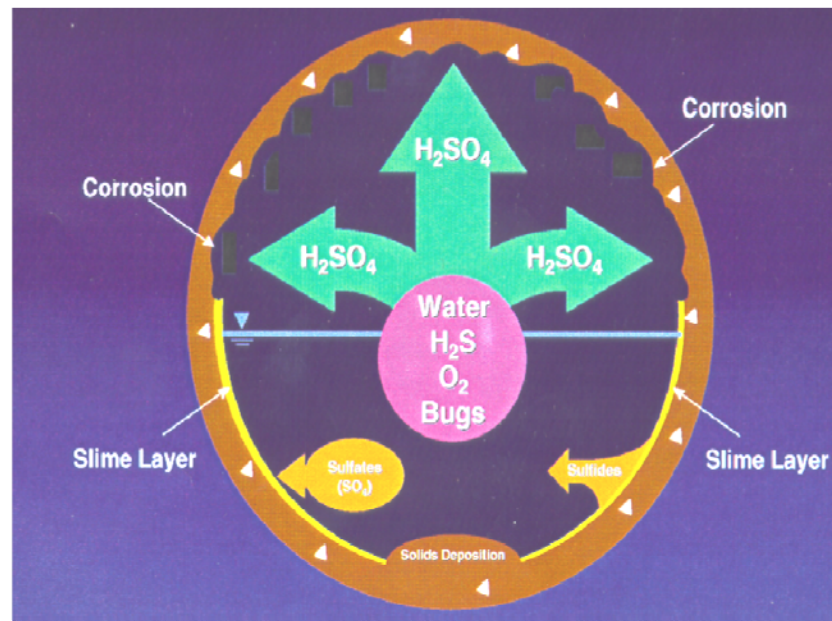
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ODOR AND CORROSION CONTROL PROJECT FRAMINGHAM EXTENSION SEWER





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- MWRA study included:
 - Sampling of all industries discharging to FES
 - Study of shutdown period at Sulfate Discharger (July 2000)
 - Sampling in similarly-configured sewers (North Metropolitan and Randolph Trunk Sewers)
- MWRA consultant's report submitted in January 2001





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Limits for BOD, Sulfate and Sulfide

Parameter	Limit (mg/l)	Estimated reduction in the FES (lbs/day)	Resultant concentration in the FES (mg/l)
BOD	2000	5,876	219-247
Sulfate	500	6,308	28-41
Sulfide	0.3 (Permit Specific)	N/A	N/A



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Fire Preventative Materials Co.

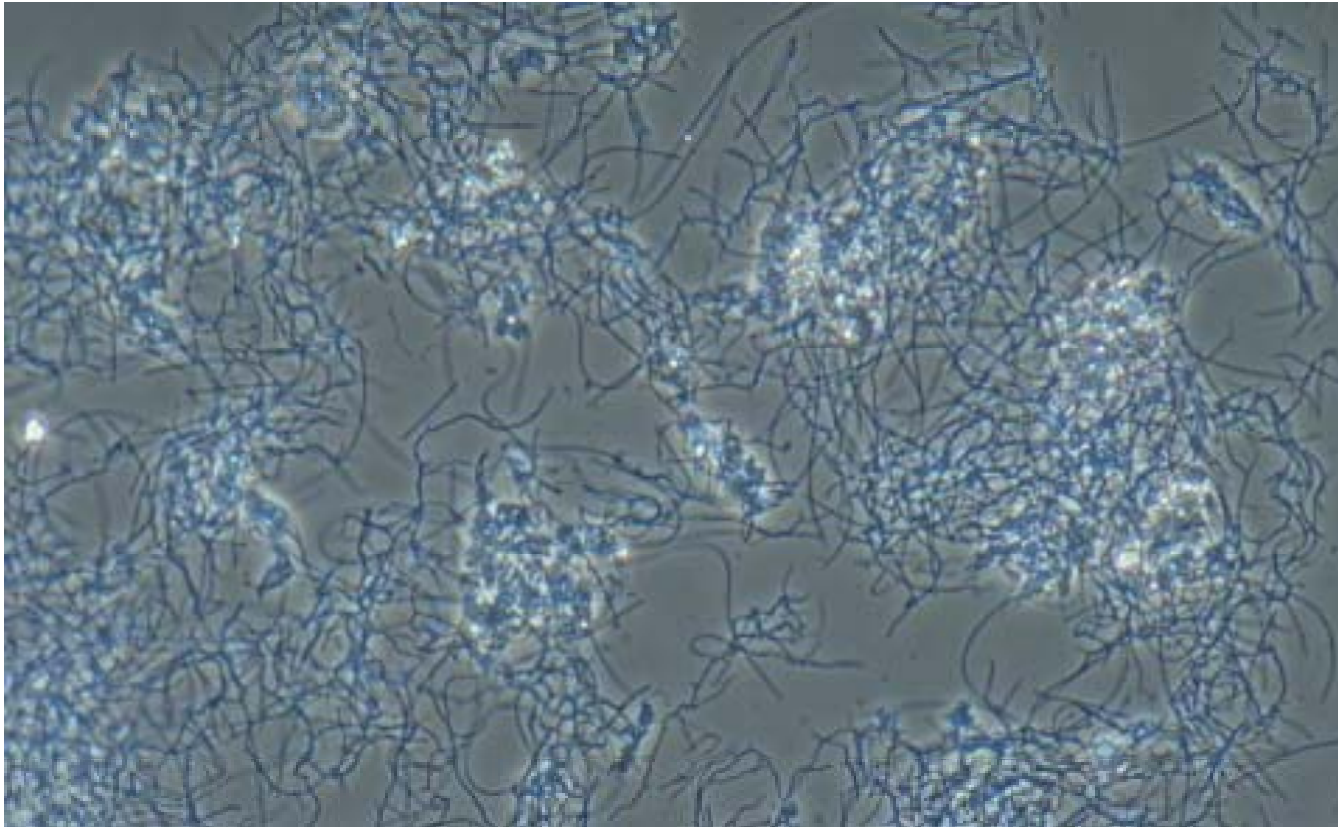
- Avg. Flow: 40,000gpd
- Treatment: pH adjustment with acid/caustic addition
- Designated High Strength User
- BOD and/or TSS >400 mg/L
- Flow >25,000gpd
- Permitted SIU with a Sulfate limit of 500mg/l





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“Filamentous Bulking” of Activated Sludge (Secondary sludge under microscope)





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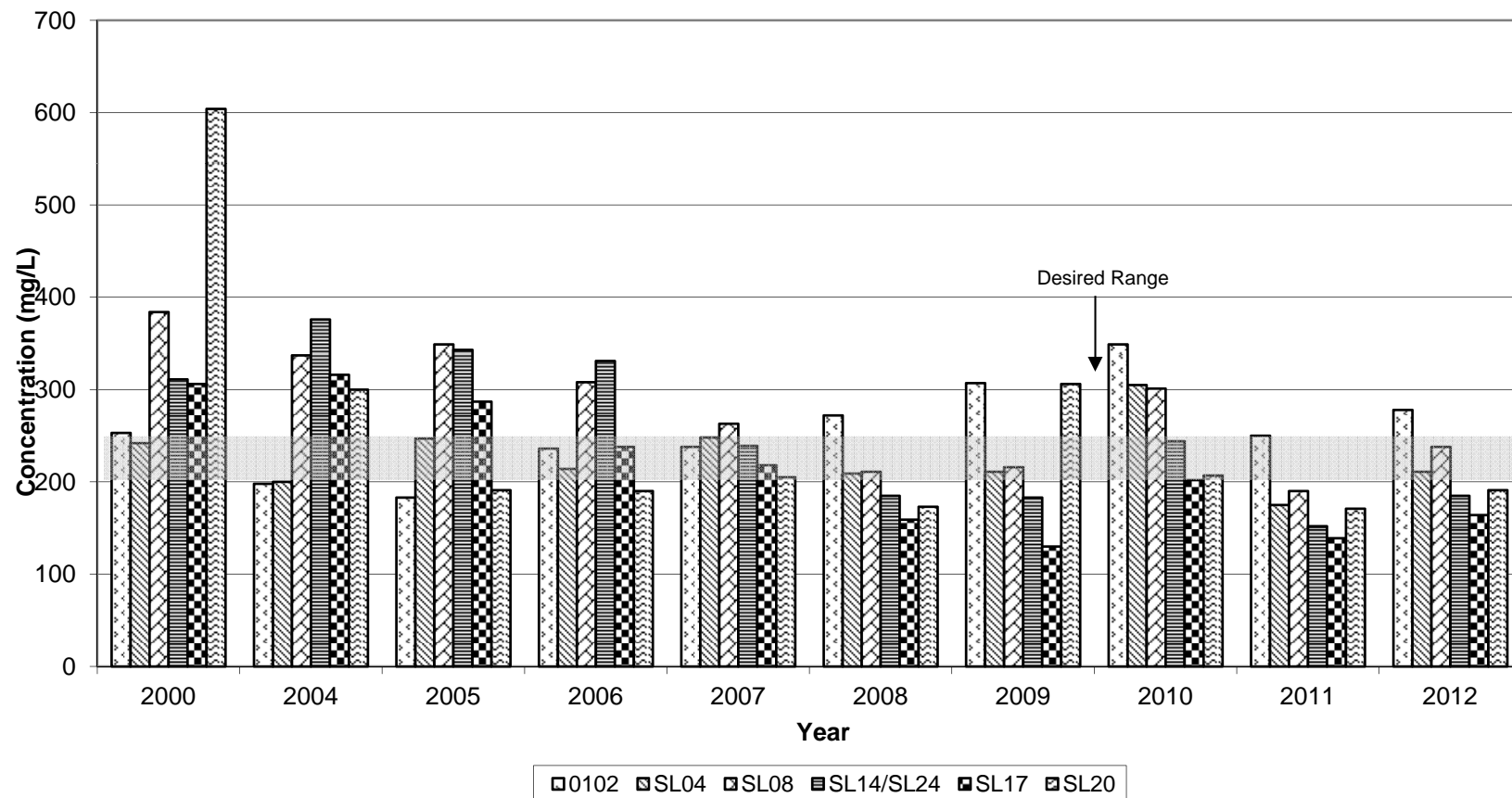
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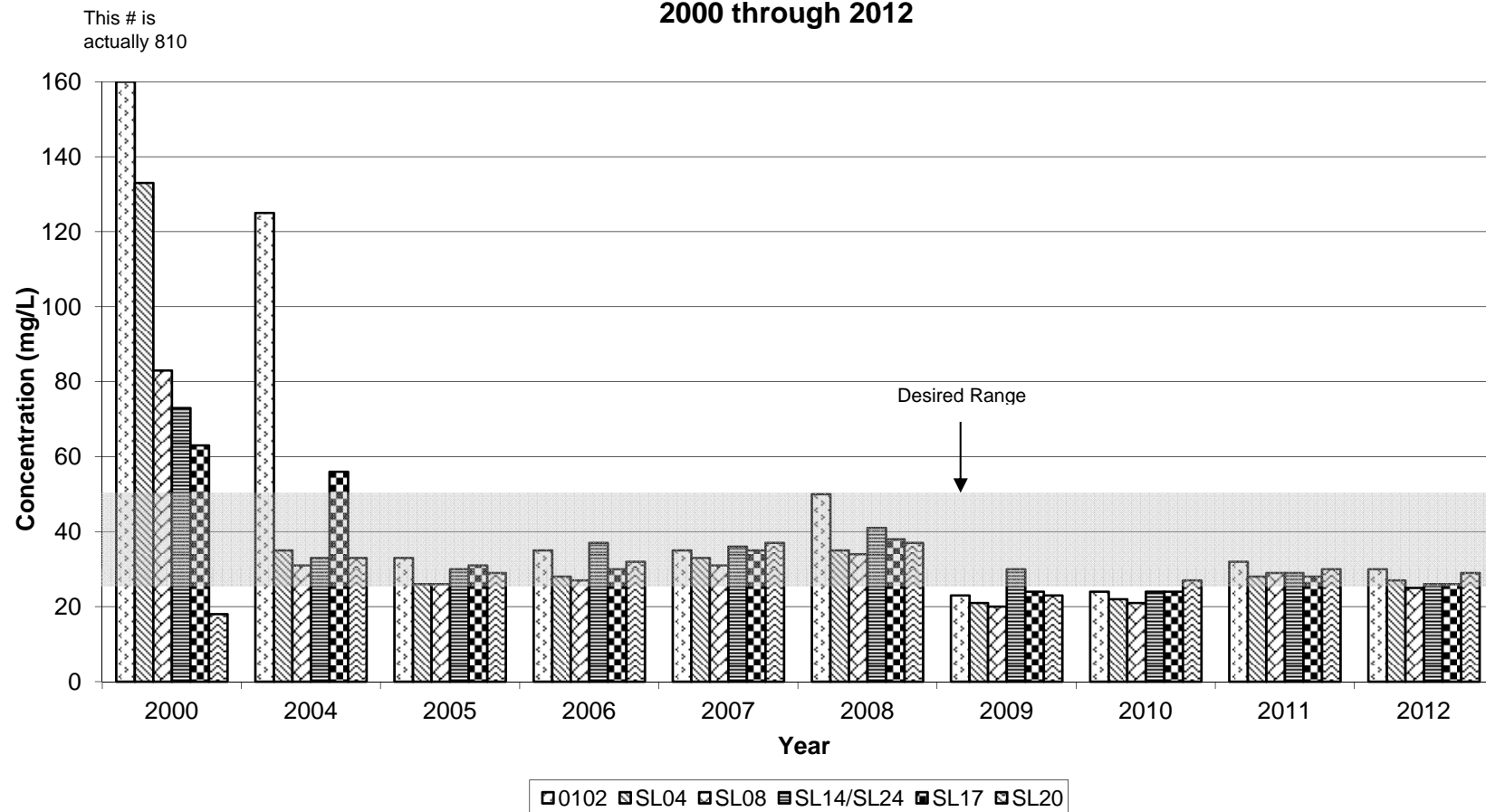
FIGURE 3
Average BOD Concentration by Year for each Sample Location
2000 through 2012





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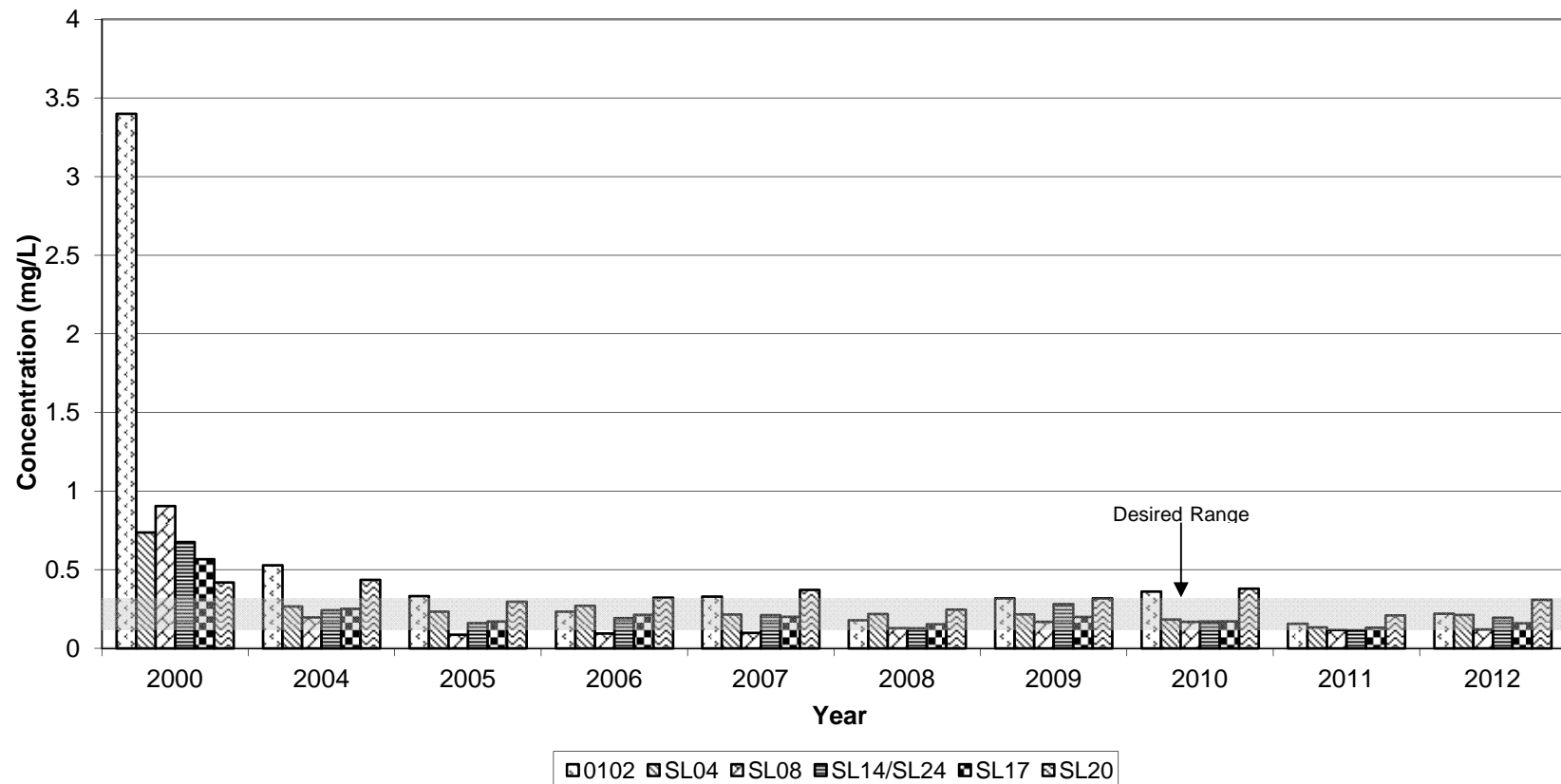
FIGURE 2
Average Sulfate Concentration by Year for each Sample Location
2000 through 2012





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FIGURE 4
Average Sulfide Concentration by Year for each Sample Location
2000 through 2012





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