

**4th Binational
Lake St. Clair Conference**



March 19, 2008

Figure 1.

**Macomb County Total
Days of Beach Closures
2000 - 2007**

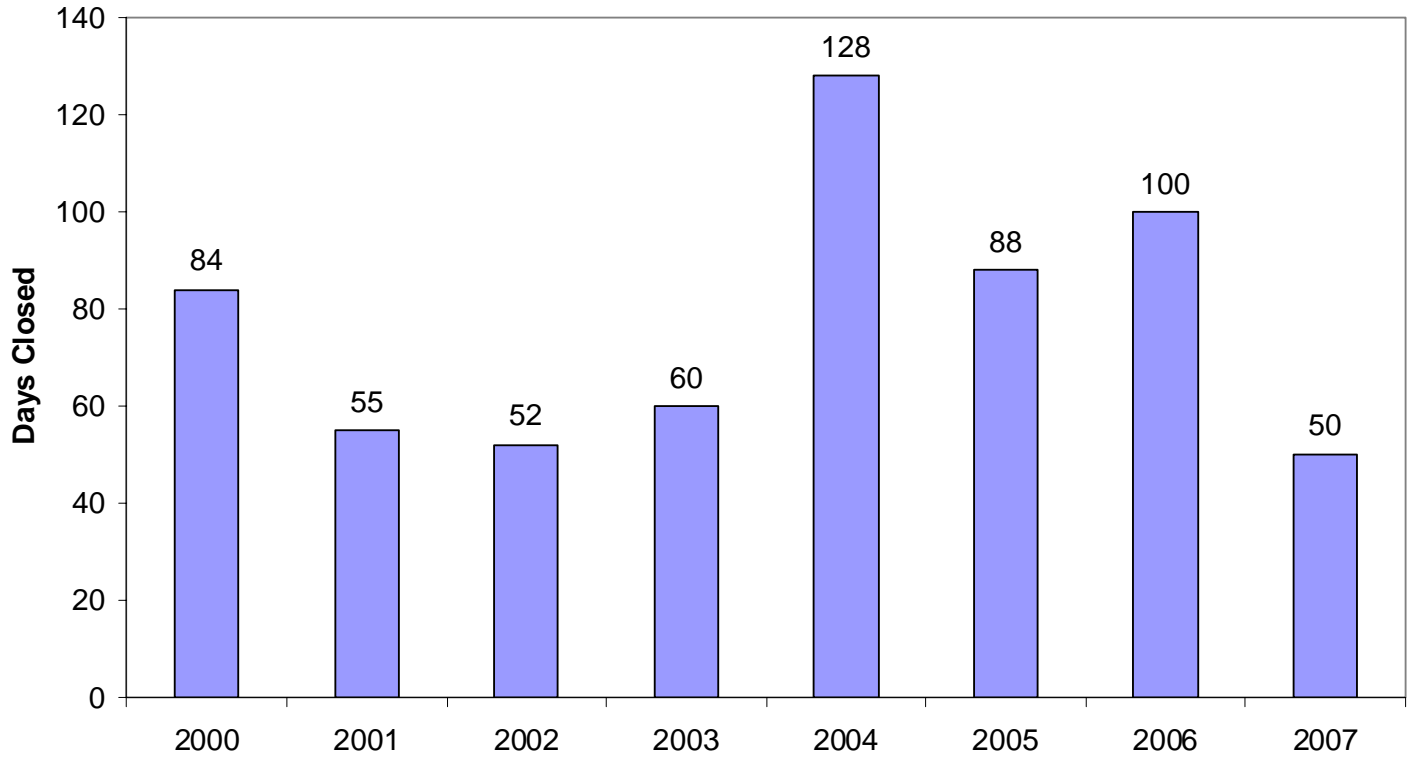
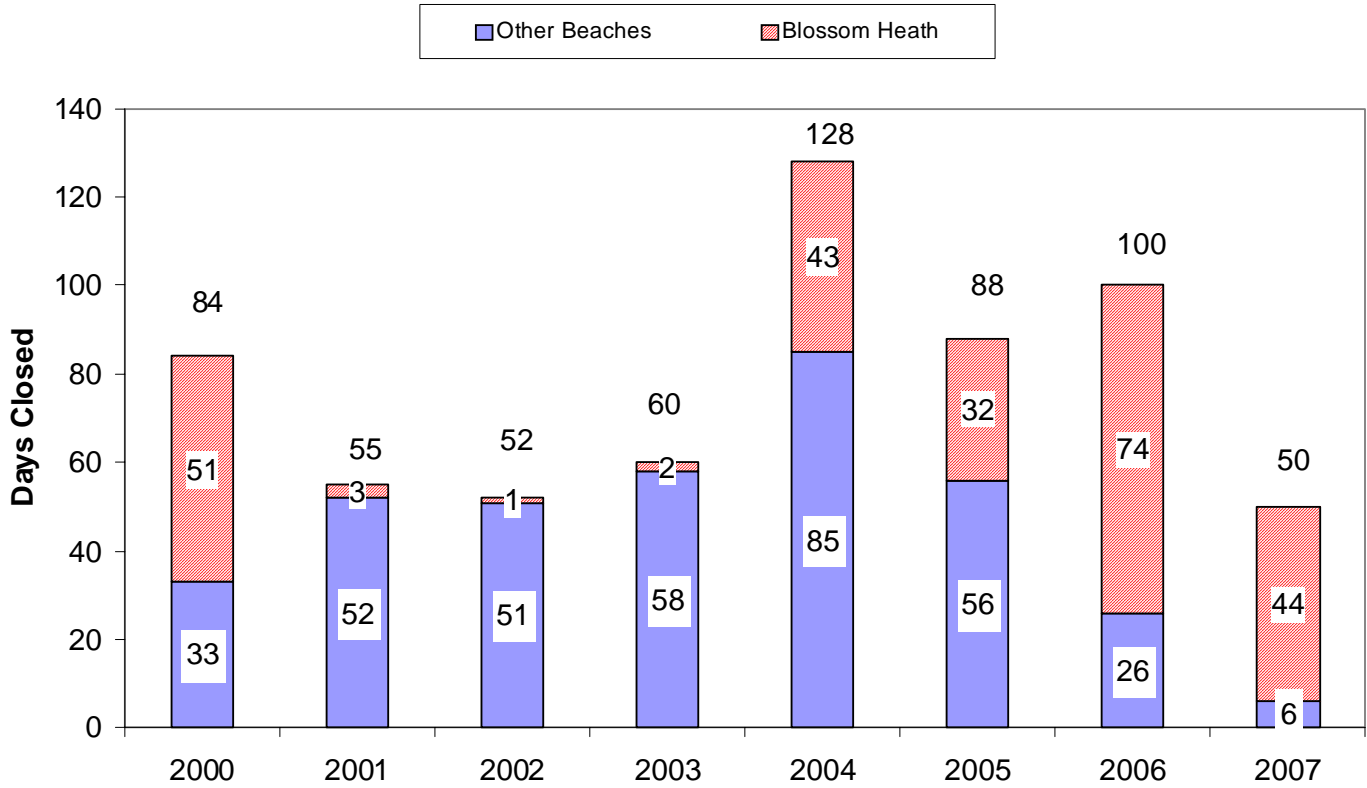


Figure 2.

Macomb County Total Days of Beach Closures vs. Blossom Heath Days of Beach Closures 2000 - 2007



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**Figure 3.
Blossom Heath Beach**



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Figure 4.

Blossom Heath Beach E. coli Geomeans 1998 - 2007

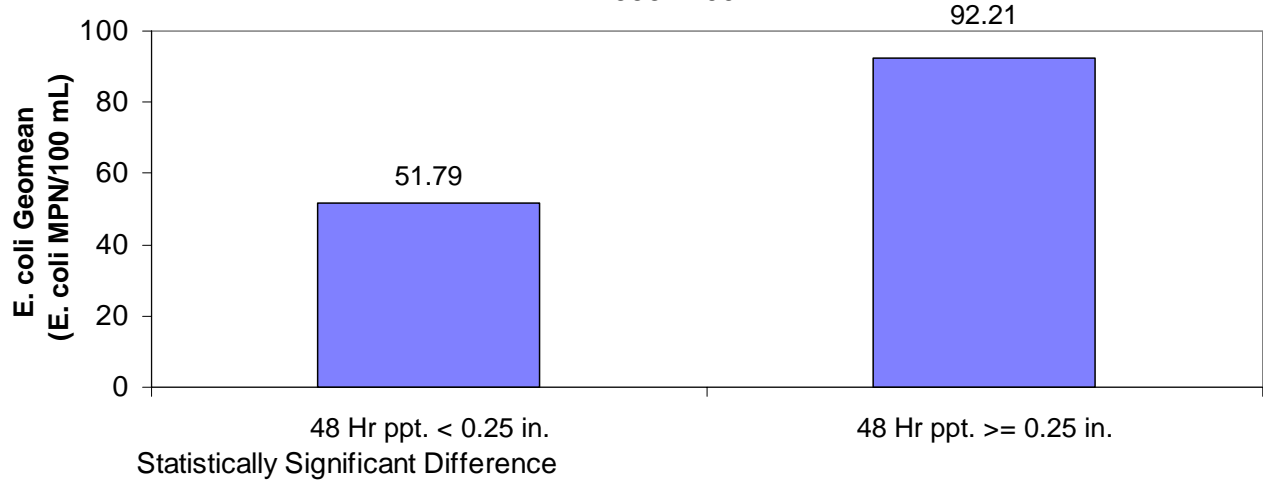


Table 1.

Correlations Between Daily Beach *E. coli* Geomeans and Environmental Parameters Spearman's rho 1998 - 2007

Parameter	Blossom Heath	Memorial Park	Metropolitan Beach	New Baltimore
Water Temp	.324(**)	-0.061	.294(**)	.435(**)
pH	-0.073	-0.078	-0.077	-0.023
Conductivity	-0.023	-0.019	-0.044	-0.081
Turbidity	0.015	.251(**)	.122(*)	.173(**)
Dissolved Oxygen	-.278(**)	-.108(*)	-.261(**)	-.397(**)
Salinity	0.039	0.012	-0.027	0.013
24 Hr ppt (in)	.194(**)	.212(**)	0.074	.236(**)
48 Hr ppt (in)	.264(**)	.305(**)	0.036	.417(**)
72 Hr ppt (in)	.247(**)	.343(**)	0.032	.339(**)
Max air temp (F)	.171(**)	-0.071	.277(**)	.148(**)
Min air temp (F)	.311(**)	0.046	.290(**)	.138(**)
Avg air temp (F)	.248(**)	-0.013	.297(**)	.130(**)
N wind	-0.044	0.004	-.129(**)	0.023
NE wind	0.088	0.062	-0.039	0.041
E wind	.097(*)	0.008	0.043	0.019
SE wind	0.042	0.009	.112(*)	-0.013
S wind	-0.028	0.016	.108(*)	-0.054
SW wind	-.096(*)	-0.023	0.053	-0.072
W wind	-.103(*)	-0.008	-0.040	-0.025
NW wind	-.102(*)	0.016	-.125(**)	-0.003

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Correlations by SPSS

Climate data from Selfridge ANGB

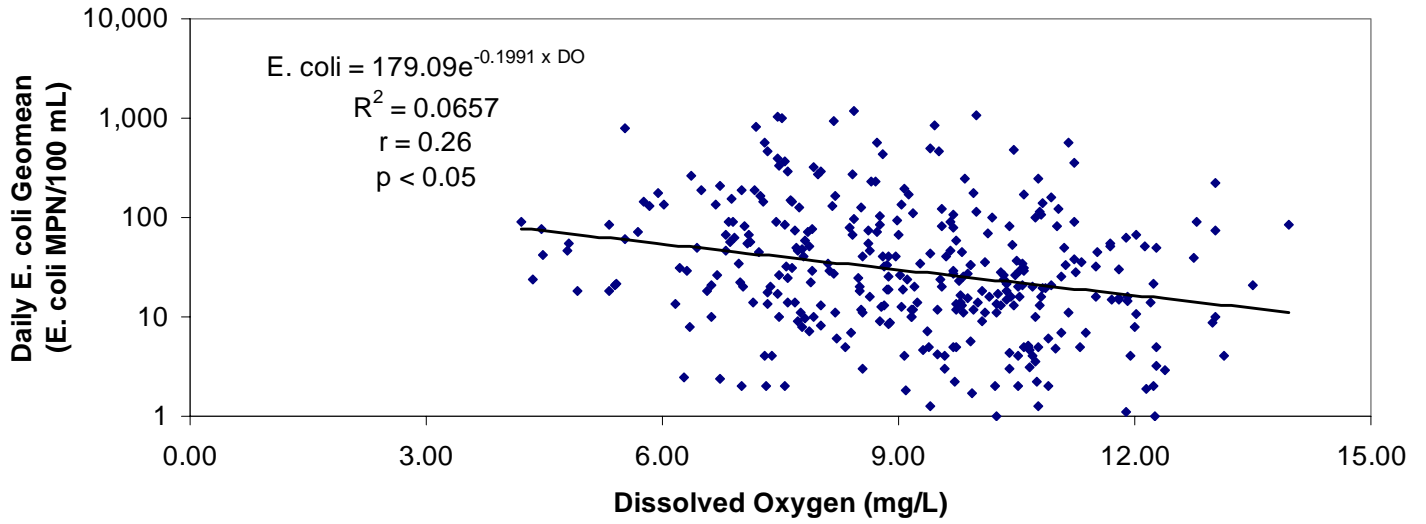
**Figure 5.
Metropolitan Beach**



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Figure 6.

Metropolitan Beach
1998 - 2007
E. coli Geomean vs. Dissolved Oxygen



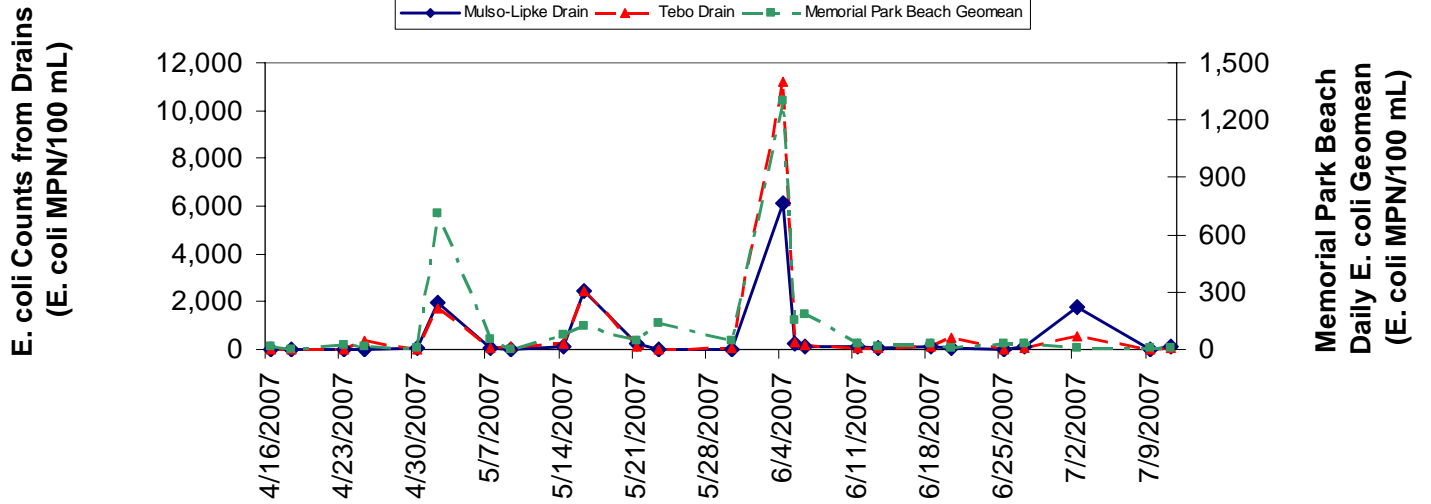
**Figure 7.
Memorial Park Beach**



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Figure 8.

Memorial Park Beach E. coli Geomeans vs. Shoreline Drain E. coli Counts 2007



**Figure 9.
Mulso-Lipke Drain (n16)**



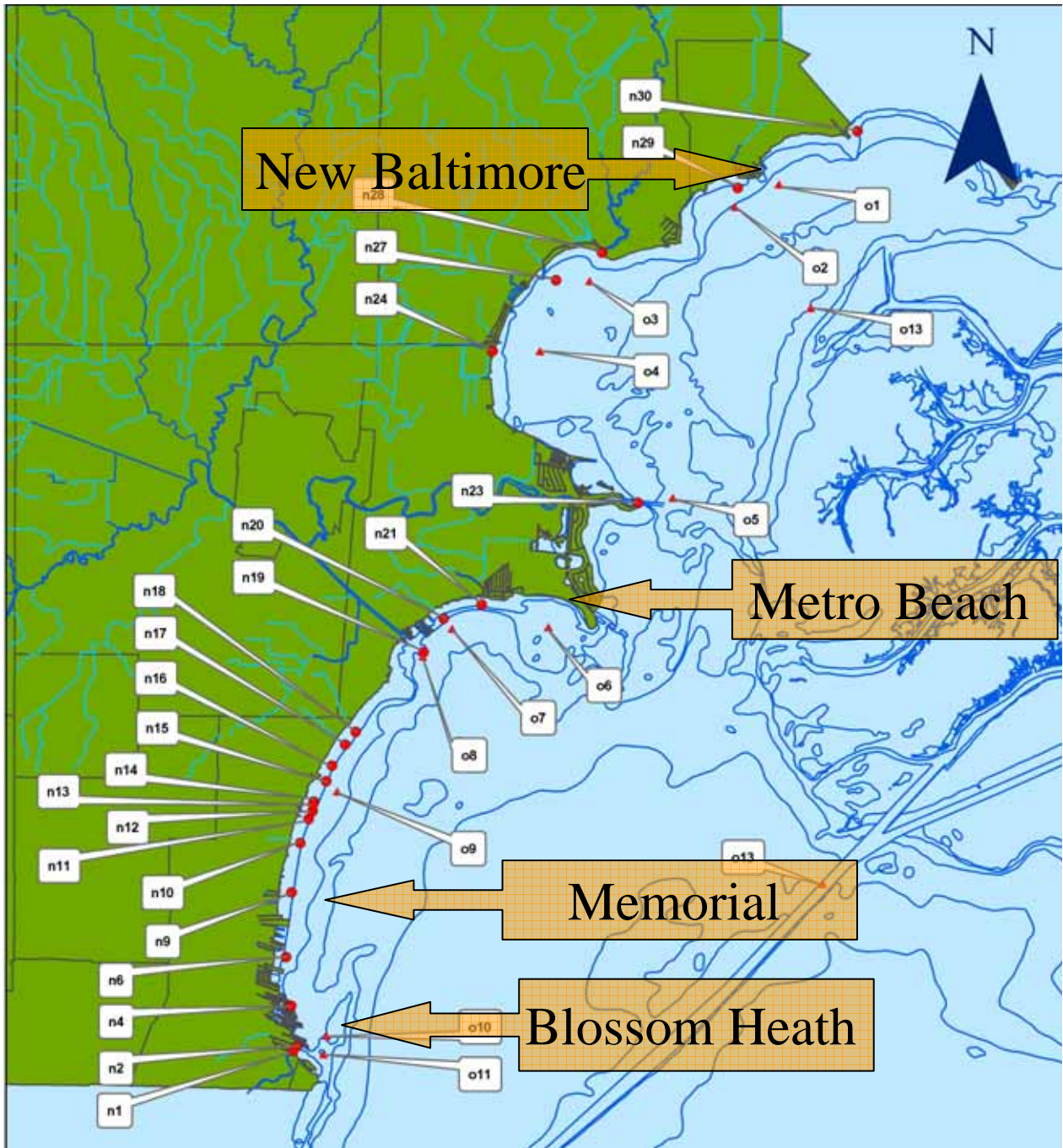
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**Figure 10.
Tebo Drain (n17)**



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**Figure 11.
Lake St. Clair Sample Sites**



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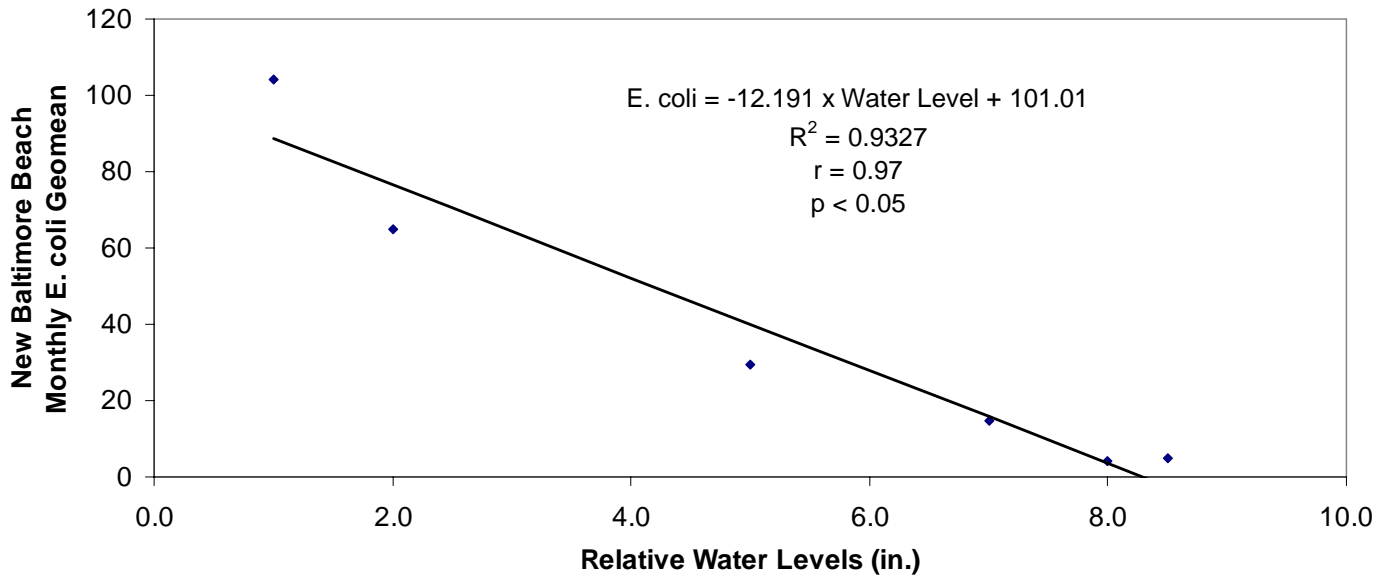
**Figure 12.
New Baltimore Beach**



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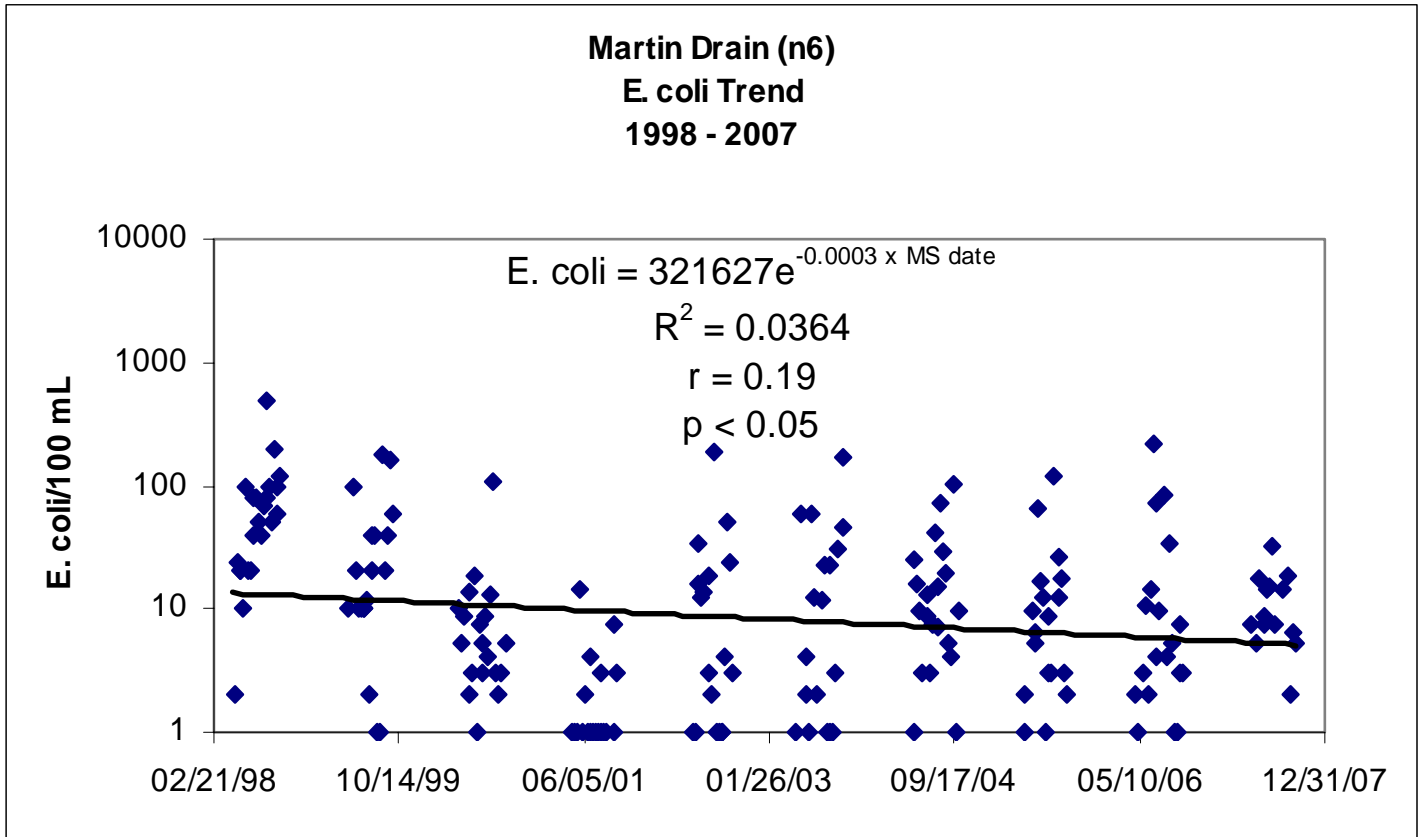
Figure 13.

New Baltimore Beach 2007 Monthly E. coli Geomeans vs. Relative Water Levels



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Figure 14.

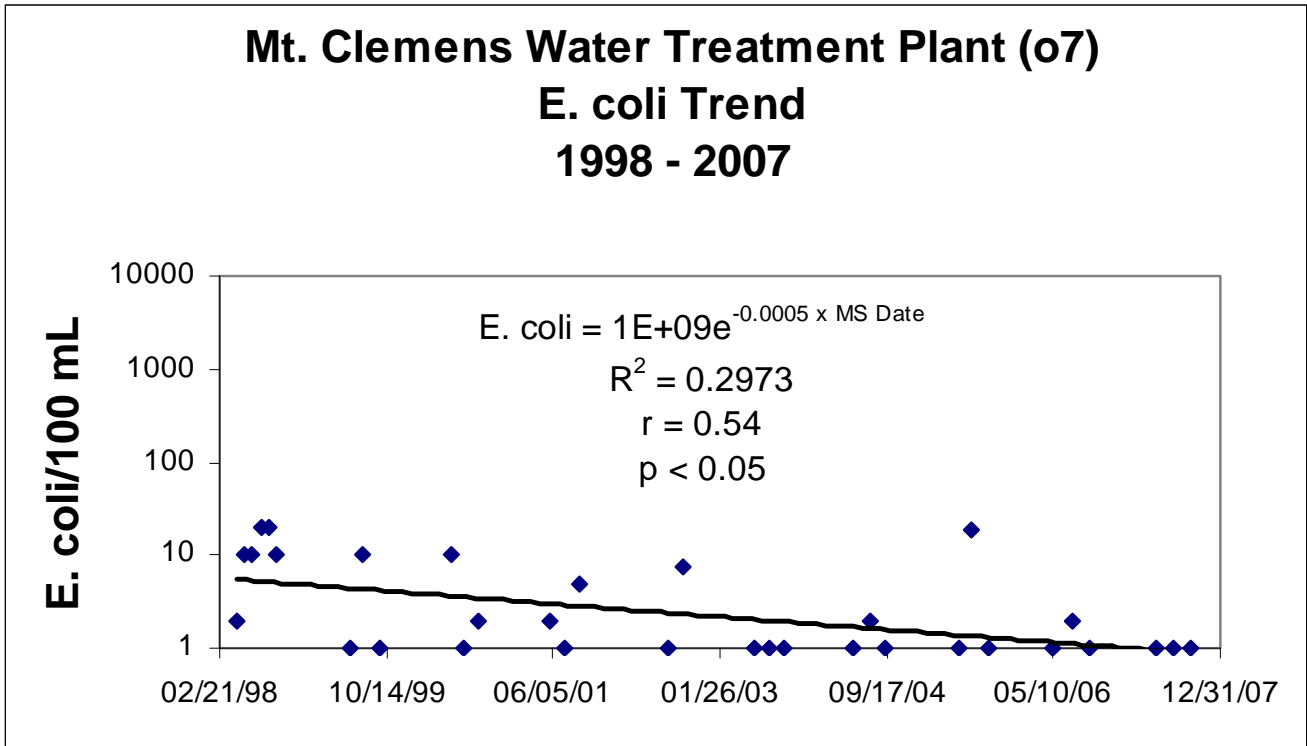


**Figure 15.
n6 – Martin Drain**



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Figure 16.



**Figure 17.
w85 - Lorraine Drain at
Bear Creek**



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Figure 18.

w85 - Lorraine Drain at Bear Creek
E. coli Geomeans
Before and After Work by AEW

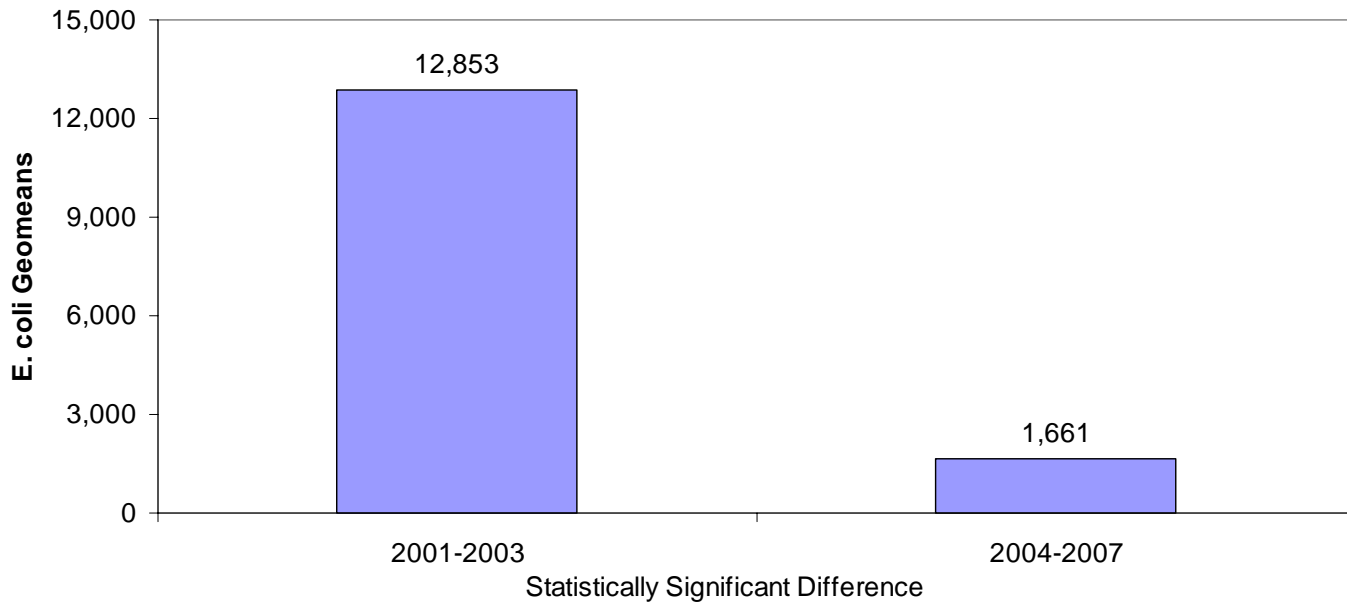


Figure 19.

Facility Dye Testing Program in Warren and Center Line

3849 = facilities on the priority list

1849 = facilities inspected and dye tested

136 = illicit discharges found

43% of the facilities on the priority list have been dye tested since the start of the grant in 2005.

Estimated total amount of wastewater eliminated from the Lake St. Clair stormwater system:

39,556 gallons per day

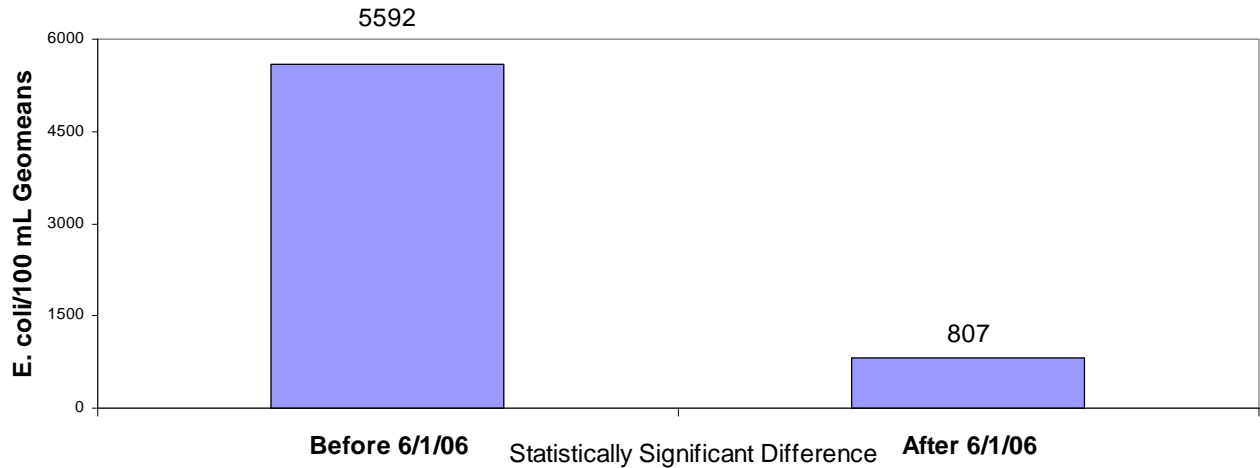
14,437,896 gallons per year

**Figure 20.
County Drain Outfall
West of Romeo Wastewater Treatment Plant
Site 52.14**



Figure 21.

Site 52.14 - County Drain Outfall West of Romeo WWTP
E. Coli Geomeans



All Time E. coli Geomean: 3742 E.

Figure 22.

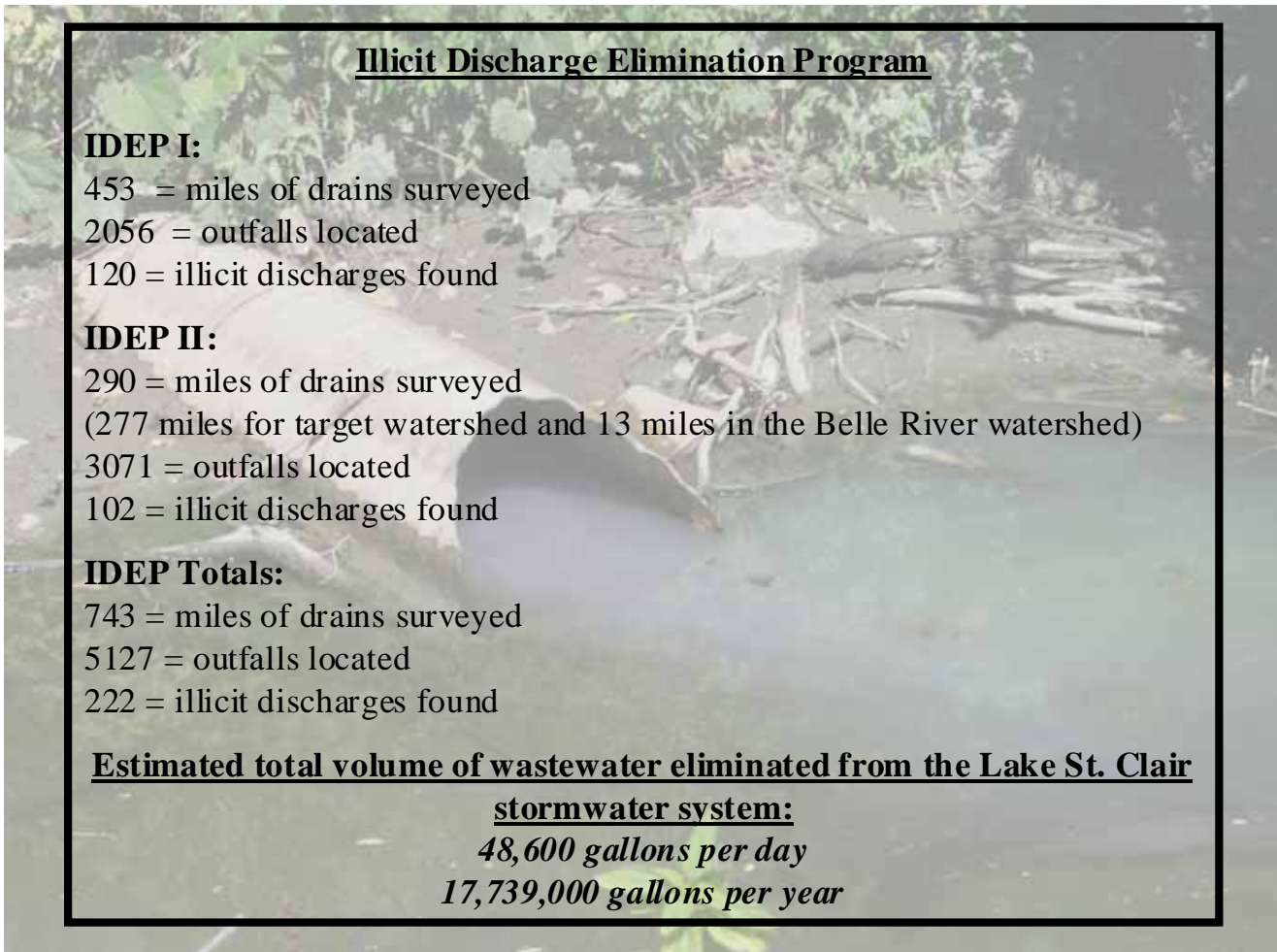
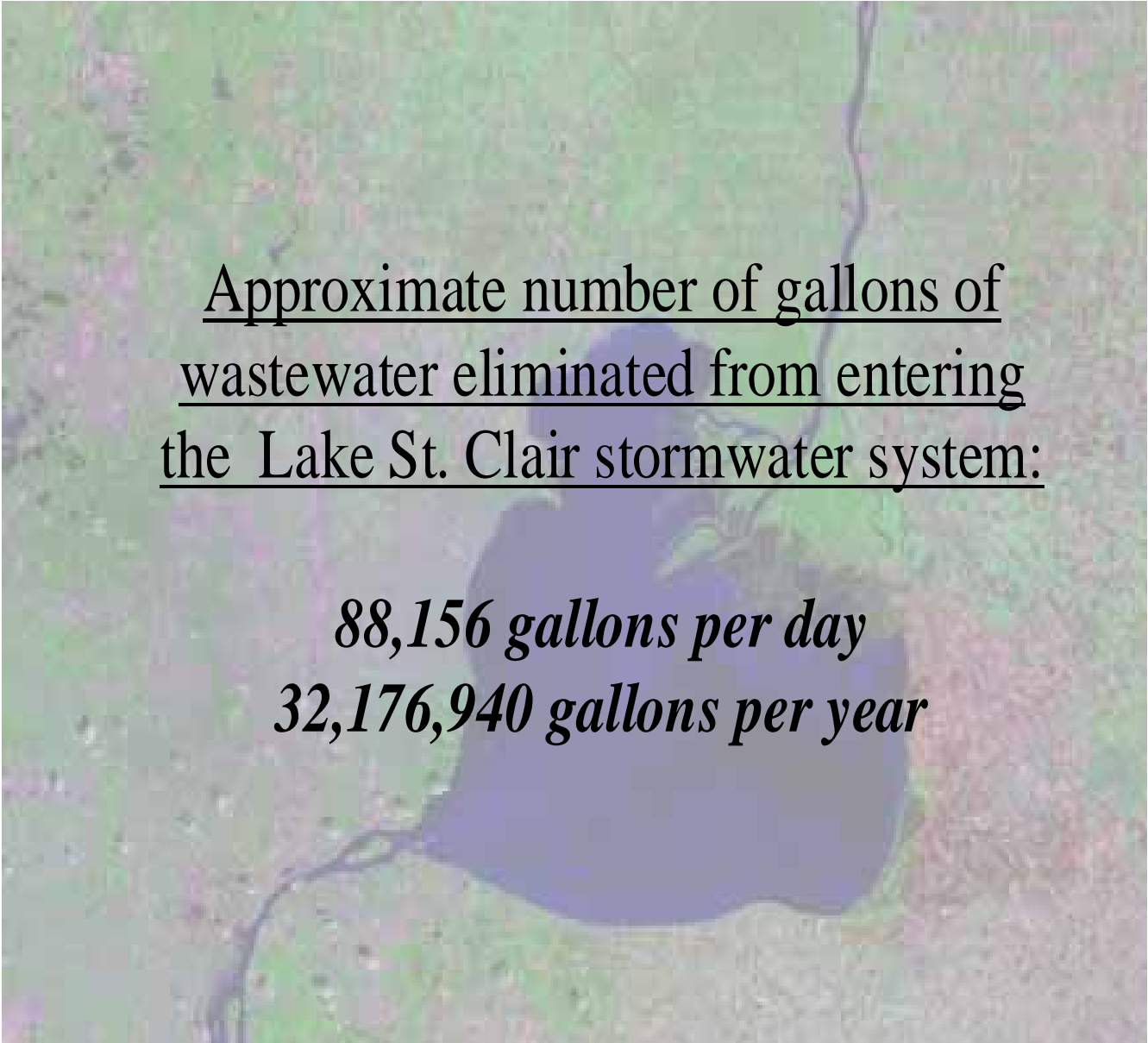


Figure 23.



Approximate number of gallons of
wastewater eliminated from entering
the Lake St. Clair stormwater system:

88,156 gallons per day
32,176,940 gallons per year