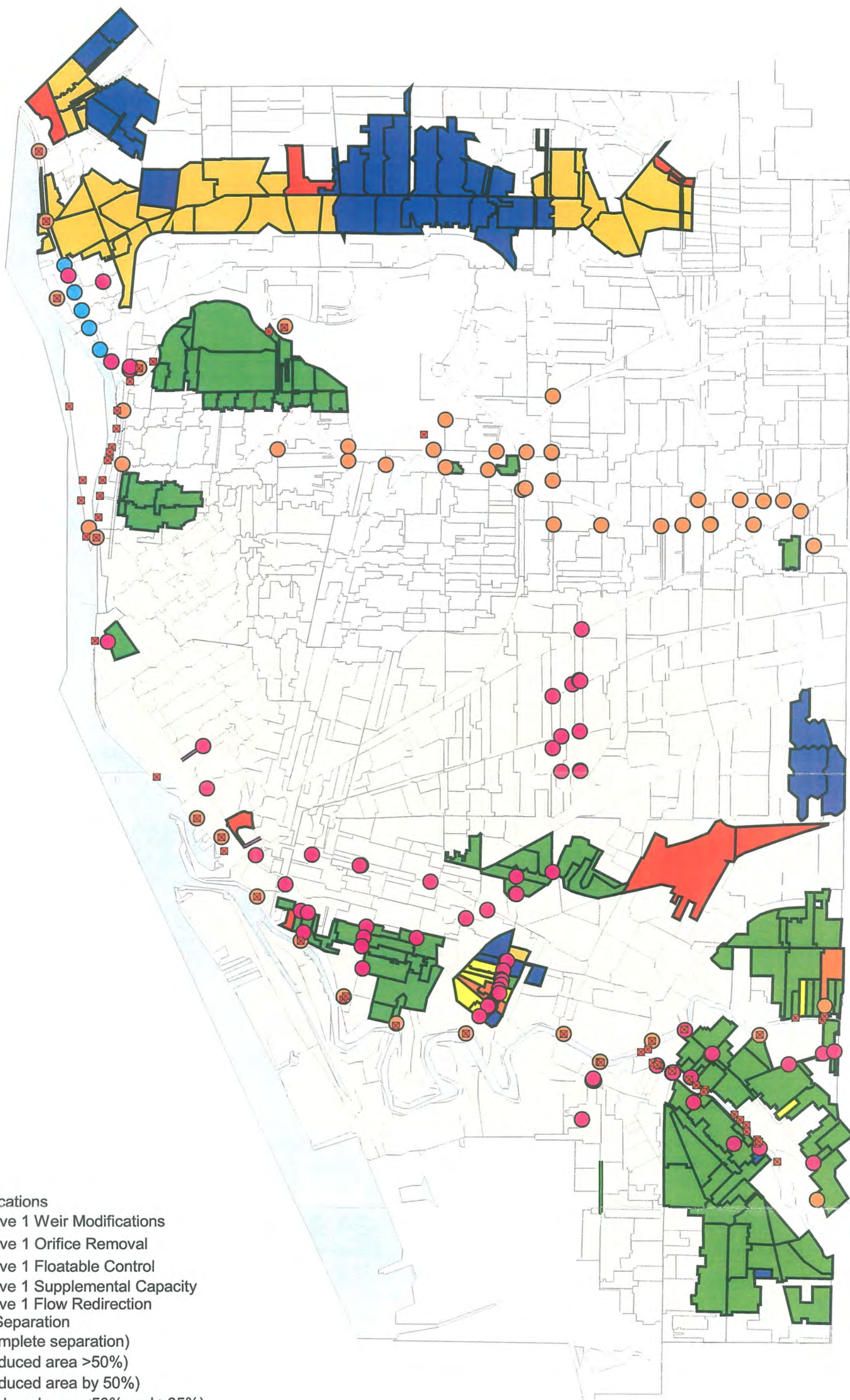
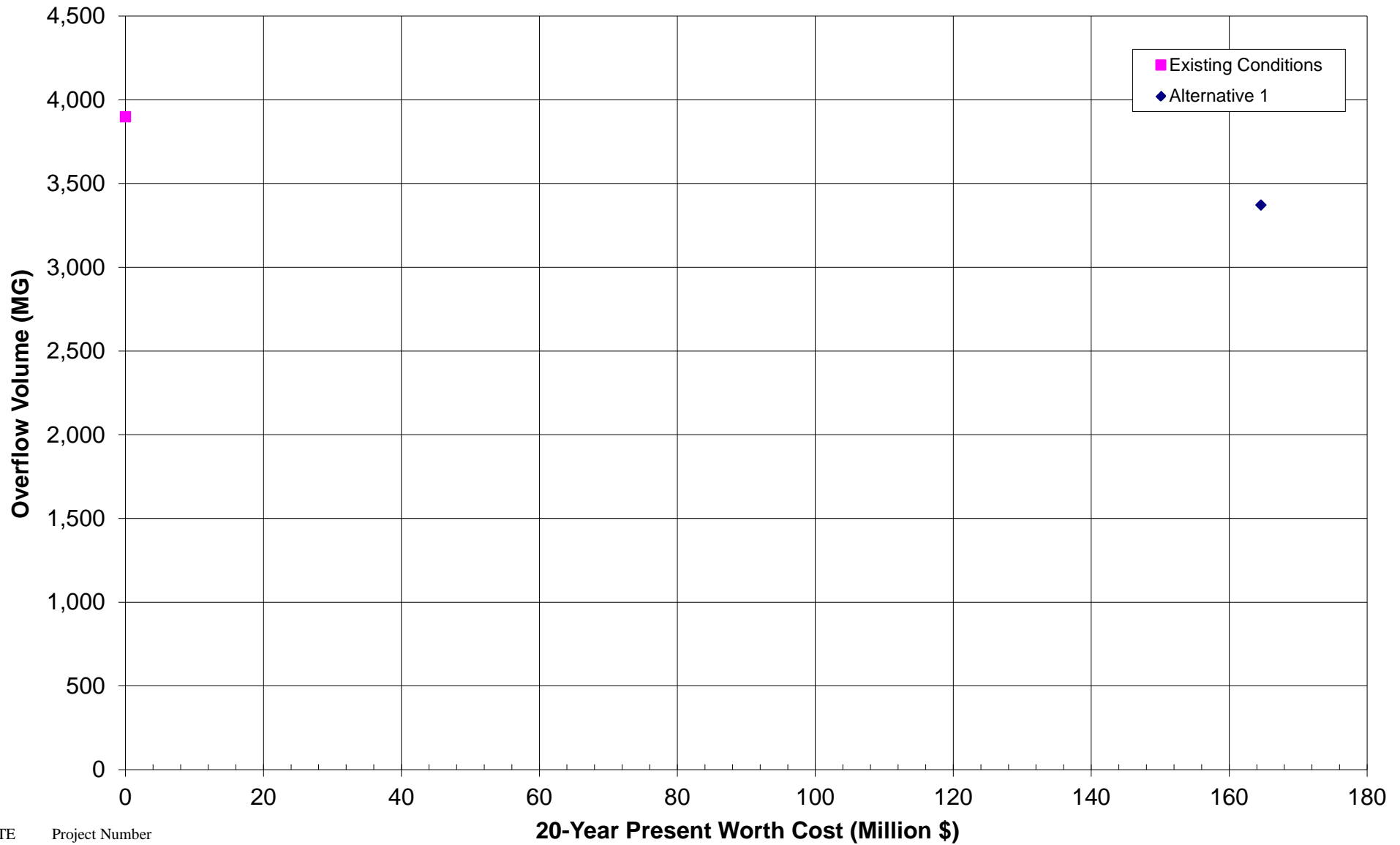


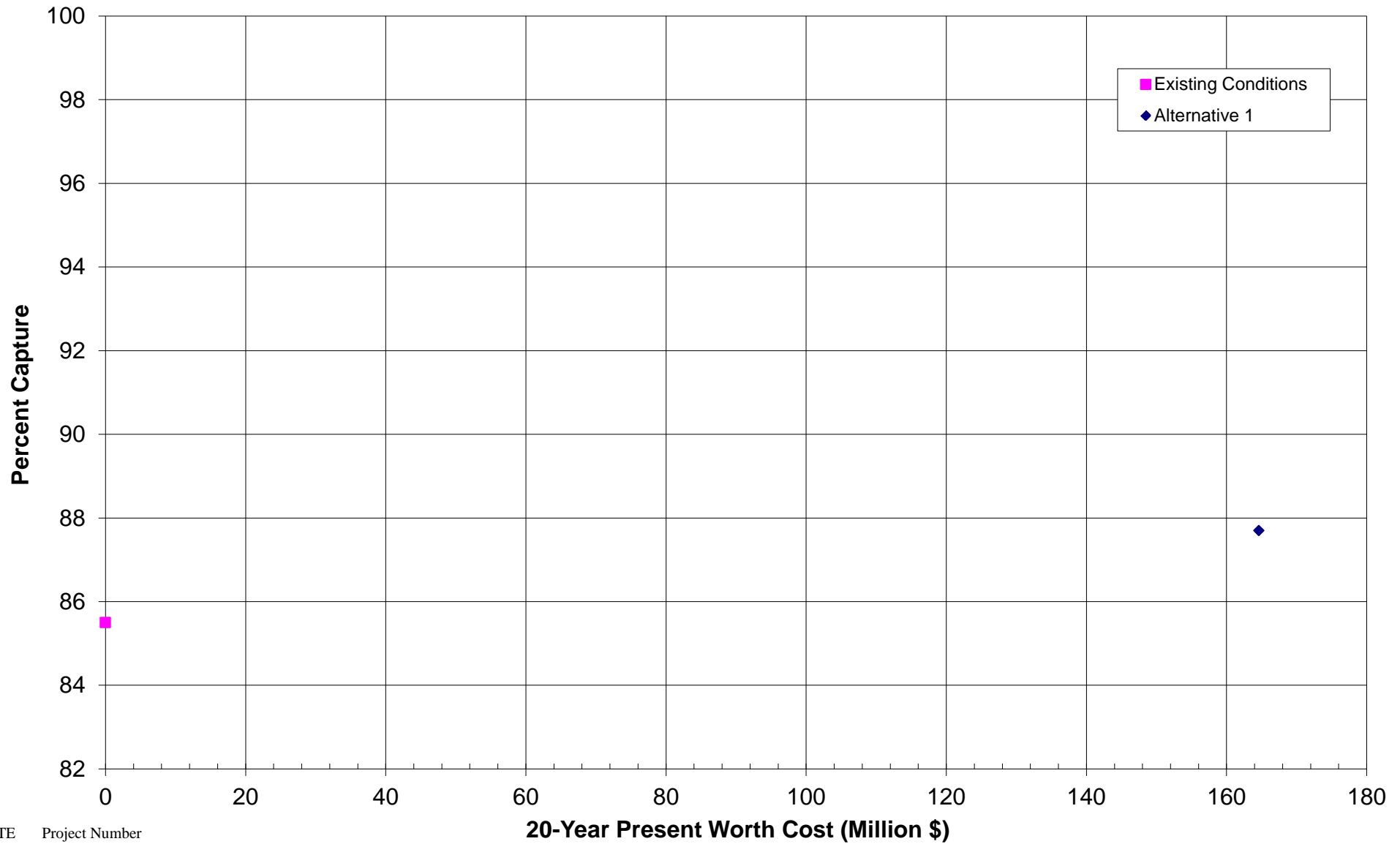


Appendix 9-1: Section 9 Tables and Figures (from 2004 LTCP)

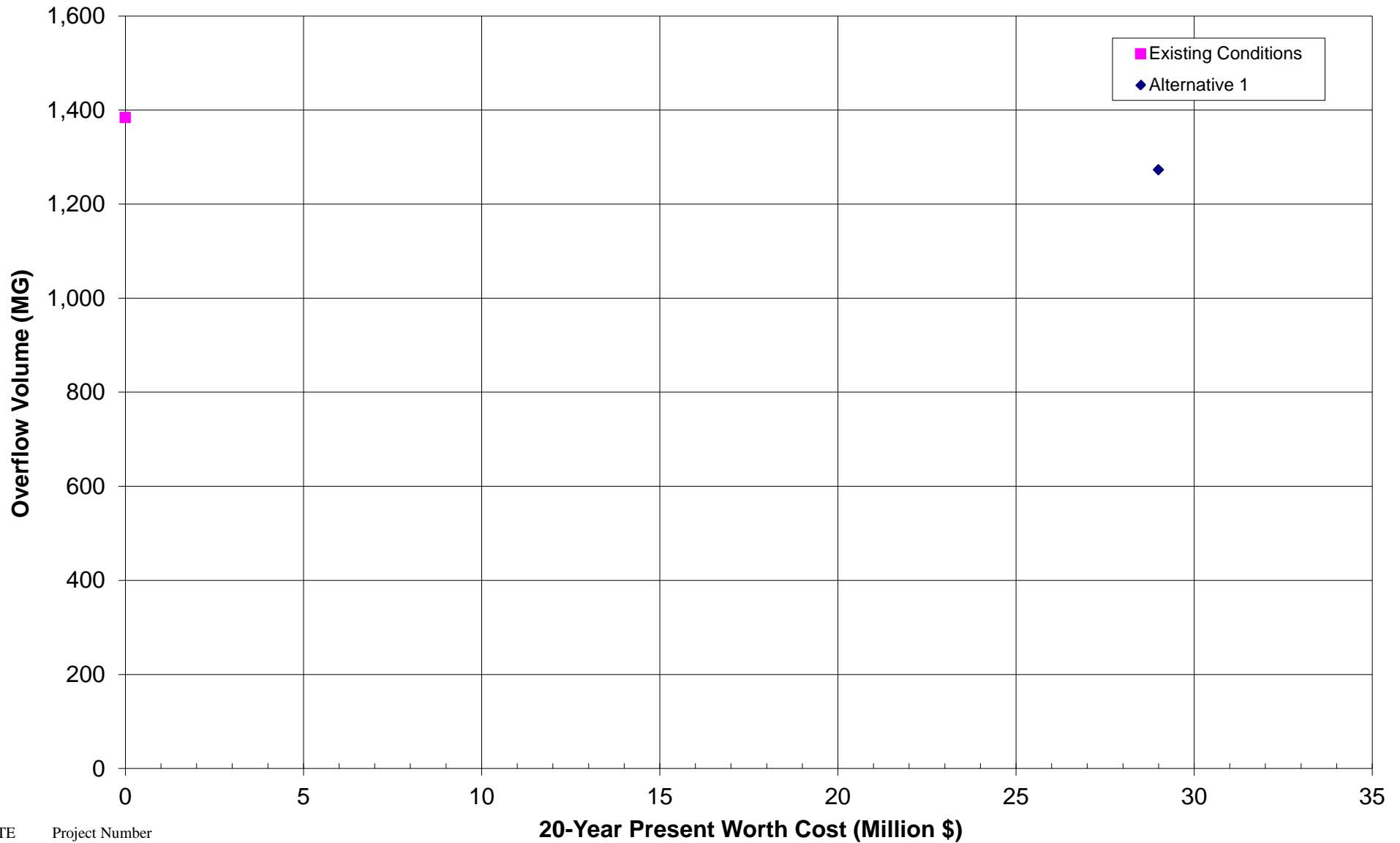




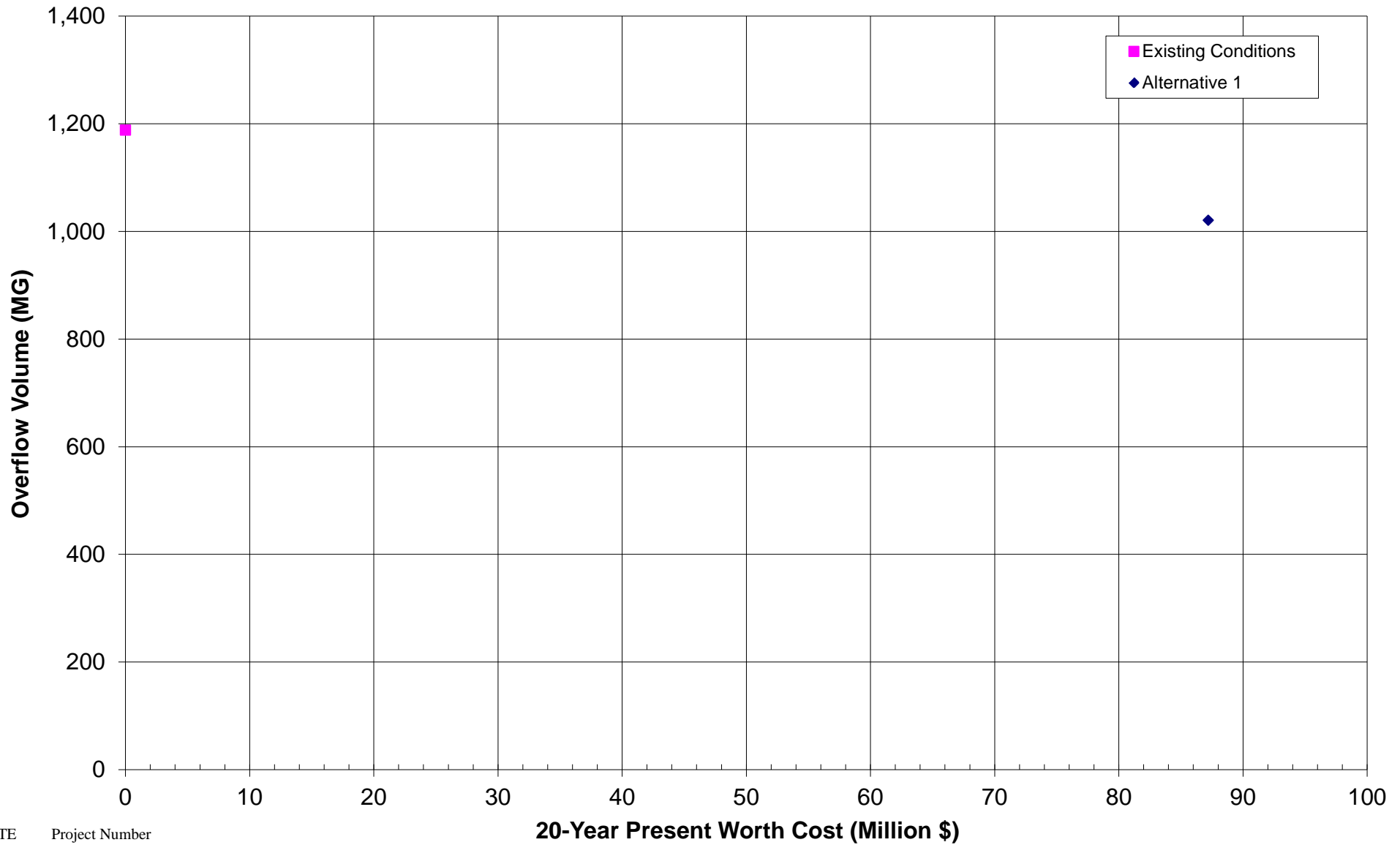
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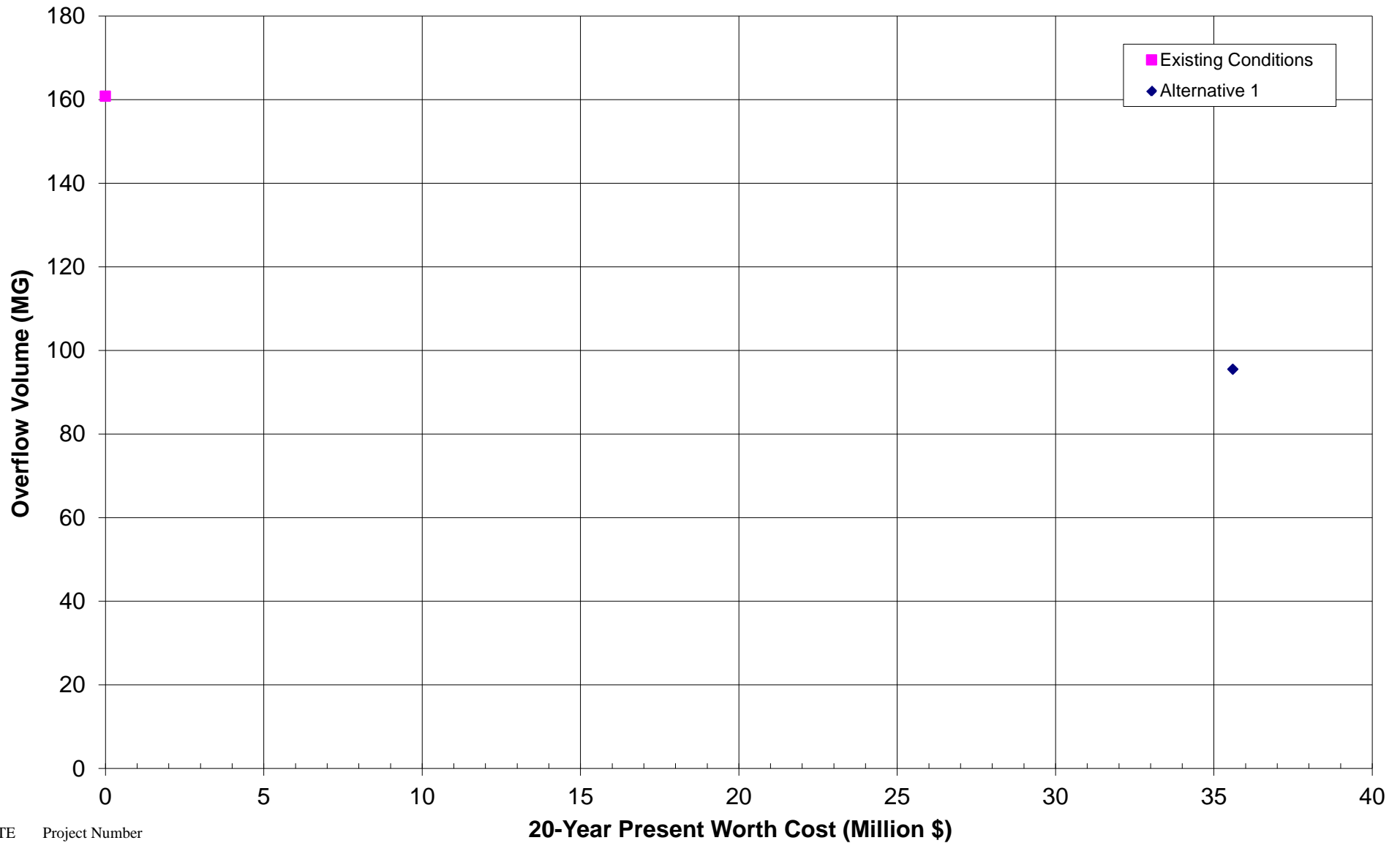
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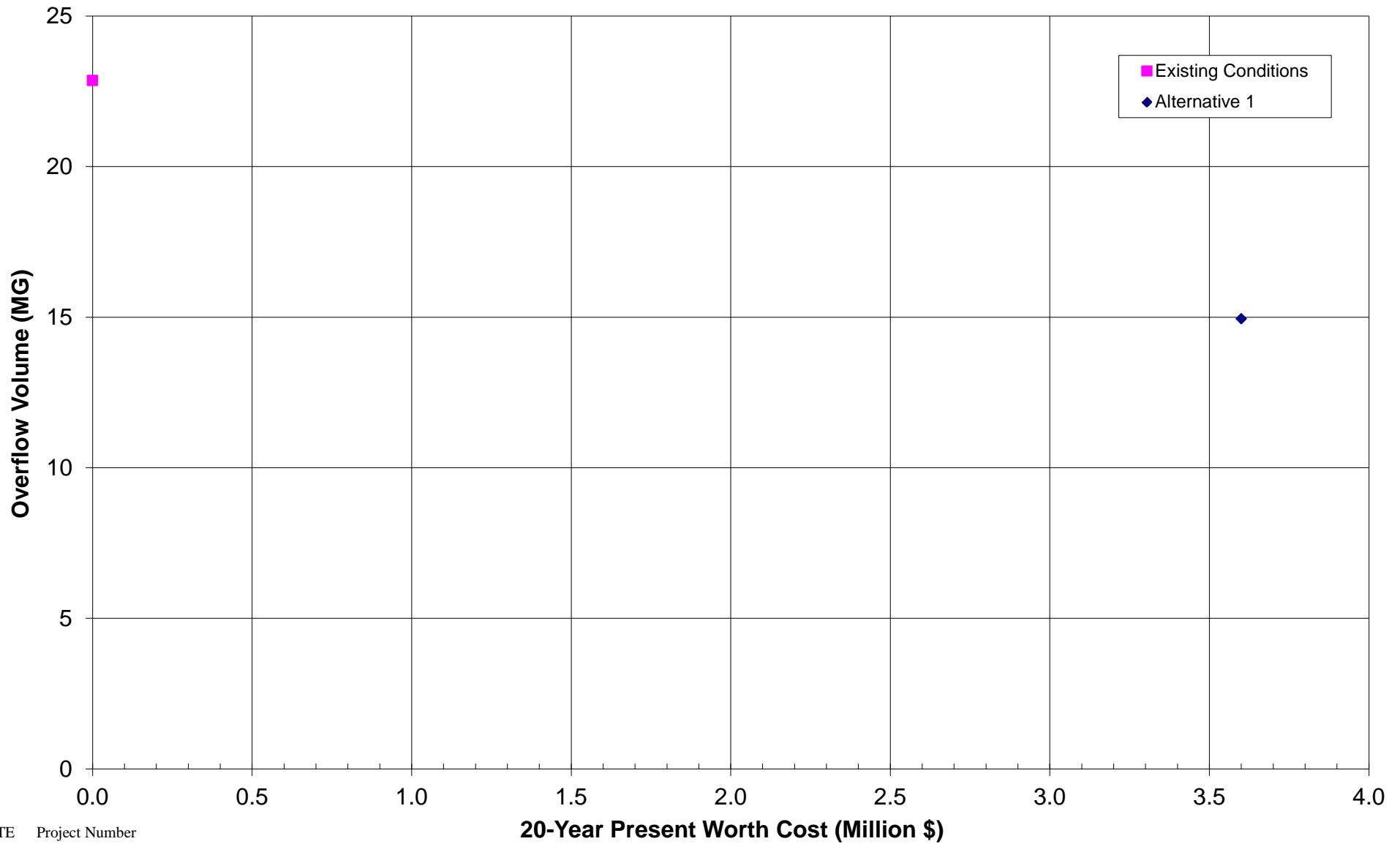
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DATE Project Number

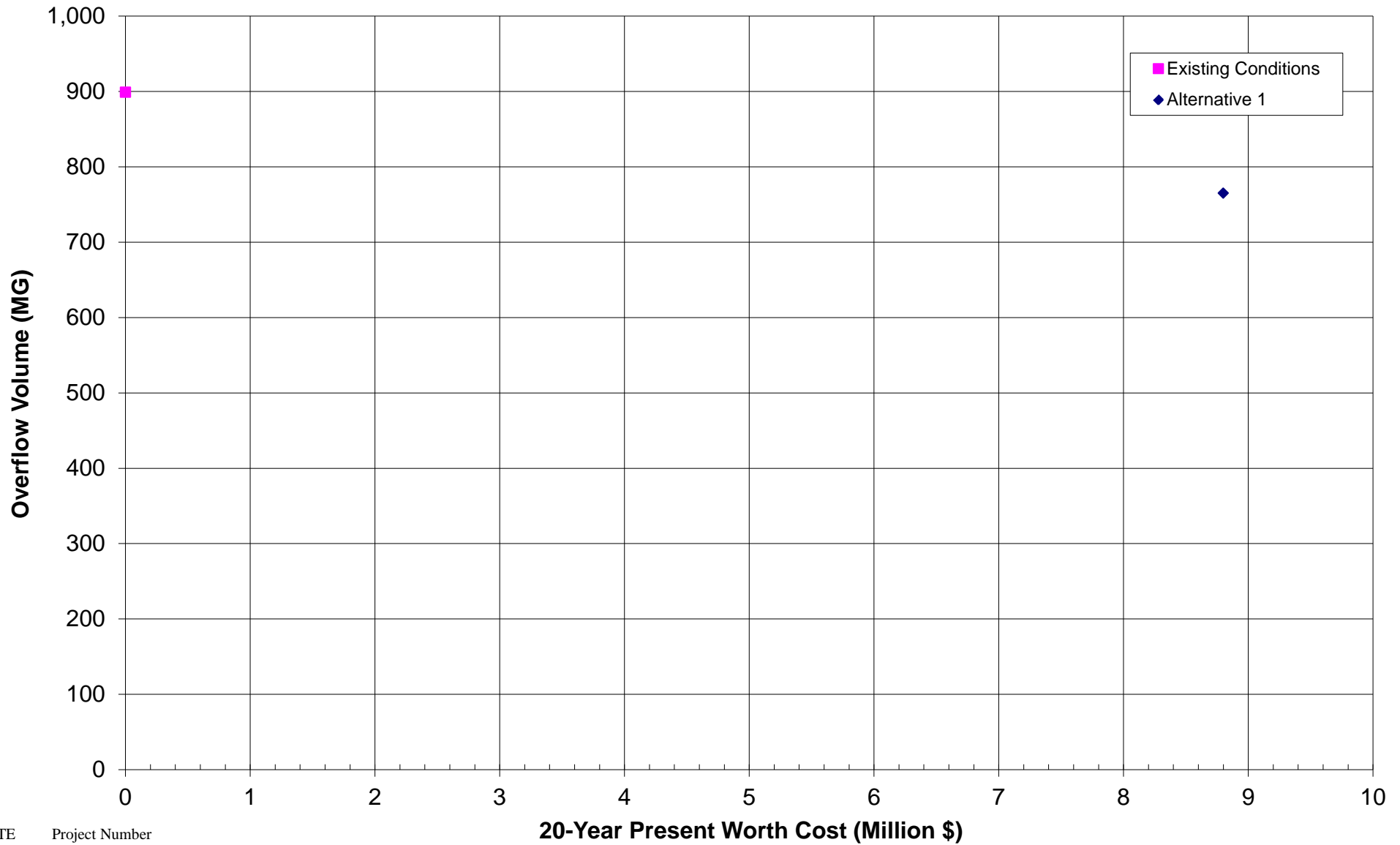


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DATE Project Number

  <small>THE WATER DIVISION OF ARCADIS</small>	BUFFALO SEWER AUTHORITY Stage 3: Long-Term Control Plan
May 2004 1777-114	FIGURE 9-7 Alternative 1 B Class Cazenovia Creek Benefit Curve: Total Overflow Volume vs. Cost



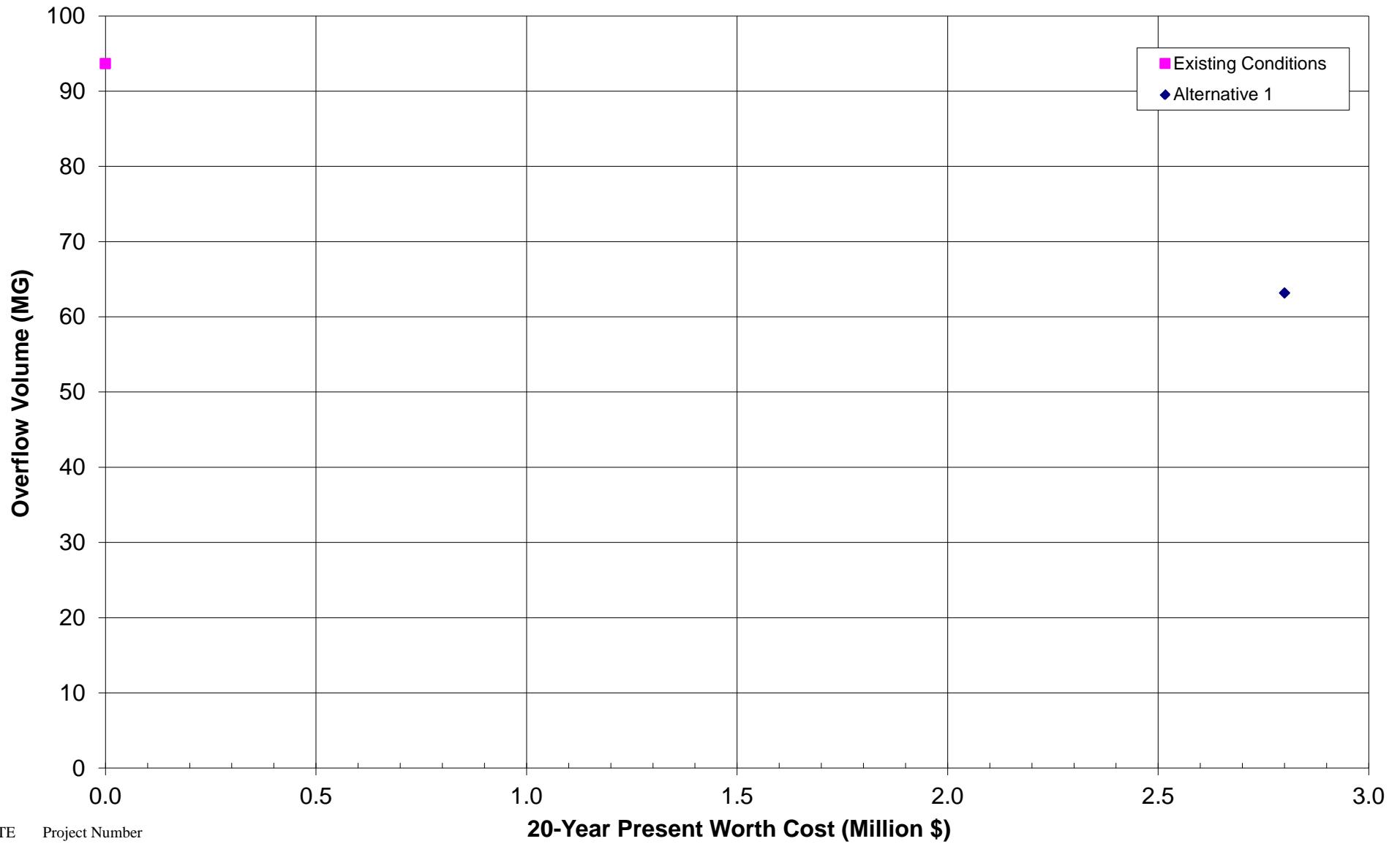
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FIGURE 9-8
Alternative 1 Cornelius Creek Benefit Curve:
Total Overflow Volume vs. Cost



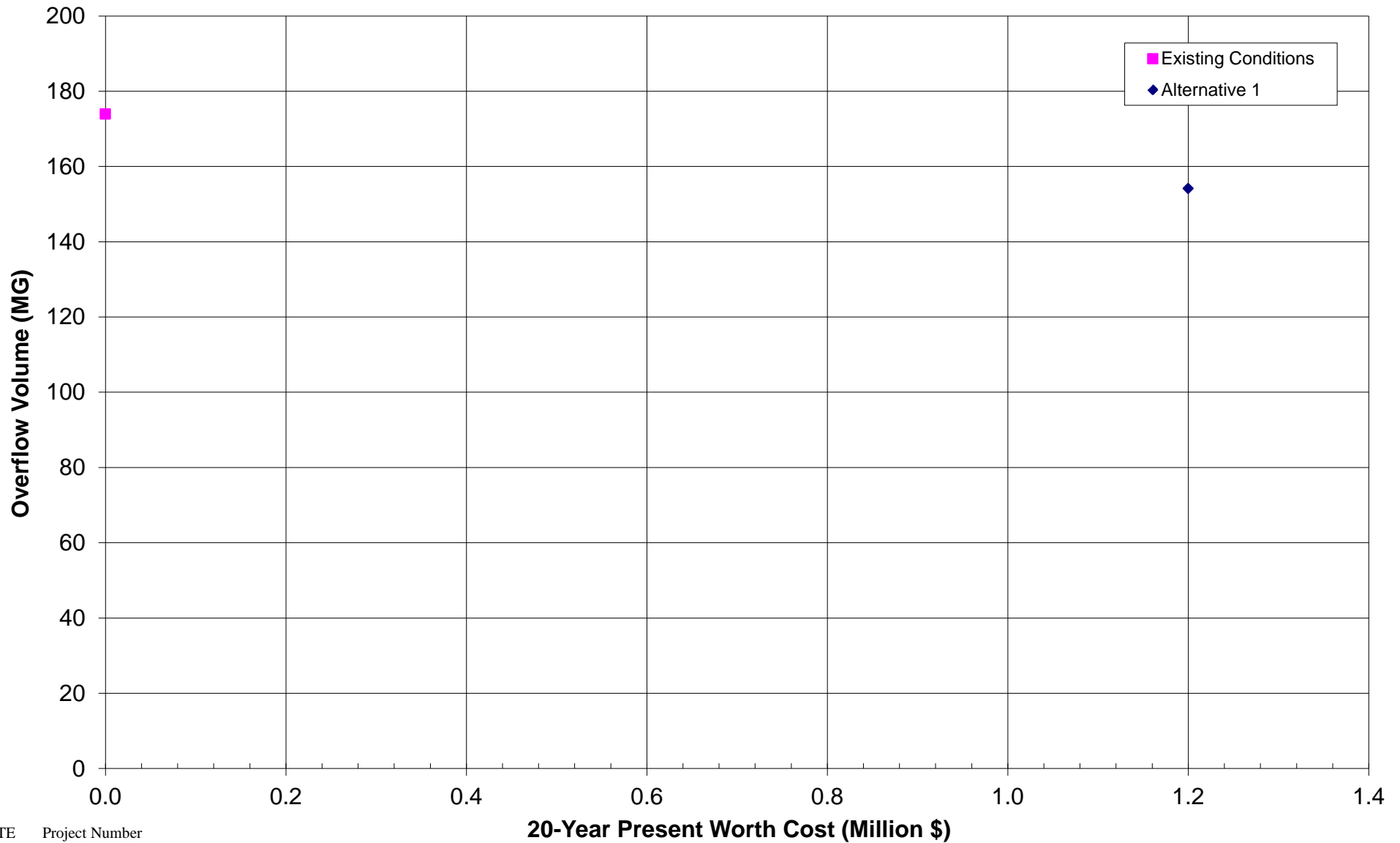
DATE Project Number




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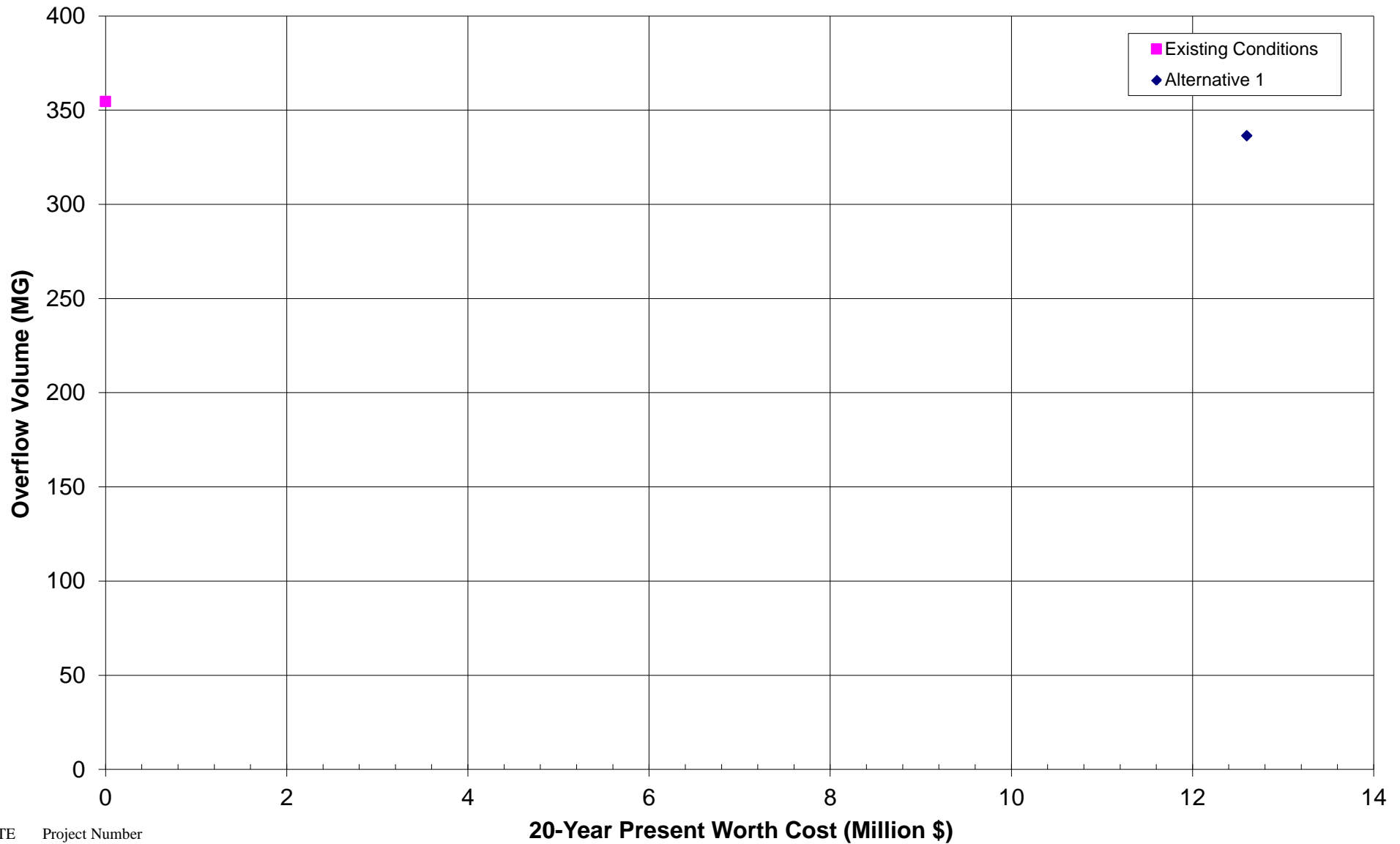
FIGURE 9-9
Alternative 1 Erie Basin Marina Benefit Curve:
Total Overflow Volume vs. Cost



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  <small>FOR WATER DIVISION BY ARCADIS</small>	BUFFALO SEWER AUTHORITY Stage 3: Long-Term Control Plan
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FIGURE 9-10
Alternative 1 Niagara River Benefit Curve: Total
Overflow Volume vs. Cost



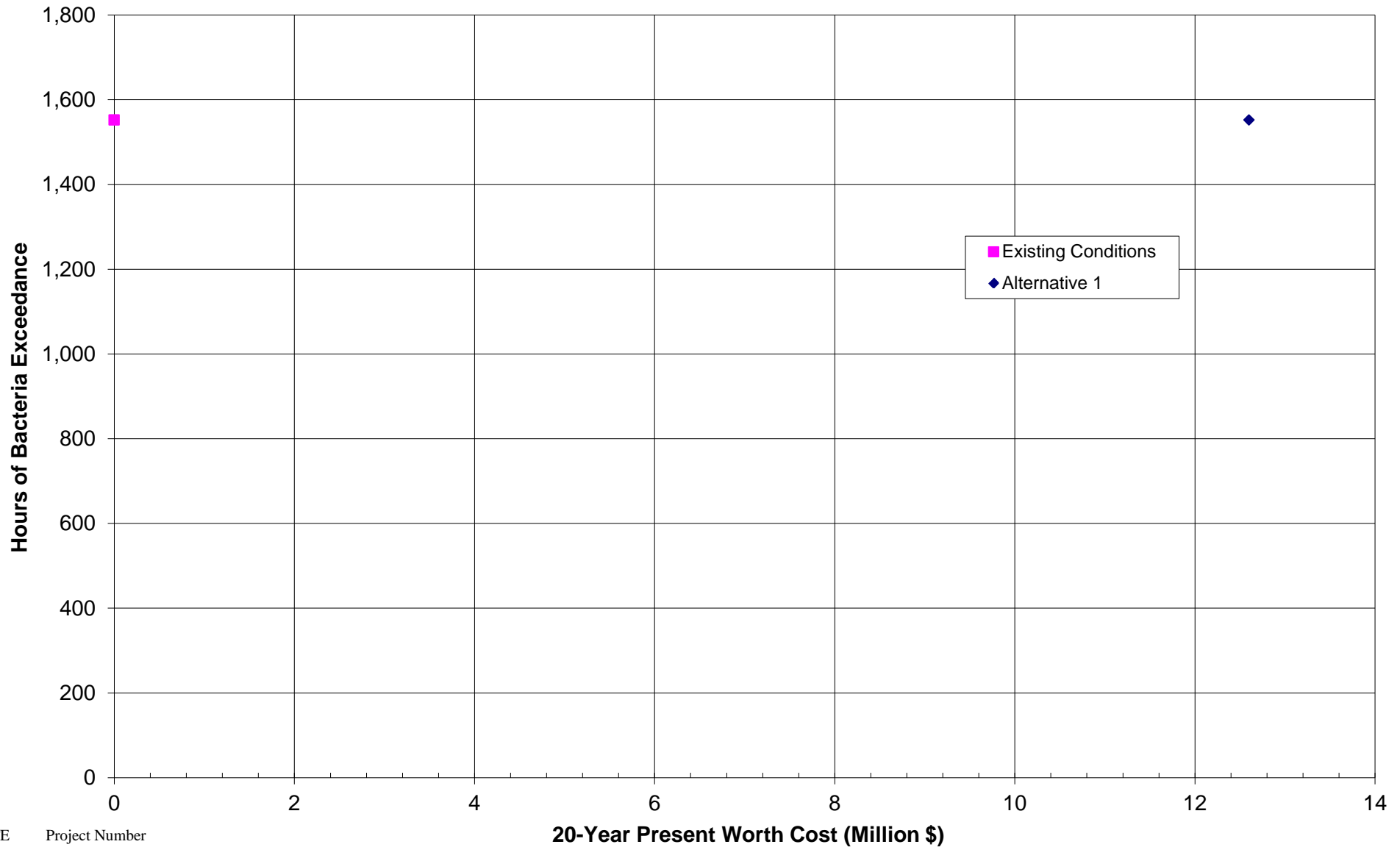
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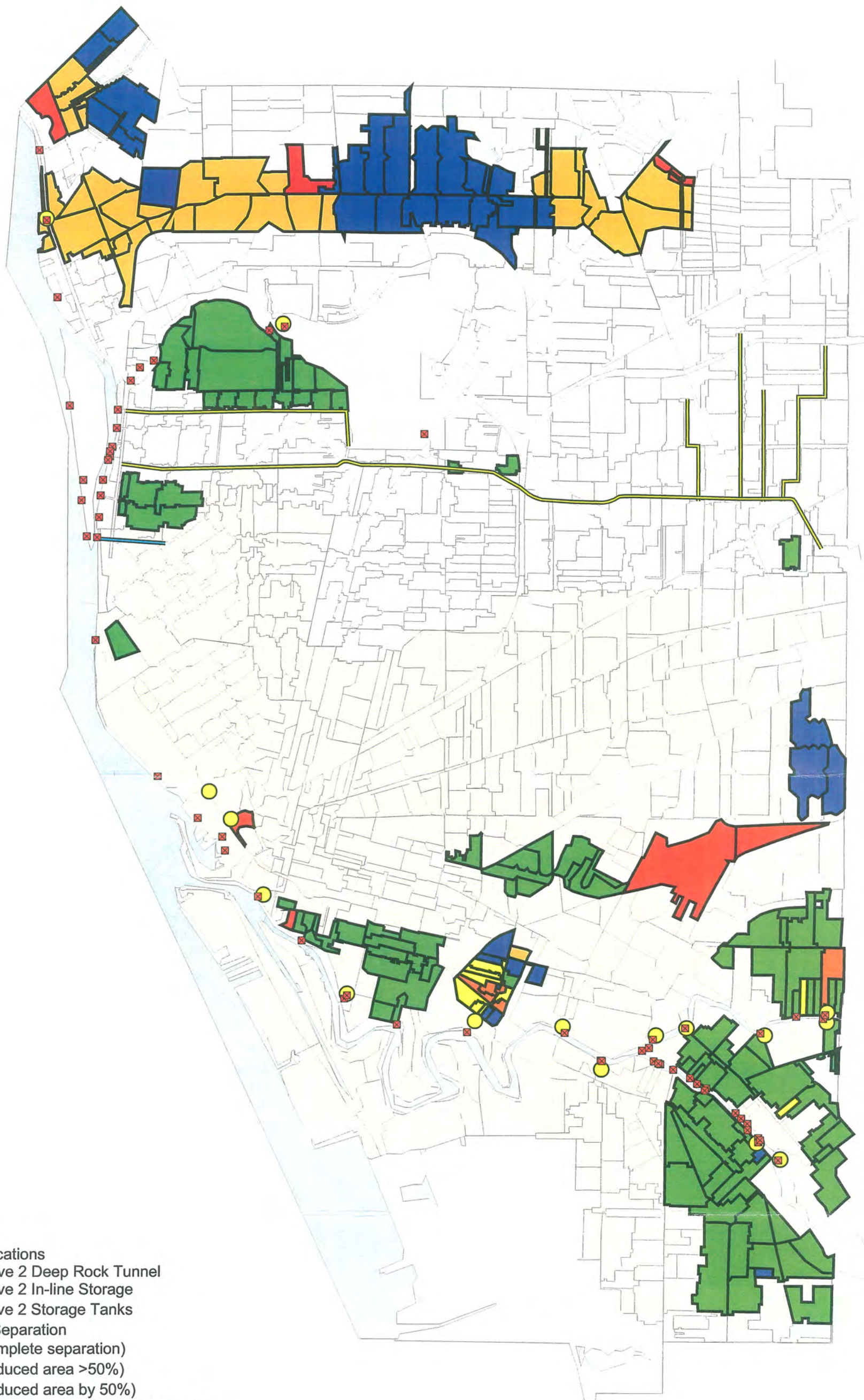

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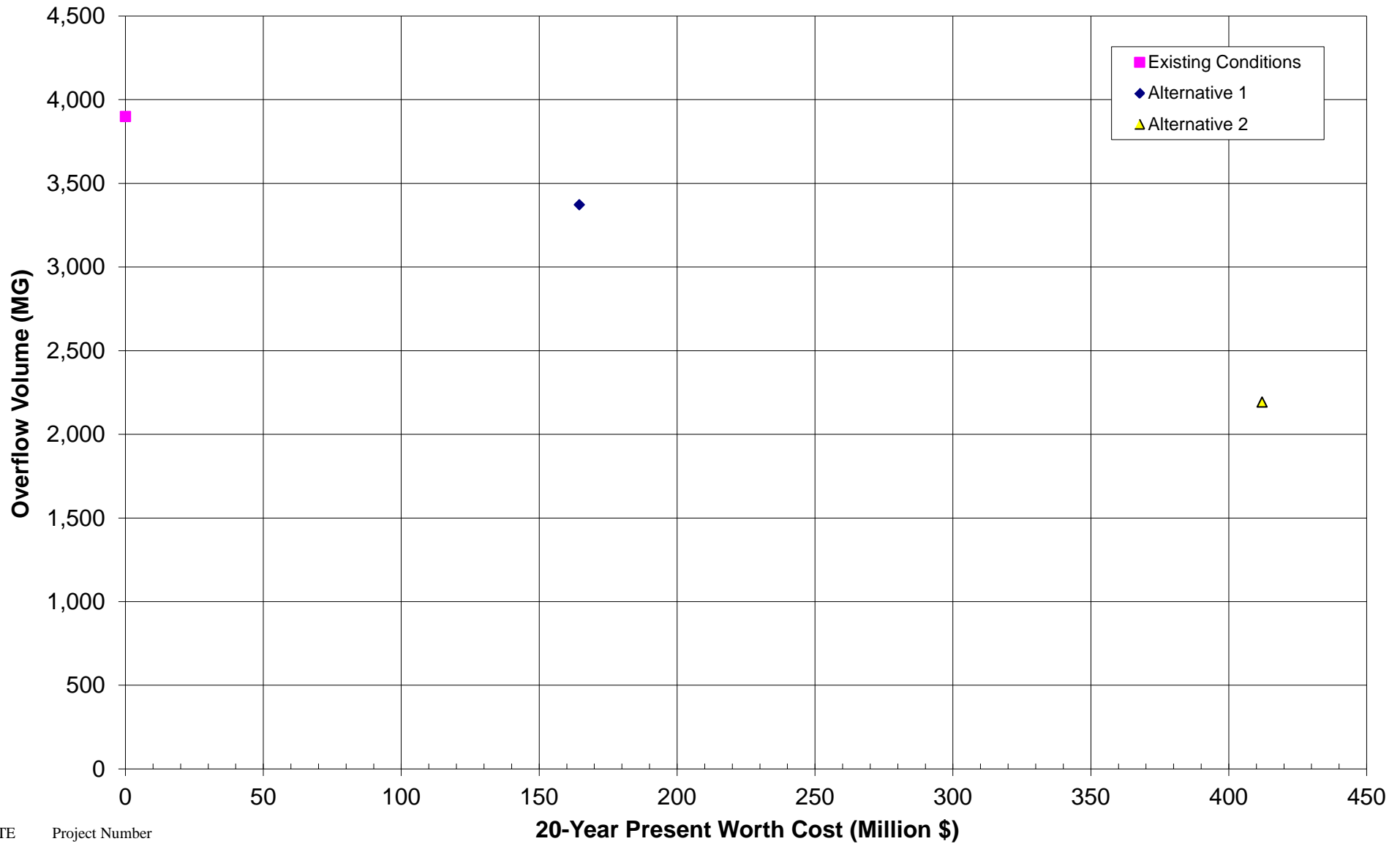
FIGURE 9-11
Alternative 1 Scajaquada Creek Benefit Curve:
Total Overflow Volume vs. Cost



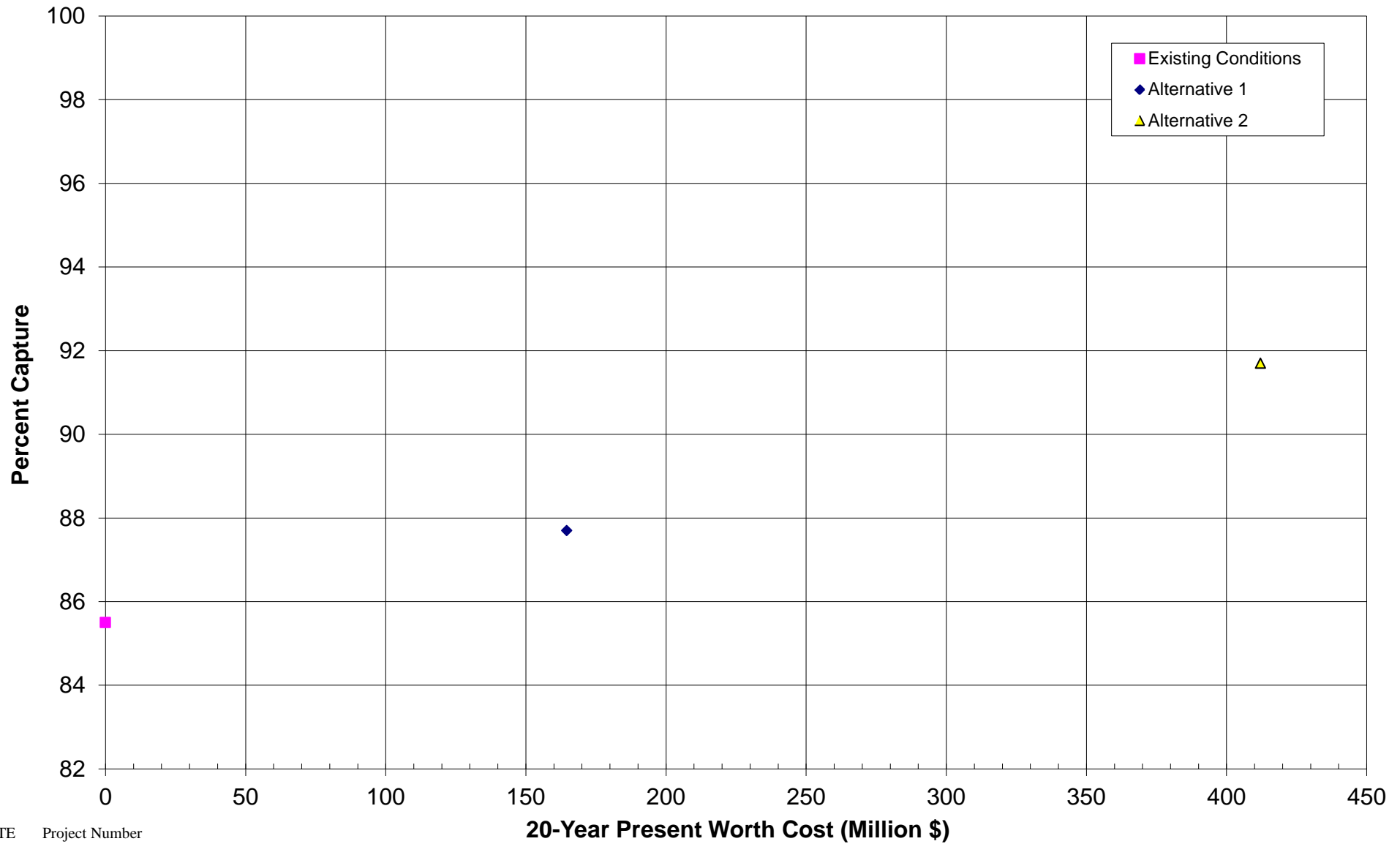
DATE Project Number



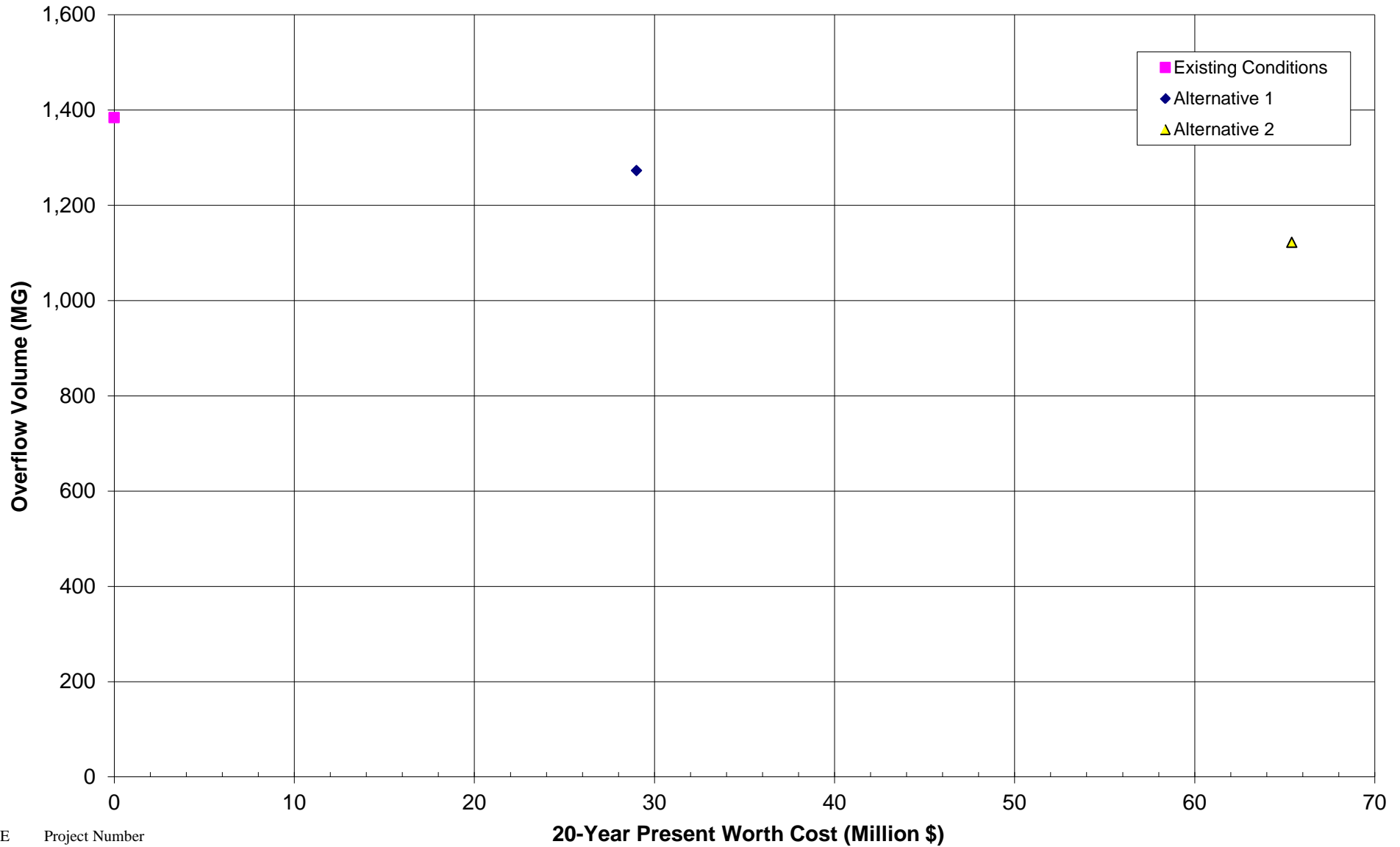
Note: Alternative 2 does not include any additional separation from Alternative 1.



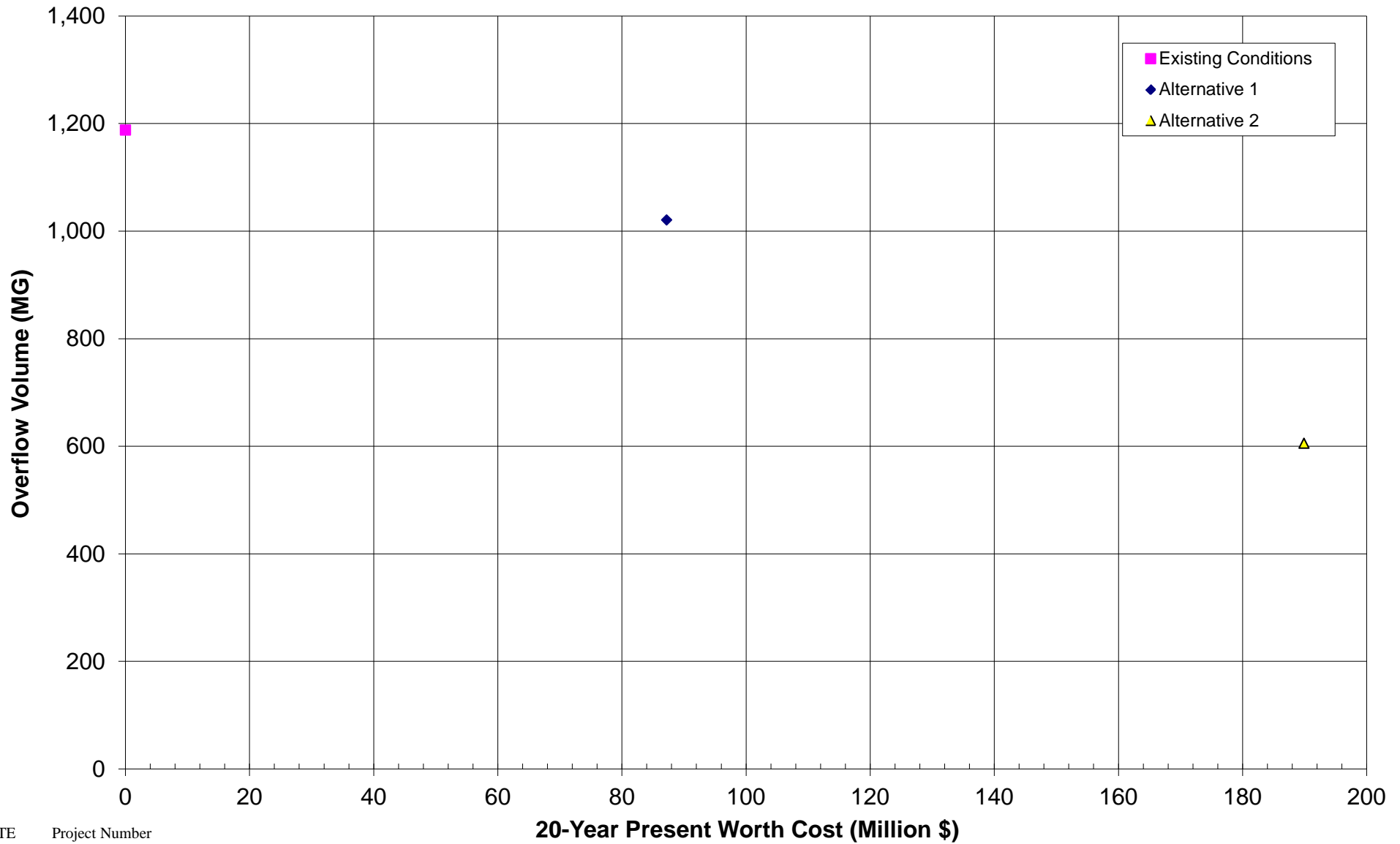
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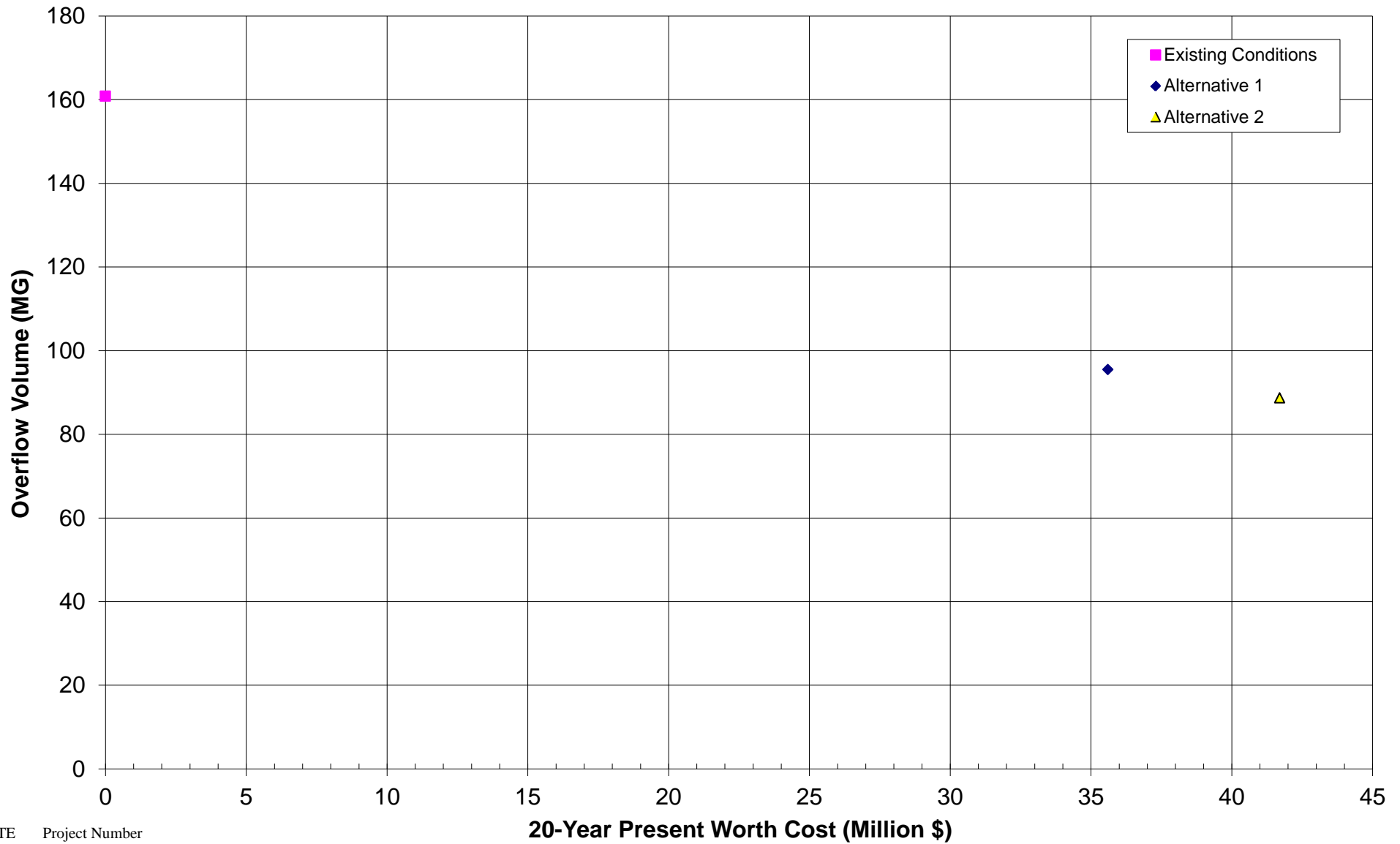
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DATE Project Number



DATE Project Number

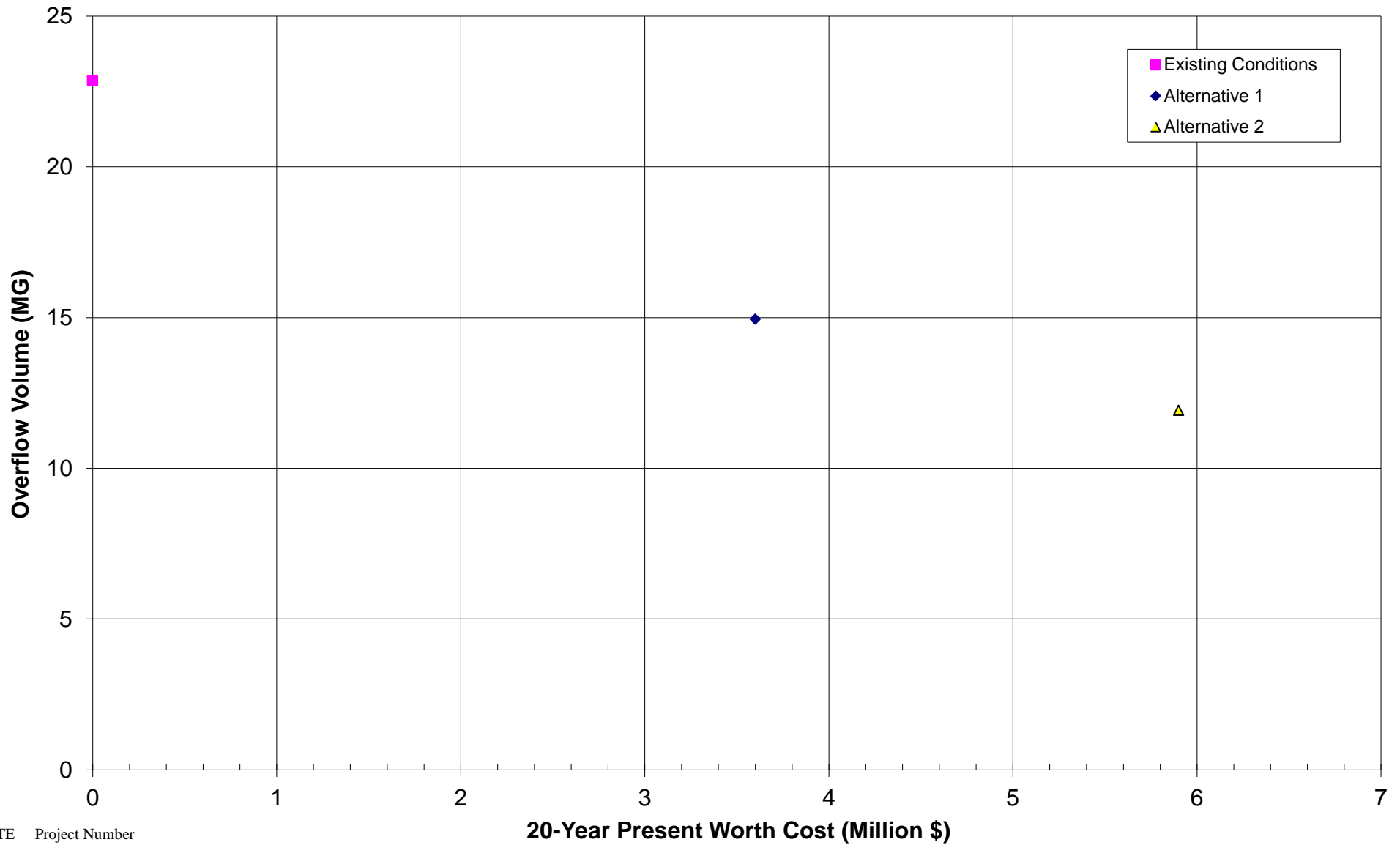


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FIGURE 9-18
Alternative 2 Cazenovia Creek Benefit Curve:
Total Overflow Volume vs. Cost



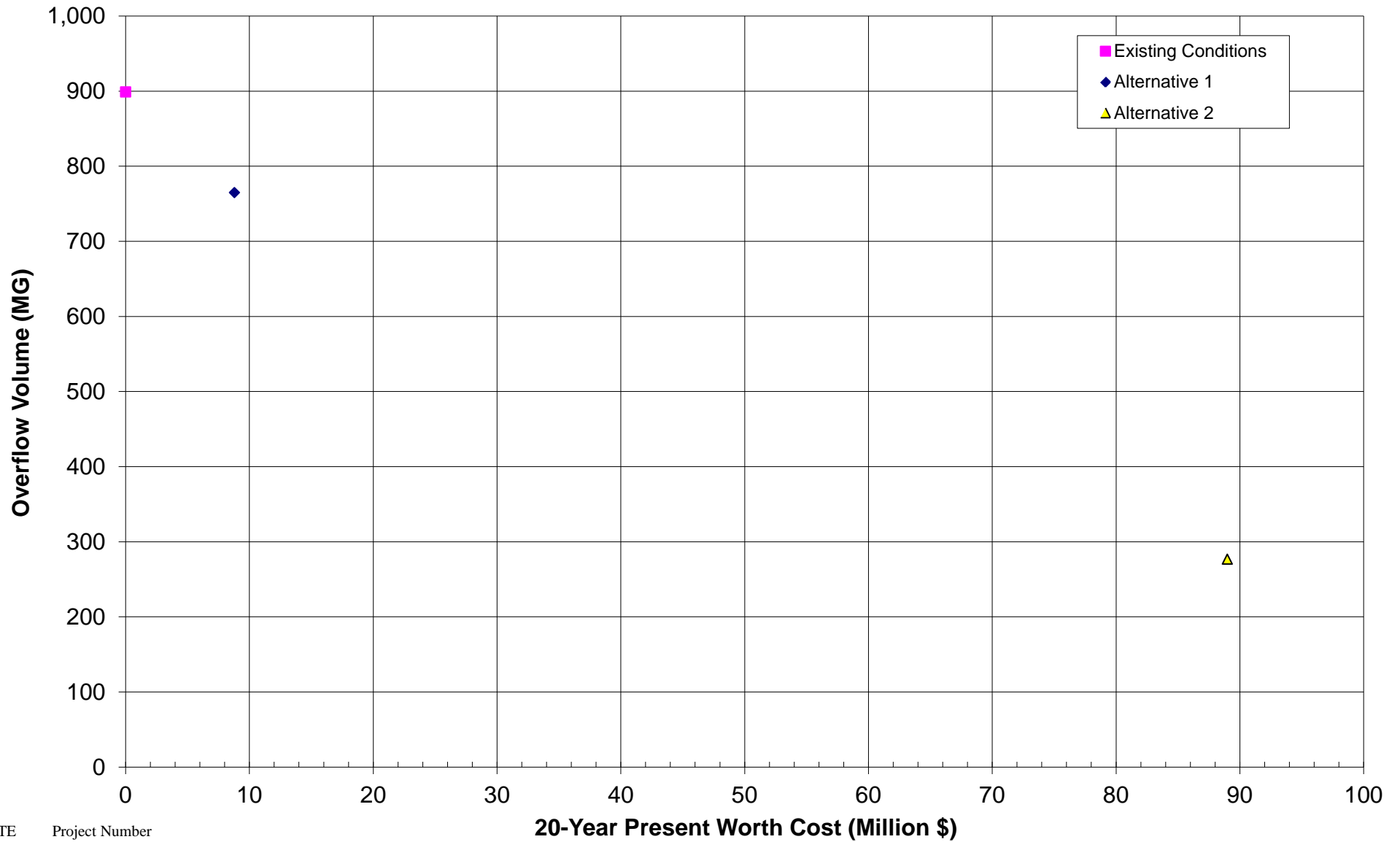
DATE Project Number



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**FIGURE 9-19
Alternative 2 B Class Cazenovia Creek Benefit
Curve: Total Overflow Volume vs. Cost**



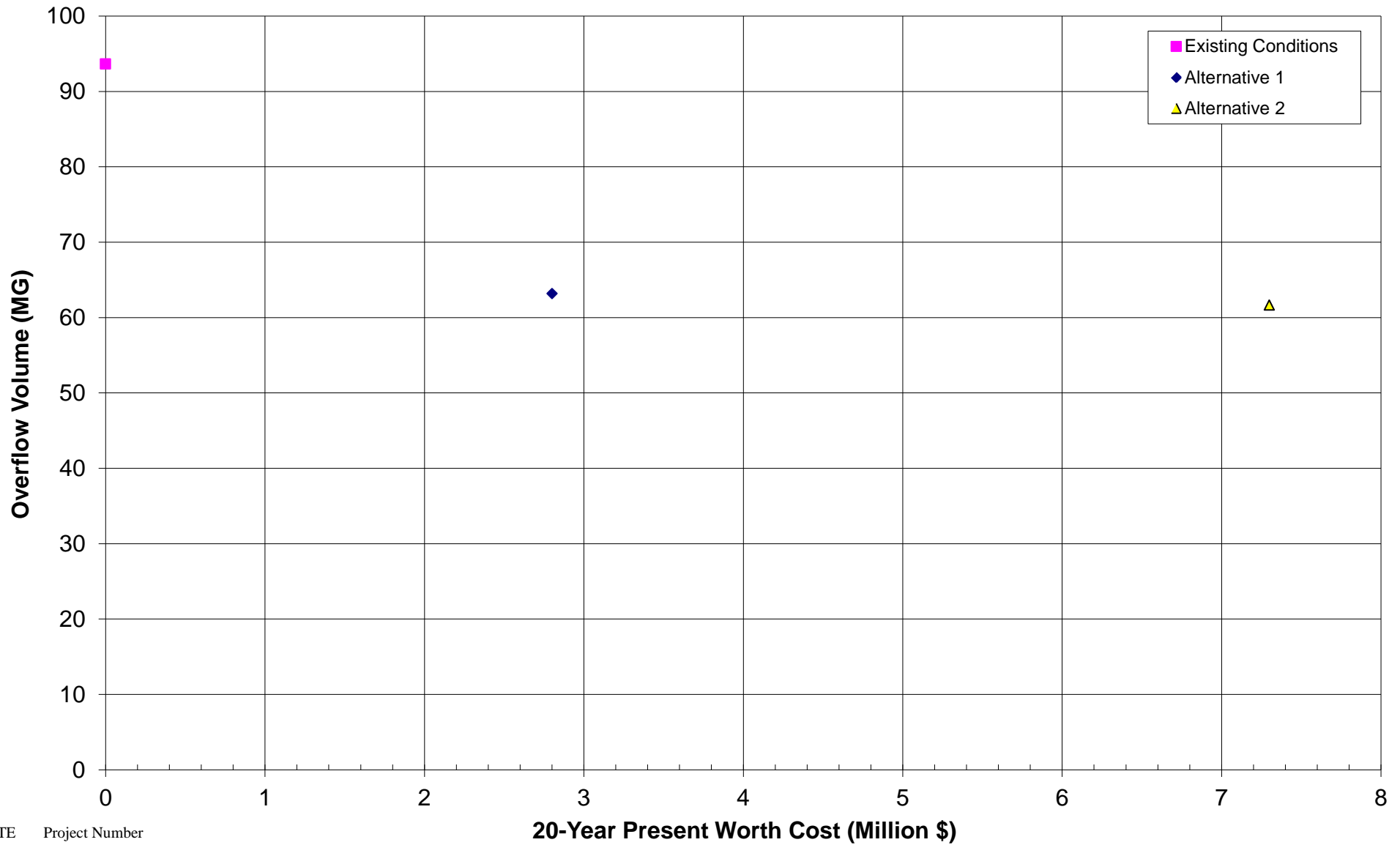
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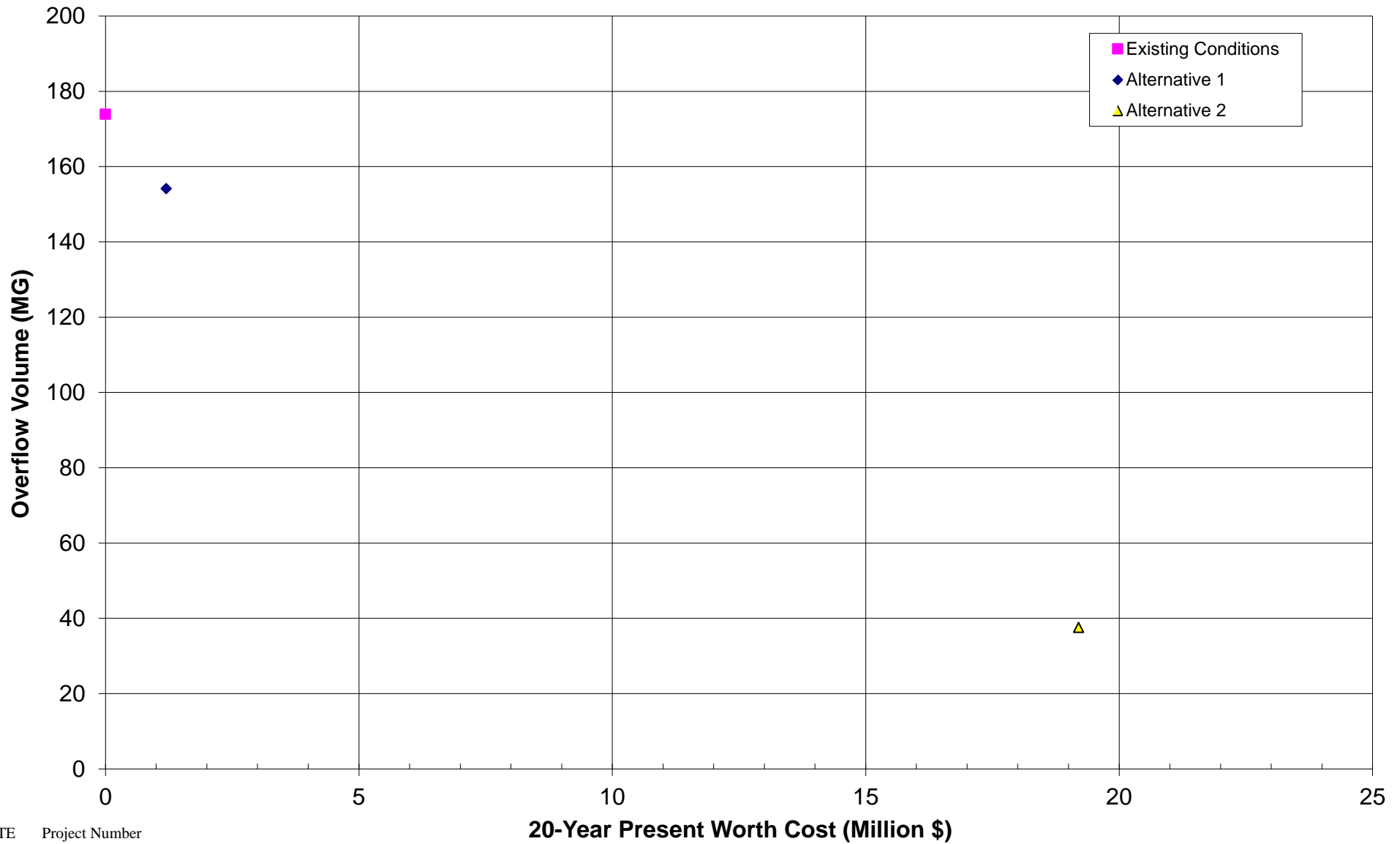
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**FIGURE 9-20
Alternative 2 Cornelius Creek Benefit Curve:
Total Overflow Volume vs. Cost**



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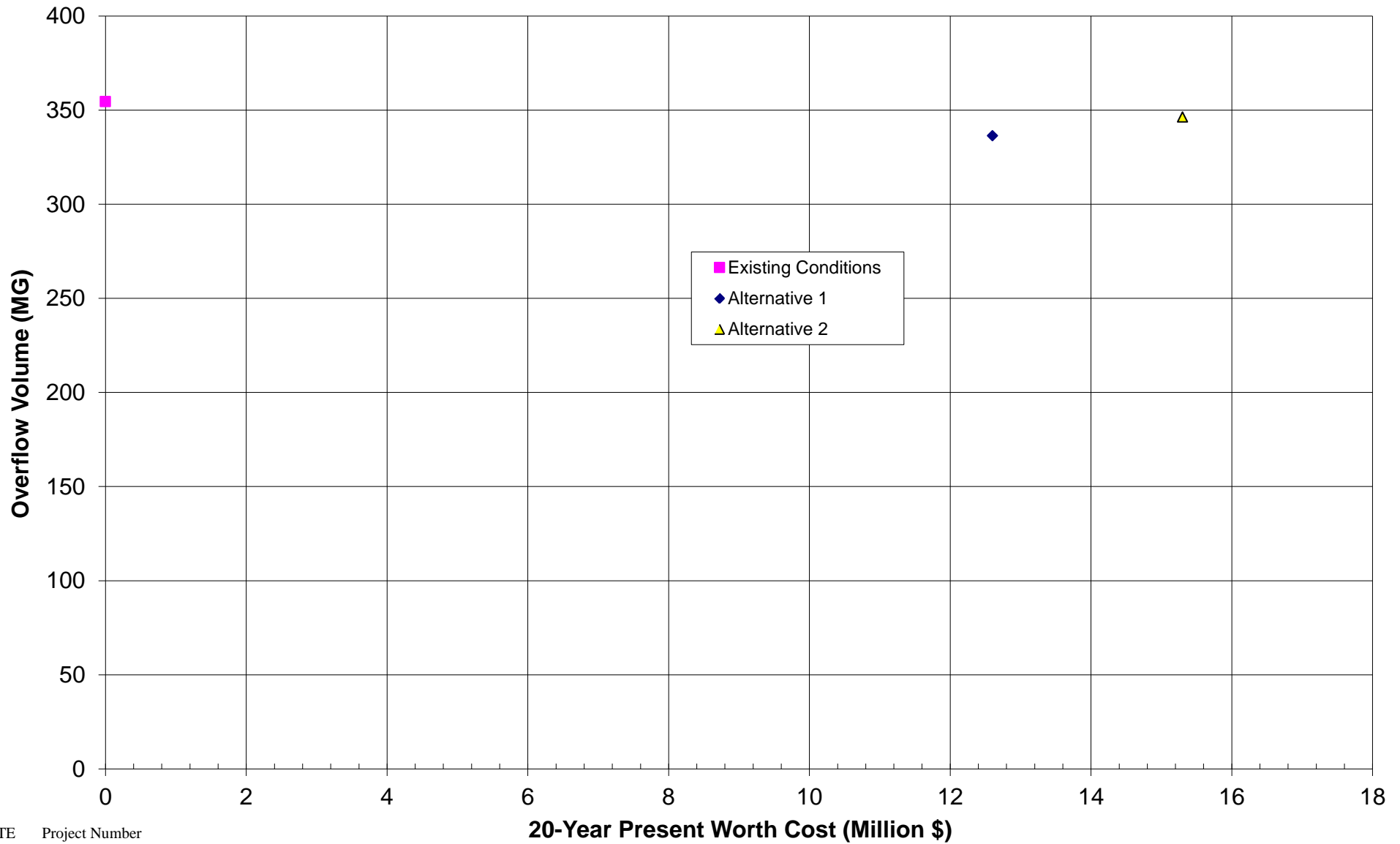
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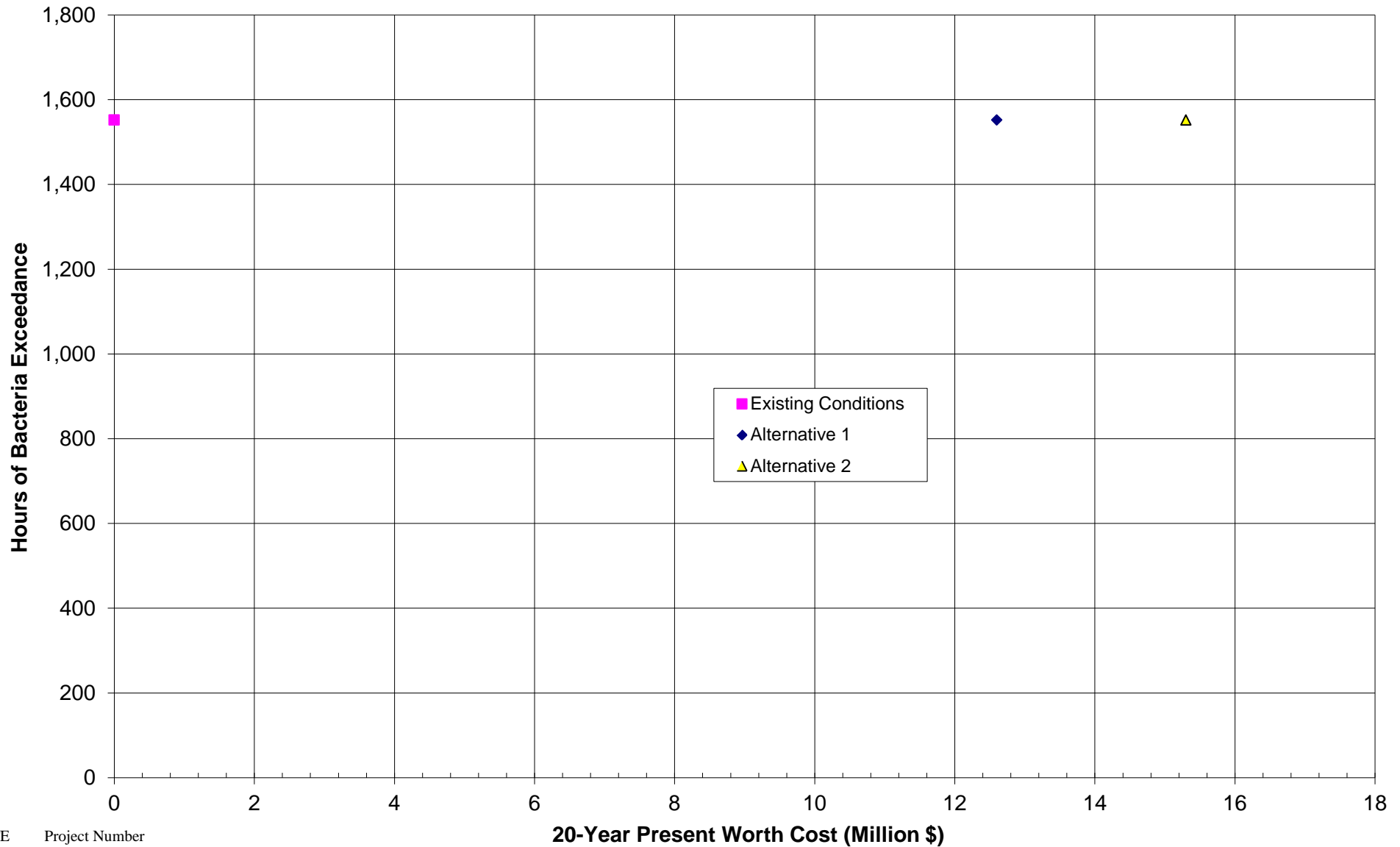
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FIGURE 9-22
Alternative 2 Niagara River Benefit Curve: Total
Overflow Volume vs. Cost



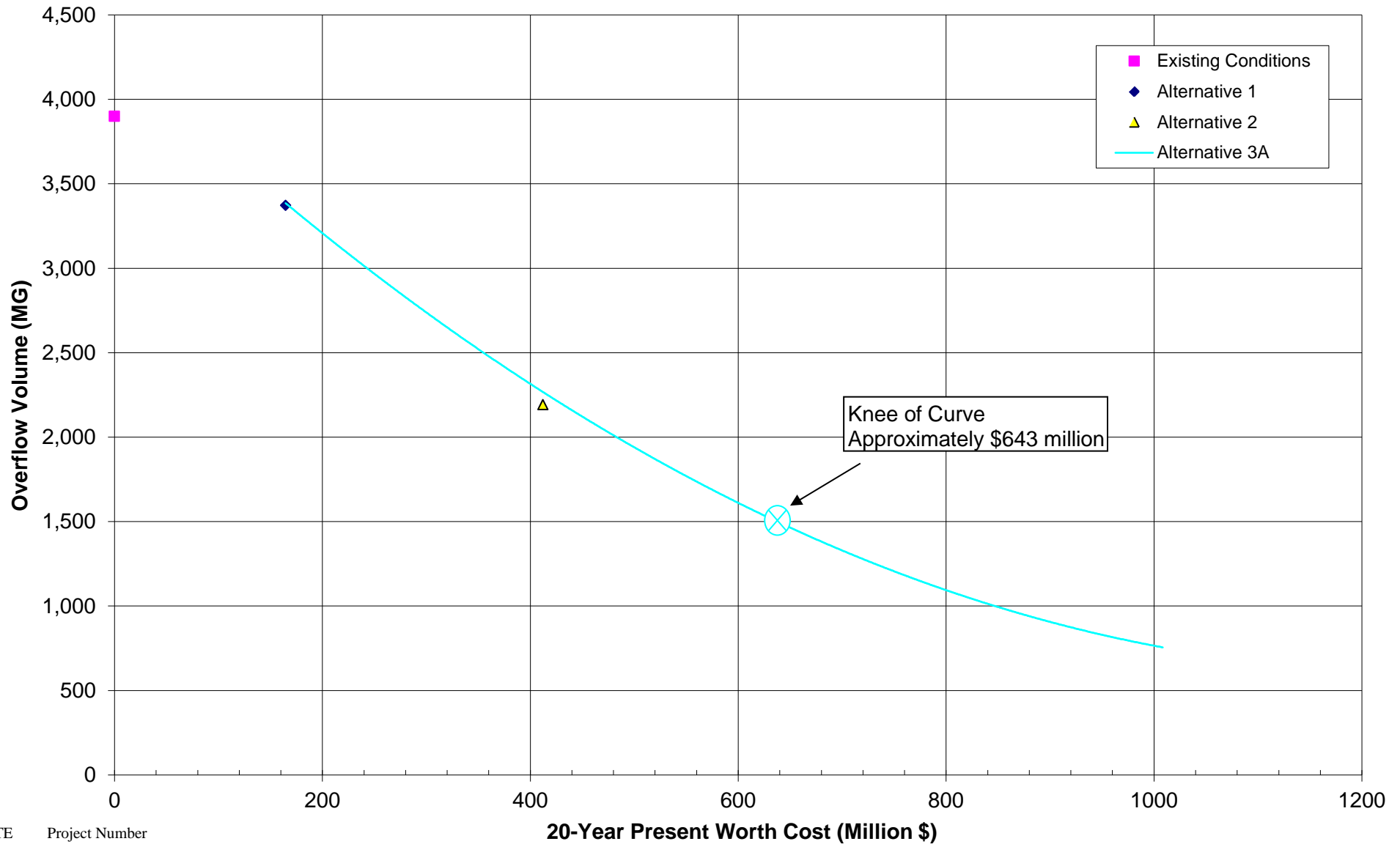
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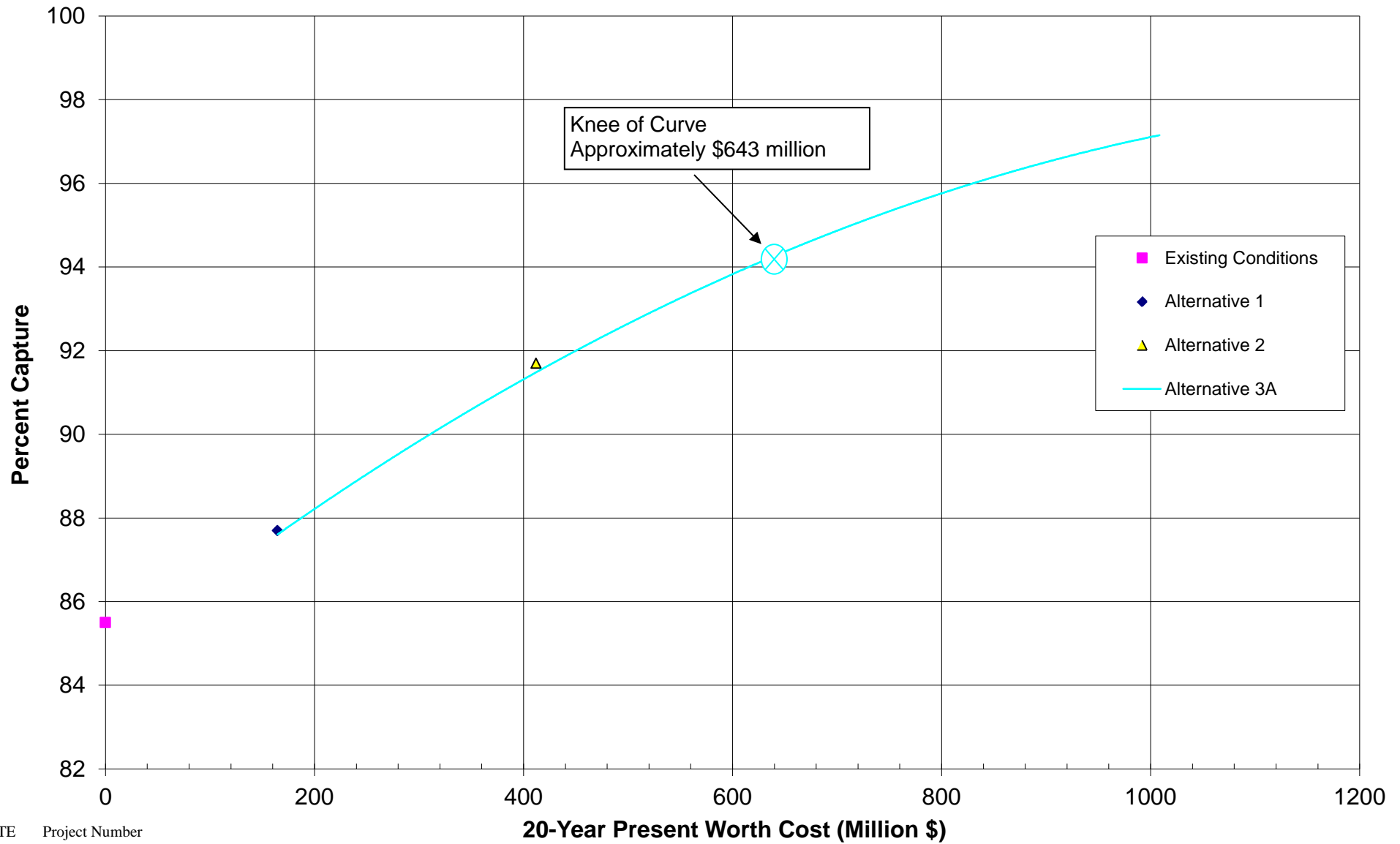
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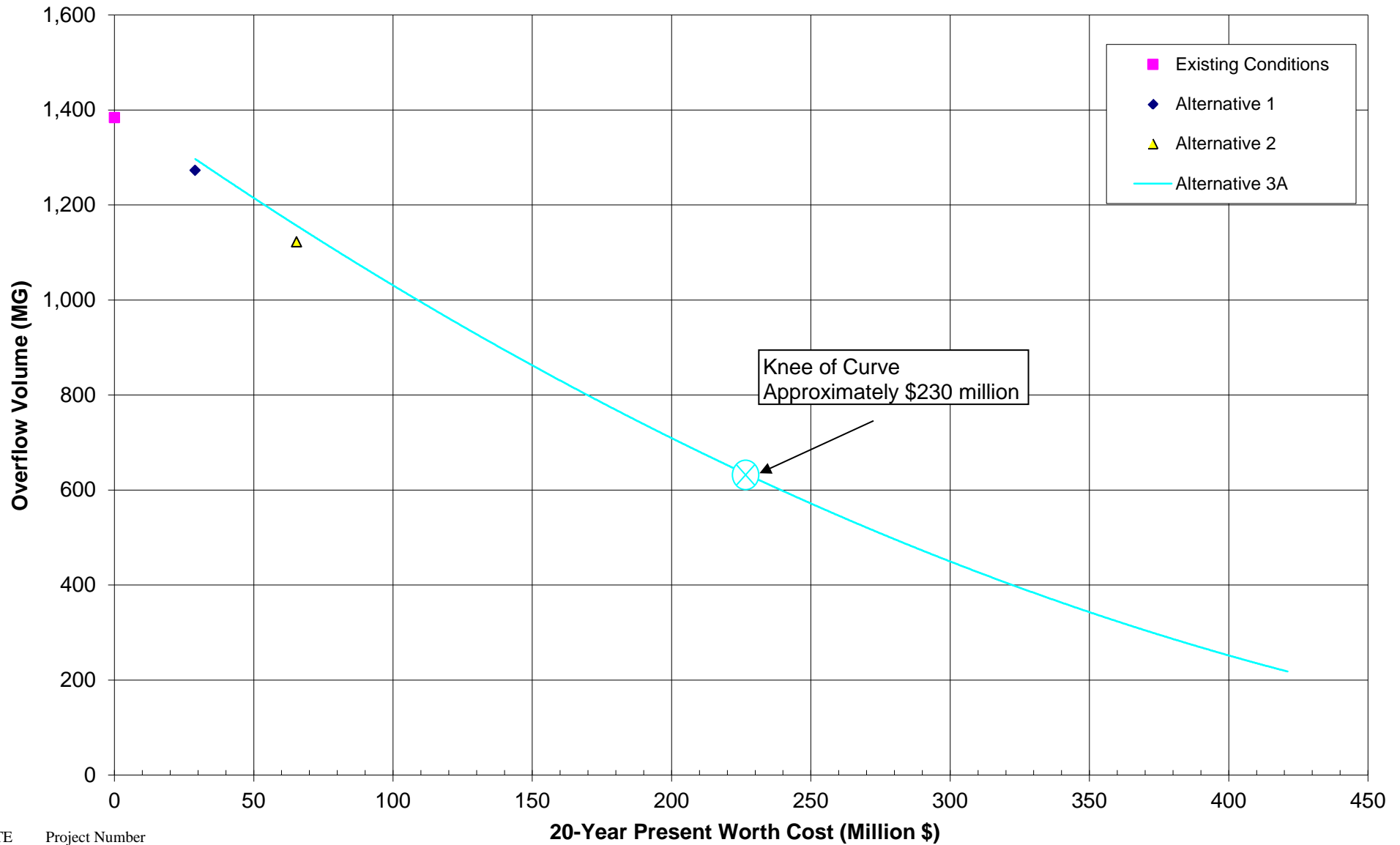
- CSO Locations
- Alternative 3A Deep Rock Tunnel
- Alternative 3A Tunnel Drop Shafts
- Alternative 3A Storage Tanks
- Alternative 3A Storage Conveyance Lines
- Alternative 3A Collector Line
- Alternative 3A Separation (inclusive of Alternative 1 Separation)
- Yes (Complete separation)
- Yes (Reduced area >50%)
- Yes (Reduced area by 50%)
- Yes (Reduced area <50% and >35%)
- Yes (Reduced area by 35%)
- Yes (Reduced area by <35%)
- No



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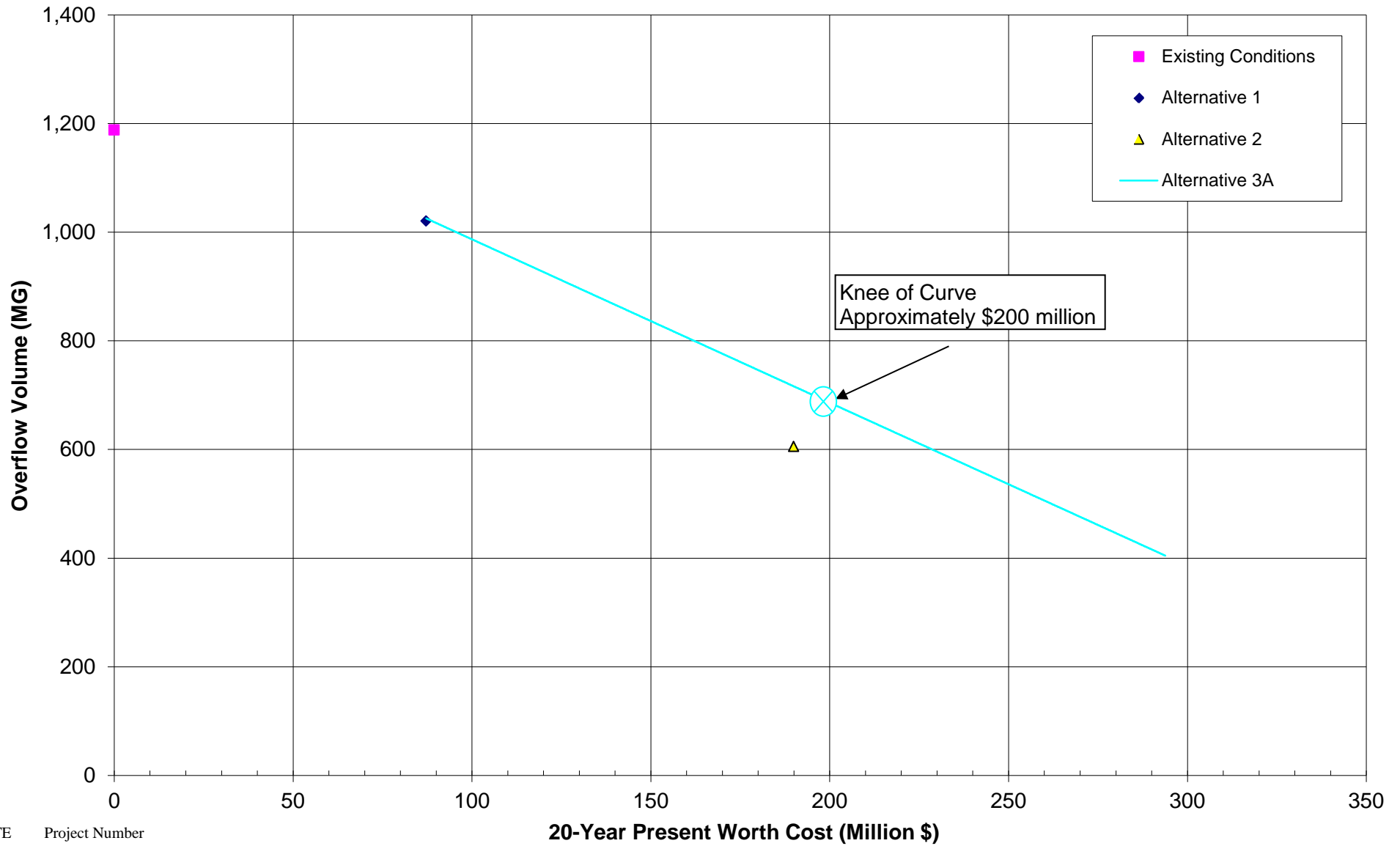


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FIGURE 9-28
Alternative 3A Black Rock Canal Benefit Curve:
Total Overflow Volume vs. Cost

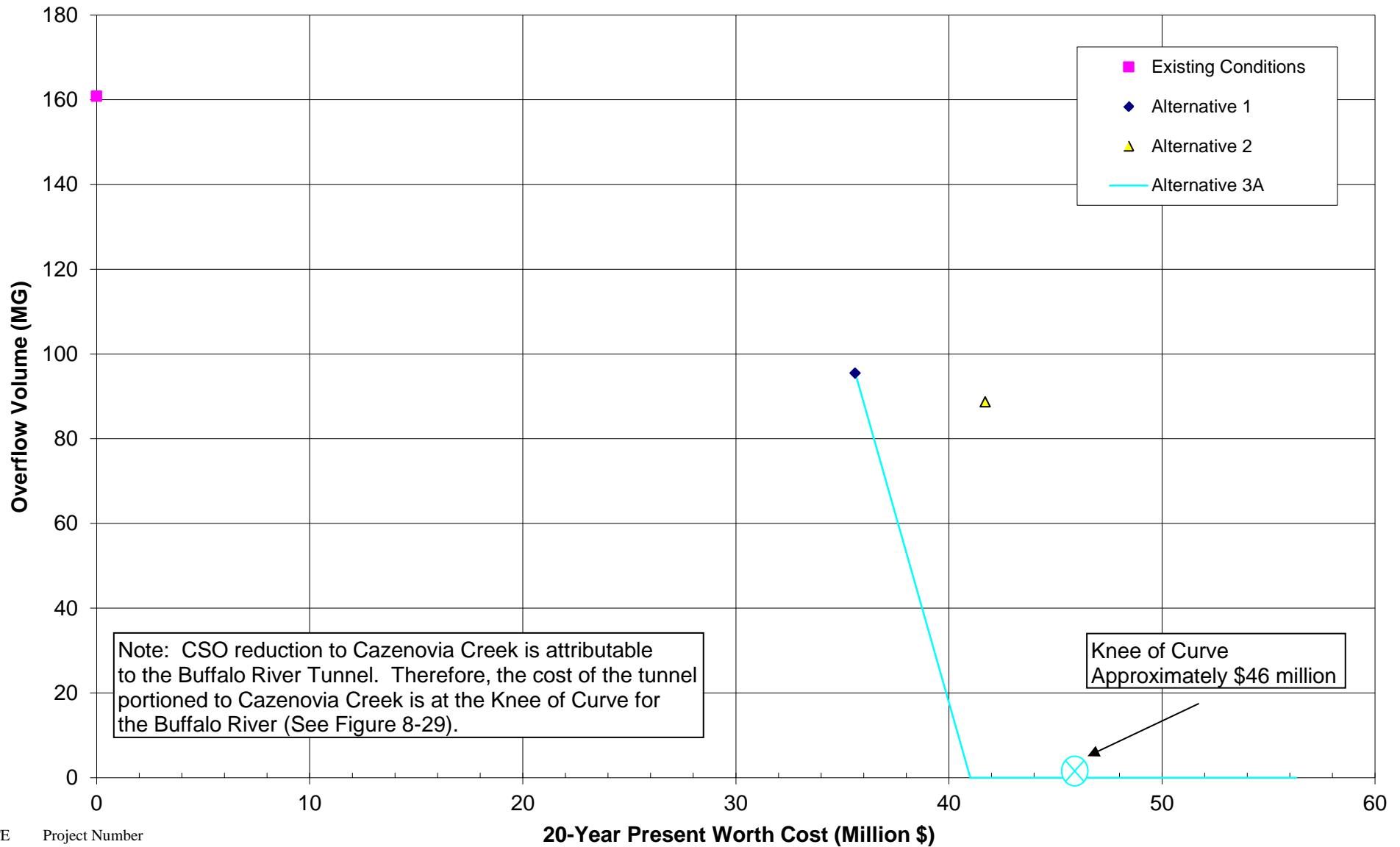


DATE Project Number

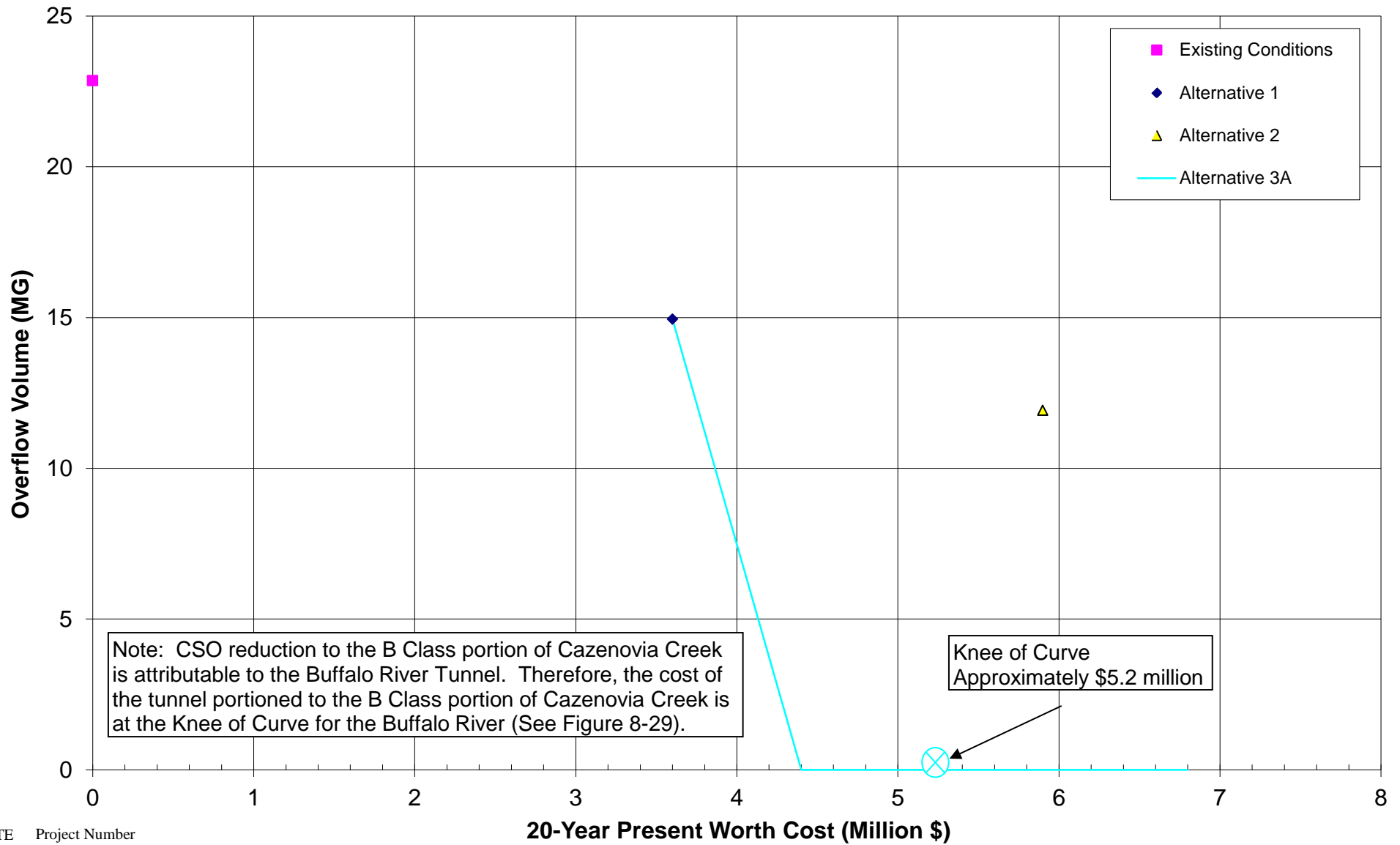
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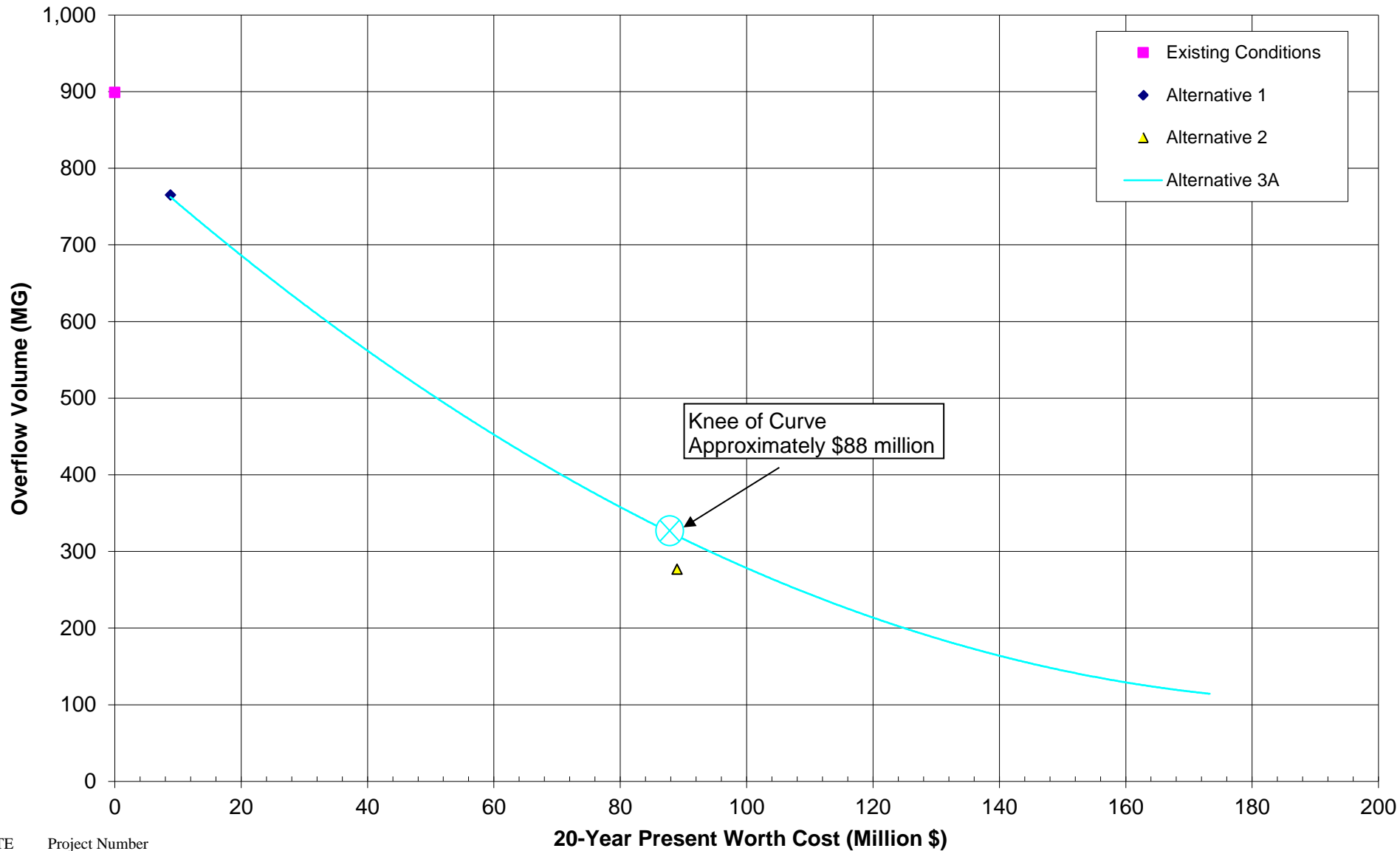
**FIGURE 9-29
Alternative 3A Buffalo River Benefit Curve:
Total Overflow Volume vs. Cost**



DATE Project Number



DATE Project Number



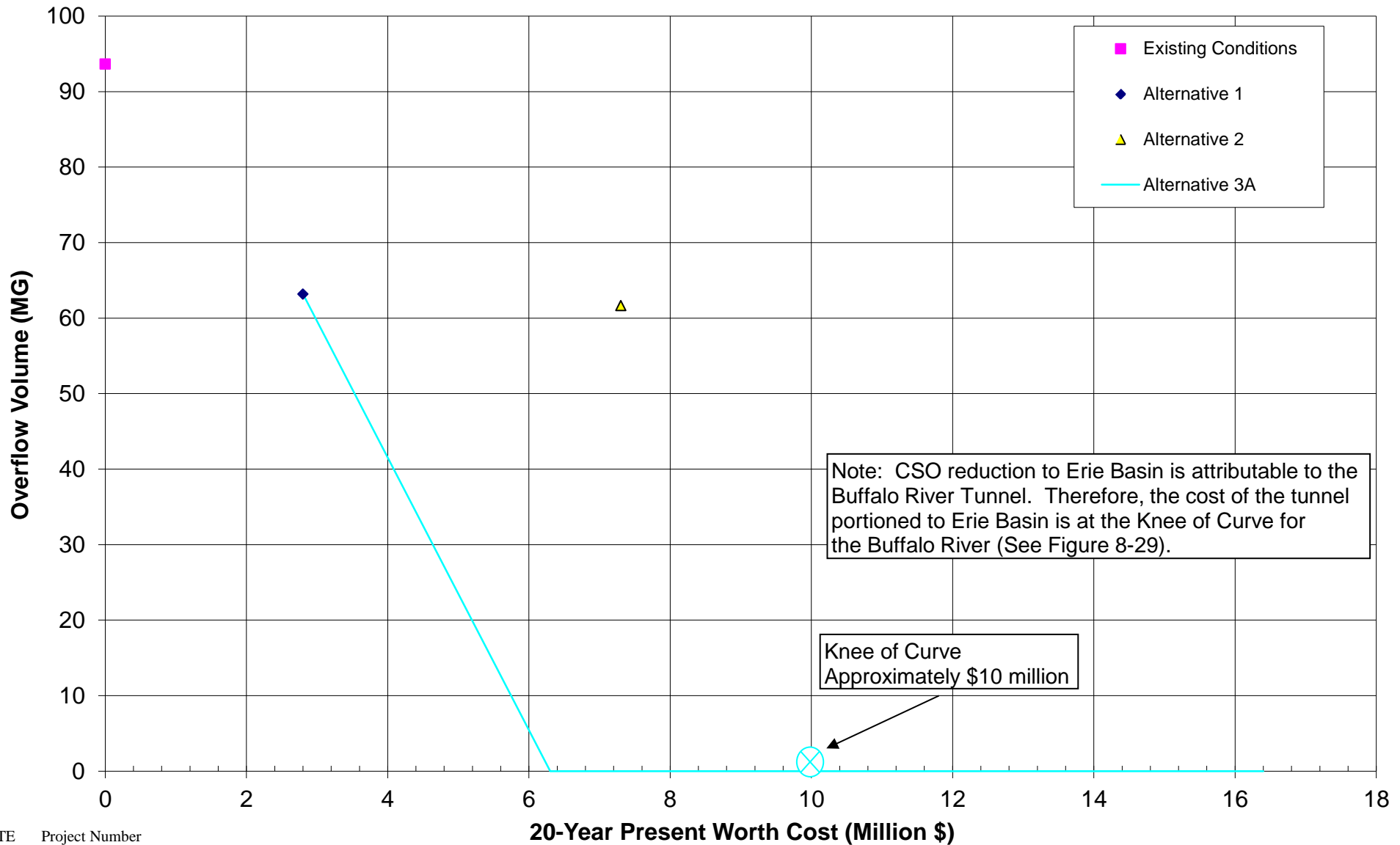
DATE Project Number



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**FIGURE 9-32
Alternative 3A Cornelius Creek Benefit Curve:
Total Overflow Volume vs. Cost**



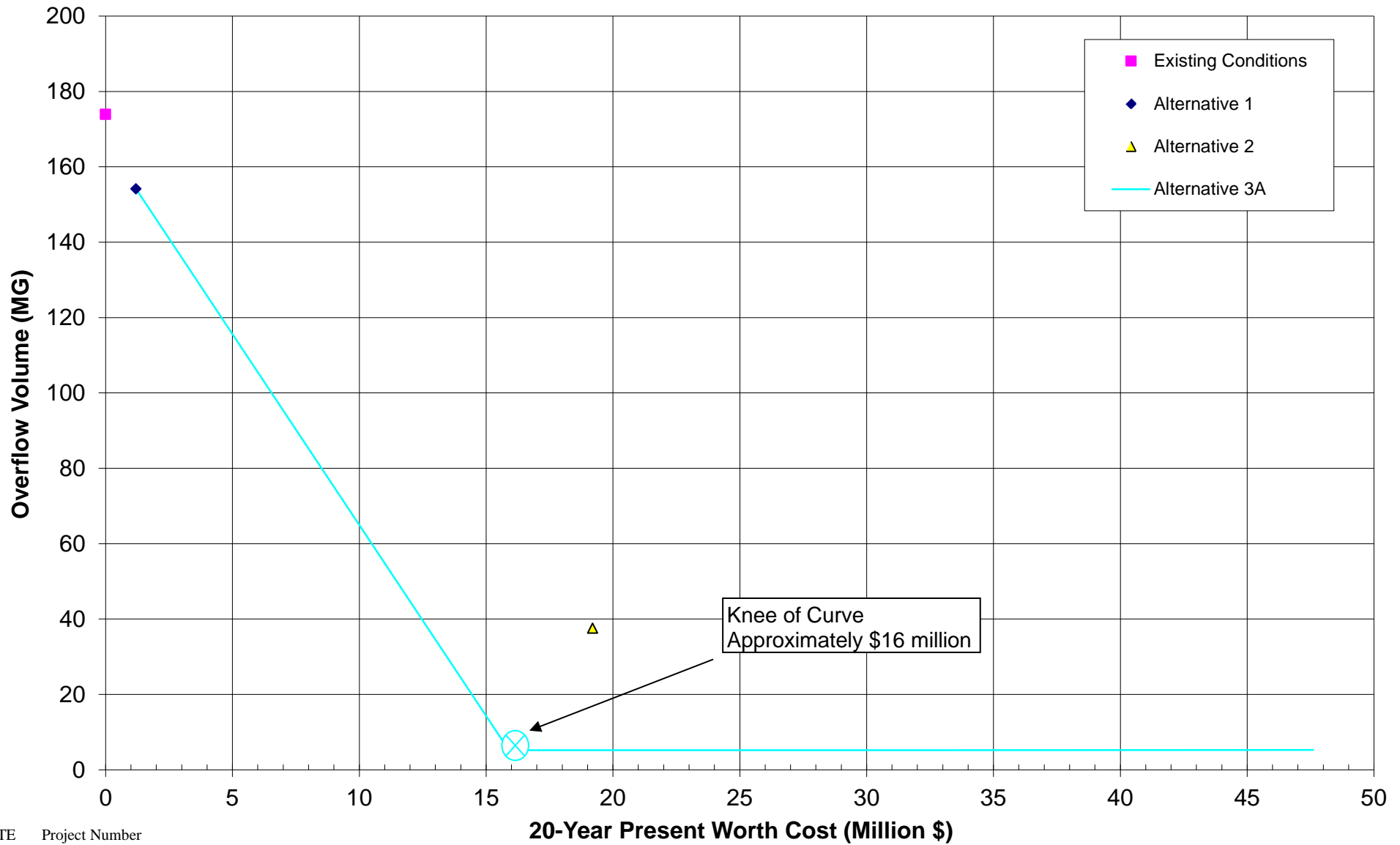
DATE Project Number



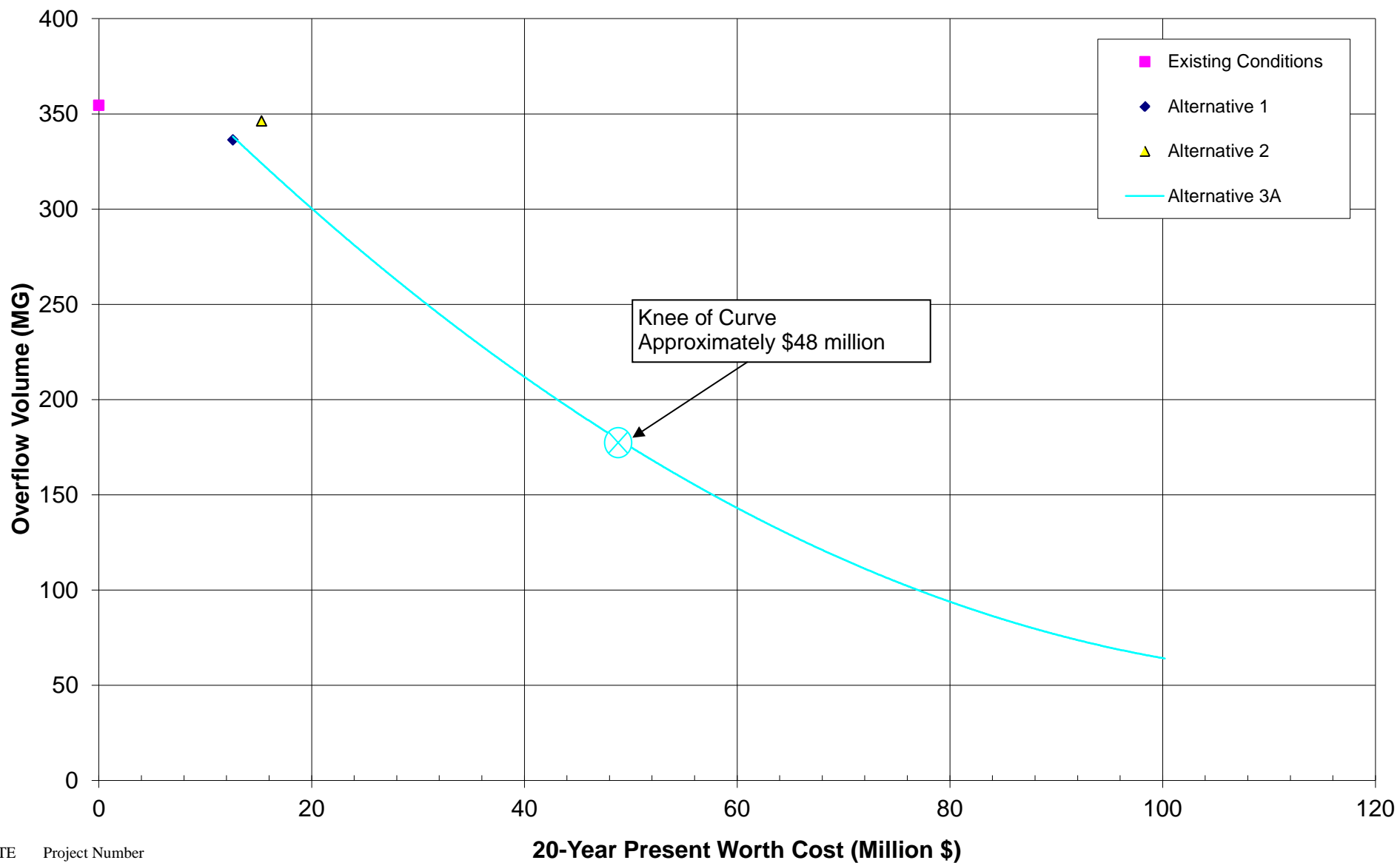
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FIGURE 9-33
Alternative 3A Erie Basin Marina Benefit Curve:
Total Overflow Volume vs. Cost



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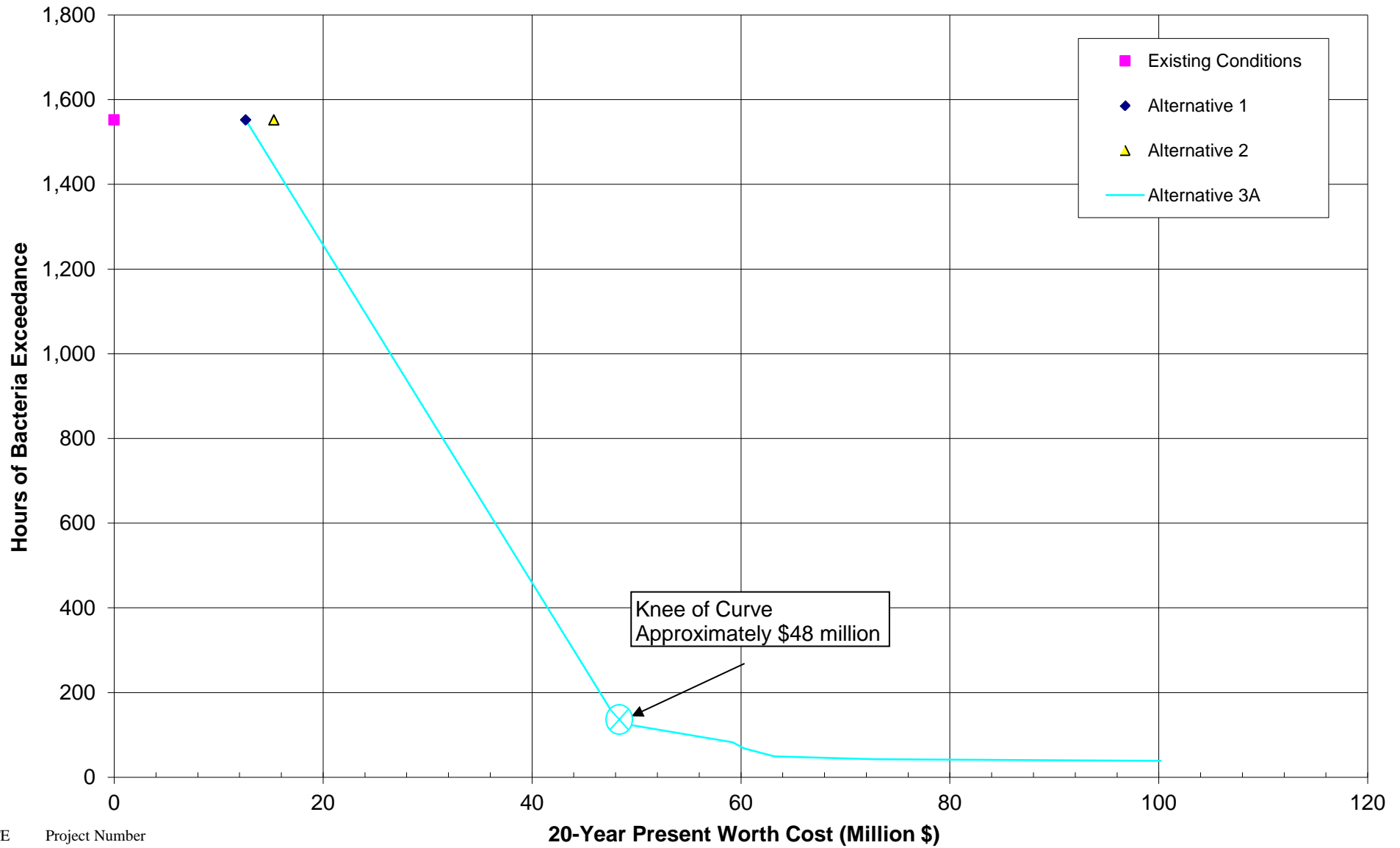
DATE Project Number



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**FIGURE 9-35
Alternative 3A Scajaquada Creek Benefit Curve:
Total Overflow Volume vs. Cost**



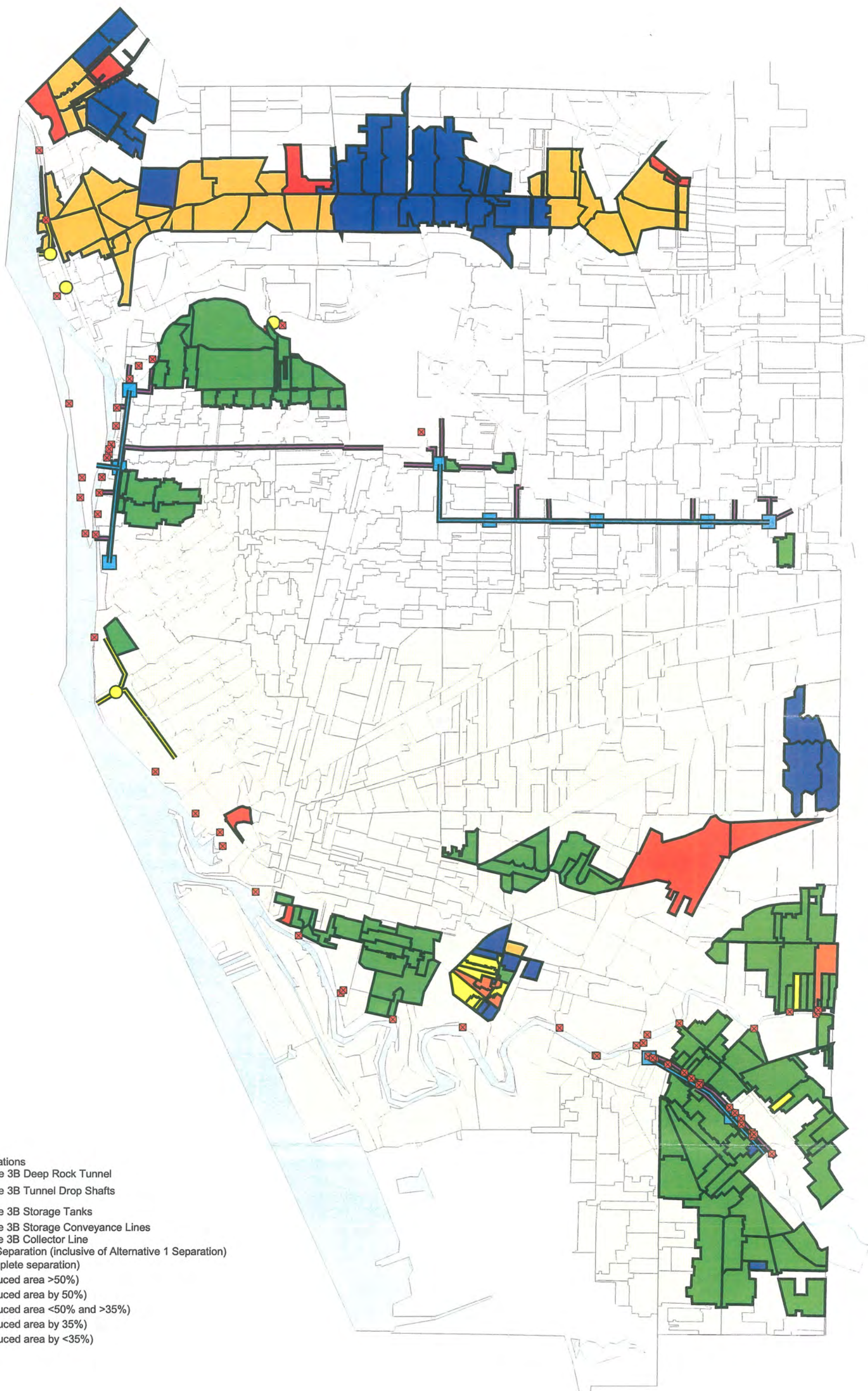
DATE Project Number

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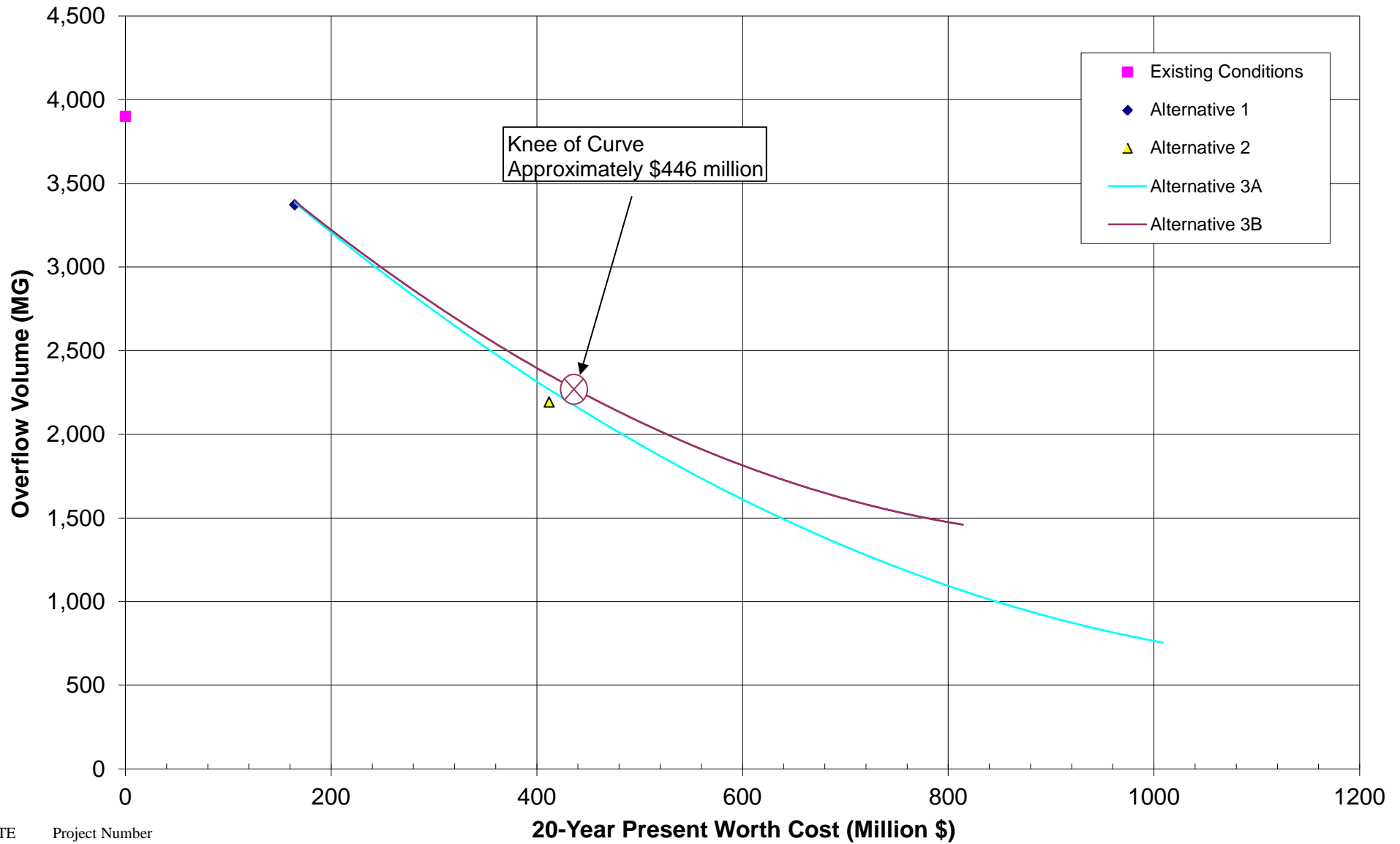
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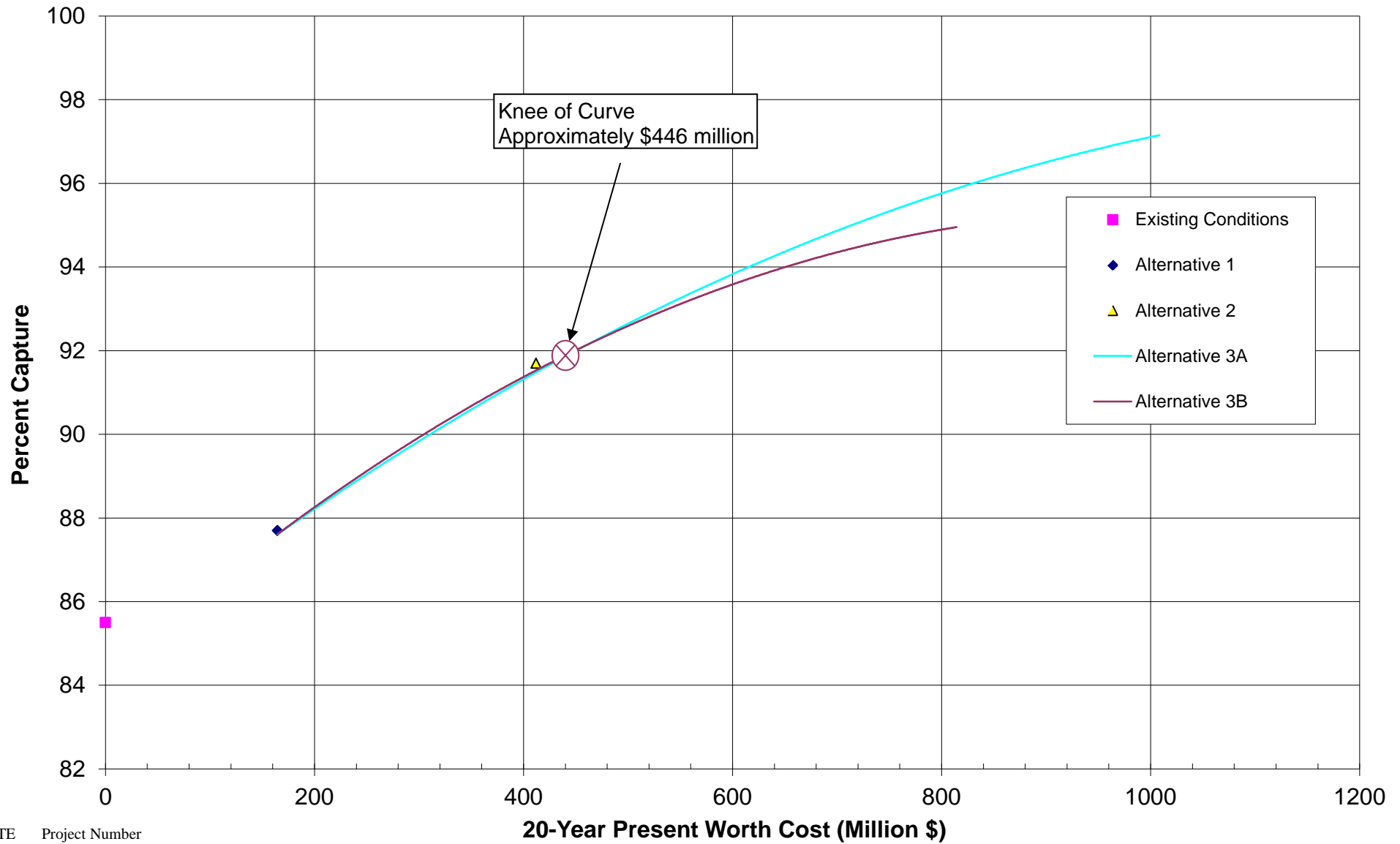
FIGURE 9-36
Alternative 3A Scajaquada Creek Benefit Curve:
Bacteria Exceedance Hours vs. Cost



- CSO Locations
- Alternative 3B Deep Rock Tunnel
- Alternative 3B Tunnel Drop Shafts
- Alternative 3B Storage Tanks
- Alternative 3B Storage Conveyance Lines
- Alternative 3B Collector Line
- Alternative 3B Separation (inclusive of Alternative 1 Separation)
- Yes (Complete separation)
- Yes (Reduced area >50%)
- Yes (Reduced area by 50%)
- Yes (Reduced area <50% and >35%)
- Yes (Reduced area by 35%)
- Yes (Reduced area by <35%)
- No



DATE Project Number



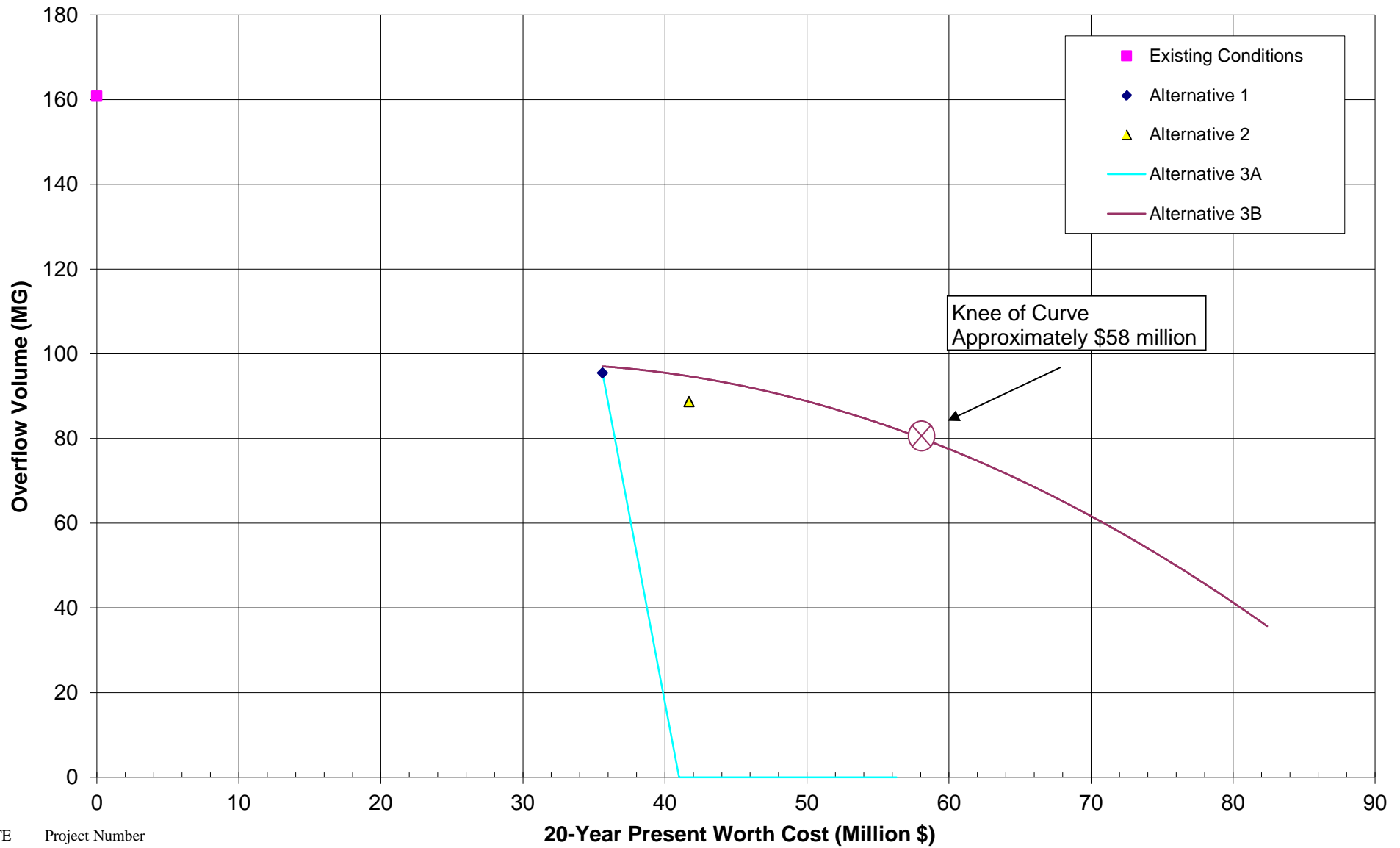
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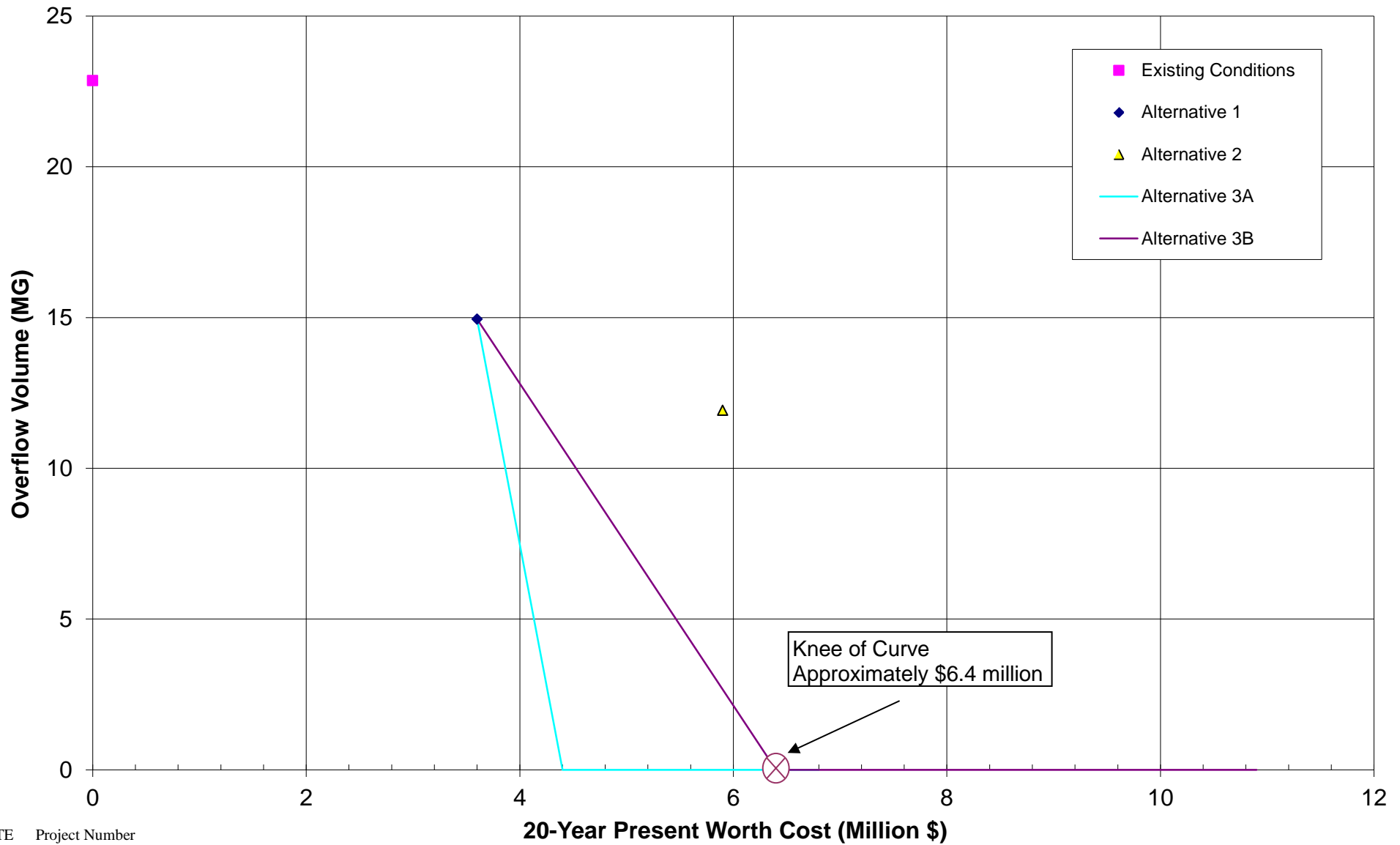
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FIGURE 9-39
Alternative 3B System-Wide Benefit Curve:
Percent Capture vs. Cost



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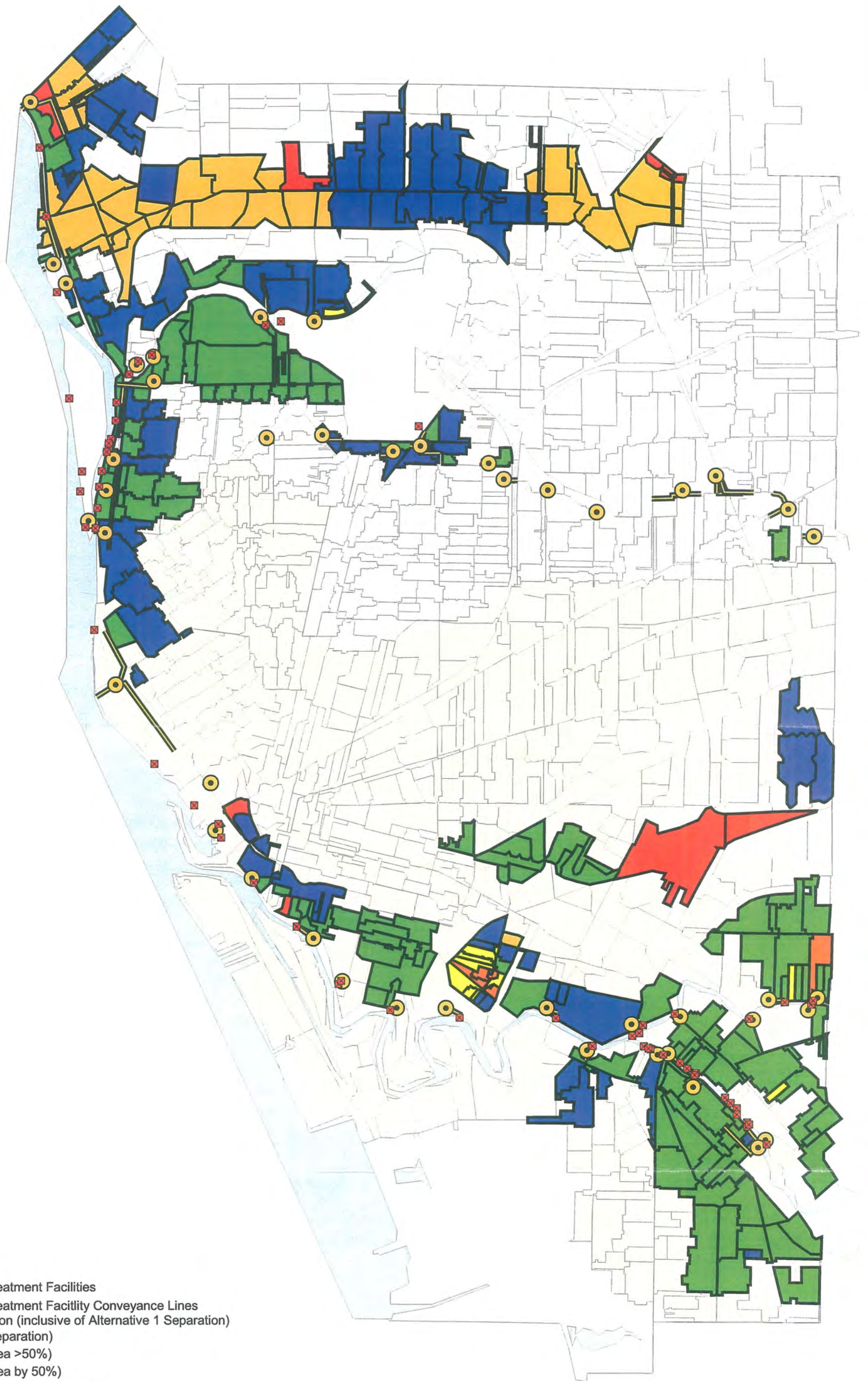
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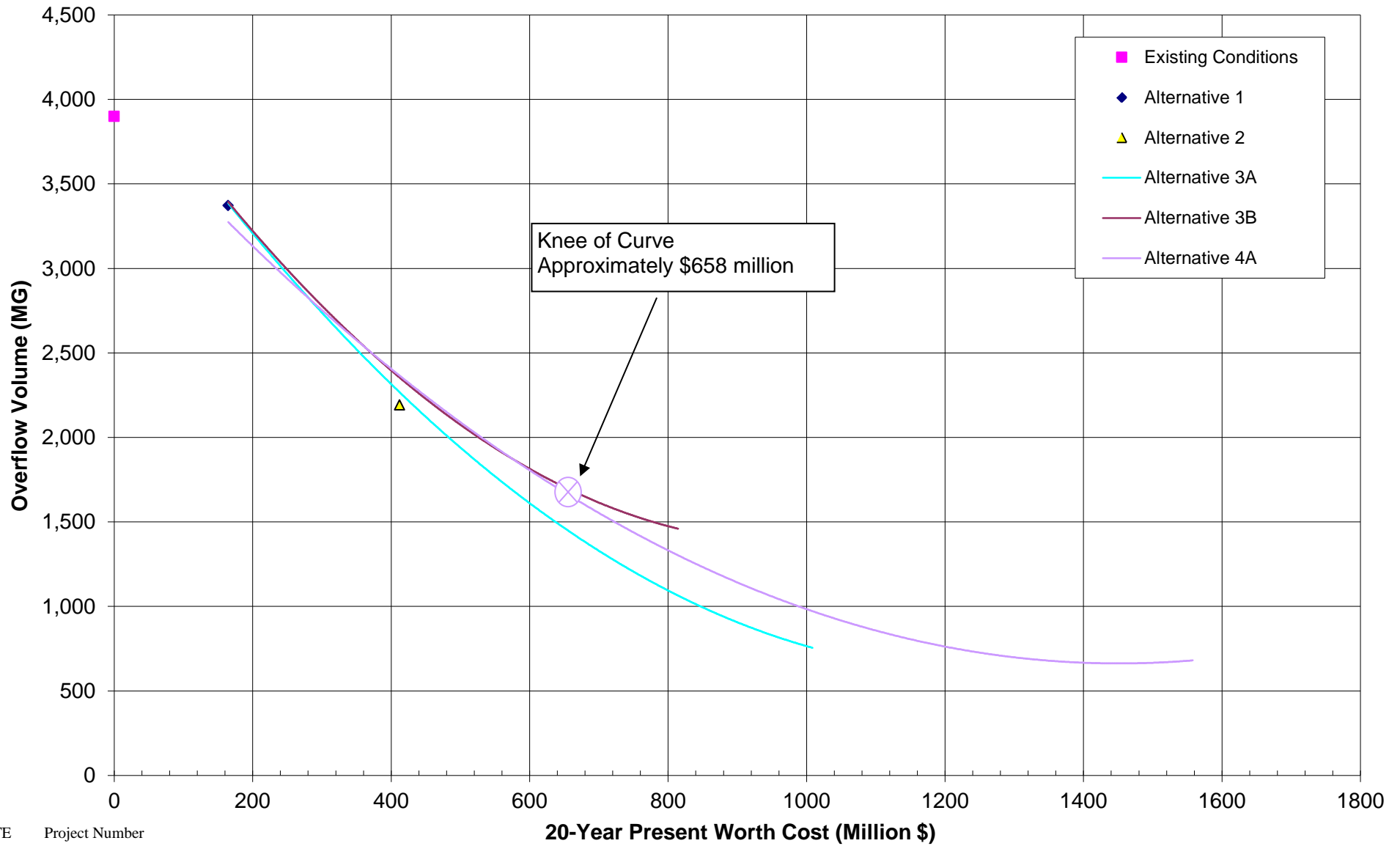
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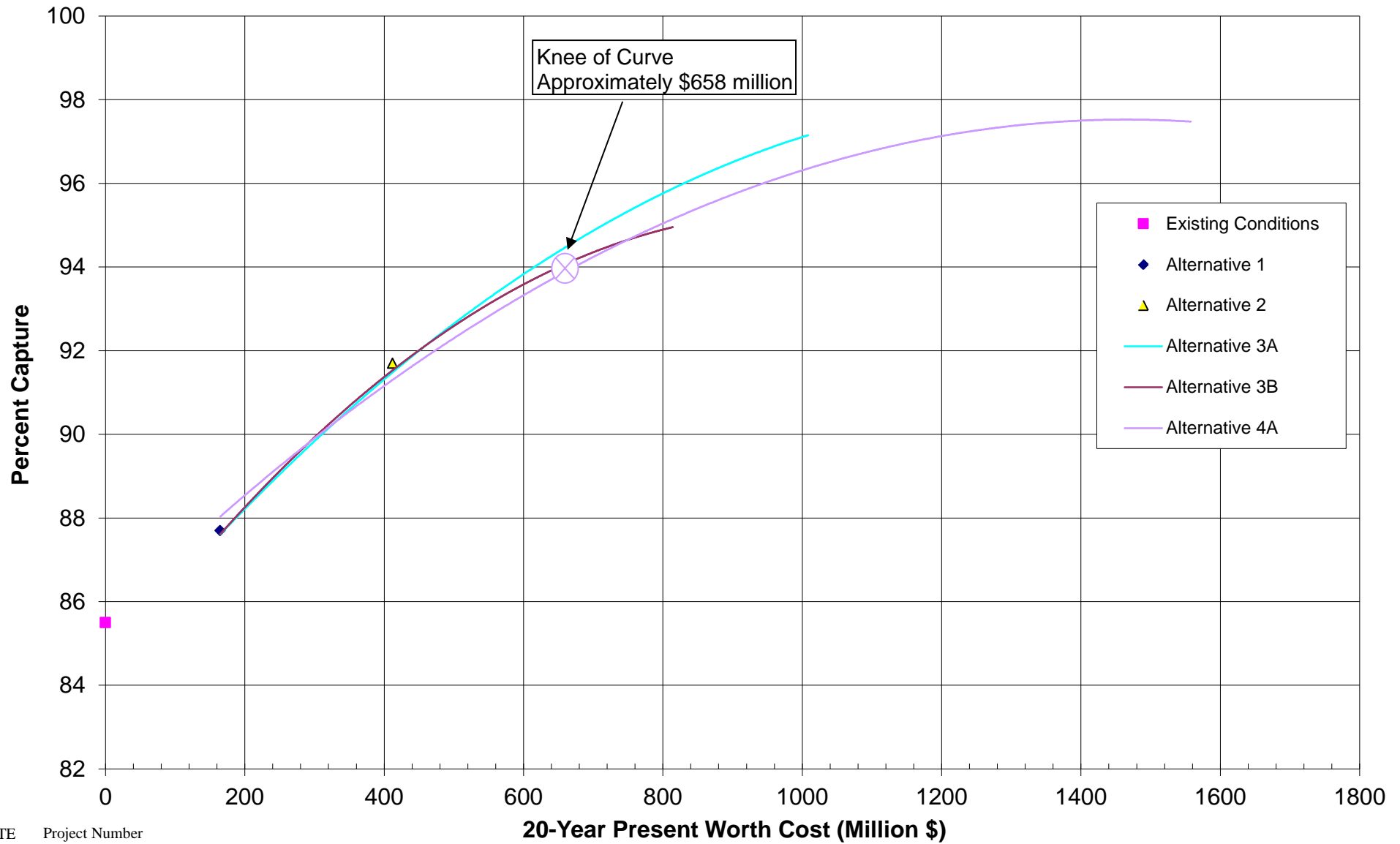
**FIGURE 9-41
Alternative 3B B Class Cazenovia Creek Benefit
Curve: Total Overflow Volume vs. Cost**



- CSO Locations
- Alternative 4A Treatment Facilities
- Alternative 4A Treatment Facility Conveyance Lines
- Alternative 4A Separation (inclusive of Alternative 1 Separation)
- Yes (Complete separation)
- Yes (Reduced area >50%)
- Yes (Reduced area by 50%)
- Yes (Reduced area <50% and >35%)
- Yes (Reduced area by 35%)
- Yes (Reduced area by <35%)
- No



DATE Project Number



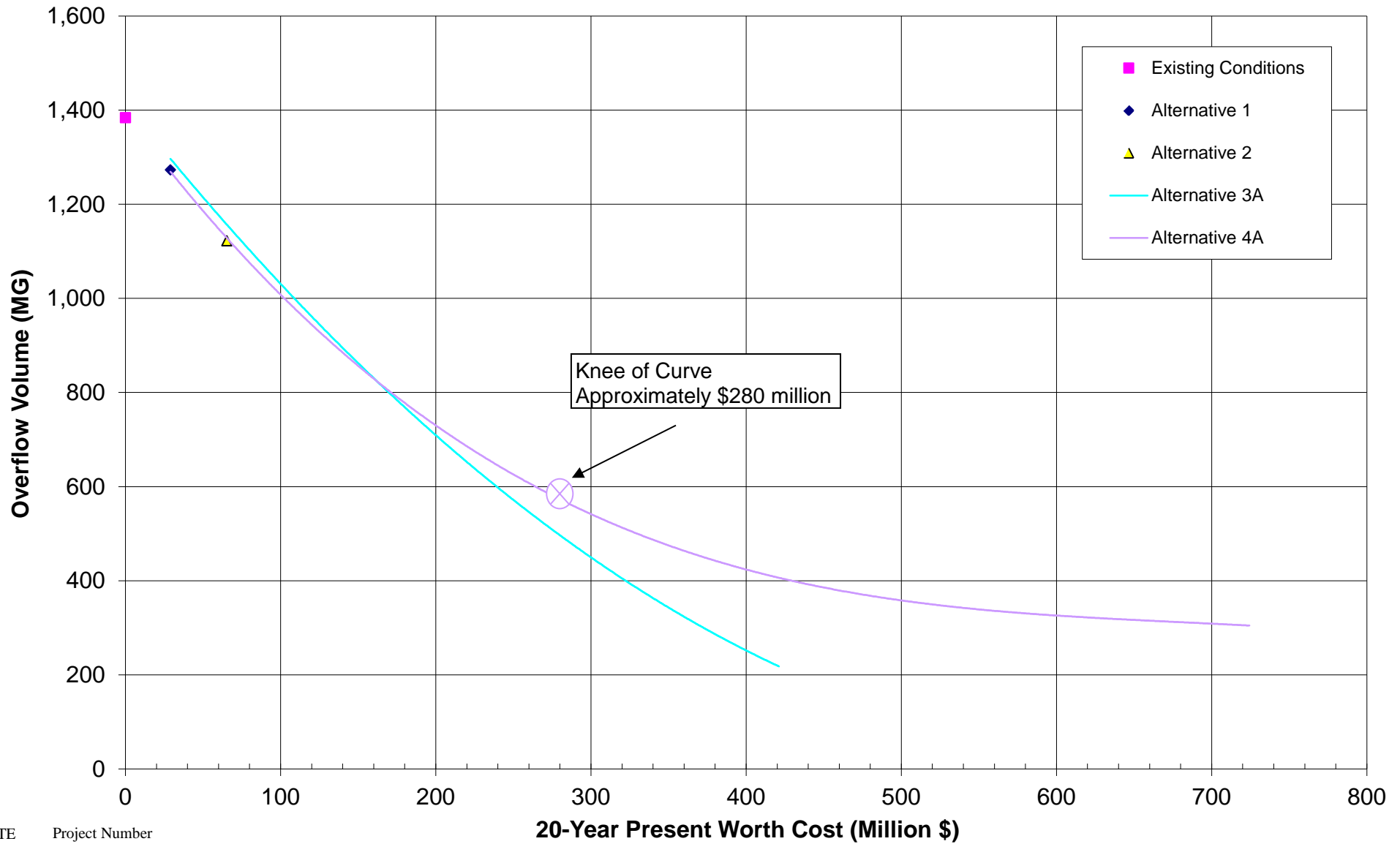
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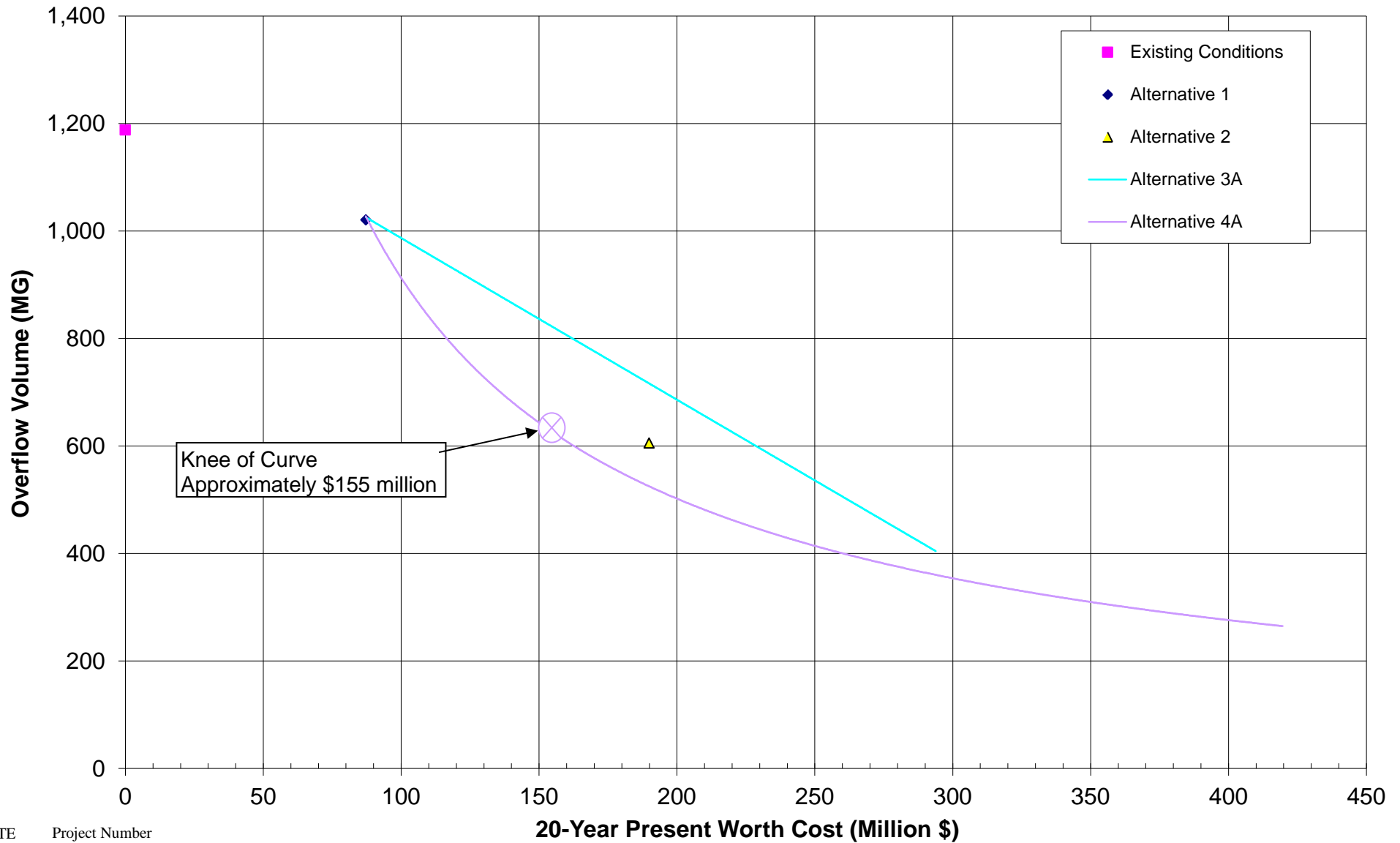
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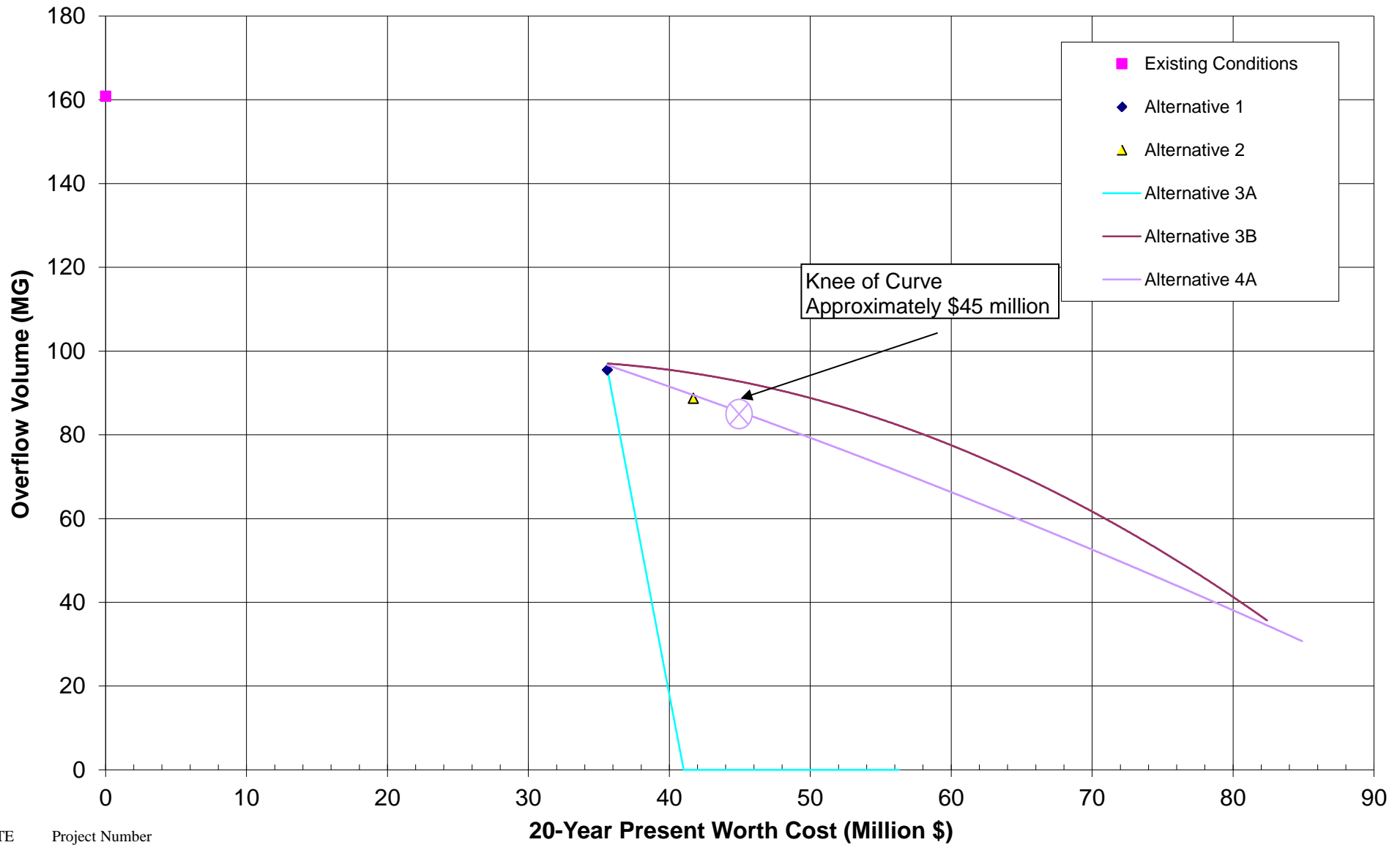
FIGURE 9-44
Alternative 4A System-Wide Benefit Curve:
Percent Capture vs. Cost



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DATE Project Number



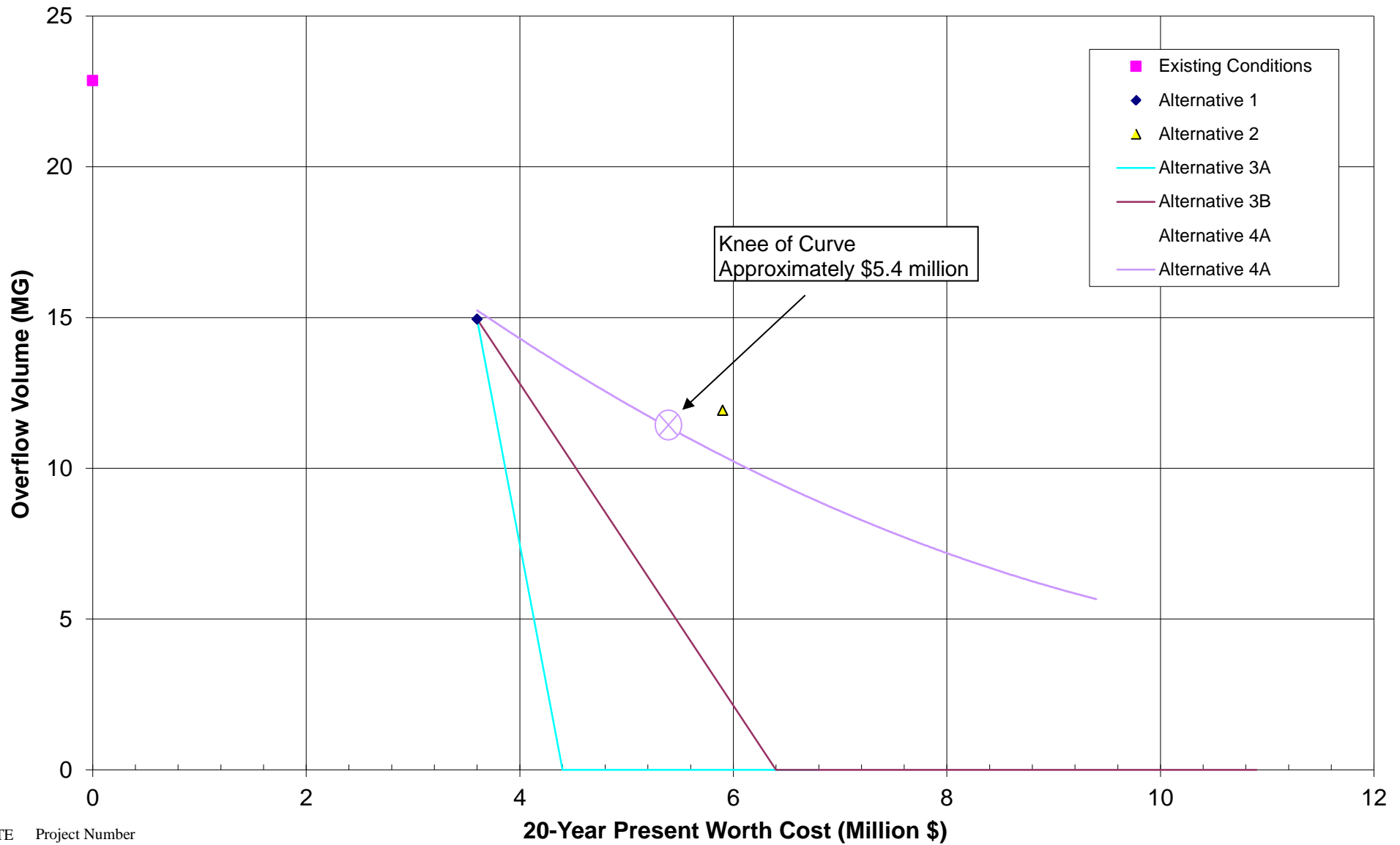
DATE Project Number



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FIGURE 9-47
Alternative 4A Cazenovia Creek Benefit Curve:
Total Overflow Volume vs. Cost

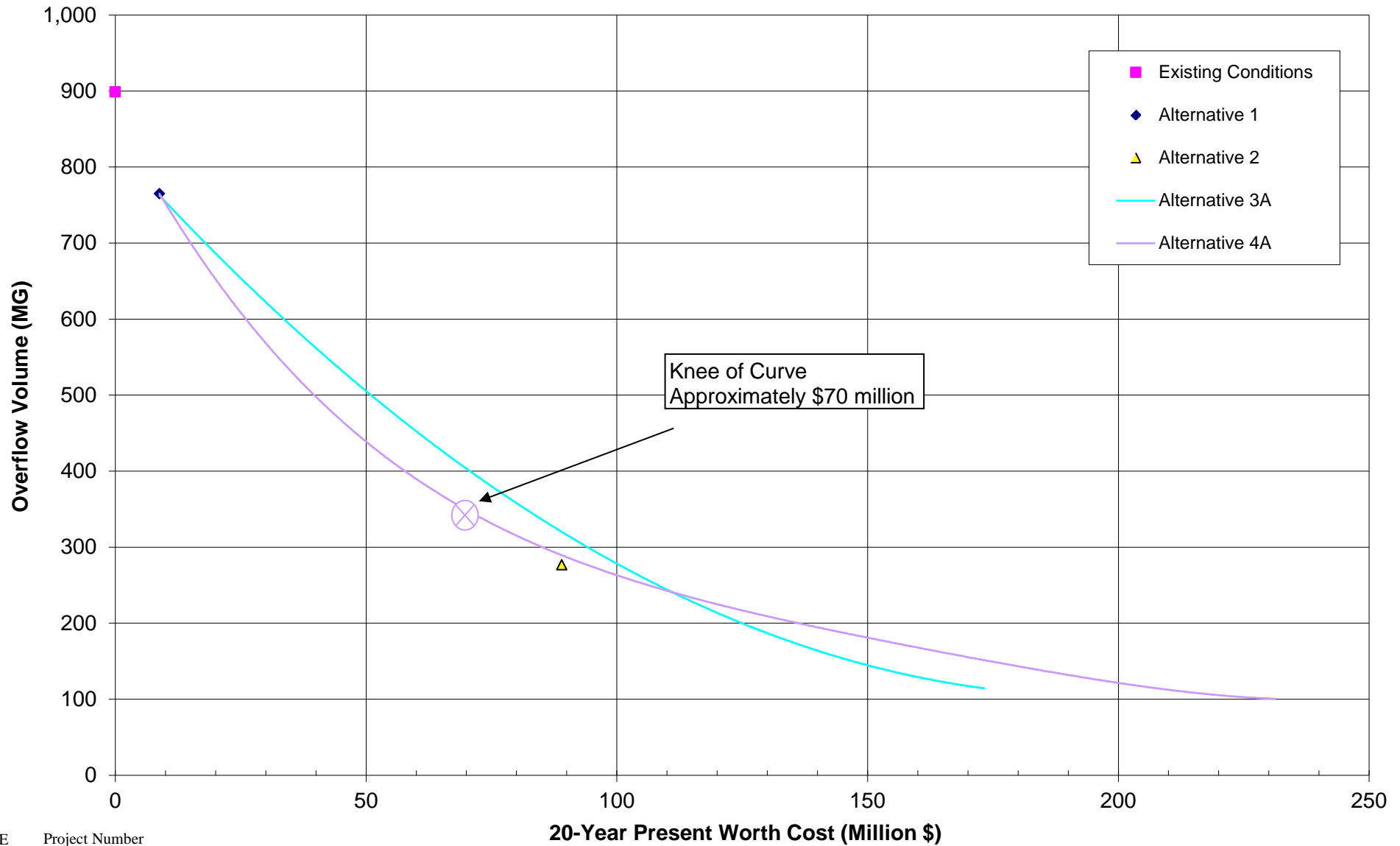


DATE Project Number

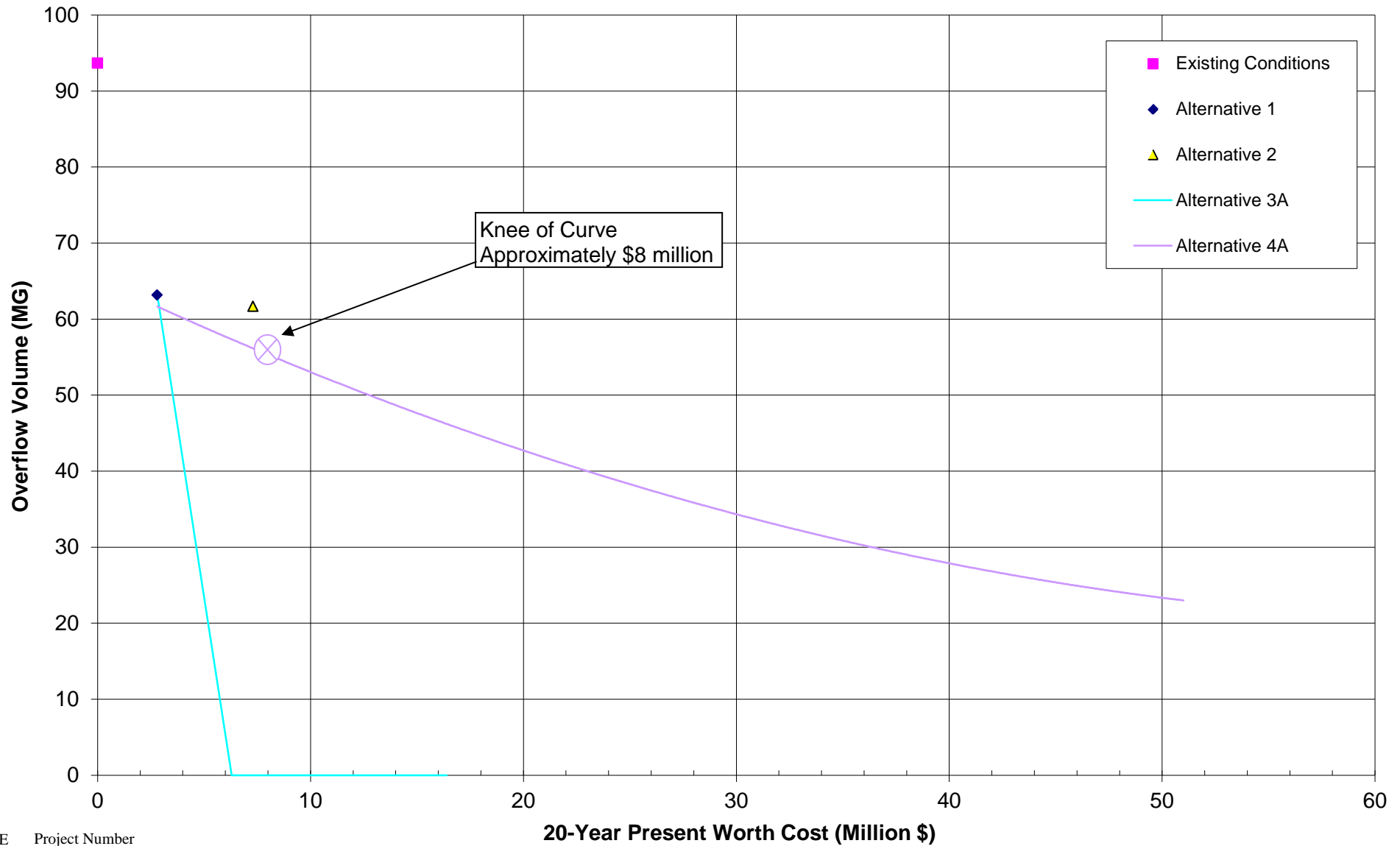
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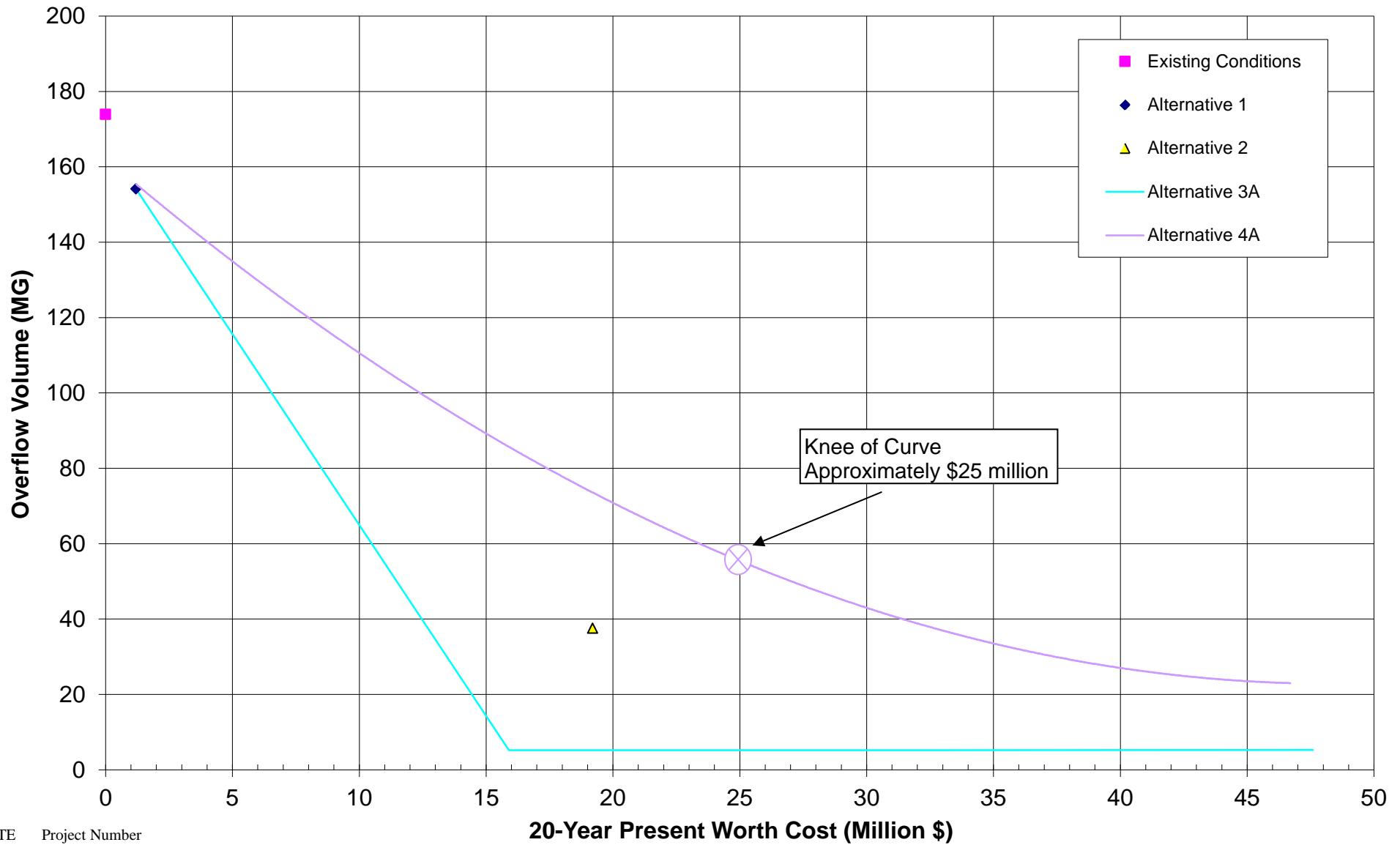
FIGURE 9-48
Alternative 4A B Class Cazenovia Creek Benefit
Curve: Total Overflow Volume vs. Cost



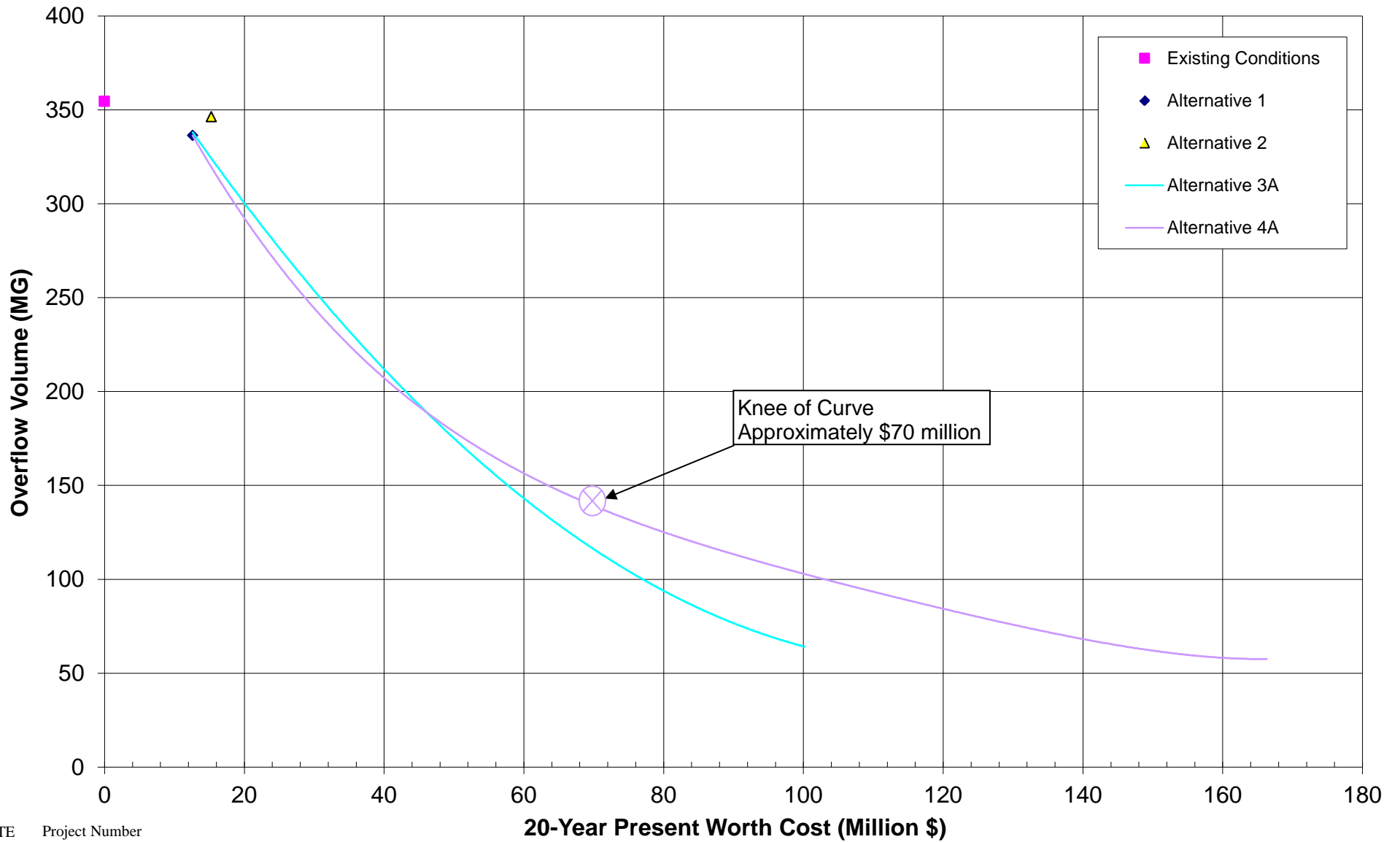
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DATE Project Number



DATE Project Number



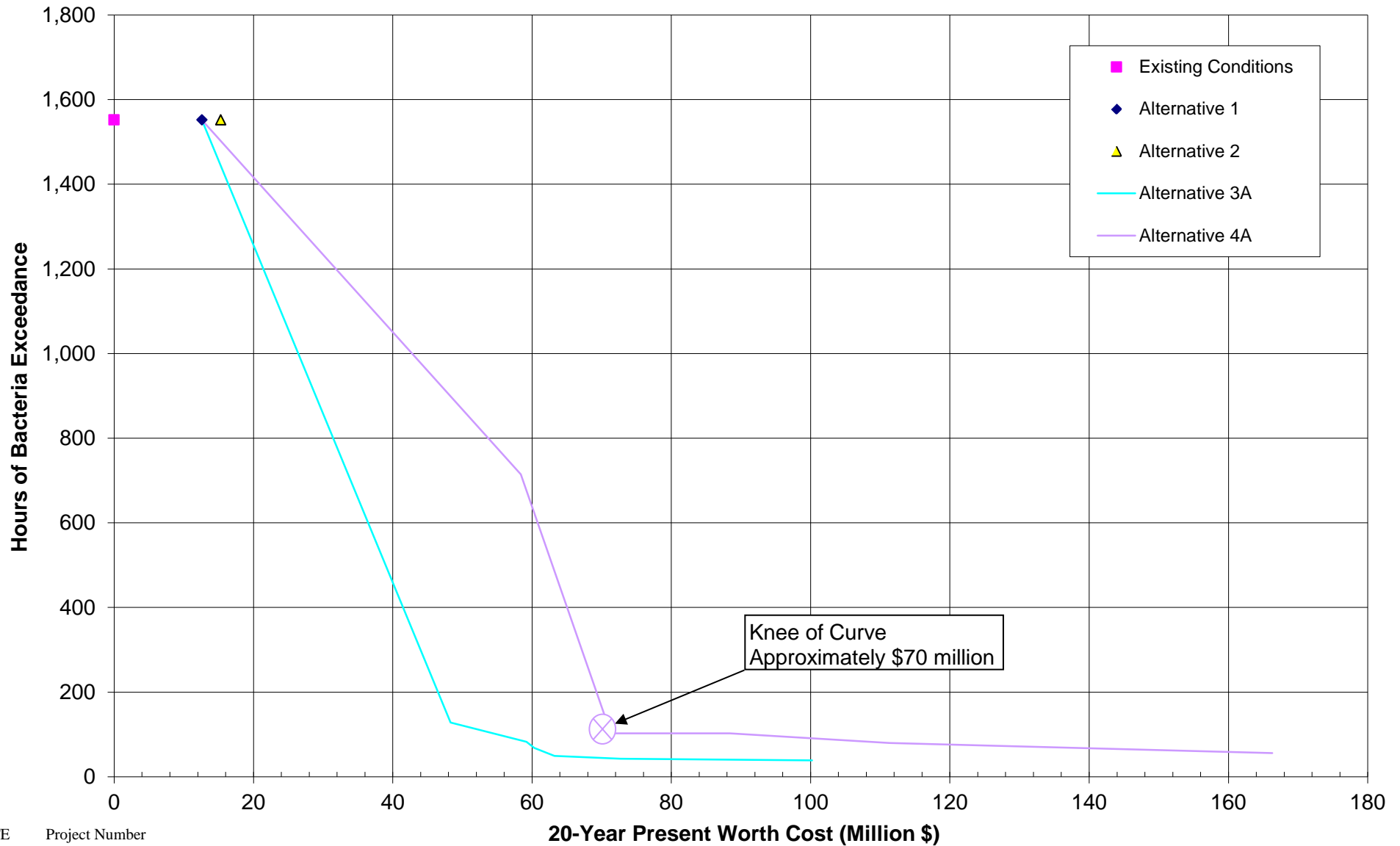
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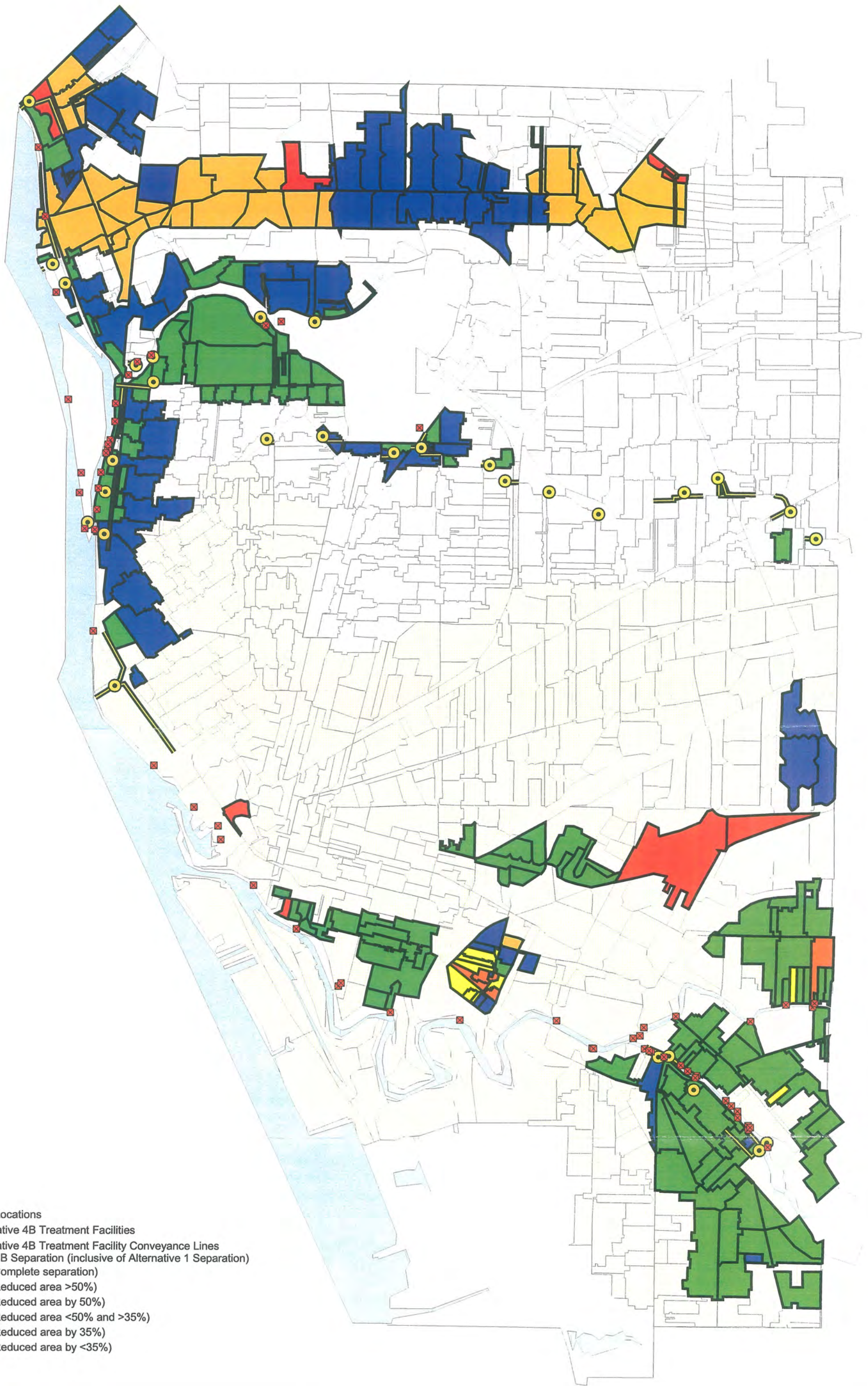
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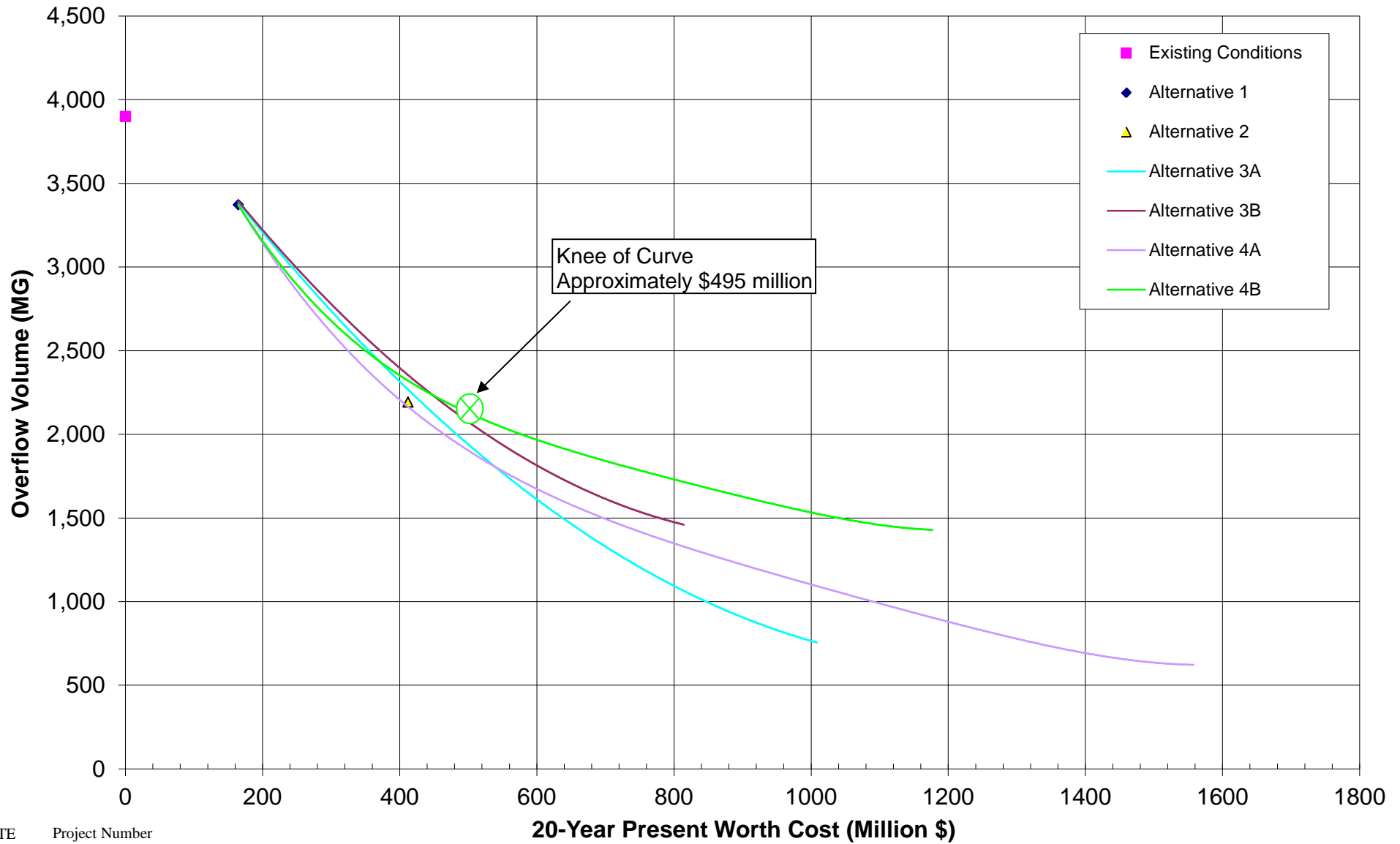
FIGURE 9-52
Alternative 4A Scajaquada Creek Benefit Curve:
Total Overflow Volume vs. Cost



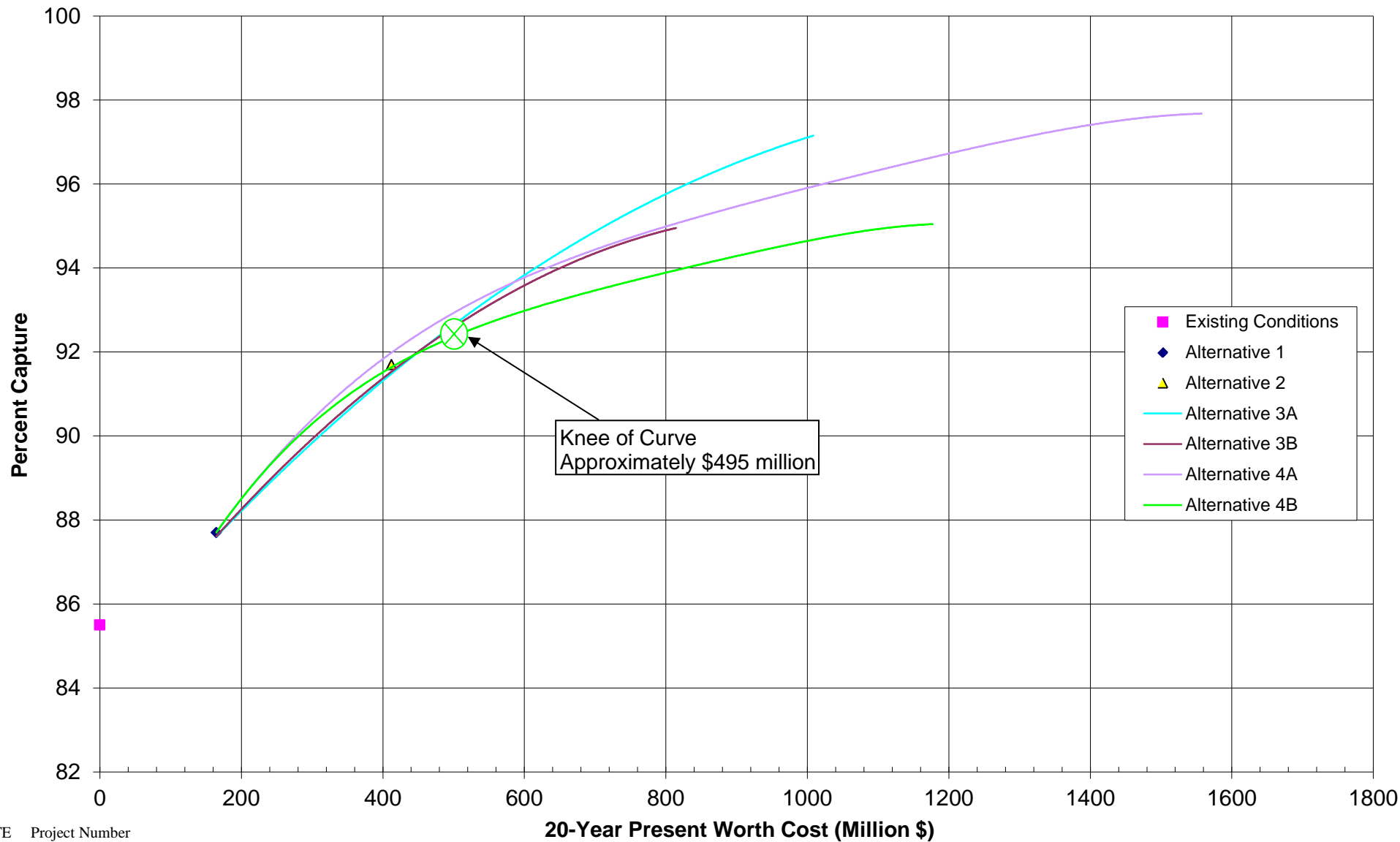
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-  CSO Locations
-  Alternative 4B Treatment Facilities
-  Alternative 4B Treatment Facility Conveyance Lines
-  Alternative 4B Separation (inclusive of Alternative 1 Separation)
-  Yes (Complete separation)
-  Yes (Reduced area >50%)
-  Yes (Reduced area by 50%)
-  Yes (Reduced area <50% and >35%)
-  Yes (Reduced area by 35%)
-  Yes (Reduced area by <35%)
-  No



DATE Project Number



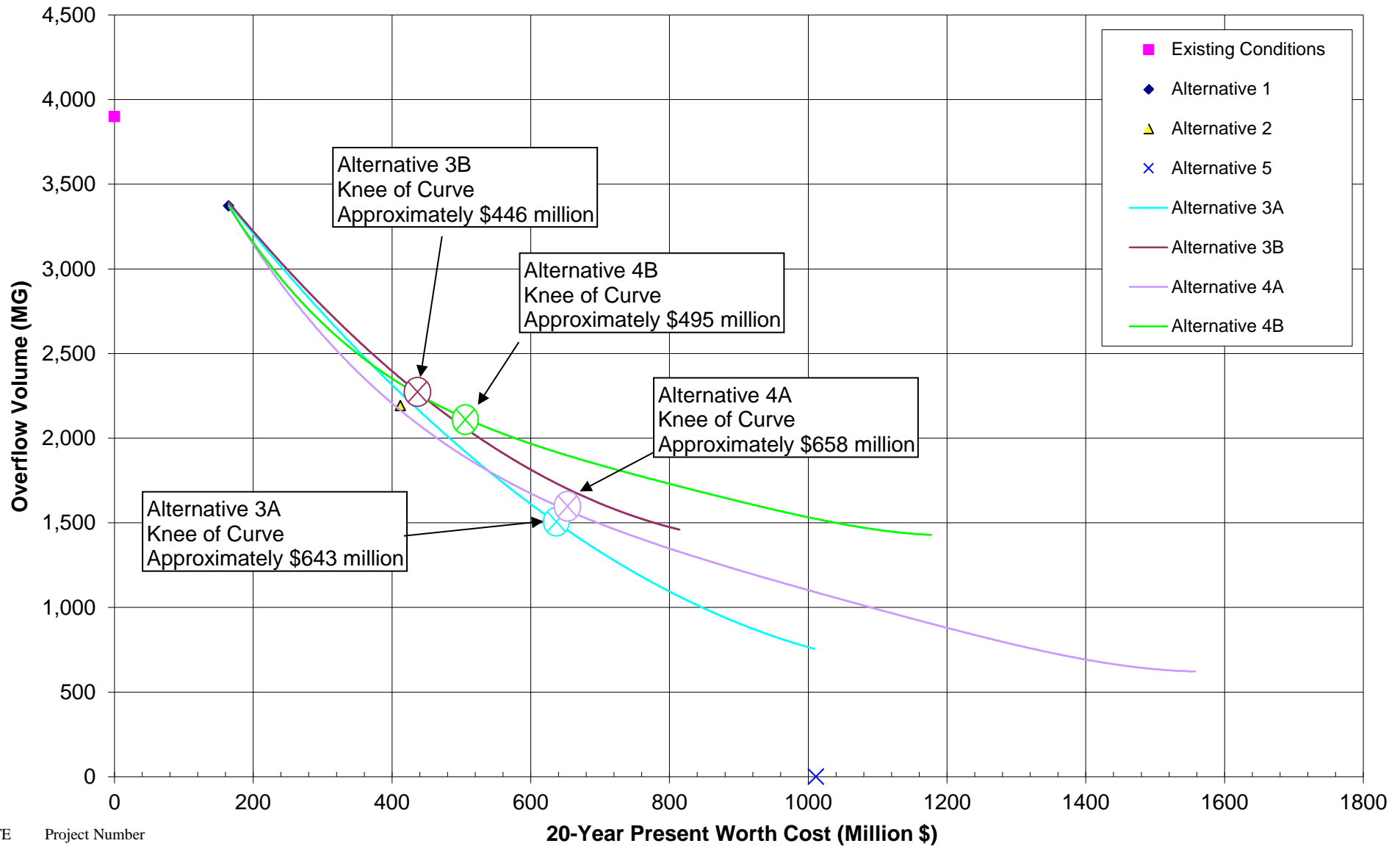
DATE Project Number



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FIGURE 9-56
Alternative 4B System-Wide Benefit Curve:
Percent Capture vs. Cost

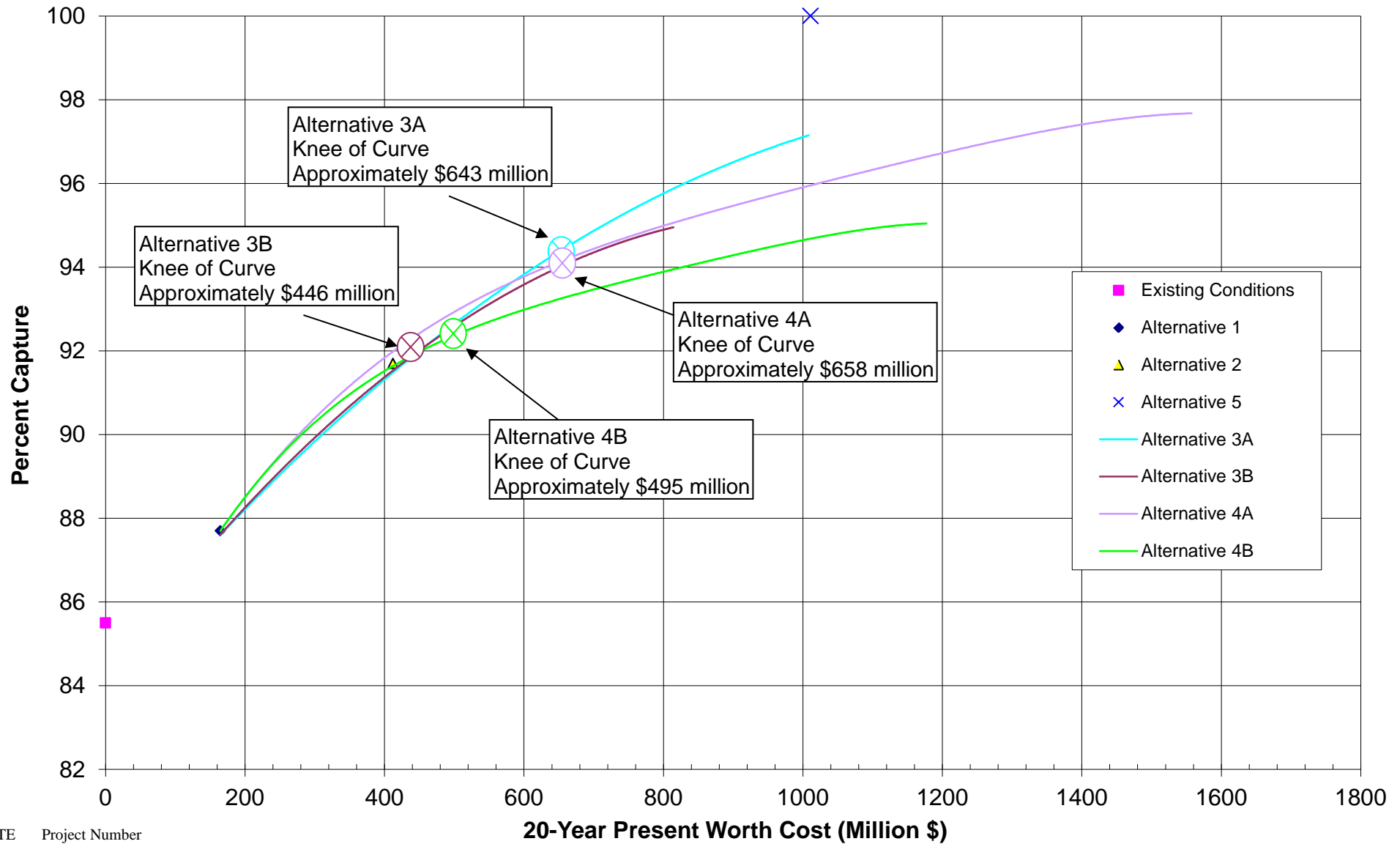


DATE Project Number

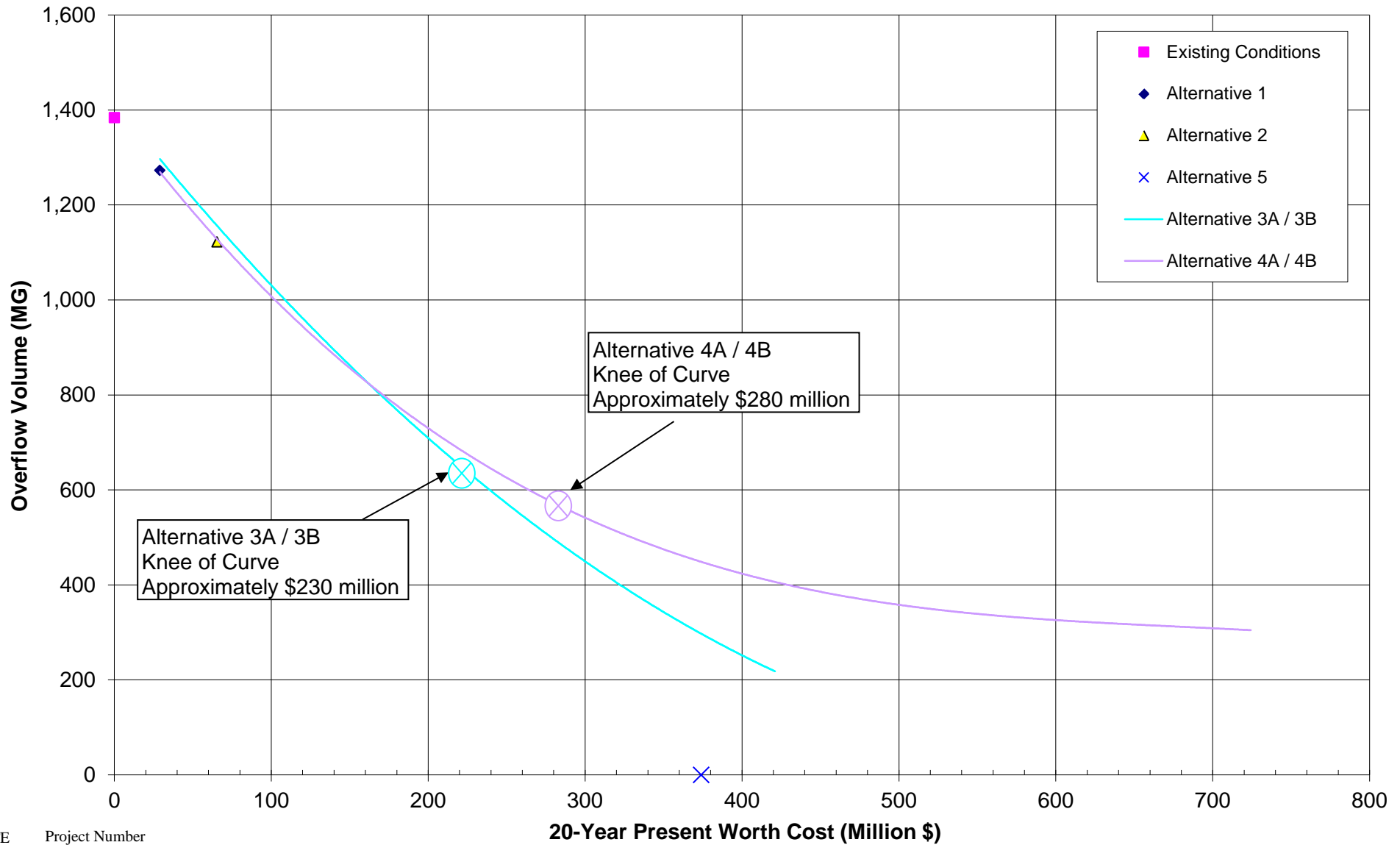
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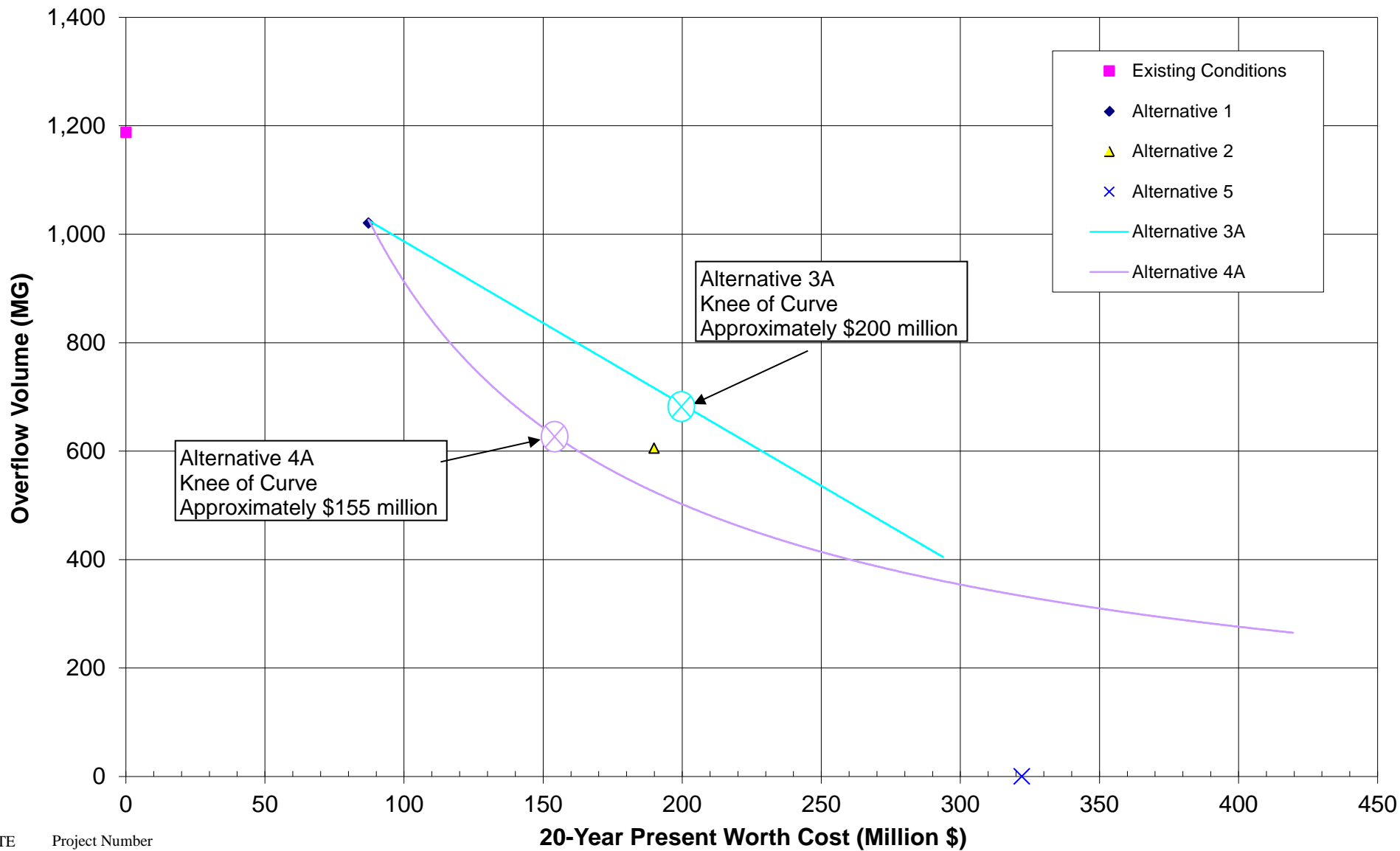
**FIGURE 9-57
Alternative 5 System-Wide Benefit Curve:
Total Overflow Volume vs. Cost**



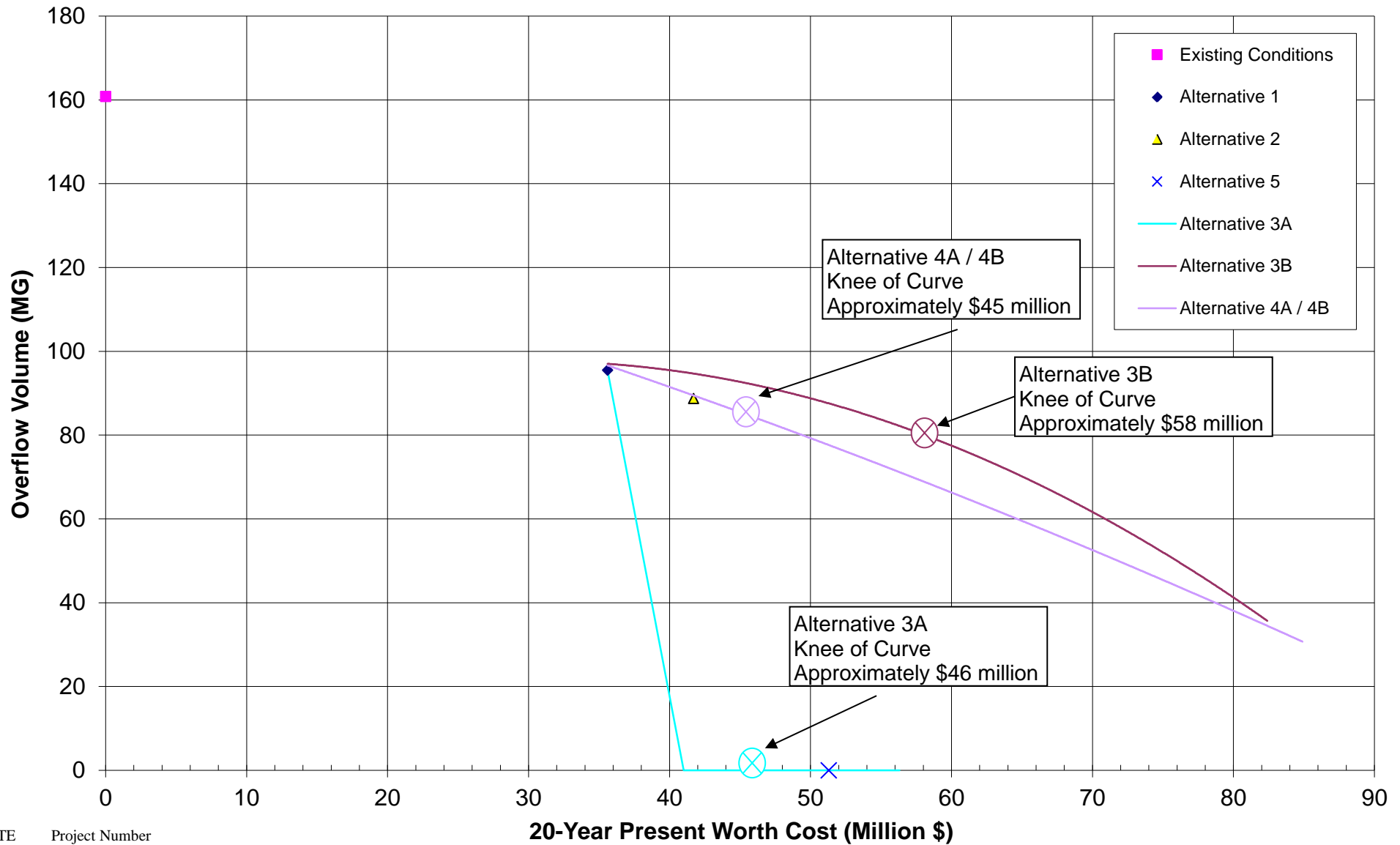
DATE Project Number



DATE Project Number



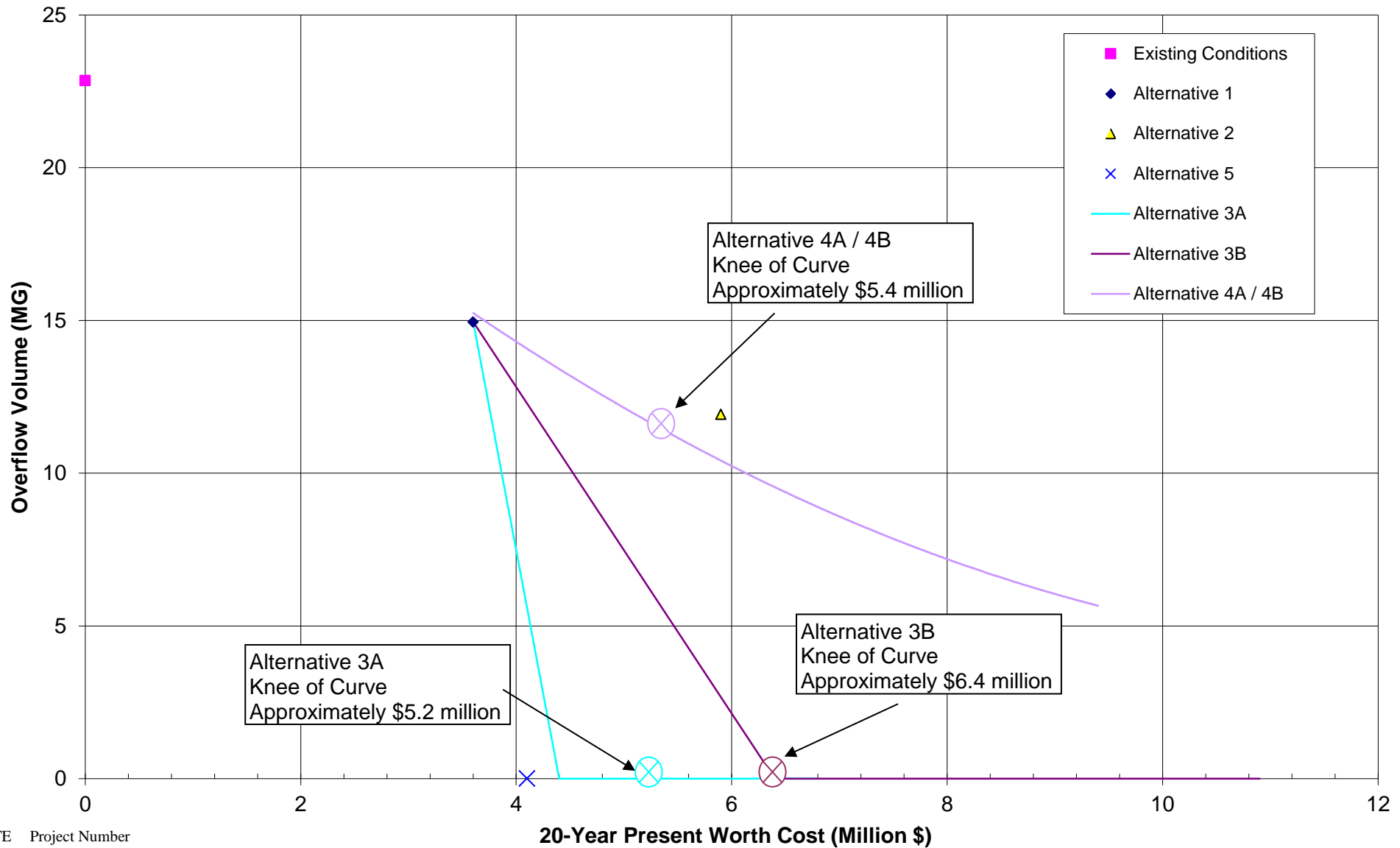
DATE Project Number



DATE Project Number

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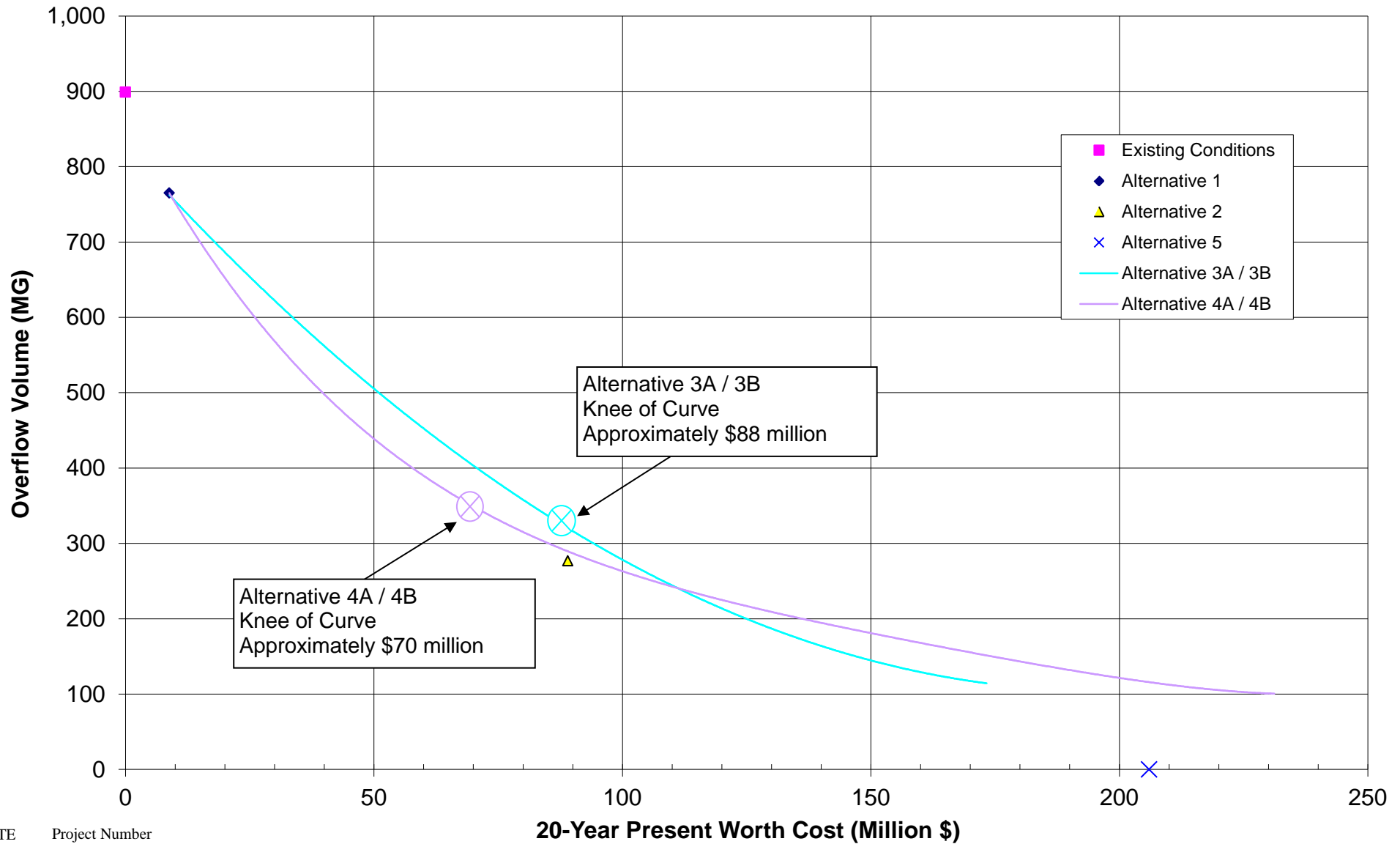
**FIGURE 9-61
 Alternative 5 Cazenovia Creek Benefit Curve:
 Total Overflow Volume vs. Cost**



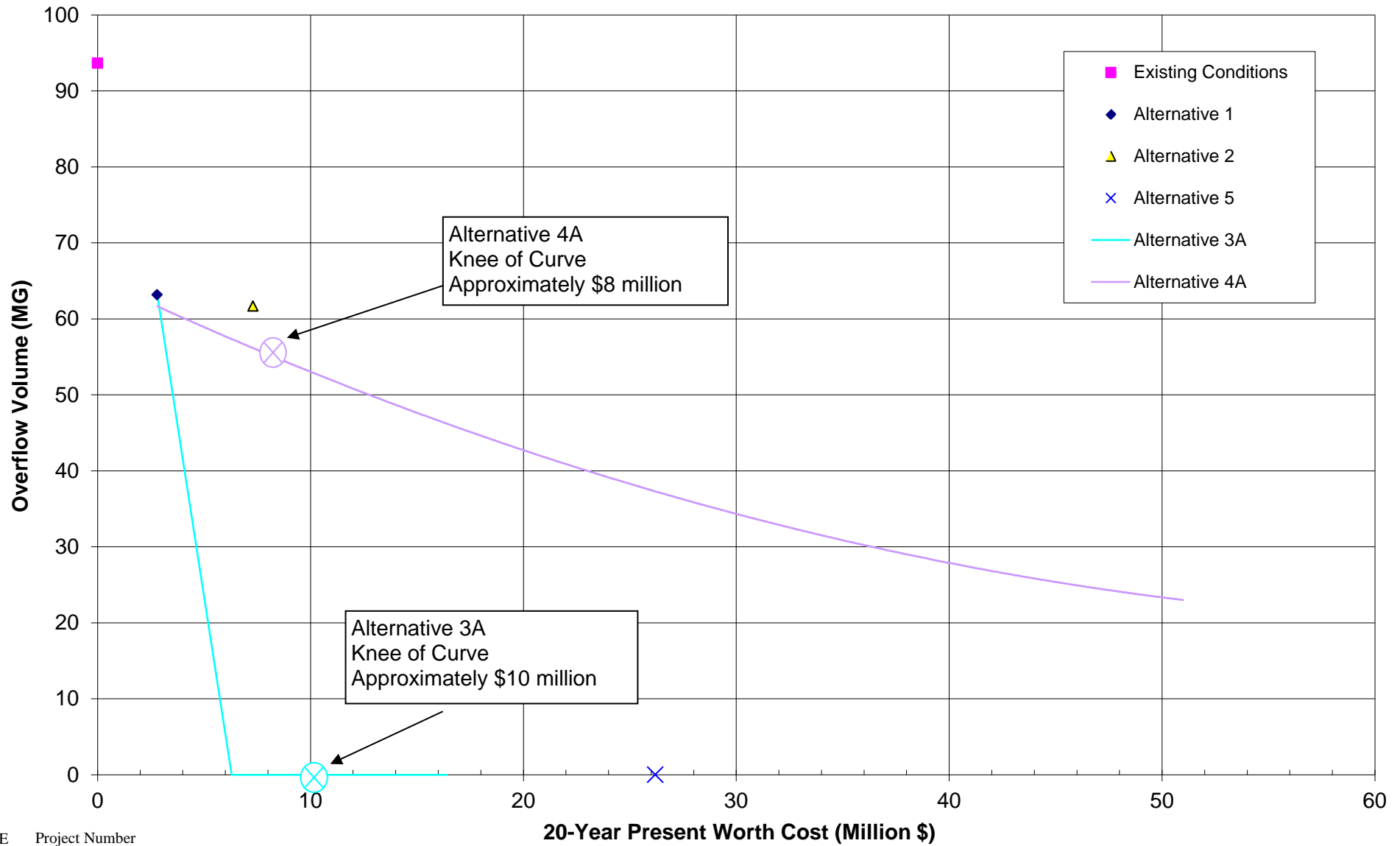
DATE Project Number

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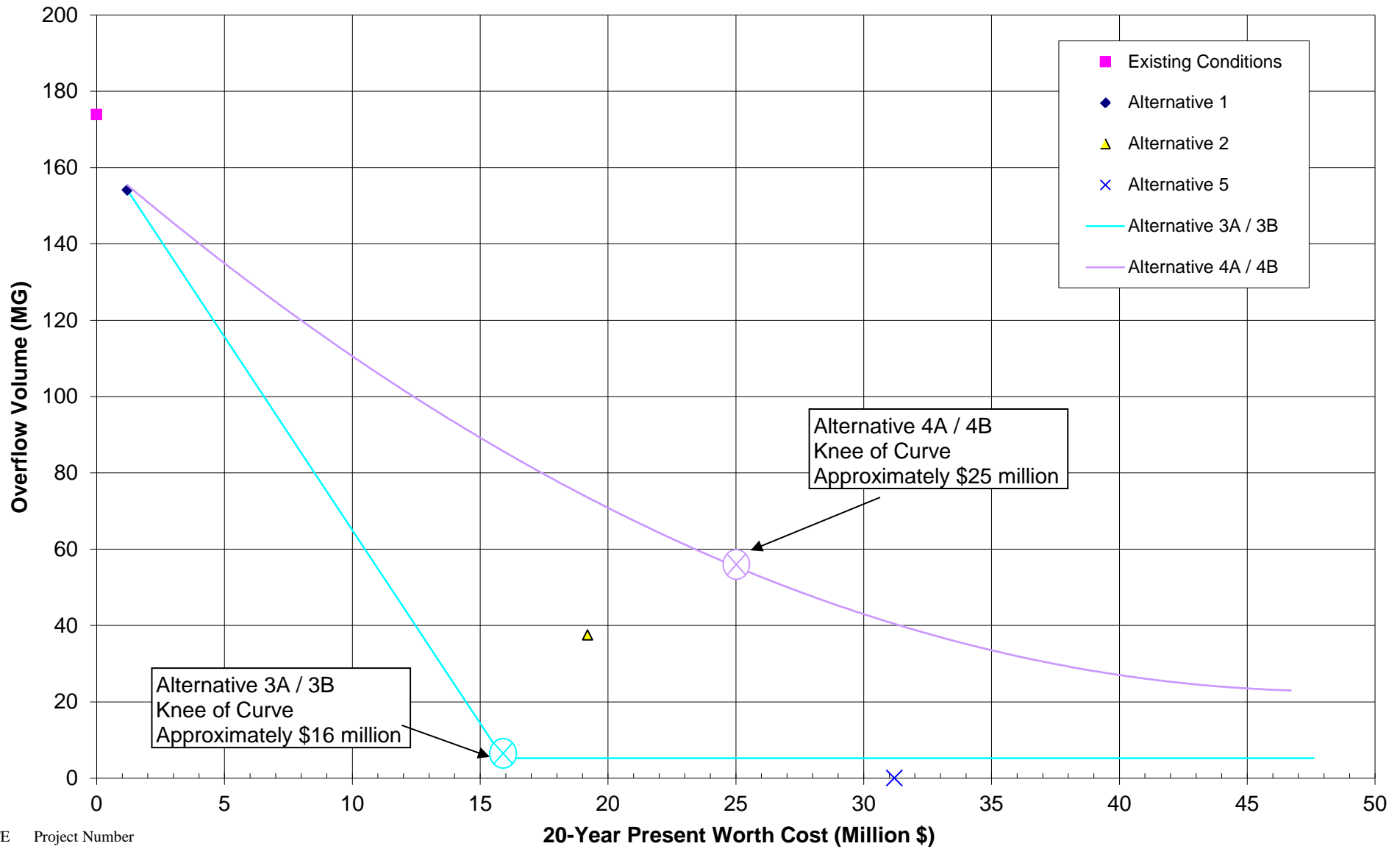
**FIGURE 9-62
Alternative 5 B Class Cazenovia Creek Benefit
Curve: Total Overflow Volume vs. Cost**



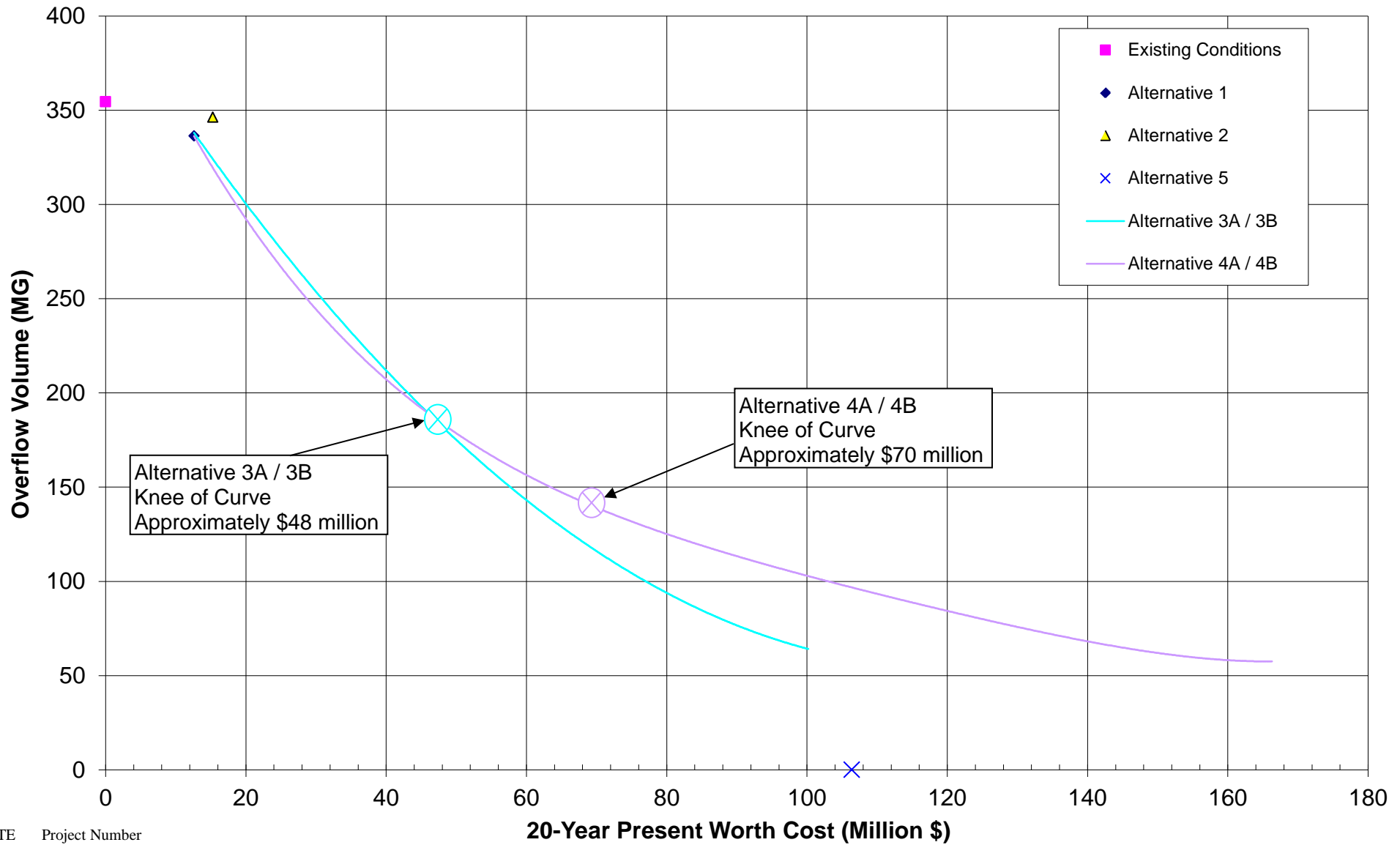
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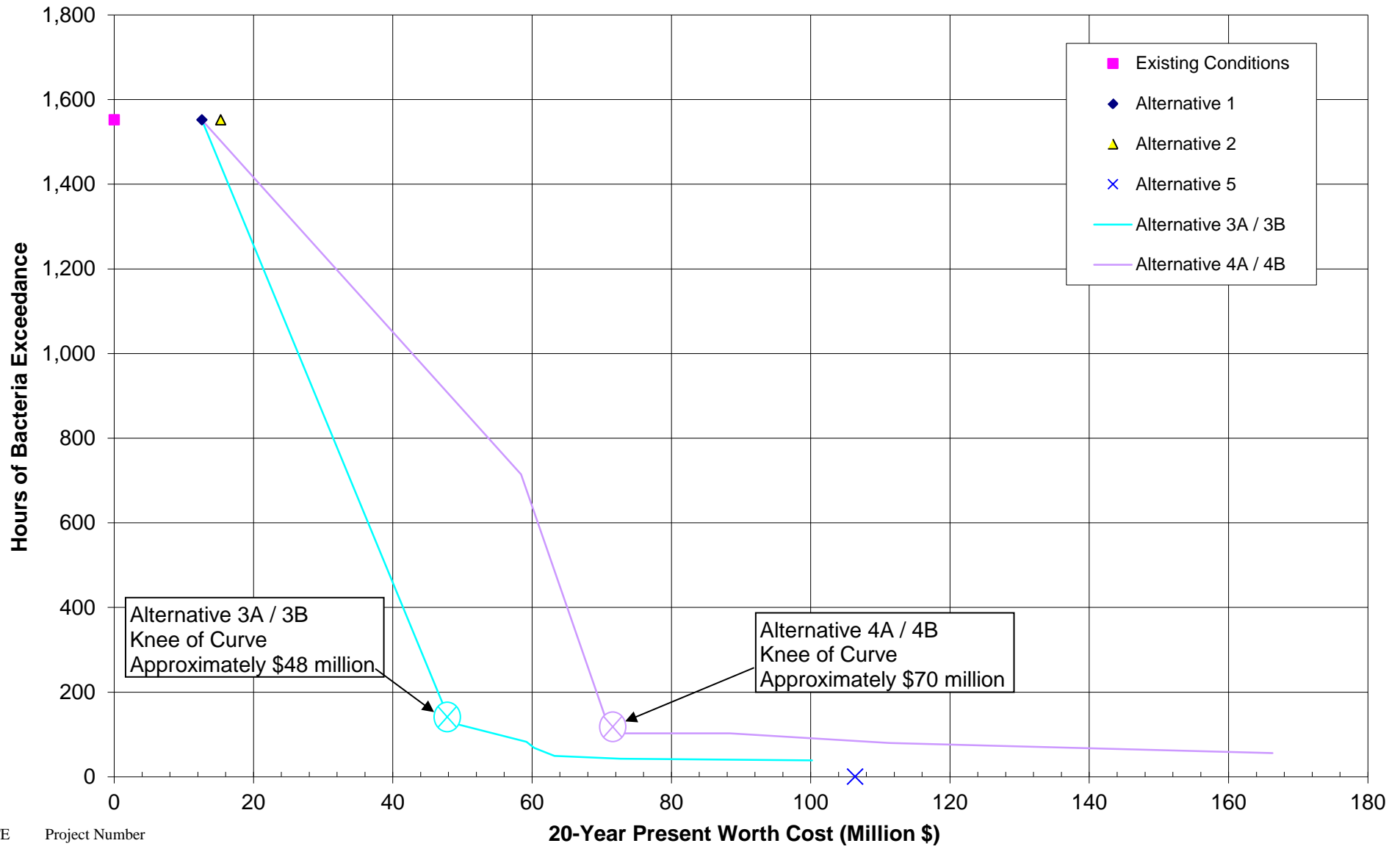
DATE Project Number



DATE Project Number



DATE Project Number



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Table 9-2 Alternative 1 Summary

Description	Receiving Water Body	Category	Level of Control	District Consultant Phase Recommendation
CSO 003 (CDS)	Black Rock Canal	Floatables Control	12 - Month	North District - Recommended Action
CSO 003: SPPs 4, 11, and 185	Black Rock Canal	Weir Modification		North District - Base Case
CSO 003: SPPs 3, 4, 5, 7, and 8	Black Rock Canal	Orifice Plate Removal		North District - Base Case
CSO 004: SPP 13 (mechanical screen)	Black Rock Canal	Floatables Control	6 - Month	Scajaquada - Project Group 5
CSO 006: SPPs 332, 180, 179, and 331 (mechanical screens)	Black Rock Canal	Floatables Control	6 - Month	Scajaquada - Project Group 5
CSO 061: SPP 330 (mechanical screen)	Black Rock Canal	Floatables Control	6 - Month	Scajaquada - Project Group 4
Tie CSO 005 SPP 14A overflow into Bird Avenue Trunk Sewer	Black Rock Canal	Flow Redirection		Scajaquada - Project Group 2
Tie CSO 008 SPP 19 overflow into Scajaquada Tunnel Interceptor	Black Rock Canal	Flow Redirection		Scajaquada - Project Group 2
Separate sewers upstream of CSO 007	Black Rock Canal	Sewer Separation		Scajaquada - Project Group 2
Separate sewers upstream of CSO 009	Black Rock Canal	Sewer Separation		Scajaquada - Project Group 2
Separate sewers upstream of CSO 010: SPP 21	Black Rock Canal	Sewer Separation		Scajaquada - Project Group 2
CSO 012	Black Rock Canal	Floatable Control		South Central - Phase 1A
CSO 063: SPP 283	Black Rock Canal	Floatable Control		South Central - Phase 1A
SPP 304 Underflow from Swan Trunk to South Interceptor	Black Rock Canal	Flow Redirection		South Central - Phase 1A
Front Park (CSO 063)	Black Rock Canal	Sewer Separation		South Central - Phase 1A
CSO 013: SPP 304	Black Rock Canal	Floatable Control		South Central - Phase 1A
CSO 017	Buffalo River	Floatable Control		South Central - Phase 1A
CSO 022	Buffalo River	Floatable Control		South Central - Phase 1A
CSO 025: SPP 209	Buffalo River	Floatable Control		South Central - Phase 1A
CSO 026	Buffalo River	Floatable Control		South Central - Phase 1A
CSO 027	Buffalo River	Floatable Control		South Central - Phase 1A
CSOs 028 and 029	Buffalo River	Floatable Control		South Central - Phase 1A
CSO 033	Buffalo River	Floatable Control		South Central - Phase 1A
CSO 050: SPP 105	Buffalo River	Floatable Control		South Central - Phase 1A
CSO 051	Buffalo River	Floatable Control		South Central - Phase 1A
CSO 052: SPP 106	Buffalo River	Floatable Control		South Central - Phase 1A
CSO 064	Buffalo River	Floatable Control		South Central - Phase 1A
CSO 066	Buffalo River	Floatable Control		South Central - Phase 1A
North of Buffalo River excluding Swan Trunk: SPPs 68, 69, 74, 75, 77, 78, 79, 80, 81, 82, 84, 85, 87, 88, 89, 90, 91, 92, 94, 128, 129, 131, 132, 135a, 138, 144, 145, 149(1), 149(2), 150, 151, 197a, 197b, 197c, 198b, 199a, 199b, 199c, 248, 249, 277, 314,	Buffalo River	Weir Modification		South Central - Phase 1A
SPP 123a	Buffalo River	Supplemental Capacity		South Central - Phase 1A
Casimir Street and South Ogden Street, south of Clinton Street (CSOs 034 and 066)	Buffalo River	Sewer Separation		South Central - Phase 1B
Smith Street South of Route 190 to Buffalo River (CSO 026)	Buffalo River	Sewer Separation		South Central - Phase 1B
Smith Street and Seneca Street to Howard Street (CSO 026)	Buffalo River	Sewer Separation		South Central - Phase 1B
Clinton Street and Fillmore Street to Babcock Street (CSO 026)	Buffalo River	Sewer Separation		South Central - Phase 1B
Area tributary to Hamburg Street Pump Station (CSOs 022, 025, and 064)	Buffalo River	Sewer Separation		South Central - Phase 1B

Table 9-2 Alternative 1 Summary

Description	Receiving Water Body	Category	Level of Control	District Consultant Phase Recommendation
Railroad Yard (CSOs 027, 033, and 066)	Buffalo River	Sewer Separation		South Central - Phase 1B
South Buffalo: SPPs 105, 106, 106a, 107a, 113, 114, 118, 121, 122, 125, 125a, 126, 208, 307, 308, 309, 310, 311, and downstream of 308, 309, and 310	Buffalo River / Cazenovia Creek	Weir Modification		South Central - Phase 1A
South Buffalo (CSOs 028, 029, 035, 037, 039, 044, 046, 047, 048, 049, 050, 051, and 052)	Buffalo River / Cazenovia Creek	Sewer Separation		South Central - Phase 1B
Swan Trunk: SPPs 42, 48, 55, 65, 67, 206a, 206b, 281, 282, 283, 304, and 326	Buffalo River / Erie Basin Marina / Black Rock Canal	Weir Modification		South Central - Phase 1A
CSO 035: SPPs 107 and 107a	Cazenovia Creek - B	Floatable Control		South Central - Phase 1A
CSO 037: SPP 122	Cazenovia Creek - C	Floatable Control		South Central - Phase 1A
CSO 044: SPP 121	Cazenovia Creek - C	Floatable Control		South Central - Phase 1A
CSO 046	Cazenovia Creek - C	Floatable Control		South Central - Phase 1A
CSO 047: SPP 114	Cazenovia Creek - C	Floatable Control		South Central - Phase 1A
SPP 121	Cazenovia Creek - C	Supplemental Capacity		South Central - Phase 1A
CSO 055 (CDS)	Cornelius Creek	Floatables Control	1 - Month	North District - Recommended Action
CSO 055 Hertel Street	Cornelius Creek	Sewer Separation		North District - Base Case
CSO 014	Erie Basin Marina	Floatable Control		South Central - Phase 1A
CSO 015	Erie Basin Marina	Floatable Control		South Central - Phase 1A
SPP 42 underflow from Swan Trunk to South Interceptor	Erie Basin Marina	Flow Redirection		South Central - Phase 1A
Retain flow in Swan Trunk at Skyway and Charles Street	Erie Basin Marina	Flow Redirection		South Central - Phase 1A
CSO 054 (CDS)	Niagara River	Floatables Control	6 - Month	North District - Recommended Action
Ontario Basin	Niagara River	Sewer Separation		North District - Base Case
CSO 054 Tonawanda Street	Niagara River	Sewer Separation		North District - Base Case
CSO 011	Niagara River	Floatable Control		South Central - Phase 1A
CSO 056 (CDS)	Scajaquada Creek	Floatables Control	12 - Month	North District - Recommended Action
CSO 058 (CDS)	Scajaquada Creek	Floatables Control	12 - Month	North District - Recommended Action
CSO 057: SPP 195	Scajaquada Creek	Weir Modification		North District - Base Case
CSO 058: SPP 213	Scajaquada Creek	Weir Modification		North District - Base Case
CSO 057: SPPs 10, 11, and 195	Scajaquada Creek	Orifice Plate Removal		North District - Base Case
CSO 058: SPP 213	Scajaquada Creek	Orifice Plate Removal		North District - Base Case
CSO 053: SPPs 336B, 170B, 341A, 341B, 336A, 203, 163, 164, 165, 165A, 200A, 200B, 342A, 342B, and 157 (mechanical screens)	Scajaquada Creek	Floatables Control	6 - Month	Scajaquada - Project Group 4
CSO 053: SPPs 165B, 229A, 204, 201, 202, 335B, 345, 166	Scajaquada Creek	Floatables Control	12 -Month	Scajaquada - Project Group 4
CSO 053: SPPs 340, 339, 337	Scajaquada Creek	Floatables Control	6 - Month	Scajaquada - Project Group 3
CSO 053: SPP 338	Scajaquada Creek	Floatables Control	12 -Month	Scajaquada - Project Group 3
Separate sewers upstream of CSO 059: SPPs 183, 184, and 185	Scajaquada Creek	Sewer Separation		Scajaquada - Project Group 1
Separate sewers upstream of CSO 060: SPP 240	Scajaquada Creek	Sewer Separation		Scajaquada - Project Group 1
Separate sewers upstream of CSO 053: SPPs 335A, 156, 334A, 334B, 229, 247, 156A, and 156B	Scajaquada Creek / Black Rock Canal	Sewer Separation		Scajaquada - Project Group 1

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Table 9-3 Alternative 1 Cost Estimate Summary

Description	Receiving Water Body	Category	Level of Control	Cost
CSO 003 (CDS)	Black Rock Canal	Floatables Control	12 - Month	\$890,000
CSO 003: SPPs 4, 11, and 185	Black Rock Canal	Weir Modification		\$15,000
CSO 003: SPPs 3, 4, 5, 7, and 8	Black Rock Canal	Orifice Plate Removal		\$15,000
CSO 004: SPP 13 (mechanical screen)	Black Rock Canal	Floatables Control	6 - Month	\$1,070,000
CSO 006: SPPs 332, 180, 179, and 331 (mechanical screens)	Black Rock Canal	Floatables Control	6 - Month	\$1,480,000
CSO 061: SPP 330 (mechanical screen)	Black Rock Canal	Floatables Control	6 - Month	\$1,480,000
Tie CSO 005 SPP 14A overflow into Bird Avenue Trunk Sewer	Black Rock Canal	Flow Redirection		\$100,000
Tie CSO 008 SPP 19 overflow into Scajaquada Tunnel Interceptor	Black Rock Canal	Flow Redirection		\$55,000
Separate sewers upstream of CSO 007	Black Rock Canal	Sewer Separation		\$300,000
Separate sewers upstream of CSO 009	Black Rock Canal	Sewer Separation		\$100,000
Separate sewers upstream of CSO 010: SPP 21	Black Rock Canal	Sewer Separation		\$5,210,000
CSO 012	Black Rock Canal	Floatable Control		\$2,750,000
CSO 063: SPP 283	Black Rock Canal	Floatable Control		\$18,000
SPP 304 Underflow from Swan Trunk to South Interceptor	Black Rock Canal	Flow Redirection		\$832,500
Front Park (CSO 063)	Black Rock Canal	Sewer Separation		\$999,000
CSO 013: SPP 304	Black Rock Canal	Floatable Control		\$150,000
CSO 017	Buffalo River	Floatable Control		\$1,890,000
CSO 022	Buffalo River	Floatable Control		\$473,000
CSO 025: SPP 209	Buffalo River	Floatable Control		\$22,000
CSO 026	Buffalo River	Floatable Control		\$2,358,000
CSO 027	Buffalo River	Floatable Control		\$452,000
CSOs 028 and 029	Buffalo River	Floatable Control		\$1,250,000
CSO 033	Buffalo River	Floatable Control		\$1,260,000
CSO 050: SPP 105	Buffalo River	Floatable Control		\$26,000
CSO 051	Buffalo River	Floatable Control		\$409,000
CSO 052: SPP 106	Buffalo River	Floatable Control		\$22,000
CSO 064	Buffalo River	Floatable Control		\$1,111,000
CSO 066	Buffalo River	Floatable Control		\$28,000
North of Buffalo River excluding Swan Trunk: SPPs 68, 69, 74, 75, 77, 78, 79, 80, 81, 82, 84, 85, 87, 88, 89, 90, 91, 92, 94, 128, 129, 131, 132, 135a, 138, 144, 145, 149(1), 149(2), 150, 151, 197a, 197b, 197c, 198b, 199a, 199b, 199c, 248, 249, 277, 314,	Buffalo River	Weir Modification		\$470,700
SPP 123a	Buffalo River	Supplemental Capacity		\$1,875,000
Casmir Street and South Ogden Street, south of Clinton Street (CSOs 034 and 066)	Buffalo River	Sewer Separation		\$22,239,500
Smith Street South of Route 190 to Buffalo River (CSO 026)	Buffalo River	Sewer Separation		\$6,631,000

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Table 9-3 Alternative 1 Cost Estimate Summary

Description	Receiving Water Body	Category	Level of Control	Cost
Smith Street and Seneca Street to Howard Street (CSO 026)	Buffalo River	Sewer Separation		\$8,596,500
Clinton Street and Fillmore Street to Babcock Street (CSO 026)	Buffalo River	Sewer Separation		\$5,579,500
Area tributary to Hamburg Street Pump Station (CSOs 022, 025, and 064)	Buffalo River	Sewer Separation		\$11,434,000
Railroad Yard (CSOs 027, 033, and 066)	Buffalo River	Sewer Separation		\$14,727,000
South Buffalo: SPPs 105, 106, 106a, 107a, 113, 114, 118, 121, 122, 125, 125a, 126, 208, 307, 308, 309, 310, 311, and downstream of 308, 309, and 310	Buffalo River / Cazenovia Creek	Weir Modification		\$223,900
South Buffalo (CSOs 028, 029, 035, 037, 039, 044, 046, 047, 048, 049, 050, 051, and 052)	Buffalo River / Cazenovia Creek	Sewer Separation		\$40,750,500
Swan Trunk: SPPs 42, 48, 55, 65, 67, 206a, 206b, 281, 282, 283, 304, and 326	Buffalo River / Erie Basin Marina / Black Rock Canal	Weir Modification		\$224,600
CSO 035: SPPs 107 and 107a	Cazenovia Creek - B	Floatable Control		\$175,000
CSO 037: SPP 122	Cazenovia Creek - C	Floatable Control		\$175,000
CSO 044: SPP 121	Cazenovia Creek - C	Floatable Control		\$44,000
CSO 046	Cazenovia Creek - C	Floatable Control		\$31,000
CSO 047: SPP 114	Cazenovia Creek - C	Floatable Control		\$44,000
SPP 121	Cazenovia Creek - C	Supplemental Capacity		\$400,000
CSO 055 (CDS)	Cornelius Creek	Floatables Control	1 - Month	\$8,800,000
CSO 055 Hertel Street	Cornelius Creek	Sewer Separation		N/A
CSO 014	Erie Basin Marina	Floatable Control		\$517,000
CSO 015	Erie Basin Marina	Floatable Control		\$1,250,000
SPP 42 underflow from Swan Trunk to South Interceptor	Erie Basin Marina	Flow Redirection		\$100,000
Retain flow in Swan Trunk at Skyway and Charles Street	Erie Basin Marina	Flow Redirection		\$843,700
CSO 054 (CDS)	Niagara River	Floatables Control	6 - Month	\$395,000
Ontario Basin	Niagara River	Sewer Separation		N/A
CSO 054 Tonawanda Street	Niagara River	Sewer Separation		N/A
CSO 011	Niagara River	Floatable Control		\$792,000
CSO 056 (CDS)	Scajaquada Creek	Floatables Control	12 - Month	\$350,000
CSO 058 (CDS)	Scajaquada Creek	Floatables Control	12 - Month	\$430,000
CSO 057: SPP 195	Scajaquada Creek	Weir Modification		\$5,000
CSO 058: SPP 213	Scajaquada Creek	Weir Modification		\$5,000
CSO 057: SPPs 10, 11, and 195	Scajaquada Creek	Orifice Plate Removal		\$9,000
CSO 058: SPP 213	Scajaquada Creek	Orifice Plate Removal		\$3,000

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Table 9-3 Alternative 1 Cost Estimate Summary

Description	Receiving Water Body	Category	Level of Control	Cost
CSO 053: SPPs 336B, 170B, 341A, 341B, 336A, 203, 163, 164, 165, 165A, 200A, 200B, 342A, 342B, and 157 (mechanical screens)	Scajaquada Creek	Floatables Control	6 - Month	\$6,680,000
CSO 053: SPPs 165B, 229A, 204, 201, 202, 335B, 345, 166	Scajaquada Creek	Floatables Control	12 -Month	
CSO 053: SPPs 340, 339, 337	Scajaquada Creek	Floatables Control	6 - Month	\$2,840,000
CSO 053: SPP 338	Scajaquada Creek	Floatables Control	12 -Month	
Separate sewers upstream of CSO 059: SPPs 183, 184, and 185	Scajaquada Creek	Sewer Separation		\$775,000
Separate sewers upstream of CSO 060: SPP 240	Scajaquada Creek	Sewer Separation		\$1,020,000
Separate sewers upstream of CSO 053: SPPs 335A, 156, 334A, 334B, 229, 247, 156A, and 156B	Scajaquada Creek / Black Rock Canal	Sewer Separation		\$1,382,000

Alternative 1 Total Cost \$164,583,400

Alternative 1 Cost by Receiving Water Body:	
Black Rock Canal	\$16,365,000
Buffalo River	\$87,237,792
Cazenovia Creek - B	\$3,595,324
Cazenovia Creek - C	\$32,004,884
Cornelius Creek	\$8,800,000
Erie Basin Marina	\$2,751,200
Niagara River	\$1,187,000
Scajaquada Creek	\$12,642,200

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Table 9-4 Alternative 2 Summary

Description	Receiving Water Body	Category	Level of Control	District Consultant Phase Recommendation
Scajaquada Tunnel Interceptor	Black Rock Canal	Storage		Scajaquada - Project Group 4
Bird Avenue Trunk Sewer	Black Rock Canal	Storage		Scajaquada - Project Group 5
CSO 017: between Hamburg and Alabama and between Oak and Chicago	Buffalo River	Storage	3 - Month	South Central - Phase 3
CSO 026	Buffalo River	Storage	3 - Month	South Central - Phase 3
CSO 027	Buffalo River	Storage	3 - Month	South Central - Phase 3
CSOs 028, 029	Buffalo River	Storage	3 - Month	South Central - Phase 3
CSO 033	Buffalo River	Storage	3 - Month	South Central - Phase 3
CSO 050	Buffalo River	Storage	6 - Month	South Central - Phase 3
CSO 051	Buffalo River	Storage	3 - Month	South Central - Phase 3
CSO 052	Buffalo River	Storage	4 - Month	South Central - Phase 3
CSO 064	Buffalo River	Storage	3 - Month	South Central - Phase 3
CSO 066	Buffalo River	Storage	6 - Month	South Central - Phase 3
CSO 035	Cazenovia Creek - B	Storage	3 - Month	South Central - Phase 3
CSO 037	Cazenovia Creek - C	Storage	3 - Month	South Central - Phase 3
CSO 055	Cornelius Creek	Storage		North District - Discarded Alternative
CSO 014	Erie Basin Marina	Storage	3 - Month	South Central - Phase 3
CSO 015	Erie Basin Marina	Storage	3 - Month	South Central - Phase 3
CSOs 011, 012: Albany Street	Niagara River / Black Rock Canal	Storage	3 - Month	South Central - Phase 3
CSO 056	Scajaquada Creek	Storage	6 - Month	North District - Discarded Alternative
CSO 057	Scajaquada Creek	Weir Modification		North District - Recommended Action
Hagen Trunk Sewer	Scajaquada Creek / Black Rock Canal	Storage		Scajaquada - Project Group 3
Texas Trunk Sewer	Scajaquada Creek / Black Rock Canal	Storage		Scajaquada - Project Group 3
Colorado Trunk Sewer	Scajaquada Creek / Black Rock Canal	Storage		Scajaquada - Project Group 3
Bailey Trunk Sewer	Scajaquada Creek / Black Rock Canal	Storage		Scajaquada - Project Group 3

Note:

Alternative 2 includes all modifications listed for Alternative 1. Table 9-4 lists only additional modifications in Alternative 2 that are not included in Alternative 1.

Table 9-5 Alternative 2 Cost Estimate Summary

Description	Receiving Water Body	Category	Level of Control	Cost
Scajaquada Tunnel Interceptor	Black Rock Canal	Storage		\$306,000
Bird Avenue Trunk Sewer	Black Rock Canal	Storage		\$1,556,000
CSO 017: between Hamburg and Alabama and between Oak and Chicago	Buffalo River	Storage	3 - Month	\$23,850,245
CSO 026	Buffalo River	Storage	3 - Month	\$20,812,905
CSO 027	Buffalo River	Storage	3 - Month	\$1,266,968
CSOs 028, 029	Buffalo River	Storage	3 - Month	\$20,964,526
CSO 033	Buffalo River	Storage	3 - Month	\$2,913,275
CSO 050	Buffalo River	Storage	6 - Month	\$2,168,347
CSO 051	Buffalo River	Storage	3 - Month	\$894,730
CSO 052	Buffalo River	Storage	4 - Month	\$4,601,222
CSO 064	Buffalo River	Storage	3 - Month	\$2,684,004
CSO 066	Buffalo River	Storage	6 - Month	\$22,158,874
CSO 035	Cazenovia Creek - B	Storage	3 - Month	\$2,259,332
CSO 037	Cazenovia Creek - C	Storage	3 - Month	\$3,817,154
CSO 055	Cornelius Creek	Storage		\$80,162,654
CSO 014	Erie Basin Marina	Storage	3 - Month	\$1,602,362
CSO 015	Erie Basin Marina	Storage	3 - Month	\$2,944,001
CSOs 011, 012: Albany Street	Niagara River / Black Rock Canal	Storage	3 - Month	\$46,244,059
CSO 056	Scajaquada Creek	Storage	6 - Month	\$454,382
CSO 057	Scajaquada Creek	Weir Modification		\$10,000
Hagen Trunk Sewer	Scajaquada Creek / Black Rock Canal	Storage		\$1,559,000
Texas Trunk Sewer	Scajaquada Creek / Black Rock Canal	Storage		\$1,528,000
Colorado Trunk Sewer	Scajaquada Creek / Black Rock Canal	Storage		\$1,348,000
Bailey Trunk Sewer	Scajaquada Creek / Black Rock Canal	Storage		\$1,401,000

Note:

Alternative 2 includes all modifications listed for Alternative 1.
Table 9-5 lists only additional modifications in Alternative 2 that are not included in Alternative 1.

Alternative 2 Sub-Total Cost \$247,507,040

Alternative 1 Total Cost \$164,583,400

Alternative 2 Total Cost \$412,090,440

Alternative 2 Cost by Receiving Water Body:	
Black Rock Canal	\$50,054,276
Buffalo River	\$189,552,888
Cazenovia Creek - B	\$5,854,656
Cazenovia Creek - C	\$35,822,038
Cornelius Creek	\$88,962,654
Erie Basin Marina	\$7,297,563
Niagara River	\$19,222,183
Scajaquada Creek	\$15,324,182

Table 9-6 Alternative 3A Summary

Receiving Water Body	CSOs Controlled	Description
Erie Basin	CSO 014	Tunnel from Cazenovia Park, along Cazenovia Creek, across Buffalo River
Erie Basin	CSO 015	at Bailey Avenue, north along Bailey Avenue to Elk Street, west along Elk
Erie Basin	CSO 016	Street to South Park Avenue, West along South Park Avenue to the Skyway,
Buffalo River	CSO 017	North under the Skyway to the I-190, North along the shoreline to the West
Buffalo River	CSO 022	of the I-190 to Waterfront Village in the Erie Basin Marina area with additional
Buffalo River	CSO 023	collector sewers as needed.
Buffalo River	CSO 025	
Buffalo River	CSO 026	
Buffalo River	CSO 027	
Cazenovia Creek - C	CSO 030	
Cazenovia Creek - C	CSO 031	
Buffalo River	CSO 032	
Buffalo River	CSO 033	
Cazenovia Creek - B	CSO 035	
Cazenovia Creek - C	CSO 036	
Cazenovia Creek - C	CSO 037	
Cazenovia Creek - C	CSO 038	
Cazenovia Creek - C	CSO 039	
Cazenovia Creek - C	CSO 040	
Cazenovia Creek - C	CSO 041	
Cazenovia Creek - C	CSO 042	
Cazenovia Creek - C	CSO 043	
Cazenovia Creek - C	CSO 044	
Cazenovia Creek - C	CSO 045	
Cazenovia Creek - C	CSO 046	
Cazenovia Creek - C	CSO 047	
Cazenovia Creek - C	CSO 048	
Cazenovia Creek - C	CSO 049	
Buffalo River	CSO 050	
Buffalo River	CSO 064	
Buffalo River	CSO 051	Satellite Storage Facility at Pawnee Parkway outlet to Buffalo River
Buffalo River	CSO 052	Satellite Storage Facility at South Ogden outlet to Buffalo River - South Side
Cornelius Creek	CSO 055	Satellite Storage Facility located at Riverside High School
Scajaquada Creek	CSO 056	Satellite Storage Facility located at Delaware Park
Scajaquada Creek	CSO 060	
Buffalo River	CSO 066	Satellite Storage Facility at South Ogden outlet to Buffalo River - North Side
Buffalo River	CSO 028	Partial Separation
Buffalo River	CSO 029	
Buffalo River	CSO 034	
Buffalo River	CSO 066	Removal of stormwater sources
Niagara River	CSO 054	Sewer Separation

Note:

Alternative 3A includes all modifications listed for Alternative 1. Table 9-6 lists only additional modifications in Alternative 3A that are not included in Alternative 1.

Table 9-6 Alternative 3A Summary

Receiving Water Body	CSOs Controlled	Description
Black Rock Canal	CSO 003	Satellite Storage Facility located near Rich Marina
Black Rock Canal	CSO 004	North - South Tunnel from the intersection of Forest Avenue and Niagara Street
Black Rock Canal	CSO 005	along Niagara Street to the intersection of School Street and Niagara Street
Black Rock Canal	CSO 006 by way of tributary SPPs:	Cross Black Rock Canal at Lafayette Avenue to Bird Island
	SPP 179	
	SPP 180	
	SPP 331	
Black Rock Canal	CSO 007	
Black Rock Canal	CSO 008	
Black Rock Canal	CSO 009	
Black Rock Canal	CSO 010	
Niagara River	CSO 011	
Black Rock Canal	CSO 012	
Black Rock Canal	CSO 061	
Black Rock Canal	CSO 062	
Scajaquada Creek	CSO 057	
Scajaquada Creek	CSO 058	
Scajaquada Creek	CSO 059	
Scajaquada Creek	CSO 053 by way of SPPs along the Scajaquada Tunnel Interceptor and Scajaquada Drain:	East - West Tunnel parallel to Scajaquada Drain
	SPP 156	
	SPP 157	
	SPP 163	
	SPP 166	
	SPP 170b	
	SPP 178	
	SPP 200a&b	
	SPP 201	
	SPP 202	
	SPP 203	
	SPP 204	
	SPP 229a	
	SPP 335	
	SPP 336a	
	SPP 336b	
	SPP 337	
	SPP 338	
	SPP 339	
	SPP 340	
	SPP 341a&b	
	SPP 345	
Black Rock Canal	CSO 013	Satellite Storage Facility located at LaSalle Park
	CSO 063	(to be diverted to Swan Trunk or South Interceptor)

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 Table 9-7 Alternative 3A Cost Estimate Summary

Receiving Water Body	CSOs Controlled	Description	1-Month Cost Estimate		
			Capital	O&M	Total
Black Rock Canal	CSO 003	Satellite Storage Facility located near Rich Marina	\$ -	\$ -	\$ -
Black Rock Canal	CSO 004	North - South Tunnel from the intersection of Forest Avenue and Niagara Street	\$ 54,961,247	\$ 6,723,496	\$ 61,704,743
Black Rock Canal	CSO 005	along Niagara Street to the intersection of School Street and Niagara Street			
Black Rock Canal	CSO 006 by way of tributary SPPs:	Cross Black Rock Canal at Lafayette Avenue to Bird Island			
	SPP 179				
	SPP 180				
	SPP 331				
Black Rock Canal	CSO 007				
Black Rock Canal	CSO 008				
Black Rock Canal	CSO 009				
Black Rock Canal	CSO 010				
Niagara River	CSO 011				
Black Rock Canal	CSO 012				
Black Rock Canal	CSO 061				
Black Rock Canal	CSO 062				
Scjaquada Creek	CSO 057				
Scjaquada Creek	CSO 058				
Scjaquada Creek	CSO 059				
Scjaquada Creek	CSO 053 by way of SPPs along the Scjaquada Tunnel Interceptor and Scjaquada Drain:	East - West Tunnel parallel to Scjaquada Drain	\$ 81,773,089	\$ 6,741,051	\$ 88,514,140
	SPP 156				
	SPP 157				
	SPP 163				
	SPP 168				
	SPP 170b				
	SPP 178				
	SPP 200a&b				
	SPP 201				
	SPP 202				
	SPP 203				
	SPP 204				
	SPP 229a				
	SPP 335				
	SPP 336a				
	SPP 336b				
	SPP 337				
	SPP 338				
	SPP 339				
	SPP 340				
	SPP 341a&b				
	SPP 345				
Black Rock Canal	CSO 013	Satellite Storage Facility located at LaSalle Park	\$ -	\$ -	\$ -
	CSO 063	(to be diverted to Swan Trunk or South Interceptor)			
Erie Basin	CSO 014	Tunnel from Cazenovia Park, along Cazenovia Creek, across Buffalo River	\$ 43,071,848	\$ 6,653,276	\$ 49,725,124
Erie Basin	CSO 015	at Bailey Avenue, north along Bailey Avenue to Elk Street, west along Elk			
Erie Basin	CSO 016	Street to South Park Avenue, West along South Park Avenue to the Skyway,			
Buffalo River	CSO 017	North under the Skyway to the I-190, North along the shoreline to the West			
Buffalo River	CSO 022	of the I-190 to Waterfront Village in the Erie Basin Marina area with additional			
Buffalo River	CSO 023	collector sewers as needed.			
Buffalo River	CSO 025				
Buffalo River	CSO 026				
Buffalo River	CSO 027				
Cazenovia Creek - C	CSO 030				
Cazenovia Creek - C	CSO 031				
Buffalo River	CSO 032				
Buffalo River	CSO 033				
Cazenovia Creek - B	CSO 035				
Cazenovia Creek - C	CSO 036				
Cazenovia Creek - C	CSO 037				
Cazenovia Creek - C	CSO 038				
Cazenovia Creek - C	CSO 039				
Cazenovia Creek - C	CSO 040				
Cazenovia Creek - C	CSO 041				
Cazenovia Creek - C	CSO 042				
Cazenovia Creek - C	CSO 043				
Cazenovia Creek - C	CSO 044				
Cazenovia Creek - C	CSO 045				
Cazenovia Creek - C	CSO 046				
Cazenovia Creek - C	CSO 047				
Cazenovia Creek - C	CSO 048				
Cazenovia Creek - C	CSO 049				
Buffalo River	CSO 050				
Buffalo River	CSO 054				
Buffalo River	CSO 051	Satellite Storage Facility at Pawnee Parkway outlet to Buffalo River	\$ -	\$ -	\$ -
Buffalo River	CSO 052	Satellite Storage Facility at South Ogden outlet to Buffalo River - South Side	\$ -	\$ -	\$ -
Cornelius Creek	CSO 055	Satellite Storage Facility located at Riverside High School	\$ 49,723,064	\$ 355,349	\$ 50,078,413
Scjaquada Creek	CSO 056	Satellite Storage Facility located at Delaware Park	\$ 1,649,588	\$ 355,349	\$ 2,004,937
Scjaquada Creek	CSO 060				
Buffalo River	CSO 066	Satellite Storage Facility at South Ogden outlet to Buffalo River - North Side	\$ 277,793	\$ 355,349	\$ 633,142
Buffalo River	CSO 028	Partial Separation	\$ 32,265,625	NA	\$ 32,265,625
Buffalo River	CSO 029				
Buffalo River	CSO 034				
Buffalo River	CSO 086	Removal of stormwater sources			
Niagara River	CSO 054	Sewer Separation	\$ 1,367,188	NA	\$ 1,367,188

NOTE:
 Alternative 3A includes all modifications listed for Alternative 1. Tables 9-7 lists only additional modifications in Alternative 3A that are not included in Alternative 1.

Alternative 3A 1-Month Sub-Total \$ 286,293,312
 Alternative 1 Total Cost \$ 164,583,400
 Alternative 3A 1-Month Total Cost \$ 450,876,712

Alternative 3A Costs by Receiving Water Body:	Capital	O&M	Total
Black Rock Canal	\$ 110,186,085	\$ 9,452,687	\$ 119,638,772
Buffalo River	\$ 155,027,134	\$ 5,799,760	\$ 160,826,894
Cazenovia Creek - B	\$ 4,332,968	\$ 113,943	\$ 4,446,911
Cazenovia Creek - C	\$ 35,976,979	\$ 613,566	\$ 36,590,545
Cornelius Creek	\$ 58,523,064	\$ 355,349	\$ 58,878,413
Erie Basin	\$ 5,867,386	\$ 481,355	\$ 6,348,741
Niagara River	\$ 14,413,664	\$ 1,450,261	\$ 15,863,925
Scjaquada Creek	\$ 45,365,562	\$ 2,916,948	\$ 48,282,510

BUFFALO SEWER AUTHORITY
Stage 3: Long-Term Control Plan
Table 9-7 Alternative 3A Cost Estimate Summary

Receiving Water Body	CSOs Controlled	Description	2-Month Cost Estimate		
			Capital	O&M	Total
Black Rock Canal	CSO 003	Satellite Storage Facility located near Rich Marina	\$ -	\$ -	\$ -
Black Rock Canal	CSO 004	North - South Tunnel from the intersection of Forest Avenue and Niagara Street	\$ 74,331,529	\$ 6,827,969	\$ 81,159,518
Black Rock Canal	CSO 005	along Niagara Street to the intersection of School Street and Niagara Street			
Black Rock Canal	CSO 006 by way of tributary SPPs:	Cross Black Rock Canal at Lafayette Avenue to Bird Island			
	SPP 179				
	SPP 180				
	SPP 331				
Black Rock Canal	CSO 007				
Black Rock Canal	CSO 008				
Black Rock Canal	CSO 009				
Black Rock Canal	CSO 010				
Niagara River	CSO 011				
Black Rock Canal	CSO 012				
Black Rock Canal	CSO 061				
Black Rock Canal	CSO 062				
Scajaquada Creek	CSO 057				
Scajaquada Creek	CSO 058				
Scajaquada Creek	CSO 059				
Scajaquada Creek	CSO 053 by way of SPPs along the Scajaquada Tunnel Interceptor and Scajaquada Drain:	East - West Tunnel parallel to Scajaquada Drain	\$ 109,725,303	\$ 6,803,747	\$ 116,530,050
	SPP 156				
	SPP 157				
	SPP 163				
	SPP 166				
	SPP 170b				
	SPP 178				
	SPP 200a&b				
	SPP 201				
	SPP 202				
	SPP 203				
	SPP 204				
	SPP 229a				
	SPP 335				
	SPP 336a				
	SPP 336b				
	SPP 337				
	SPP 338				
	SPP 339				
	SPP 340				
	SPP 341a&b				
	SPP 345				
Black Rock Canal	CSO 013	Satellite Storage Facility located at LaSalle Park	\$ -	\$ -	\$ -
	CSO 063	(to be diverted to Swan Trunk or South Interceptor)			
Erie Basin	CSO 014	Tunnel from Cazenovia Park, along Cazenovia Creek, across Buffalo River	\$ 64,998,954	\$ 5,669,995	\$ 71,668,049
Erie Basin	CSO 015	at Bailey Avenue, north along Bailey Avenue to Elk Street, west along Elk			
Erie Basin	CSO 016	Street to South Park Avenue, West along South Park Avenue to the Skyway,			
Buffalo River	CSO 017	North under the Skyway to the I-190, North along the shoreline to the West			
Buffalo River	CSO 022	of the I-190 to Waterfront Village in the Erie Basin Marina area with additional			
Buffalo River	CSO 023	collector sewers as needed.			
Buffalo River	CSO 025				
Buffalo River	CSO 026				
Buffalo River	CSO 027				
Cazenovia Creek - C	CSO 030				
Cazenovia Creek - C	CSO 031				
Buffalo River	CSO 032				
Buffalo River	CSO 033				
Cazenovia Creek - B	CSO 035				
Cazenovia Creek - C	CSO 036				
Cazenovia Creek - C	CSO 037				
Cazenovia Creek - C	CSO 038				
Cazenovia Creek - C	CSO 039				
Cazenovia Creek - C	CSO 040				
Cazenovia Creek - C	CSO 041				
Cazenovia Creek - C	CSO 042				
Cazenovia Creek - C	CSO 043				
Cazenovia Creek - C	CSO 044				
Cazenovia Creek - C	CSO 045				
Cazenovia Creek - C	CSO 046				
Cazenovia Creek - C	CSO 047				
Cazenovia Creek - C	CSO 048				
Cazenovia Creek - C	CSO 049				
Buffalo River	CSO 050				
Buffalo River	CSO 064				
Buffalo River	CSO 051	Satellite Storage Facility at Pawnee Parkway outlet to Buffalo River	\$ -	\$ -	\$ -
Buffalo River	CSO 052	Satellite Storage Facility at South Ogden outlet to Buffalo River - South Side	\$ -	\$ -	\$ -
Cornelius Creek	CSO 055	Satellite Storage Facility located at Riverside High School	\$ 79,047,127	\$ 1,421,395	\$ 80,468,522
Scajaquada Creek	CSO 056	Satellite Storage Facility located at Delaware Park	\$ 1,958,085	\$ 355,349	\$ 2,311,434
Scajaquada Creek	CSO 060				
Buffalo River	CSO 066	Satellite Storage Facility at South Ogden outlet to Buffalo River - North Side	\$ 383,515	\$ 355,349	\$ 738,864
Buffalo River	CSO 028	Partial Separation	\$ 32,265,625	NA	\$ 32,265,625
Buffalo River	CSO 029				
Buffalo River	CSO 034				
Buffalo River	CSO 065	Removal of stormwater sources			
Niagara River	CSO 054	Sewer Separation	\$ 1,367,188	NA	\$ 1,367,188

Note:
Alternative 3A includes all modifications listed for Alternative 1. Table 9-7 lists only additional modifications in Alternative 3A that are not included in Alternative 1.

Alternative 3A 2-Month Sub-Total \$ 386,509,250
Alternative 1 Total Cost \$ 154,583,400

Alternative 3A 2-Month Total Cost \$ 551,092,650

Alternative 3A Costs by Receiving Water Body:	Capital	O&M	Total
Black Rock Canal	\$ 142,693,497	\$ 9,579,513	\$ 152,267,010
Buffalo River	\$ 173,075,187	\$ 5,813,442	\$ 178,888,628
Cazenovia Creek - B	\$ 4,708,474	\$ 114,230	\$ 4,822,703
Cazenovia Creek - C	\$ 37,999,018	\$ 615,108	\$ 38,614,126
Cornelius Creek	\$ 87,847,127	\$ 1,421,395	\$ 89,268,522
Erie Basin	\$ 7,453,716	\$ 482,565	\$ 7,936,281
Niagara River	\$ 18,587,527	\$ 1,472,900	\$ 20,060,327
Scajaquada Creek	\$ 56,294,280	\$ 2,940,773	\$ 59,235,053

BUFFALO SEWER AUTHORITY
Stage 3: Long-Term Control Plan
Table 9-7 Alternative 3A Cost Estimate Summary

Receiving Water Body	CSOs Controlled	Description	3-Month Cost Estimate		
			Capital	O&M	Total
Black Rock Canal	CSO 003	Satellite Storage Facility located near Rich Marina	\$ -	\$ -	\$ -
Black Rock Canal	CSO 004	North - South Tunnel from the intersection of Forest Avenue and Niagara Street	\$ 92,182,284	\$ 6,941,678	\$ 99,123,962
Black Rock Canal	CSO 005	along Niagara Street to the intersection of School Street and Niagara Street			
Black Rock Canal	CSO 006 by way of tributary SPPs:	Cross Black Rock Canal at Lafayette Avenue to Bird Island			
	SPP 179				
	SPP 180				
	SPP 331				
Black Rock Canal	CSO 007				
Black Rock Canal	CSO 008				
Black Rock Canal	CSO 009				
Black Rock Canal	CSO 010				
Niagara River	CSO 011				
Black Rock Canal	CSO 012				
Black Rock Canal	CSO 061				
Black Rock Canal	CSO 062				
Scajaquada Creek	CSO 067				
Scajaquada Creek	CSO 068				
Scajaquada Creek	CSO 069				
Scajaquada Creek	CSO 063 by way of SPPs along the Scajaquada Tunnel Interceptor and Scajaquada Drain:	East - West Tunnel parallel to Scajaquada Drain	\$ 111,662,032	\$ 6,853,904	\$ 118,715,936
	SPP 156				
	SPP 157				
	SPP 163				
	SPP 166				
	SPP 170b				
	SPP 178				
	SPP 200a&b				
	SPP 201				
	SPP 202				
	SPP 203				
	SPP 204				
	SPP 229a				
	SPP 335				
	SPP 336a				
	SPP 336b				
	SPP 337				
	SPP 338				
	SPP 339				
	SPP 340				
	SPP 341a&b				
	SPP 345				
Black Rock Canal	CSO 013	Satellite Storage Facility located at LaSalle Park	\$ -	\$ -	\$ -
	CSO 063	(to be diverted to Swan Trunk or South Interceptor)			
Erie Basin	CSO 014	Tunnel from Cazenovia Park, along Cazenovia Creek, across Buffalo River	\$ 79,887,508	\$ 6,593,402	\$ 86,580,910
Erie Basin	CSO 015	at Bailey Avenue, north along Bailey Avenue to Elk Street, west along Elk			
Erie Basin	CSO 016	Street to South Park Avenue, West along South Park Avenue to the Skyway,			
Buffalo River	CSO 017	North under the Skyway to the I-190, North along the shoreline to the West			
Buffalo River	CSO 022	of the I-190 to Waterfront Village in the Erie Basin Marina area with additional			
Buffalo River	CSO 023	collector sewers as needed.			
Buffalo River	CSO 025				
Buffalo River	CSO 026				
Buffalo River	CSO 027				
Cazenovia Creek - C	CSO 030				
Cazenovia Creek - C	CSO 031				
Buffalo River	CSO 032				
Buffalo River	CSO 033				
Cazenovia Creek - B	CSO 035				
Cazenovia Creek - C	CSO 036				
Cazenovia Creek - C	CSO 037				
Cazenovia Creek - C	CSO 038				
Cazenovia Creek - C	CSO 039				
Cazenovia Creek - C	CSO 040				
Cazenovia Creek - C	CSO 041				
Cazenovia Creek - C	CSO 042				
Cazenovia Creek - C	CSO 043				
Cazenovia Creek - C	CSO 044				
Cazenovia Creek - C	CSO 045				
Cazenovia Creek - C	CSO 046				
Cazenovia Creek - C	CSO 047				
Cazenovia Creek - C	CSO 048				
Cazenovia Creek - C	CSO 049				
Buffalo River	CSO 050				
Buffalo River	CSO 064				
Buffalo River	CSO 051	Satellite Storage Facility at Pawnee Parkway outlet to Buffalo River	\$ -	\$ -	\$ -
Buffalo River	CSO 052	Satellite Storage Facility at South Ogden outlet to Buffalo River - South Side	\$ -	\$ -	\$ -
Cornelius Creek	CSO 055	Satellite Storage Facility located at Riverside High School	\$ 94,862,002	\$ 2,132,093	\$ 96,994,095
Scajaquada Creek	CSO 056	Satellite Storage Facility located at Delaware Park	\$ 2,143,168	\$ 355,349	\$ 2,498,517
Scajaquada Creek	CSO 060				
Buffalo River	CSO 066	Satellite Storage Facility at South Ogden outlet to Buffalo River - North Side	\$ 495,531	\$ 355,349	\$ 850,880
Buffalo River	CSO 028	Partial Separation	\$ 32,265,625	NA	\$ 32,265,625
Buffalo River	CSO 029				
Buffalo River	CSO 034				
Buffalo River	CSO 066	Removal of stormwater sources			
Niagara River	CSO 054	Sewer Separation	\$ 1,367,188	NA	\$ 1,367,188

Note:
Alternative 3A includes all modifications listed to Alternative 1. Table 9-7 lists only additional modifications in Alternative 3A that are not included in Alternative 1.

Alternative 3A 3-Month Sub-Total \$ 438,397,113

Alternative 1 Total Cost \$ 164,583,400

Alternative 3A 3-Month Total Cost \$ 602,980,513

Alternative 3A Costs by Receiving Water Body:	Capital	O&M	Total
Black Rock Canal	\$ 158,017,990	\$ 9,603,776	\$ 167,711,766
Buffalo River	\$ 185,371,323	\$ 5,832,595	\$ 191,203,918
Cazenovia Creek - B	\$ 4,963,469	\$ 114,630	\$ 5,078,099
Cazenovia Creek - C	\$ 39,372,126	\$ 617,267	\$ 39,989,393
Cornelius Creek	\$ 103,662,002	\$ 2,132,093	\$ 105,794,095
Erie Basin	\$ 6,530,947	\$ 484,258	\$ 7,015,205
Niagara River	\$ 22,437,942	\$ 1,497,323	\$ 23,935,265
Scajaquada Creek	\$ 57,292,940	\$ 2,959,832	\$ 60,252,772

BUFFALO SEWER AUTHORITY
Stage 3: Long-Term Control Plan
Table 9-7 Alternative 3A Cost Estimate Summary

Receiving Water Body	CSOs Controlled	Description	4-Month Cost Estimate		
			Capital	O&M	Total
Black Rock Canal	CSO 003	Satellite Storage Facility located near Rich Marina	\$ -	\$ -	\$ -
Black Rock Canal	CSO 004	North - South Tunnel from the intersection of Forest Avenue and Niagara Street	\$ 101,308,251	\$ 7,008,554	\$ 108,316,805
Black Rock Canal	CSO 005	along Niagara Street to the intersection of School Street and Niagara Street			
Black Rock Canal	CSO 006 by way of tributary SPPs:	Cross Black Rock Canal at Lafayette Avenue to Bird Island			
	SPP 179				
	SPP 180				
	SPP 331				
Black Rock Canal	CSO 007				
Black Rock Canal	CSO 008				
Black Rock Canal	CSO 009				
Black Rock Canal	CSO 010				
Niagara River	CSO 011				
Black Rock Canal	CSO 012				
Black Rock Canal	CSO 061				
Black Rock Canal	CSO 062				
Scajaquada Creek	CSO 057				
Scajaquada Creek	CSO 058				
Scajaquada Creek	CSO 059				
Scajaquada Creek	CSO 053 by way of SPPs along the Scajaquada Tunnel Interceptor and Scajaquada Drain:	East - West Tunnel parallel to Scajaquada Drain	\$ 119,209,582	\$ 6,881,490	\$ 126,091,072
	SPP 156				
	SPP 157				
	SPP 163				
	SPP 166				
	SPP 170b				
	SPP 178				
	SPP 200a&b				
	SPP 201				
	SPP 202				
	SPP 203				
	SPP 204				
	SPP 229a				
	SPP 335				
	SPP 336a				
	SPP 336b				
	SPP 337				
	SPP 338				
	SPP 339				
	SPP 340				
	SPP 341a&b				
	SPP 345				
Black Rock Canal	CSO 013	Satellite Storage Facility located at La Salle Park	\$ 4,203,202	\$ 355,349	\$ 4,558,551
	CSO 063	(to be diverted to Swan Trunk or South Interceptor)			
Erie Basin	CSO 014	Tunnel from Cazenovia Park, along Cazenovia Creek, across Buffalo River	\$ 87,799,096	\$ 5,707,813	\$ 94,506,909
Erie Basin	CSO 015	at Bailey Avenue, north along Bailey Avenue to Elk Street, west along Elk			
Erie Basin	CSO 016	Street to South Park Avenue, West along South Park Avenue to the Skyway,			
Buffalo River	CSO 017	North under the Skyway to the I-190, North along the shoreline to the West			
Buffalo River	CSO 022	of the I-190 to Waterfront Village in the Erie Basin Marina area with additional			
Buffalo River	CSO 023	collector sewers as needed.			
Buffalo River	CSO 025				
Buffalo River	CSO 026				
Buffalo River	CSO 027				
Cazenovia Creek - C	CSO 030				
Cazenovia Creek - C	CSO 031				
Buffalo River	CSO 032				
Buffalo River	CSO 033				
Cazenovia Creek - B	CSO 035				
Cazenovia Creek - C	CSO 036				
Cazenovia Creek - C	CSO 037				
Cazenovia Creek - C	CSO 038				
Cazenovia Creek - C	CSO 039				
Cazenovia Creek - C	CSO 040				
Cazenovia Creek - C	CSO 041				
Cazenovia Creek - C	CSO 042				
Cazenovia Creek - C	CSO 043				
Cazenovia Creek - C	CSO 044				
Cazenovia Creek - C	CSO 045				
Cazenovia Creek - C	CSO 046				
Cazenovia Creek - C	CSO 047				
Cazenovia Creek - C	CSO 048				
Cazenovia Creek - C	CSO 049				
Buffalo River	CSO 050				
Buffalo River	CSO 064				
Buffalo River	CSO 051	Satellite Storage Facility at Pawnee Parkway outlet to Buffalo River	\$ -	\$ -	\$ -
Buffalo River	CSO 052	Satellite Storage Facility at South Ogden outlet to Buffalo River - South Side	\$ -	\$ -	\$ -
Cornelius Creek	CSO 055	Satellite Storage Facility located at Riverside High School	\$ 107,699,587	\$ 2,842,791	\$ 110,542,378
Scajaquada Creek	CSO 056	Satellite Storage Facility located at Delaware Park	\$ 2,253,630	\$ 355,349	\$ 2,609,179
Scajaquada Creek	CSO 060				
Buffalo River	CSO 066	Satellite Storage Facility at South Ogden outlet to Buffalo River - North Side	\$ 669,407	\$ 355,349	\$ 1,014,756
Buffalo River	CSO 028	Partial Separation	\$ 32,265,625	NA	\$ 32,265,625
Buffalo River	CSO 029				
Buffalo River	CSO 034				
Buffalo River	CSO 066	Removal of stormwater sources			
Niagara River	CSO 054	Sewer Separation	\$ 1,367,168	NA	\$ 1,367,168

Note:
Alternative 3A includes all modifications listed for Alternative 1. Table 9-7 lists only additional modifications in Alternative 3A that are not included in Alternative 1.

Alternative 3A 4-Month Sub-Total \$ 481,472,233
Alternative 1 Total Cost \$ 164,583,400

Alternative 3A 4-Month Total Cost \$ 646,055,633

Alternative 3A Costs by Receiving Water Body:		Capital	O&M	Total
Black Rock Canal		\$ 173,934,165	\$ 10,116,879	\$ 184,051,044
Buffalo River		\$ 192,009,269	\$ 5,844,224	\$ 197,853,493
Cazenovia Creek - B		\$ 5,096,961	\$ 114,874	\$ 5,211,835
Cazenovia Creek - C		\$ 40,101,732	\$ 618,577	\$ 40,720,309
Cornelius Creek		\$ 116,699,587	\$ 2,842,791	\$ 119,542,377
Erie Basin		\$ 9,103,336	\$ 485,286	\$ 9,588,623
Niagara River		\$ 24,406,417	\$ 1,511,748	\$ 25,918,165
Scajaquada Creek		\$ 60,195,671	\$ 2,970,315	\$ 63,165,987

BUFFALO SEWER AUTHORITY
Stage 3: Long-Term Control Plan
Table 9-7 Alternative 3A Cost Estimate Summary

Receiving Water Body	CSOs Controlled	Description	6-Month Cost Estimate		
			Capital	O&M	Total
Black Rock Canal	CSO 003	Satellite Storage Facility located near Rich Marina	\$ -	\$ -	\$ -
Black Rock Canal	CSO 004	North - South Tunnel from the intersection of Forest Avenue and Niagara Street	\$ 134,099,395	\$ 7,162,369	\$ 141,261,764
Black Rock Canal	CSO 005	along Niagara Street to the intersection of School Street and Niagara Street			
Black Rock Canal	CSO 006 by way of tributary SPPs:	Cross Black Rock Canal at Lafayette Avenue to Bird Island			
	SPP 179				
	SPP 180				
	SPP 331				
Black Rock Canal	CSO 007				
Black Rock Canal	CSO 008				
Black Rock Canal	CSO 009				
Black Rock Canal	CSO 010				
Niagara River	CSO 011				
Black Rock Canal	CSO 012				
Black Rock Canal	CSO 061				
Black Rock Canal	CSO 062				
Scajaquada Creek	CSO 057				
Scajaquada Creek	CSO 058				
Scajaquada Creek	CSO 059				
Scajaquada Creek	CSO 053 by way of SPPs along the Scajaquada Tunnel Interceptor and Scajaquada Drain:	East - West Tunnel parallel to Scajaquada Drain	\$ 142,557,050	\$ 6,974,280	\$ 149,531,330
	SPP 156				
	SPP 157				
	SPP 163				
	SPP 166				
	SPP 170b				
	SPP 178				
	SPP 200a&b				
	SPP 201				
	SPP 202				
	SPP 203				
	SPP 204				
	SPP 229a				
	SPP 335				
	SPP 336a				
	SPP 336b				
	SPP 337				
	SPP 338				
	SPP 339				
	SPP 340				
	SPP 341a&b				
	SPP 345				
Black Rock Canal	CSO 013	Satellite Storage Facility located at LaSalle Park	\$ 4,594,484	\$ 355,349	\$ 4,949,833
	CSO 063	(to be diverted to Swan Trunk or South Interceptor)			
Erie Basin	CSO 014	Tunnel from Cazenovia Park, along Cazenovia Creek, across Buffalo River	\$ 124,903,623	\$ 6,761,176	\$ 131,664,799
Erie Basin	CSO 015	at Bailey Avenue, north along Bailey Avenue to Elk Street, west along Elk			
Erie Basin	CSO 016	Street to South Park Avenue, West along South Park Avenue to the Skyway,			
Buffalo River	CSO 017	North under the Skyway to the I-190, North along the shoreline to the West			
Buffalo River	CSO 022	of the I-190 to Waterfront Village in the Erie Basin Marina area with additional			
Buffalo River	CSO 023	collector sewers as needed.			
Buffalo River	CSO 025				
Buffalo River	CSO 026				
Buffalo River	CSO 027				
Cazenovia Creek - C	CSO 030				
Cazenovia Creek - C	CSO 031				
Buffalo River	CSO 032				
Buffalo River	CSO 033				
Cazenovia Creek - B	CSO 035				
Cazenovia Creek - C	CSO 036				
Cazenovia Creek - C	CSO 037				
Cazenovia Creek - C	CSO 038				
Cazenovia Creek - C	CSO 039				
Cazenovia Creek - C	CSO 040				
Cazenovia Creek - C	CSO 041				
Cazenovia Creek - C	CSO 042				
Cazenovia Creek - C	CSO 043				
Cazenovia Creek - C	CSO 044				
Cazenovia Creek - C	CSO 045				
Cazenovia Creek - C	CSO 046				
Cazenovia Creek - C	CSO 047				
Cazenovia Creek - C	CSO 048				
Cazenovia Creek - C	CSO 049				
Buffalo River	CSO 050				
Buffalo River	CSO 064				
Buffalo River	CSO 051	Satellite Storage Facility at Pawnee Parkway outlet to Buffalo River	\$ 563,681	\$ 355,349	\$ 919,030
Buffalo River	CSO 052	Satellite Storage Facility at South Ogden outlet to Buffalo River - South Side	\$ 4,675,486	\$ 355,349	\$ 5,030,835
Cornelius Creek	CSO 055	Satellite Storage Facility located at Riverside High School	\$ 126,198,896	\$ 3,553,488	\$ 129,752,384
Scajaquada Creek	CSO 056	Satellite Storage Facility located at Delaware Park	\$ 2,900,689	\$ 355,349	\$ 3,256,038
Scajaquada Creek	CSO 060				
Buffalo River	CSO 066	Satellite Storage Facility at South Ogden outlet to Buffalo River - North Side	\$ 1,011,130	\$ 355,349	\$ 1,366,479
Buffalo River	CSO 028	Partial Separation	\$ 32,265,625	NA	\$ 32,265,625
Buffalo River	CSO 029				
Buffalo River	CSO 034				
Buffalo River	CSO 066	Removal of stormwater sources			
Niagara River	CSO 054	Sewer Separation	\$ 1,367,188	NA	\$ 1,367,188

Note:
Alternative 3A includes all modifications listed for Alternative 1. Table 9-7 lists only additional modifications to Alternative 3A that are not included in Alternative 1.

Alternative 3A 6-Month Sub-Total \$ 601,385,315
Alternative 1 Total Cost \$ 164,583,400
Alternative 3A 6-Month Total Cost \$ 765,968,715

Alternative 3A Costs by Receiving Water Body:	Capital	O&M	Total
Black Rock Canal	\$ 214,518,968	\$ 10,296,846	\$ 224,815,814
Buffalo River	\$ 227,963,015	\$ 6,615,119	\$ 234,578,134
Cazenovia Creek - B	\$ 5,734,410	\$ 116,134	\$ 5,850,544
Cazenovia Creek - C	\$ 43,523,521	\$ 625,361	\$ 44,148,883
Cornelius Creek	\$ 134,998,896	\$ 3,553,488	\$ 138,552,385
Erie Basin	\$ 11,767,799	\$ 490,608	\$ 12,258,406
Niagara River	\$ 31,479,479	\$ 1,544,926	\$ 33,024,405
Scajaquada Creek	\$ 69,714,568	\$ 3,005,575	\$ 72,720,143

BUFFALO SEWER AUTHORITY
Stage 3: Long-Term Control Plan
Table 9-7 Alternative 3A Cost Estimate Summary

Receiving Water Body	CSOs Controlled	Description	12-Month Cost Estimate		
			Capital	O&M	Total
Black Rock Canal	CSO 003	Satellite Storage Facility located near Rich Marina	\$ 501,178	\$ 365,349	\$ 866,527
Black Rock Canal	CSO 004	North - South Tunnel from the intersection of Forest Avenue and Niagara Street	\$ 201,398,396	\$ 7,495,912	\$ 208,894,308
Black Rock Canal	CSO 005	along Niagara Street to the intersection of School Street and Niagara Street			
Black Rock Canal	CSO 006 by way of tributary SPPs:	Cross Black Rock Canal at Lafayette Avenue to Bird Island			
	SPP 179				
	SPP 180				
	SPP 331				
Black Rock Canal	CSO 007				
Black Rock Canal	CSO 008				
Black Rock Canal	CSO 009				
Black Rock Canal	CSO 010				
Niagara River	CSO 011				
Black Rock Canal	CSO 012				
Black Rock Canal	CSO 061				
Black Rock Canal	CSO 062				
Scajaquada Creek	CSO 057				
Scajaquada Creek	CSO 058				
Scajaquada Creek	CSO 059				
Scajaquada Creek	CSO 053 by way of SPPs along the Scajaquada Tunnel Interceptor and Scajaquada Drain:	East - West Tunnel parallel to Scajaquada Drain	\$ 209,002,199	\$ 7,162,369	\$ 216,164,568
	SPP 156				
	SPP 157				
	SPP 163				
	SPP 166				
	SPP 170b				
	SPP 178				
	SPP 200a&b				
	SPP 201				
	SPP 202				
	SPP 203				
	SPP 204				
	SPP 229a				
	SPP 335				
	SPP 336a				
	SPP 336b				
	SPP 337				
	SPP 338				
	SPP 339				
	SPP 340				
	SPP 341a&b				
	SPP 345				
Black Rock Canal	CSO 013	Satellite Storage Facility located at LaSalle Park	\$ 5,430,812	\$ 355,349	\$ 5,786,161
	CSO 063	(to be diverted to Swan Trunk or South Interceptor)			
Erie Basin	CSO 014	Tunnel from Cazenovia Park, along Cazenovia Creek, across Buffalo River	\$ 182,051,742	\$ 6,941,678	\$ 188,993,420
Erie Basin	CSO 015	at Bailey Avenue, north along Bailey Avenue to Elk Street, west along Elk			
Erie Basin	CSO 016	Street to South Park Avenue, West along South Park Avenue to the Skyway,			
Buffalo River	CSO 017	North under the Skyway to the I-190, North along the shoreline to the West			
Buffalo River	CSO 022	of the I-190 to Waterfront Village in the Erie Basin Marina area with additional			
Buffalo River	CSO 023	collector sewers as needed.			
Buffalo River	CSO 025				
Buffalo River	CSO 026				
Buffalo River	CSO 027				
Cazenovia Creek - C	CSO 030				
Cazenovia Creek - C	CSO 031				
Buffalo River	CSO 032				
Buffalo River	CSO 033				
Cazenovia Creek - B	CSO 035				
Cazenovia Creek - C	CSO 036				
Cazenovia Creek - C	CSO 037				
Cazenovia Creek - C	CSO 038				
Cazenovia Creek - C	CSO 039				
Cazenovia Creek - C	CSO 040				
Cazenovia Creek - C	CSO 041				
Cazenovia Creek - C	CSO 042				
Cazenovia Creek - C	CSO 043				
Cazenovia Creek - C	CSO 044				
Cazenovia Creek - C	CSO 045				
Cazenovia Creek - C	CSO 046				
Cazenovia Creek - C	CSO 047				
Cazenovia Creek - C	CSO 048				
Cazenovia Creek - C	CSO 049				
Buffalo River	CSO 050				
Buffalo River	CSO 064				
Buffalo River	CSO 051	Satellite Storage Facility at Pawnee Parkway outlet to Buffalo River	\$ 2,440,166	\$ 355,349	\$ 2,795,515
Buffalo River	CSO 052	Satellite Storage Facility at South Ogden outlet to Buffalo River - South Side	\$ 13,976,978	\$ 355,349	\$ 14,332,327
Cornelius Creek	CSO 055	Satellite Storage Facility located at Riverside High School	\$ 160,272,556	\$ 4,264,186	\$ 164,536,742
Scajaquada Creek	CSO 056	Satellite Storage Facility located at Delaware Park	\$ 5,066,870	\$ 355,349	\$ 5,422,219
Scajaquada Creek	CSO 060				
Buffalo River	CSO 066	Satellite Storage Facility at South Ogden outlet to Buffalo River - North Side	\$ 2,171,125	\$ 355,349	\$ 2,526,474
Buffalo River	CSO 028	Partial Separation	\$ 32,265,625	NA	\$ 32,265,625
Buffalo River	CSO 029				
Buffalo River	CSO 034				
Buffalo River	CSO 066	Removal of stormwater sources			
Niagara River	CSO 054	Sewer Separation	\$ 1,367,188	NA	\$ 1,367,188

Note:
Alternative 3A includes all modifications listed for Alternative 1. Table 9-7 lists only additional modifications in Alternative 3A that are not included in Alternative 1.

Alternative 3A 12-Month Sub-Total \$ 843,941,074
Alternative 1 Total Cost \$ 164,583,400

Alternative 3A 12-Month Total Cost \$ 1,008,524,474

Alternative 3A Costs by Receiving Water Body:	Capital	O&M	Total
Black Rock Canal	\$ 309,835,037	\$ 11,030,407	\$ 320,865,444
Buffalo River	\$ 287,065,599	\$ 6,746,459	\$ 293,812,058
Cazenovia Creek - B	\$ 6,713,122	\$ 118,882	\$ 6,832,005
Cazenovia Creek - C	\$ 48,793,733	\$ 640,163	\$ 49,433,896
Cornelius Creek	\$ 160,272,556	\$ 4,264,186	\$ 173,306,742
Erie Basin	\$ 15,922,382	\$ 502,220	\$ 16,424,603
Niagara River	\$ 45,995,900	\$ 1,616,871	\$ 47,612,771
Scajaquada Creek	\$ 97,129,905	\$ 3,077,049	\$ 100,206,954

Table 9-8 Alternative 3B Summary

Receiving Water Body	Location / CSOs Controlled	Description
Black Rock Canal	CSO 003	Satellite Storage Facility located near Rich Marina
Black Rock Canal	CSO 004	
Black Rock Canal	CSO 005	North - South Tunnel from the intersection of Forest Avenue and Niagara Street along Niagara Street to the intersection of School Street and Niagara Street
Black Rock Canal	CSO 006 by way of tributary SPPs:	Cross Black Rock Canal at Lafayette Avenue to Bird Island
	SPP 179	
	SPP 180	
	SPP 331	
Black Rock Canal	CSO 007	
Black Rock Canal	CSO 008	
Black Rock Canal	CSO 009	
Black Rock Canal	CSO 010	
Niagara River	CSO 011	
Black Rock Canal	CSO 012	
Black Rock Canal	CSO 061	
Black Rock Canal	CSO 062	
Scajaquada Creek	CSO 057	
Scajaquada Creek	CSO 058	
Scajaquada Creek	CSO 059	
Scajaquada Creek	CSO 053 by way of SPPs along the Scajaquada Tunnel Interceptor and Scajaquada Drain:	East - West Tunnel parallel to Scajaquada Drain
	SPP 156	
	SPP 157	
	SPP 163	
	SPP 166	
	SPP 170b	
	SPP 178	
	SPP 200a&b	
	SPP 201	
	SPP 202	
	SPP 203	
	SPP 204	
	SPP 229a	
	SPP 335	
	SPP 336a	
	SPP 336b	
	SPP 337	
	SPP 338	
	SPP 339	
	SPP 340	
	SPP 341a&b	
	SPP 345	
Black Rock Canal	CSO 013	Satellite Storage Facility located at LaSalle Park
	CSO 063	(to be diverted to Swan Trunk or South Interceptor)
Cazenovia Creek - C	CSO 030	Tunnel from Cazenovia Park, along Cazenovia Creek, to interceptor upstream of the South Buffalo Pump Station
Cazenovia Creek - C	CSO 031	
Cazenovia Creek - B	CSO 035	
Cazenovia Creek - C	CSO 036	
Cazenovia Creek - C	CSO 037	
Cazenovia Creek - C	CSO 038	
Cazenovia Creek - C	CSO 039	
Cazenovia Creek - C	CSO 040	
Cazenovia Creek - C	CSO 041	
Cazenovia Creek - C	CSO 042	
Cazenovia Creek - C	CSO 043	
Cazenovia Creek - C	CSO 044	
Cazenovia Creek - C	CSO 045	
Cazenovia Creek - C	CSO 046	
Cazenovia Creek - C	CSO 047	
Cazenovia Creek - C	CSO 048	
Cazenovia Creek - C	CSO 049	
Cornelius Creek	CSO 055	Satellite Storage Facility located at Riverside High School
Scajaquada Creek	CSO 056	Satellite Storage Facility located at Delaware Park
Scajaquada Creek	CSO 080	
Niagara River	CSO 054	Sewer Separation

Note:

Alternative 3B includes all modifications listed for Alternative 1. Table 9-8 lists only additional modifications in Alternative 3B that are not included in Alternative 1.

Table 9-9 Alternative 3B Cost Estimate Summary

Receiving Water Body	Location / CSOs Controlled	Description	1-Month Cost Estimate		
			Capital	O&M	Total
Black Rock Canal	CSO 003	Satellite Storage Facility located near Rich Marina	\$ -	\$ -	\$ -
Black Rock Canal	CSO 004	North - South Tunnel from the intersection of Forest Avenue and Niagara Street	\$ 54,981,247	\$ 6,723,496	\$ 61,704,743
Black Rock Canal	CSO 005	along Niagara Street to the intersection of School Street and Niagara Street			
Black Rock Canal	CSO 006 by way of tributary SPPs:	Cross Black Rock Canal at Lafayette Avenue to Bird Island			
	SPP 179				
	SPP 180				
	SPP 331				
Black Rock Canal	CSO 007				
Black Rock Canal	CSO 008				
Black Rock Canal	CSO 009				
Black Rock Canal	CSO 010				
Niagara River	CSO 011				
Black Rock Canal	CSO 012				
Black Rock Canal	CSO 061				
Black Rock Canal	CSO 062				
Scajaquada Creek	CSO 057				
Scajaquada Creek	CSO 058				
Scajaquada Creek	CSO 059				
Scajaquada Creek	CSO 053 by way of SPPs along the Scajaquada Tunnel Interceptor and Scajaquada Drain:	East - West Tunnel parallel to Scajaquada Drain	\$ 81,773,089	\$ 6,741,051	\$ 88,514,140
	SPP 156				
	SPP 157				
	SPP 163				
	SPP 166				
	SPP 170b				
	SPP 178				
	SPP 200a&b				
	SPP 201				
	SPP 202				
	SPP 203				
	SPP 204				
	SPP 229a				
	SPP 335				
	SPP 336a				
	SPP 336b				
	SPP 337				
	SPP 338				
	SPP 339				
	SPP 340				
	SPP 341a&b				
	SPP 345				
Black Rock Canal	CSO 013	Satellite Storage Facility located at LaSalle Park	\$ -	\$ -	\$ -
	CSO 063	(to be diverted to Swan Trunk or South Interceptor)			
Cazenovia Creek - C	CSO 030	Tunnel from Cazenovia Park, along Cazenovia Creek, to interceptor upstream of the South Buffalo Pump Station	\$ 11,244,024	\$ 6,642,612	\$ 17,886,636
Cazenovia Creek - C	CSO 031				
Cazenovia Creek - B	CSO 035				
Cazenovia Creek - C	CSO 036				
Cazenovia Creek - C	CSO 037				
Cazenovia Creek - C	CSO 038				
Cazenovia Creek - C	CSO 039				
Cazenovia Creek - C	CSO 040				
Cazenovia Creek - C	CSO 041				
Cazenovia Creek - C	CSO 042				
Cazenovia Creek - C	CSO 043				
Cazenovia Creek - C	CSO 044				
Cazenovia Creek - C	CSO 045				
Cazenovia Creek - C	CSO 046				
Cazenovia Creek - C	CSO 047				
Cazenovia Creek - C	CSO 048				
Cazenovia Creek - C	CSO 049				
Cornelius Creek	CSO 055	Satellite Storage Facility located at Riverside High School	\$ 49,723,064	\$ 355,349	\$ 50,078,413
Scajaquada Creek	CSO 056	Satellite Storage Facility located at Delaware Park	\$ 1,649,588	\$ 355,349	\$ 2,004,937
Scajaquada Creek	CSO 060				
Niagara River	CSO 054	Sewer Separation	\$ 1,367,188	NA	\$ 1,367,188

Note:

Alternative 3B includes all modifications listed for Alternative 1. Table 9-9 lists only additional modifications in Alternative 3B that are not included in Alternative 1.

Alternative 3B 1-Month Sub-Total \$ 221,556,057
Alternative 1 Total Cost \$ 164,583,400

Alternative 3B 1-Month Total Cost \$ 386,139,457

Alternative 3B Costs by Receiving Water Body:

	Capital	O&M	Total
Black Rock Canal	\$ 110,186,085	\$ 9,452,687	\$ 119,638,772
Buffalo River	\$ 87,237,792		\$ 87,237,792
Cazenovia Creek - B	\$ 5,356,374	\$ 1,040,372	\$ 6,396,746
Cazenovia Creek - C	\$ 41,487,858	\$ 5,602,240	\$ 47,090,098
Cornelius Creek	\$ 58,523,064	\$ 355,349	\$ 58,878,413
Erie Basin	\$ 2,751,200		\$ 2,751,200
Niagara River	\$ 14,413,664	\$ 1,450,261	\$ 15,863,925
Scajaquada Creek	\$ 45,365,562	\$ 2,916,948	\$ 48,282,510

Table 9-9 Alternative 3B Cost Estimate Summary

Receiving Water Body	Location / CSOs Controlled	Description	2-Month Cost Estimate		
			Capital	O&M	Total
Black Rock Canal	CSO 003	Satellite Storage Facility located near Rich Marina	\$ -	\$ -	\$ -
Black Rock Canal	CSO 004	North - South Tunnel from the intersection of Forest Avenue and Niagara Street	\$ 74,331,529	\$ 6,827,988	\$ 81,159,518
Black Rock Canal	CSO 005	along Niagara Street to the intersection of School Street and Niagara Street			
Black Rock Canal	CSO 006 by way of tributary SPPs:	Cross Black Rock Canal at Lafayette Avenue to Bird Island			
	SPP 179				
	SPP 180				
	SPP 331				
Black Rock Canal	CSO 007				
Black Rock Canal	CSO 008				
Black Rock Canal	CSO 009				
Black Rock Canal	CSO 010				
Niagara River	CSO 011				
Black Rock Canal	CSO 012				
Black Rock Canal	CSO 061				
Black Rock Canal	CSO 062				
Scajaquada Creek	CSO 057				
Scajaquada Creek	CSO 058				
Scajaquada Creek	CSO 059				
Scajaquada Creek	CSO 053 by way of SPPs along the Scajaquada Tunnel Interceptor and Scajaquada Drain:	East - West Tunnel parallel to Scajaquada Drain	\$ 109,726,303	\$ 6,803,747	\$ 116,530,050
	SPP 156				
	SPP 157				
	SPP 163				
	SPP 166				
	SPP 170b				
	SPP 178				
	SPP 200a&b				
	SPP 201				
	SPP 202				
	SPP 203				
	SPP 204				
	SPP 229a				
	SPP 335				
	SPP 336a				
	SPP 336b				
	SPP 337				
	SPP 338				
	SPP 339				
	SPP 340				
	SPP 341a&b				
	SPP 345				
Black Rock Canal	CSO 013	Satellite Storage Facility located at LaSalle Park	\$ -	\$ -	\$ -
	CSO 063	(to be diverted to Swan Trunk or South Interceptor)			
Cazenovia Creek - C	CSO 030	Tunnel from Cazenovia Park, along Cazenovia Creek, to interceptor upstream of the South Buffalo Pump Station	\$ 12,983,235	\$ 6,646,001	\$ 19,629,236
Cazenovia Creek - C	CSO 031				
Cazenovia Creek - B	CSO 035				
Cazenovia Creek - C	CSO 036				
Cazenovia Creek - C	CSO 037				
Cazenovia Creek - C	CSO 038				
Cazenovia Creek - C	CSO 039				
Cazenovia Creek - C	CSO 040				
Cazenovia Creek - C	CSO 041				
Cazenovia Creek - C	CSO 042				
Cazenovia Creek - C	CSO 043				
Cazenovia Creek - C	CSO 044				
Cazenovia Creek - C	CSO 045				
Cazenovia Creek - C	CSO 046				
Cazenovia Creek - C	CSO 047				
Cazenovia Creek - C	CSO 048				
Cazenovia Creek - C	CSO 049				
Cornelius Creek	CSO 055	Satellite Storage Facility located at Riverside High School	\$ 79,047,127	\$ 1,421,395	\$ 80,468,522
Scajaquada Creek	CSO 056	Satellite Storage Facility located at Delaware Park	\$ 1,956,085	\$ 355,349	\$ 2,311,434
Scajaquada Creek	CSO 060				
Niagara River	CSO 054	Sewer Separation	\$ 1,367,188	NA	\$ 1,367,188

Notes:

Alternative 3B includes all modifications listed for Alternative 1. Table 9-9 lists only additional modifications in Alternative 3B that are not included in Alternative 1.

Alternative 3B 2-Month Sub-Total \$ 301,465,948
Alternative 1 Total Cost \$ 164,583,400

Alternative 3B 2-Month Total Cost \$ 466,049,348

Alternative 3B Costs by Receiving Water Body:	Capital	O&M	Total
Black Rock Canal	\$ 142,693,497	\$ 9,573,513	\$ 152,267,010
Buffalo River	\$ 87,237,792	\$ -	\$ 87,237,792
Cazenovia Creek - B	\$ 5,628,771	\$ 1,040,903	\$ 6,669,674
Cazenovia Creek - C	\$ 42,954,672	\$ 5,605,098	\$ 48,559,770
Cornelius Creek	\$ 79,047,127	\$ 1,421,395	\$ 80,468,522
Erie Basin	\$ 2,751,200	\$ -	\$ 2,751,200
Niagara River	\$ 18,587,527	\$ 1,472,800	\$ 20,060,327
Scajaquada Creek	\$ 56,294,280	\$ 2,940,773	\$ 59,235,053

Table 9-9 Alternative 3B Cost Estimate Summary

Receiving Water Body	Location / CSOs Controlled	Description	3-Month Cost Estimate		
			Capital	O&M	Total
Black Rock Canal	CSO 003	Satellite Storage Facility located near Rich Marina	\$ -	\$ -	\$ -
Black Rock Canal	CSO 004	North - South Tunnel from the Intersection of Forest Avenue and Niagara Street	\$ 92,182,284	\$ 6,941,678	\$ 99,123,962
Black Rock Canal	CSO 005	along Niagara Street to the Intersection of School Street and Niagara Street			
Black Rock Canal	CSO 006 by way of tributary SPPs:	Cross Black Rock Canal at Lafayette Avenue to Bird Island			
	SPP 179				
	SPP 180				
	SPP 331				
Black Rock Canal	CSO 007				
Black Rock Canal	CSO 008				
Black Rock Canal	CSO 009				
Black Rock Canal	CSO 010				
Niagara River	CSO 011				
Black Rock Canal	CSO 012				
Black Rock Canal	CSO 061				
Black Rock Canal	CSO 062				
Scajaquada Creek	CSO 057				
Scajaquada Creek	CSO 058				
Scajaquada Creek	CSO 059				
Scajaquada Creek	CSO 053 by way of SPPs along the Scajaquada Tunnel Interceptor and Scajaquada Drain:	East - West Tunnel parallel to Scajaquada Drain	\$ 111,862,032	\$ 6,853,904	\$ 118,715,936
	SPP 156				
	SPP 157				
	SPP 163				
	SPP 166				
	SPP 170b				
	SPP 178				
	SPP 200a&b				
	SPP 201				
	SPP 202				
	SPP 203				
	SPP 204				
	SPP 229a				
	SPP 335				
	SPP 336a				
	SPP 336b				
	SPP 337				
	SPP 338				
	SPP 339				
	SPP 340				
	SPP 341a&b				
	SPP 345				
Black Rock Canal	CSO 013	Satellite Storage Facility located at LaSalle Park	\$ -	\$ -	\$ -
	CSO 063	(to be diverted to Swan Trunk or South Interceptor)			
Cazenovia Creek - C	CSO 030	Tunnel from Cazenovia Park, along Cazenovia Creek, to interceptor upstream of the South Buffalo Pump Station	\$ 16,186,353	\$ 6,653,627	\$ 22,839,980
Cazenovia Creek - C	CSO 031				
Cazenovia Creek - B	CSO 035				
Cazenovia Creek - C	CSO 036				
Cazenovia Creek - C	CSO 037				
Cazenovia Creek - C	CSO 038				
Cazenovia Creek - C	CSO 039				
Cazenovia Creek - C	CSO 040				
Cazenovia Creek - C	CSO 041				
Cazenovia Creek - C	CSO 042				
Cazenovia Creek - C	CSO 043				
Cazenovia Creek - C	CSO 044				
Cazenovia Creek - C	CSO 045				
Cazenovia Creek - C	CSO 046				
Cazenovia Creek - C	CSO 047				
Cazenovia Creek - C	CSO 048				
Cazenovia Creek - C	CSO 049				
Cornelius Creek	CSO 055	Satellite Storage Facility located at Riverside High School	\$ 94,862,002	\$ 2,132,093	\$ 96,994,095
Scajaquada Creek	CSO 056	Satellite Storage Facility located at Delaware Park	\$ 2,143,168	\$ 355,349	\$ 2,498,517
Scajaquada Creek	CSO 060				
Niagara River	CSO 054	Sewer Separation	\$ 1,367,188	NA	\$ 1,367,188

Notes:

Alternative 3B includes all modifications listed for Alternative 1. Table 9-9 lists only additional modifications in Alternative 3B that are not included in Alternative 1.

Alternative 3B 3-Month Sub-Total \$ 341,539,678
Alternative 1 Total Cost \$ 164,583,400

Alternative 3B 3-Month Total Cost \$ 506,123,078

Alternative 3B Costs by Receiving Water Body:

	Capital	O&M	Total
Black Rock Canal	\$ 158,017,990	\$ 9,693,776	\$ 167,711,766
Buffalo River	\$ 87,237,792		\$ 87,237,792
Cazenovia Creek - B	\$ 6,130,446	\$ 1,042,097	\$ 7,172,544
Cazenovia Creek - C	\$ 45,656,115	\$ 5,611,529	\$ 51,267,644
Cornelius Creek	\$ 103,662,002	\$ 2,132,093	\$ 105,794,095
Erie Basin	\$ 2,751,200		\$ 2,751,200
Niagara River	\$ 22,437,942	\$ 1,497,323	\$ 23,935,265
Scajaquada Creek	\$ 57,292,940	\$ 2,959,832	\$ 60,252,772

Table 9-9 Alternative 3B Cost Estimate Summary

Receiving Water Body	Location / CSOs Controlled	Description	4-Month Cost Estimate		
			Capital	O&M	Total
Black Rock Canal	CSO 003	Satellite Storage Facility located near Rich Marina	\$ -	\$ -	\$ -
Black Rock Canal	CSO 004	North - South Tunnel from the Intersection of Forest Avenue and Niagara Street	\$ 101,308,251	\$ 7,008,554	\$ 108,316,805
Black Rock Canal	CSO 005	along Niagara Street to the Intersection of School Street and Niagara Street			
Black Rock Canal	CSO 006 by way of tributary SPPs:	Cross Black Rock Canal at Lafayette Avenue to Bird Island			
	SPP 179				
	SPP 180				
	SPP 331				
Black Rock Canal	CSO 007				
Black Rock Canal	CSO 008				
Black Rock Canal	CSO 009				
Black Rock Canal	CSO 010				
Niagara River	CSO 011				
Black Rock Canal	CSO 012				
Black Rock Canal	CSO 061				
Black Rock Canal	CSO 062				
Scajaquada Creek	CSO 057				
Scajaquada Creek	CSO 058				
Scajaquada Creek	CSO 059				
Scajaquada Creek	CSO 053 by way of SPPs along the Scajaquada Tunnel Interceptor and Scajaquada Drain:	East - West Tunnel parallel to Scajaquada Drain	\$ 119,209,582	\$ 6,881,490	\$ 126,091,072
	SPP 156				
	SPP 157				
	SPP 163				
	SPP 166				
	SPP 170b				
	SPP 178				
	SPP 200a&b				
	SPP 201				
	SPP 202				
	SPP 203				
	SPP 204				
	SPP 229a				
	SPP 335				
	SPP 336a				
	SPP 336b				
	SPP 337				
	SPP 338				
	SPP 339				
	SPP 340				
	SPP 341a&b				
	SPP 345				
Black Rock Canal	CSO 013	Satellite Storage Facility located at LaSalle Park	\$ 4,203,202	\$ 355,349	\$ 4,558,551
	CSO 063	(to be diverted to Swan Trunk or South Interceptor)			
Cazenovia Creek - C	CSO 030	Tunnel from Cazenovia Park, along Cazenovia Creek, to interceptor upstream of the South Buffalo Pump Station	\$ 18,635,577	\$ 6,660,405	\$ 25,295,982
Cazenovia Creek - C	CSO 031				
Cazenovia Creek - B	CSO 035				
Cazenovia Creek - C	CSO 036				
Cazenovia Creek - C	CSO 037				
Cazenovia Creek - C	CSO 038				
Cazenovia Creek - C	CSO 039				
Cazenovia Creek - C	CSO 040				
Cazenovia Creek - C	CSO 041				
Cazenovia Creek - C	CSO 042				
Cazenovia Creek - C	CSO 043				
Cazenovia Creek - C	CSO 044				
Cazenovia Creek - C	CSO 045				
Cazenovia Creek - C	CSO 046				
Cazenovia Creek - C	CSO 047				
Cazenovia Creek - C	CSO 048				
Cazenovia Creek - C	CSO 049				
Cornellus Creek	CSO 055	Satellite Storage Facility located at Riverside High School	\$ 107,899,587	\$ 2,842,791	\$ 110,742,378
Scajaquada Creek	CSO 056	Satellite Storage Facility located at Delaware Park	\$ 2,253,830	\$ 355,349	\$ 2,609,179
Scajaquada Creek	CSO 060				
Niagara River	CSO 054	Sewer Separation	\$ 1,367,188	NA	\$ 1,367,188

Note:

Alternative 3B includes all modifications listed for Alternative 1. Table 9-9 lists only additional modifications in Alternative 3B that are not included in Alternative 1.

Alternative 3B 4-Month Sub-Total \$ 378,981,155
Alternative 1 Total Cost \$ 184,583,400

Alternative 3B 4-Month Total Cost \$ 543,564,555

Alternative 3B Costs by Receiving Water Body:	Capital	O&M	Total
Black Rock Canal	\$ 173,934,165	\$ 10,118,679	\$ 184,052,844
Buffalo River	\$ 87,237,792		\$ 87,237,792
Cazenovia Creek - B	\$ 6,514,046	\$ 1,043,159	\$ 7,557,205
Cazenovia Creek - C	\$ 47,721,739	\$ 5,617,246	\$ 53,338,984
Cornellus Creek	\$ 116,699,587	\$ 2,842,791	\$ 119,542,377
Erie Basin	\$ 2,751,200		\$ 2,751,200
Niagara River	\$ 24,408,417	\$ 1,511,748	\$ 25,918,165
Scajaquada Creek	\$ 60,195,671	\$ 2,970,315	\$ 63,165,987

Table 9-9 Alternative 3B Cost Estimate Summary

Receiving Water Body	Location / CSOs Controlled	Description	6-Month Cost Estimate		
			Capital	O&M	Total
Black Rock Canal	CSO 003	Satellite Storage Facility located near Rich Marina	\$ -	\$ -	\$ -
Black Rock Canal	CSO 004	North - South Tunnel from the intersection of Forest Avenue and Niagara Street	\$ 134,099,395	\$ 7,162,369	\$ 141,261,764
Black Rock Canal	CSO 005	along Niagara Street to the intersection of School Street and Niagara Street			
Black Rock Canal	CSO 006 by way of tributary SPPs:	Cross Black Rock Canal at Lafayette Avenue to Bird Island			
	SPP 179				
	SPP 180				
	SPP 331				
Black Rock Canal	CSO 007				
Black Rock Canal	CSO 008				
Black Rock Canal	CSO 009				
Black Rock Canal	CSO 010				
Niagara River	CSO 011				
Black Rock Canal	CSO 012				
Black Rock Canal	CSO 061				
Black Rock Canal	CSO 062				
Scajaquada Creek	CSO 057				
Scajaquada Creek	CSO 058				
Scajaquada Creek	CSO 059				
Scajaquada Creek	CSO 053 by way of SPPs along the Scajaquada Tunnel Interceptor and Scajaquada Drain:	East - West Tunnel parallel to Scajaquada Drain	\$ 142,557,050	\$ 6,974,280	\$ 149,531,330
	SPP 156				
	SPP 157				
	SPP 163				
	SPP 166				
	SPP 170b				
	SPP 178				
	SPP 200a&b				
	SPP 201				
	SPP 202				
	SPP 203				
	SPP 204				
	SPP 229a				
	SPP 335				
	SPP 336a				
	SPP 336b				
	SPP 337				
	SPP 338				
	SPP 339				
	SPP 340				
	SPP 341a&b				
	SPP 345				
Black Rock Canal	CSO 013	Satellite Storage Facility located at LaSalle Park	\$ 4,594,494	\$ 355,349	\$ 4,949,843
	CSO 063	(to be diverted to Swan Trunk or South Interceptor)			
Cazenovia Creek - C	CSO 030	Tunnel from Cazenovia Park, along Cazenovia Creek, to interceptor upstream	\$ 25,379,802	\$ 6,663,280	\$ 32,063,082
Cazenovia Creek - C	CSO 031	of the South Buffalo Pump Station			
Cazenovia Creek - B	CSO 035				
Cazenovia Creek - C	CSO 036				
Cazenovia Creek - C	CSO 037				
Cazenovia Creek - C	CSO 038				
Cazenovia Creek - C	CSO 039				
Cazenovia Creek - C	CSO 040				
Cazenovia Creek - C	CSO 041				
Cazenovia Creek - C	CSO 042				
Cazenovia Creek - C	CSO 043				
Cazenovia Creek - C	CSO 044				
Cazenovia Creek - C	CSO 045				
Cazenovia Creek - C	CSO 046				
Cazenovia Creek - C	CSO 047				
Cazenovia Creek - C	CSO 048				
Cazenovia Creek - C	CSO 049				
Cornelius Creek	CSO 055	Satellite Storage Facility located at Riverside High School	\$ 126,198,896	\$ 3,553,488	\$ 129,752,384
Scajaquada Creek	CSO 056	Satellite Storage Facility located at Delaware Park	\$ 2,900,689	\$ 355,349	\$ 3,256,038
Scajaquada Creek	CSO 060				
Niagara River	CSO 054	Sewer Separation	\$ 1,367,188	NA	\$ 1,367,188

Note:

Alternative 3B includes all modifications listed for Alternative 1. Table 9-9 lists only additional modifications in Alternative 3B that are not included in Alternative 1.

Alternative 3B 6-Month Sub-Total \$ 462,181,529
Alternative 1 Total Cost \$ 164,583,400

Alternative 3B 6-Month Total Cost \$ 626,765,029

Alternative 3B Costs by Receiving Water Body:

	Capital	O&M	Total
Black Rock Canal	\$ 214,518,968	\$ 10,296,846	\$ 224,815,814
Buffalo River	\$ 87,237,792		\$ 87,237,792
Cazenovia Creek - B	\$ 7,570,333	\$ 1,046,742	\$ 8,617,075
Cazenovia Creek - C	\$ 53,409,677	\$ 5,638,538	\$ 59,048,215
Cornelius Creek	\$ 134,998,896	\$ 3,553,488	\$ 138,552,385
Erie Basin	\$ 2,751,200		\$ 2,751,200
Niagara River	\$ 31,479,479	\$ 1,544,926	\$ 33,024,405
Scajaquada Creek	\$ 69,714,568	\$ 3,005,575	\$ 72,720,143

Table 9-9 Alternative 3B Cost Estimate Summary

Receiving Water Body	Location / CSOs Controlled	Description	12-Month Cost Estimate		
			Capital	O&M	Total
Black Rock Canal	CSO 003	Satellite Storage Facility located near Rich Marina	\$ 501,178	\$ 355,349	\$ 856,527
Black Rock Canal	CSO 004	North - South Tunnel from the Intersection of Forest Avenue and Niagara Street	\$ 201,396,396	\$ 7,495,912	\$ 208,894,308
Black Rock Canal	CSO 005	along Niagara Street to the Intersection of School Street and Niagara Street			
Black Rock Canal	CSO 006 by way of tributary SPPs:	Cross Black Rock Canal at Lafayette Avenue to Bird Island			
	SPP 179				
	SPP 180				
	SPP 331				
Black Rock Canal	CSO 007				
Black Rock Canal	CSO 008				
Black Rock Canal	CSO 009				
Black Rock Canal	CSO 010				
Niagara River	CSO 011				
Black Rock Canal	CSO 012				
Black Rock Canal	CSO 061				
Black Rock Canal	CSO 062				
Scajaquada Creek	CSO 057				
Scajaquada Creek	CSO 058				
Scajaquada Creek	CSO 059				
Scajaquada Creek	CSO 053 by way of SPPs along the Scajaquada Tunnel Interceptor and Scajaquada Drain:	East - West Tunnel parallel to Scajaquada Drain	\$ 209,002,199	\$ 7,162,369	\$ 216,164,568
	SPP 156				
	SPP 157				
	SPP 163				
	SPP 166				
	SPP 170b				
	SPP 178				
	SPP 200a&b				
	SPP 201				
	SPP 202				
	SPP 203				
	SPP 204				
	SPP 229a				
	SPP 335				
	SPP 336a				
	SPP 336b				
	SPP 337				
	SPP 338				
	SPP 339				
	SPP 340				
	SPP 341a&b				
	SPP 345				
Black Rock Canal	CSO 013	Satellite Storage Facility located at LaSalle Park	\$ 5,430,812	\$ 355,349	\$ 5,786,161
	CSO 063	(to be diverted to Swen Trunk or South Interceptor)			
Cazenovia Creek - C	CSO 030	Tunnel from Cazenovia Park, along Cazenovia Creek, to interceptor upstream of the South Buffalo Pump Station	\$ 40,053,906	\$ 6,737,504	\$ 46,791,410
Cazenovia Creek - C	CSO 031				
Cazenovia Creek - B	CSO 035				
Cazenovia Creek - C	CSO 036				
Cazenovia Creek - C	CSO 037				
Cazenovia Creek - C	CSO 038				
Cazenovia Creek - C	CSO 039				
Cazenovia Creek - C	CSO 040				
Cazenovia Creek - C	CSO 041				
Cazenovia Creek - C	CSO 042				
Cazenovia Creek - C	CSO 043				
Cazenovia Creek - C	CSO 044				
Cazenovia Creek - C	CSO 045				
Cazenovia Creek - C	CSO 046				
Cazenovia Creek - C	CSO 047				
Cazenovia Creek - C	CSO 048				
Cazenovia Creek - C	CSO 049				
Cornellus Creek	CSO 055	Satellite Storage Facility located at Riverside High School	\$ 160,272,556	\$ 4,264,186	\$ 164,536,742
Scajaquada Creek	CSO 056	Satellite Storage Facility located at Delaware Park	\$ 5,066,870	\$ 355,349	\$ 5,422,219
Scajaquada Creek	CSO 060				
Niagara River	CSO 054	Sewer Separation	\$ 1,367,188	NA	\$ 1,367,188

Note:

Alternative 3B includes all modifications listed for Alternative 1. Table 9-9 lists only additional modifications in Alternative 3B that are not included in Alternative 1.

Alternative 3B 12-Month Sub-Total \$ 649,819,123
 Alternative 1 Total Cost \$ 164,583,400

Alternative 3B 12-Month Total Cost \$ 814,402,523

Alternative 3B Costs by Receiving Water Body:	Capital	O&M	Total
Black Rock Canal	\$ 309,835,037	\$ 11,030,407	\$ 320,865,444
Buffalo River	\$ 87,237,792	\$	\$ 87,237,792
Cazenovia Creek - B	\$ 9,868,606	\$ 1,055,234	\$ 10,923,840
Cazenovia Creek - C	\$ 65,785,509	\$ 5,682,269	\$ 71,467,778
Cornellus Creek	\$ 169,072,556	\$ 4,264,186	\$ 173,336,742
Erie Basin	\$ 2,751,200	\$	\$ 2,751,200
Niagara River	\$ 45,995,900	\$ 1,616,871	\$ 47,612,771
Scajaquada Creek	\$ 97,129,905	\$ 3,077,049	\$ 100,206,954

Table 9-10 Alternative 4A Summary

Receiving Water Body	CSOs Controlled	Description
Black Rock Canal	CSO 003	Enhanced High-Rate Clarification Facility at Rich Marina
Black Rock Canal	CSO 004	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency
Black Rock Canal	CSO 006	Enhanced High-Rate Clarification Facility at City of Buffalo Lot City of Buffalo Lot Knight, Anthony / City of Buffalo
Black Rock Canal	CSO 010	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency
Black Rock Canal	CSO 012	Enhanced High-Rate Clarification Facility at Ciminelli International Services LLC
Black Rock Canal	CSOs 008, 061	Enhanced High-Rate Clarification Facilities Brown Cameron / Erie Niagara Public Benefit Funding Corporation
Black Rock Canal	CSOs 013, 063	Enhanced High-Rate Clarification Facility at City of Buffalo Water Department
Black Rock Canal	CSOs 003, 004	Partial Separation
Black Rock Canal	CSOs 005, 006	
Black Rock Canal	CSOs 007, 009	
Black Rock Canal	CSOs 010, 012	
Black Rock Canal	CSOs 062, 063	
Black Rock Canal	CSOs 008, 061	
Buffalo River	CSO 017	Enhanced High-Rate Clarification Facility at City of Buffalo Lot
Buffalo River	CSO 017	Partial Separation
Buffalo River	CSO 022	Enhanced High-Rate Clarification Facility at Buffalo Motor and Generator Corporation
Buffalo River	CSO 025	Enhanced High-Rate Clarification Facility at Killian-Black Trucking, Inc.
Buffalo River	CSO 026	Enhanced High-Rate Clarification Facility at Erie County Lot
Buffalo River	CSO 027	Enhanced High-Rate Clarification Facility at P.V.S Chemicals, Inc.
Buffalo River	CSOs 028, 029	Enhanced High-Rate Clarification Facility at 1346 South Park Associates LLC

Table 9-10 Alternative 4A Summary

Receiving Water Body	CSOs Controlled	Description
Buffalo River	CSO 033	Enhanced High-Rate Clarification Facility at City of Buffalo Lot
Buffalo River	CSO 034	Enhanced High-Rate Clarification Facility at City of Buffalo, Parks and Recreation Lot
Buffalo River	CSO 050	Enhanced High-Rate Clarification Facility at Derigo Sales, Inc. / Vacant Lot
Buffalo River	CSO 051	Enhanced High-Rate Clarification Facility at Buffalo Municipal Housing Authority Lot
Buffalo River	CSO 052	Enhanced High-Rate Clarification Facility at South Ogden Estate, Ltd. / Vacant Lot
Buffalo River	CSO 064	Enhanced High-Rate Clarification Facility at City of Buffalo, Parks and Recreation Lot
Buffalo River	CSO 066	Enhanced High-Rate Clarification Facility at City of Buffalo Lot
Cazenovia Creek - B	CSO 035	Enhanced High-Rate Clarification Facility at Cazenovia Park
Cazenovia Creek - C	CSOs 037, 039	Enhanced High-Rate Clarification Facility at Cazenovia Park
Cazenovia Creek - C	CSO 044	Enhanced High-Rate Clarification Facility at South Side Catholic Club, Inc.
Cazenovia Creek - C	CSOs 046, 049	Enhanced High-Rate Clarification Facility at Vacant Lot
Cazenovia Creek - C	CSOs 047, 048	Enhanced High-Rate Clarification Facility at City of Buffalo Lot
Cazenovia Creek - C	CSOs 047, 048	Partial Separation
Cornelius Creek	CSO 055	Enhanced High-Rate Clarification Facility at City of Buffalo Lot
Cornelius Creek	CSO 055	Partial Separation
Erie Basin	CSO 014	Enhanced High-Rate Clarification Facility at City of Buffalo Lot
Erie Basin	CSOs 015, 016	Enhanced High-Rate Clarification Facility at City of Buffalo Lot
Erie Basin	CSOs 014, 015, 016	Partial Separation

Table 9-10 Alternative 4A Summary

Receiving Water Body	CSOs Controlled	Description
Niagara River	CSO 011	Enhanced High-Rate Clarification Facility at Broderick Park
Niagara River	CSO 054	Enhanced High-Rate Clarification Facility at Riverside Park
Niagara River	CSO 054	Partial Separation
Scajaquada Creek	CSO 053 controlled at tributary SPPs	Enhanced High-Rate Clarification Facilities at
		Canisius College
		City of Buffalo Lot
		City of Buffalo Lot / Boys Club of Buffalo
		/Tabernacle Baptist Church
		B T Realty Corporation
		Nevins Thomas / Vacant Lot
		American Axle and Manufacturing Corporation
		Niagara Mohawk Power Corporation
		Schilier Park
		Schilier Park
Scajaquada Creek	CSO 056	Enhanced High-Rate Clarification Facility at Delaware Park
Scajaquada Creek	CSOs 057, 058	Enhanced High-Rate Clarification Facility at
		Fedco Automotive
Scajaquada Creek	CSO 059	Enhanced High-Rate Clarification Facility at Erie County
		Industrial Development Agency
Scajaquada Creek	CSO 060	Enhanced High-Rate Clarification Facility at
		City of Buffalo Lot
Scajaquada Creek	CSOs 053, 056	Partial Separation
	CSOs 057, 058	

Note:

Alternative 4A includes all modifications listed for Alternative 1. Table 9-10 lists only additional modifications in Alternative 4A that are not included in Alternative 1.

Table 9-11 Alternative 4A Cost Estimate Summary

Receiving Water Body	CSOs Controlled	Description	1-Month Cost Estimate		
			Capital	O&M	Total
Black Rock Canal	CSO 003	Enhanced High-Rate Clarification Facility at Rich Marina	\$ -	\$ -	\$ -
Black Rock Canal	CSO 004	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency	\$ 9,456,016	\$ 1,425,907	\$ 10,881,923
Black Rock Canal	CSO 006	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 7,909,792	\$ 1,006,733	\$ 8,916,525
		City of Buffalo Lot	\$ 6,265,625	\$ 1,139,292	\$ 7,404,917
		Knight, Anthony / City of Buffalo	\$ -	\$ -	\$ -
Black Rock Canal	CSO 010	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency	\$ 3,259,713	\$ 863,426	\$ 4,123,139
Black Rock Canal	CSO 012	Enhanced High-Rate Clarification Facility at Ciminelli International Services LLC	\$ 20,022,588	\$ 3,933,783	\$ 23,956,371
Black Rock Canal	CSOs 008, 061	Enhanced High-Rate Clarification Facilities Brown Cameron / Erie Niagara Public Benefit Funding Corporation	\$ 1,474,316	\$ 703,638	\$ 2,177,954
Black Rock Canal	CSOs 013, 063	Enhanced High-Rate Clarification Facility at City of Buffalo Water Department	\$ -	\$ -	\$ -
Black Rock Canal	CSOs 003, 004	Partial Separation	\$ 13,125,000	NA	\$ 13,125,000
Black Rock Canal	CSOs 005, 006				
Black Rock Canal	CSOs 007, 009				
Black Rock Canal	CSOs 010, 012				
Black Rock Canal	CSOs 062, 063				
Black Rock Canal	CSOs 008, 061				
Buffalo River	CSO 017	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 6,374,471	\$ 1,139,292	\$ 7,513,763
Buffalo River	CSO 017	Partial Separation	\$ 9,375,000	NA	\$ 9,375,000
Buffalo River	CSO 022	Enhanced High-Rate Clarification Facility at Buffalo Motor and Generator Corporation	\$ -	\$ -	\$ -
Buffalo River	CSO 025	Enhanced High-Rate Clarification Facility at Killian-Black Trucking, Inc.	\$ -	\$ -	\$ -
Buffalo River	CSO 026	Enhanced High-Rate Clarification Facility at Erie County Lot	\$ 5,471,695	\$ 1,006,733	\$ 6,478,428
Buffalo River	CSO 027	Enhanced High-Rate Clarification Facility at P.V.S Chemicals, Inc.	\$ 1,159,496	\$ 647,749	\$ 1,807,245
Buffalo River	CSOs 028, 029	Enhanced High-Rate Clarification Facility at 1346 South Park Associates LLC	\$ 7,292,966	\$ 1,425,907	\$ 8,718,873
Buffalo River	CSO 033	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ -	\$ -	\$ -
Buffalo River	CSO 034	Enhanced High-Rate Clarification Facility at City of Buffalo, Parks and Recreation Lot	\$ -	\$ -	\$ -
Buffalo River	CSO 050	Enhanced High-Rate Clarification Facility at Darigo Sales, Inc. / Vacant Lot	\$ -	\$ -	\$ -
Buffalo River	CSO 051	Enhanced High-Rate Clarification Facility at Buffalo Municipal Housing Authority Lot	\$ -	\$ -	\$ -
Buffalo River	CSO 052	Enhanced High-Rate Clarification Facility at South Ogden Estate, Ltd. / Vacant Lot	\$ -	\$ -	\$ -
Buffalo River	CSO 064	Enhanced High-Rate Clarification Facility at City of Buffalo, Parks and Recreation Lot	\$ 960,455	\$ 647,749	\$ 1,608,204
Buffalo River	CSO 066	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 7,270,944	\$ 1,425,907	\$ 8,696,851
Cazenovia Creek - B	CSO 035	Enhanced High-Rate Clarification Facility at Cazenovia Park	\$ 714,535	\$ 647,749	\$ 1,362,284
Cazenovia Creek - C	CSOs 037, 039	Enhanced High-Rate Clarification Facility at Cazenovia Park	\$ -	\$ -	\$ -
Cazenovia Creek - C	CSO 044	Enhanced High-Rate Clarification Facility at South Side Catholic Club, Inc.	\$ -	\$ -	\$ -
Cazenovia Creek - C	CSOs 046, 049	Enhanced High-Rate Clarification Facility at Vacant Lot	\$ -	\$ -	\$ -
Cazenovia Creek - C	CSOs 047, 048	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 2,058,951	\$ 753,079	\$ 2,812,030
Cazenovia Creek - C	CSOs 047, 048	Partial Separation	\$ 1,835,938	NA	\$ 1,835,938
Cornelius Creek	CSO 055	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 64,613,686	\$ 15,735,133	\$ 80,348,819
Cornelius Creek	CSO 055	Partial Separation	\$ 5,000,000	NA	\$ 5,000,000
Erie Basin	CSO 014	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ -	\$ -	\$ -
Erie Basin	CSOs 015, 016	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 1,730,782	\$ 703,638	\$ 2,434,420
Erie Basin	CSOs 014, 015, 016	Partial Separation	\$ 468,750	NA	\$ 468,750

Table 9-11 Alternative 4A Cost Estimate Summary

Receiving Water Body	CSOs Controlled	Description	1-Month Cost Estimate		
			Capital	O&M	Total
Niagara River	CSO 011	Enhanced High-Rate Clarification Facility at Broderick Park	\$ 7,127,995	\$ 1,425,907	\$ 8,553,902
Niagara River	CSO 054	Enhanced High-Rate Clarification Facility at Riverside Park	\$ 4,021,807	\$ 753,079	\$ 4,774,886
Niagara River	CSO 054	Partial Separation	\$ 2,304,688	NA	\$ 2,304,688
Scajaquada Creek	CSO 053 controlled at tributary SPFs	Enhanced High-Rate Clarification Facilities at			
		Canisius College	\$ 25,498,278	\$ 1,984,805	\$ 27,483,083
		City of Buffalo Lot	\$ -	\$ -	\$ -
		City of Buffalo Lot / Boys Club of Buffalo / Tabernacle Baptist Church	\$ 19,562,500	\$ 3,933,783	\$ 23,496,283
		B T Reilly Corporation	\$ 2,515,625	\$ 805,387	\$ 3,321,012
		Nevins Thomas / Vacant Lot	\$ -	\$ -	\$ -
		American Axle and Manufacturing Corporation	\$ 11,734,375	\$ 1,984,805	\$ 13,719,180
		Niagara Mohawk Power Corporation	\$ 19,562,500	\$ 3,933,783	\$ 23,496,283
		Schiller Park	\$ 19,562,500	\$ 3,933,783	\$ 23,496,283
		Schiller Park	\$ -	\$ -	\$ -
Scajaquada Creek	CSO 056	Enhanced High-Rate Clarification Facility at Delaware Park	\$ -	\$ -	\$ -
Scajaquada Creek	CSOs 057, 058	Enhanced High-Rate Clarification Facility at Fedco Automotive	\$ -	\$ -	\$ -
Scajaquada Creek	CSO 059	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency	\$ -	\$ -	\$ -
Scajaquada Creek	CSO 060	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 856,808	\$ 647,749	\$ 1,504,557
Scajaquada Creek	CSOs 053, 056 CSOs 057, 058	Partial Separation	\$ 585,938	NA	\$ 585,938

Note:

Alternative 4A includes all modifications listed for Alternative 1. Table 9-11 lists only additional modifications in Alternative 4A that are not included in Alternative 1.

Alternative 4A 1-Month Sub-Total \$ 341,782,528
Alternative 1 Total Cost \$ 164,583,400

Alternative 4A 1-Month Total Cost \$ 506,365,928

Alternative 4A Cost by Receiving Water Body:	Capital	O&M	Total
Black Rock Canal	\$ 138,908,233	\$ 19,350,115	\$ 158,258,347
Buffalo River	\$ 125,142,818	\$ 6,293,337	\$ 131,436,155
Cazenovia Creek - B	\$ 4,309,858	\$ 647,749	\$ 4,957,607
Cazenovia Creek - C	\$ 35,899,772	\$ 753,079	\$ 36,652,852
Cornelius Creek	\$ 78,413,666	\$ 15,735,133	\$ 94,148,818
Erie Basin	\$ 4,950,732	\$ 703,638	\$ 5,654,370
Niagara River	\$ 14,641,489	\$ 2,178,986	\$ 16,820,476
Scajaquada Creek	\$ 51,490,541	\$ 6,946,760	\$ 58,437,301

Table 9-11 Alternative 4A Cost Estimate Summary

Receiving Water Body	CSOs Controlled	Description	2-Month Cost Estimate		
			Capital	O&M	Total
Black Rock Canal	CSO 003	Enhanced High-Rate Clarification Facility at Rich Marina	\$ -	\$ -	\$ -
Black Rock Canal	CSO 004	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency	\$ 41,534,141	\$ 7,867,566	\$ 49,401,707
Black Rock Canal	CSO 008	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 9,472,292	\$ 1,139,292	\$ 10,611,584
		City of Buffalo Lot	\$ 11,734,375	\$ 1,984,805	\$ 13,719,180
		Knight, Anthony / City of Buffalo	\$ 1,890,625	\$ 753,079	\$ 2,643,704
Black Rock Canal	CSO 010	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency	\$ 4,822,213	\$ 1,006,733	\$ 5,828,946
Black Rock Canal	CSO 012	Enhanced High-Rate Clarification Facility at Cimminelli International Services LLC	\$ 20,022,588	\$ 3,933,783	\$ 23,956,371
Black Rock Canal	CSOs 008, 061	Enhanced High-Rate Clarification Facilities Brown Cameron / Erie Niagara Public Benefit Funding Corporation	\$ 11,943,066	\$ 1,984,805	\$ 13,927,871
Black Rock Canal	CSOs 013, 063	Enhanced High-Rate Clarification Facility at City of Buffalo Water Department	\$ -	\$ -	\$ -
Black Rock Canal	CSOs 003, 004	Partial Separation	\$ 13,125,000	NA	\$ 13,125,000
Black Rock Canal	CSOs 005, 006				
Black Rock Canal	CSOs 007, 009				
Black Rock Canal	CSOs 010, 012				
Black Rock Canal	CSOs 062, 063				
Black Rock Canal	CSOs 008, 061				
Buffalo River	CSO 017	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 9,499,471	\$ 1,691,025	\$ 11,190,496
Buffalo River	CSO 017	Partial Separation	\$ 9,375,000	NA	\$ 9,375,000
Buffalo River	CSO 022	Enhanced High-Rate Clarification Facility at Buffalo Motor and Generator Corporation	\$ 1,701,149	\$ 647,749	\$ 2,348,898
Buffalo River	CSO 025	Enhanced High-Rate Clarification Facility at Killian-Black Trucking, Inc.	\$ -	\$ -	\$ -
Buffalo River	CSO 026	Enhanced High-Rate Clarification Facility at Erie County Lot	\$ 20,331,070	\$ 3,933,783	\$ 24,264,853
Buffalo River	CSO 027	Enhanced High-Rate Clarification Facility at P.V.S Chemicals, Inc.	\$ 1,159,496	\$ 647,749	\$ 1,807,245
Buffalo River	CSOs 028, 029	Enhanced High-Rate Clarification Facility at 1346 South Park Associates LLC	\$ 11,980,468	\$ 1,984,805	\$ 13,965,271
Buffalo River	CSO 033	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 1,122,913	\$ 647,749	\$ 1,770,662
Buffalo River	CSO 034	Enhanced High-Rate Clarification Facility at City of Buffalo, Parks and Recreation Lot	\$ -	\$ -	\$ -
Buffalo River	CSO 050	Enhanced High-Rate Clarification Facility at Derigo Sales, Inc. / Vacant Lot	\$ -	\$ -	\$ -
Buffalo River	CSO 051	Enhanced High-Rate Clarification Facility at Buffalo Municipal Housing Authority Lot	\$ -	\$ -	\$ -
Buffalo River	CSO 052	Enhanced High-Rate Clarification Facility at South Ogden Estate, Ltd. / Vacant Lot	\$ -	\$ -	\$ -
Buffalo River	CSO 064	Enhanced High-Rate Clarification Facility at City of Buffalo, Parks and Recreation Lot	\$ 1,585,455	\$ 703,638	\$ 2,289,093
Buffalo River	CSO 066	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 11,958,444	\$ 1,984,805	\$ 13,943,249
Cazenovia Creek - B	CSO 035	Enhanced High-Rate Clarification Facility at Cazenovia Park	\$ 1,339,536	\$ 703,638	\$ 2,043,173
Cazenovia Creek - C	CSOs 037, 039	Enhanced High-Rate Clarification Facility at Cazenovia Park	\$ 4,367,184	\$ 805,387	\$ 5,172,571
Cazenovia Creek - C	CSO 044	Enhanced High-Rate Clarification Facility at South Side Catholic Club, Inc.	\$ -	\$ -	\$ -
Cazenovia Creek - C	CSOs 046, 049	Enhanced High-Rate Clarification Facility at Vacant Lot	\$ -	\$ -	\$ -
Cazenovia Creek - C	CSOs 047, 048	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 3,308,951	\$ 863,426	\$ 4,172,377
Cazenovia Creek - C	CSOs 047, 048	Partial Separation	\$ 1,835,938	NA	\$ 1,835,938
Cornelius Creek	CSO 055	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 80,238,686	\$ 19,668,916	\$ 99,907,602
Cornelius Creek	CSO 055	Partial Separation	\$ 5,000,000	NA	\$ 5,000,000
Erie Basin	CSO 014	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ -	\$ -	\$ -
Erie Basin	CSOs 015, 016	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 3,605,782	\$ 863,426	\$ 4,469,208
Erie Basin	CSOs 014, 015, 016	Partial Separation	\$ 468,750	NA	\$ 468,750

Table 9-11 Alternative 4A Cost Estimate Summary

Receiving Water Body	CSOs Controlled	Description	2-Month Cost Estimate		
			Capital	O&M	Total
Niagara River	CSO 011	Enhanced High-Rate Clarification Facility at Broderick Park	\$ 19,643,820	\$ 3,933,783	\$ 23,577,403
Niagara River	CSO 054	Enhanced High-Rate Clarification Facility at Riverside Park	\$ 4,021,807	\$ 753,079	\$ 4,774,886
Niagara River	CSO 054	Partial Separation	\$ 2,304,688	NA	\$ 2,304,688
Scjaquada Creek	CSO 053 controlled at tributary SPPs	Enhanced High-Rate Clarification Facilities at			
		Cantius College	\$ 25,498,276	\$ 1,984,805	\$ 27,483,083
		City of Buffalo Lot	\$ 640,625	\$ 647,749	\$ 1,288,374
		City of Buffalo Lot / Boys Club of Buffalo	\$ 29,359,376	\$ 5,900,675	\$ 35,260,050
		/Tabernacle Baptist Church			
		B T Realty Corporation	\$ 4,703,125	\$ 1,006,793	\$ 5,709,858
		Nevins Thomas / Vacant Lot	\$ 1,265,625	\$ 703,638	\$ 1,969,263
		American Axe and Manufacturing Corporation	\$ 19,562,500	\$ 3,933,783	\$ 23,496,283
		Niagara Mohawk Power Corporation	\$ 19,562,500	\$ 3,933,783	\$ 23,496,283
		Schiller Park	\$ 19,562,500	\$ 3,933,783	\$ 23,496,283
		Schiller Park	\$ 640,625	\$ 647,749	\$ 1,288,374
Scjaquada Creek	CSO 056	Enhanced High-Rate Clarification Facility at Delaware Park	\$ -	\$ -	\$ -
Scjaquada Creek	CSOs 057, 058	Enhanced High-Rate Clarification Facility at Fedco Automotive	\$ 756,774	\$ 647,749	\$ 1,404,523
Scjaquada Creek	CSO 059	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency	\$ -	\$ -	\$ -
Scjaquada Creek	CSO 060	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 1,481,808	\$ 703,638	\$ 2,185,446
Scjaquada Creek	CSOs 053, 056 CSOs 057, 058	Partial Separation	\$ 585,938	NA	\$ 585,938

Note:

Alternative 4A includes all modifications listed for Alternative 1. Table 9-11 lists only additional modifications in Alternative 4A that are not included in Alternative 1.

Alternative 4A 2-Month Sub-Total \$ 515,559,483
Alternative 1 Total Cost \$ 164,593,400

Alternative 4A 2-Month Total Cost \$ 680,142,883

Alternative 4A Cost by Receiving Water Body:

	Capital	O&M	Total
Black Rock Canal	\$ 205,802,295	\$ 32,739,538	\$ 238,541,833
Buffalo River	\$ 155,951,256	\$ 12,241,303	\$ 168,192,558
Cazenovia Creek - B	\$ 4,934,859	\$ 703,638	\$ 5,638,497
Cazenovia Creek - C	\$ 41,516,956	\$ 1,668,813	\$ 43,185,769
Comellus Creek	\$ 94,038,686	\$ 19,668,916	\$ 113,707,602
Erie Basin	\$ 6,825,732	\$ 863,426	\$ 7,689,158
Niagara River	\$ 27,157,114	\$ 4,686,863	\$ 31,843,977
Scjaquada Creek	\$ 61,368,877	\$ 9,974,612	\$ 71,343,490

Table 9-11 Alternative 4A Cost Estimate Summary

Receiving Water Body	CSOs Controlled	Description	3-Month Cost Estimate		
			Capital	O&M	Total
Black Rock Canal	CSO 003	Enhanced High-Rate Clarification Facility at Rich Marina	\$ -	\$ -	\$ -
Black Rock Canal	CSO 004	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency	\$ 41,534,141	\$ 7,867,566	\$ 49,401,707
Black Rock Canal	CSO 008	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 10,253,542	\$ 1,425,907	\$ 11,679,449
		City of Buffalo Lot	\$ 11,734,375	\$ 1,984,806	\$ 13,719,180
		Knight, Anthony / City of Buffalo	\$ 4,703,125	\$ 1,006,733	\$ 5,709,858
Black Rock Canal	CSO 010	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency	\$ 6,384,713	\$ 1,139,292	\$ 7,524,005
Black Rock Canal	CSO 012	Enhanced High-Rate Clarification Facility at Ciminelli International Services LLC	\$ 29,819,463	\$ 5,900,675	\$ 35,720,138
Black Rock Canal	CSOs 008, 061	Enhanced High-Rate Clarification Facilities Brown Cameron / Erie Niagara Public Benefit Funding Corporation	\$ 19,771,191	\$ 3,933,783	\$ 23,704,974
Black Rock Canal	CSOs 013, 063	Enhanced High-Rate Clarification Facility at City of Buffalo Water Department	\$ -	\$ -	\$ -
Black Rock Canal	CSOs 003, 004	Partial Separation	\$ 13,125,000	NA	\$ 13,125,000
Black Rock Canal	CSOs 005, 006				
Black Rock Canal	CSOs 007, 009				
Black Rock Canal	CSOs 010, 012				
Black Rock Canal	CSOs 062, 063				
Black Rock Canal	CSOs 008, 061				
Buffalo River	CSO 017	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 19,671,346	\$ 3,933,783	\$ 23,605,129
Buffalo River	CSO 017	Partial Separation	\$ 9,375,000	NA	\$ 9,375,000
Buffalo River	CSO 022	Enhanced High-Rate Clarification Facility at Buffalo Motor and Generator Corporation	\$ 1,701,149	\$ 647,749	\$ 2,348,898
Buffalo River	CSO 025	Enhanced High-Rate Clarification Facility at Killian-Black Trucking, Inc.	\$ -	\$ -	\$ -
Buffalo River	CSO 026	Enhanced High-Rate Clarification Facility at Erie County Lot	\$ 20,331,070	\$ 3,933,783	\$ 24,264,853
Buffalo River	CSO 027	Enhanced High-Rate Clarification Facility at P.V.S Chemicals, Inc.	\$ 1,159,496	\$ 647,749	\$ 1,807,245
Buffalo River	CSOs 028, 029	Enhanced High-Rate Clarification Facility at 1348 South Park Associates LLC	\$ 19,808,591	\$ 3,933,783	\$ 23,742,374
Buffalo River	CSO 033	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 5,185,413	\$ 1,006,733	\$ 6,192,146
Buffalo River	CSO 034	Enhanced High-Rate Clarification Facility at City of Buffalo, Parks and Recreation Lot	\$ -	\$ -	\$ -
Buffalo River	CSO 050	Enhanced High-Rate Clarification Facility at Derigo Sales, Inc. / Vacant Lot	\$ 729,049	\$ 647,749	\$ 1,376,798
Buffalo River	CSO 051	Enhanced High-Rate Clarification Facility at Buffalo Municipal Housing Authority Lot	\$ -	\$ -	\$ -
Buffalo River	CSO 052	Enhanced High-Rate Clarification Facility at South Ogden Estate, Ltd. / Vacant Lot	\$ -	\$ -	\$ -
Buffalo River	CSO 064	Enhanced High-Rate Clarification Facility at City of Buffalo, Parks and Recreation Lot	\$ 2,210,455	\$ 753,079	\$ 2,963,534
Buffalo River	CSO 068	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 1,958,444	\$ 1,984,805	\$ 3,943,249
Cazenovia Creek - B	CSO 035	Enhanced High-Rate Clarification Facility at Cazenovia Park	\$ 1,339,535	\$ 703,638	\$ 2,043,173
Cazenovia Creek - C	CSOs 037, 039	Enhanced High-Rate Clarification Facility at Cazenovia Park	\$ 8,117,184	\$ 1,139,292	\$ 9,256,476
Cazenovia Creek - C	CSO 044	Enhanced High-Rate Clarification Facility at South Side Catholic Club, Inc.	\$ -	\$ -	\$ -
Cazenovia Creek - C	CSOs 046, 049	Enhanced High-Rate Clarification Facility at Vacant Lot	\$ -	\$ -	\$ -
Cazenovia Creek - C	CSOs 047, 048	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 4,871,451	\$ 1,006,733	\$ 5,878,184
Cazenovia Creek - C	CSOs 047, 048	Partial Separation	\$ 1,835,938	NA	\$ 1,835,938
Cornelius Creek	CSO 055	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 95,863,686	\$ 23,602,699	\$ 119,466,385
Cornelius Creek	CSO 055	Partial Separation	\$ 5,000,000	NA	\$ 5,000,000
Erie Basin	CSO 014	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ -	\$ -	\$ -
Erie Basin	CSOs 015, 016	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 5,168,282	\$ 1,006,733	\$ 6,175,015
Erie Basin	CSOs 014, 015, 016	Partial Separation	\$ 468,750	NA	\$ 468,750

Table 9-11 Alternative 4A Cost Estimate Summary

Receiving Water Body	CSOs Controlled	Description	3-Month Cost Estimate		
			Capital	O&M	Total
Niagara River	CSO 011	Enhanced High-Rate Clarification Facility at Broderick Park	\$ 19,643,620	\$ 3,933,783	\$ 23,577,403
Niagara River	CSO 054	Enhanced High-Rate Clarification Facility at Riverside Park	\$ 4,646,807	\$ 805,397	\$ 5,452,194
Niagara River	CSO 054	Partial Separation	\$ 2,304,688	NA	\$ 2,304,688
Scjaquada Creek	CSO 053 controlled at tributary SPPs	Enhanced High-Rate Clarification Facilities at			
		Cantius College	\$ 33,325,403	\$ 3,933,783	\$ 37,259,186
		City of Buffalo Lot	\$ 640,625	\$ 647,749	\$ 1,288,374
		City of Buffalo Lot / Boys Club of Buffalo	\$ 39,125,000	\$ 7,867,566	\$ 46,992,566
		/Tabernacle Baptist Church			
		B T Realty Corporation	\$ 7,046,875	\$ 1,425,907	\$ 8,472,782
		Nevins Thomas / Vacant Lot	\$ 3,140,625	\$ 863,426	\$ 4,004,051
		American Axe and Manufacturing Corporation	\$ 19,562,500	\$ 3,933,783	\$ 23,496,283
		Niagara Mohawk Power Corporation	\$ 29,359,375	\$ 5,900,675	\$ 35,260,050
		Schiller Park	\$ 19,562,500	\$ 3,933,783	\$ 23,496,283
		Schiller Park	\$ 640,625	\$ 647,749	\$ 1,288,374
Scjaquada Creek	CSO 056	Enhanced High-Rate Clarification Facility at Delaware Park	\$ -	\$ -	\$ -
Scjaquada Creek	CSOs 057, 058	Enhanced High-Rate Clarification Facility at:	\$ 756,774	\$ 647,749	\$ 1,404,523
		Fedco Automotive			
Scjaquada Creek	CSO 059	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency	\$ 675,954	\$ 647,749	\$ 1,323,703
Scjaquada Creek	CSO 060	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 1,481,808	\$ 703,638	\$ 2,185,446
Scjaquada Creek	CSOs 053, 056 CSOs 057, 058	Partial Separation	\$ 585,938	NA	\$ 585,938

Note:
 Alternative 4A includes all modifications listed for Alternative 1. Table 9-11 lists only additional modifications in Alternative 4A that are not included in Alternative 1.

Alternative 4A 3-Month Sub-Total \$ 638,720,301
 Alternative 1 Total Cost \$ 164,583,400

Alternative 4A 3-Month Total Cost \$ 803,303,701

Alternative 4A Cost by Receiving Water Body:	Capital	O&M	Total
Black Rock Canal	\$ 248,181,358	\$ 41,394,503	\$ 289,575,861
Buffalo River	\$ 179,367,905	\$ 17,489,213	\$ 196,857,118
Cazenovia Creek - B	\$ 4,934,859	\$ 703,638	\$ 5,638,497
Cazenovia Creek - C	\$ 46,829,458	\$ 2,146,026	\$ 48,975,482
Cornellus Creek	\$ 109,663,686	\$ 23,602,699	\$ 133,266,385
Erie Basin	\$ 8,398,232	\$ 1,006,733	\$ 9,404,965
Niagara River	\$ 27,782,114	\$ 4,739,170	\$ 32,521,284
Scjaquada Creek	\$ 74,056,394	\$ 13,077,816	\$ 87,134,209

Table 9-11 Alternative 4A Cost Estimate Summary

Receiving Water Body	CSOs Controlled	Description	4-Month Cost Estimate		
			Capital	O&M	Total
Black Rock Canal	CSO 003	Enhanced High-Rate Clarification Facility at Rich Marina	\$ -	\$ -	\$ -
Black Rock Canal	CSO 004	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency	\$ 61,096,641	\$ 11,801,350	\$ 72,897,991
Black Rock Canal	CSO 006	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 10,253,542	\$ 1,425,907	\$ 11,679,449
		City of Buffalo Lot	\$ 11,734,375	\$ 1,984,805	\$ 13,719,180
		Knight, Anthony / City of Buffalo	\$ 7,046,875	\$ 1,425,907	\$ 8,472,782
Black Rock Canal	CSO 010	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency	\$ 6,384,713	\$ 1,139,292	\$ 7,524,005
Black Rock Canal	CSO 012	Enhanced High-Rate Clarification Facility at Ciminelli International Services LLC	\$ 29,819,463	\$ 5,900,675	\$ 35,720,138
Black Rock Canal	CSOs 008, 061	Enhanced High-Rate Clarification Facilities Brown Cameron / Erie Niagara Public Benefit Funding Corporation	\$ 19,771,191	\$ 3,933,783	\$ 23,704,974
Black Rock Canal	CSOs 013, 063	Enhanced High-Rate Clarification Facility at City of Buffalo Water Department	\$ 6,701,294	\$ 647,749	\$ 7,349,043
Black Rock Canal	CSOs 003, 004	Partial Separation	\$ 13,125,000	NA	\$ 13,125,000
Black Rock Canal	CSOs 005, 006				
Black Rock Canal	CSOs 007, 009				
Black Rock Canal	CSOs 010, 012				
Black Rock Canal	CSOs 062, 063				
Black Rock Canal	CSOs 008, 061				
Buffalo River	CSO 017	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 19,671,346	\$ 3,933,783	\$ 23,605,129
Buffalo River	CSO 017	Partial Separation	\$ 9,375,000	NA	\$ 9,375,000
Buffalo River	CSO 022	Enhanced High-Rate Clarification Facility at Buffalo Motor and Generator Corporation	\$ 1,701,149	\$ 647,749	\$ 2,348,898
Buffalo River	CSO 025	Enhanced High-Rate Clarification Facility at Killian-Black Trucking, Inc.	\$ -	\$ -	\$ -
Buffalo River	CSO 026	Enhanced High-Rate Clarification Facility at Erie County Lot	\$ 30,127,945	\$ 5,900,675	\$ 36,028,620
Buffalo River	CSO 027	Enhanced High-Rate Clarification Facility at P.V.S Chemicals, Inc.	\$ 1,169,496	\$ 647,749	\$ 1,817,245
Buffalo River	CSOs 028, 029	Enhanced High-Rate Clarification Facility at 1346 South Park Associates LLC	\$ 19,808,591	\$ 3,933,783	\$ 23,742,374
Buffalo River	CSO 033	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 7,529,163	\$ 1,425,907	\$ 8,955,070
Buffalo River	CSO 034	Enhanced High-Rate Clarification Facility at City of Buffalo, Parks and Recreation Lot	\$ -	\$ -	\$ -
Buffalo River	CSO 050	Enhanced High-Rate Clarification Facility at Derigo Sales, Inc. / Vacant Lot	\$ 729,049	\$ 647,749	\$ 1,376,798
Buffalo River	CSO 051	Enhanced High-Rate Clarification Facility at Buffalo Municipal Housing Authority Lot	\$ -	\$ -	\$ -
Buffalo River	CSO 052	Enhanced High-Rate Clarification Facility at South Ogden Estate, Ltd. / Vacant Lot	\$ -	\$ -	\$ -
Buffalo River	CSO 064	Enhanced High-Rate Clarification Facility at City of Buffalo, Parks and Recreation Lot	\$ 2,835,455	\$ 805,387	\$ 3,640,842
Buffalo River	CSO 066	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 11,958,444	\$ 1,984,805	\$ 13,943,249
Cazenovia Creek - B	CSO 035	Enhanced High-Rate Clarification Facility at Cazenovia Park	\$ 1,964,535	\$ 753,079	\$ 2,717,614
Cazenovia Creek - C	CSOs 037, 039	Enhanced High-Rate Clarification Facility at Cazenovia Park	\$ 8,898,434	\$ 1,425,907	\$ 10,324,341
Cazenovia Creek - C	CSO 044	Enhanced High-Rate Clarification Facility at South Side Catholic Club, Inc.	\$ -	\$ -	\$ -
Cazenovia Creek - C	CSOs 046, 049	Enhanced High-Rate Clarification Facility at Vacant Lot	\$ 1,090,178	\$ 647,749	\$ 1,737,927
Cazenovia Creek - C	CSOs 047, 048	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 4,871,451	\$ 1,006,733	\$ 5,878,184
Cazenovia Creek - C	CSOs 047, 048	Partial Separation	\$ 1,835,938	NA	\$ 1,835,938
Cornelius Creek	CSO 055	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 111,519,938	\$ 27,536,482	\$ 139,056,418
Cornelius Creek	CSO 055	Partial Separation	\$ 5,000,000	NA	\$ 5,000,000
Erie Basin	CSO 014	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ -	\$ -	\$ -
Erie Basin	CSOs 015, 016	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 7,512,032	\$ 1,425,907	\$ 8,937,939
Erie Basin	CSOs 014, 015, 016	Partial Separation	\$ 468,750	NA	\$ 468,750

Table 9-11 Alternative 4A Cost Estimate Summary

Receiving Water Body	CSOs Controlled	Description	4-Month Cost Estimate		
			Capital	O&M	Total
Niagara River	CSO 011	Enhanced High-Rate Clarification Facility at Broderick Park	\$ 19,643,620	\$ 3,933,783	\$ 23,577,403
Niagara River	CSO 054	Enhanced High-Rate Clarification Facility at Riverside Park	\$ 5,271,807	\$ 863,426	\$ 6,135,233
Niagara River	CSO 054	Partial Separation	\$ 2,304,688	NA	\$ 2,304,688
Scajaquada Creek	CSO 053 controlled at tributary SPPs	Enhanced High-Rate Clarification Facilities at			
		Canisius College	\$ 33,326,403	\$ 3,933,783	\$ 37,260,186
		City of Buffalo Lot	\$ 640,625	\$ 647,749	\$ 1,288,374
		City of Buffalo Lot / Boys Club of Buffalo	\$ 39,125,000	\$ 7,867,566	\$ 46,992,566
		/Tabernacle Baptist Church			
		B T Reilly Corporation	\$ 7,046,875	\$ 1,425,907	\$ 8,472,782
		Navins Thomas / Vacant Lot	\$ 6,265,625	\$ 1,139,292	\$ 7,404,917
		American Axle and Manufacturing Corporation	\$ 19,562,500	\$ 3,933,783	\$ 23,496,283
		Niagara Mohawk Power Corporation	\$ 29,359,375	\$ 5,900,675	\$ 35,260,050
		Schiller Park	\$ 19,562,500	\$ 3,933,783	\$ 23,496,283
		Schiller Park	\$ 640,625	\$ 647,749	\$ 1,288,374
Scajaquada Creek	CSO 056	Enhanced High-Rate Clarification Facility at Delaware Park	\$ -	\$ -	\$ -
Scajaquada Creek	CSOs 057, 058	Enhanced High-Rate Clarification Facility at Fedco Automotive	\$ 758,774	\$ 647,749	\$ 1,404,523
Scajaquada Creek	CSO 059	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency	\$ 675,954	\$ 647,749	\$ 1,323,703
Scajaquada Creek	CSO 060	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 1,481,808	\$ 703,638	\$ 2,185,446
Scajaquada Creek	CSOs 053, 056	Partial Separation	\$ 585,938	NA	\$ 585,938
	CSOs 057, 058				

Note:

Alternative 4A includes all modifications listed for Alternative 1. Table 9-11 lists only additional modifications in Alternative 4A that are not included in Alternative 1.

Alternative 4A 4-Month Sub-Total \$ 717,449,646

Alternative 1 Total Cost \$ 184,583,400

Alternative 4A 4-Month Total Cost \$ 882,033,046

Alternative 4A Cost by Receiving Water Body:

	Capital	O&M	Total
Black Rock Canal	\$ 278,726,401	\$ 46,506,245	\$ 325,232,647
Buffalo River	\$ 192,133,430	\$ 19,927,586	\$ 212,061,015
Cazenovia Creek - B	\$ 5,559,859	\$ 753,079	\$ 6,312,938
Cazenovia Creek - C	\$ 48,700,885	\$ 3,090,389	\$ 51,791,274
Cornellus Creek	\$ 125,319,936	\$ 27,536,482	\$ 152,856,418
Erie Basin	\$ 10,731,982	\$ 1,425,907	\$ 12,157,889
Niagara River	\$ 28,407,114	\$ 4,797,209	\$ 33,204,323
Scajaquada Creek	\$ 75,243,894	\$ 13,182,645	\$ 88,426,538

Table 9-11 Alternative 4A Cost Estimate Summary

Receiving Water Body	CSOs Controlled	Description	6-Month Cost Estimate		
			Capital	O&M	Total
Black Rock Canal	CSO 003	Enhanced High-Rate Clarification Facility at Rich Marina	\$ -	\$ -	\$ -
Black Rock Canal	CSO 004	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency	\$ 61,096,641	\$ 11,801,360	\$ 72,897,991
Black Rock Canal	CSO 008	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 10,253,542	\$ 1,425,907	\$ 11,679,449
		City of Buffalo Lot	\$ 11,734,375	\$ 1,984,805	\$ 13,719,180
		Knight, Anthony / City of Buffalo	\$ 11,734,375	\$ 1,984,805	\$ 13,719,180
Black Rock Canal	CSO 010	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency	\$ 7,165,963	\$ 1,425,907	\$ 8,591,870
Black Rock Canal	CSO 012	Enhanced High-Rate Clarification Facility at Ciminelli International Services LLC	\$ 39,685,088	\$ 7,867,566	\$ 47,452,654
Black Rock Canal	CSOs 008, 061	Enhanced High-Rate Clarification Facilities Brown Cameron / Erie Niagara Public Benefit Funding Corporation	\$ 29,568,066	\$ 5,900,675	\$ 35,468,741
Black Rock Canal	CSOs 013, 063	Enhanced High-Rate Clarification Facility at City of Buffalo Water Department	\$ 6,701,294	\$ 647,749	\$ 7,349,043
Black Rock Canal	CSOs 003, 004	Partial Separation	\$ 13,125,000	NA	\$ 13,125,000
Black Rock Canal	CSOs 005, 006				
Black Rock Canal	CSOs 007, 009				
Black Rock Canal	CSOs 010, 012				
Black Rock Canal	CSOs 062, 063				
Black Rock Canal	CSOs 008, 061				
Buffalo River	CSO 017	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 39,233,846	\$ 7,867,566	\$ 47,101,412
Buffalo River	CSO 017	Partial Separation	\$ 9,375,000	NA	\$ 9,375,000
Buffalo River	CSO 022	Enhanced High-Rate Clarification Facility at Buffalo Motor and Generator Corporation	\$ 1,701,149	\$ 647,749	\$ 2,348,898
Buffalo River	CSO 025	Enhanced High-Rate Clarification Facility at Killian-Black Trucking, Inc.	\$ 1,380,194	\$ 703,638	\$ 2,083,832
Buffalo River	CSO 026	Enhanced High-Rate Clarification Facility at Erie County Lot	\$ 30,096,696	\$ 5,900,675	\$ 35,997,370
Buffalo River	CSO 027	Enhanced High-Rate Clarification Facility at P.V.S. Chemicals, Inc.	\$ 6,784,496	\$ 1,139,292	\$ 7,923,788
Buffalo River	CSOs 028, 029	Enhanced High-Rate Clarification Facility at 1346 South Park Associates LLC	\$ 19,808,591	\$ 3,933,783	\$ 23,742,374
Buffalo River	CSO 033	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 20,044,786	\$ 3,933,783	\$ 23,978,571
Buffalo River	CSO 034	Enhanced High-Rate Clarification Facility at City of Buffalo, Parks and Recreation Lot	\$ -	\$ -	\$ -
Buffalo River	CSO 050	Enhanced High-Rate Clarification Facility at Derigo Sales, Inc. / Vacant Lot	\$ 1,979,049	\$ 753,079	\$ 2,732,128
Buffalo River	CSO 051	Enhanced High-Rate Clarification Facility at Buffalo Municipal Housing Authority Lot	\$ 1,962,670	\$ 753,079	\$ 2,715,749
Buffalo River	CSO 052	Enhanced High-Rate Clarification Facility at South Ogden Estate, Ltd. / Vacant Lot	\$ 2,216,393	\$ 753,079	\$ 2,969,472
Buffalo River	CSO 064	Enhanced High-Rate Clarification Facility at City of Buffalo, Parks and Recreation Lot	\$ 6,585,455	\$ 1,139,292	\$ 7,724,747
Buffalo River	CSO 066	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 19,786,569	\$ 3,933,783	\$ 23,720,352
Cazenovia Creek - B	CSO 035	Enhanced High-Rate Clarification Facility at Cazenovia Park	\$ 2,589,535	\$ 805,387	\$ 3,394,922
Cazenovia Creek - C	CSOs 037, 039	Enhanced High-Rate Clarification Facility at Cazenovia Park	\$ 13,585,934	\$ 1,984,805	\$ 15,570,739
Cazenovia Creek - C	CSO 044	Enhanced High-Rate Clarification Facility at South Side Catholic Club, Inc.	\$ 930,950	\$ 647,749	\$ 1,578,699
Cazenovia Creek - C	CSOs 046, 049	Enhanced High-Rate Clarification Facility at Vacant Lot	\$ 1,090,178	\$ 647,749	\$ 1,737,927
Cazenovia Creek - C	CSOs 047, 048	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 6,433,951	\$ 1,139,292	\$ 7,573,243
Cazenovia Creek - C	CSOs 047, 048	Partial Separation	\$ 1,835,938	NA	\$ 1,835,938
Cornelius Creek	CSO 055	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 127,176,166	\$ 31,470,266	\$ 158,646,452
Cornelius Creek	CSO 055	Partial Separation	\$ 5,000,000	NA	\$ 5,000,000
Erie Basin	CSO 014	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 2,796,302	\$ 805,387	\$ 3,601,689
Erie Basin	CSOs 015, 016	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 12,199,532	\$ 1,984,805	\$ 14,184,337
Erie Basin	CSOs 014, 015, 016	Partial Separation	\$ 468,750	NA	\$ 468,750

Table 9-11 Alternative 4A Cost Estimate Summary

Receiving Water Body	CSOs Controlled	Description	6-Month Cost Estimate		
			Capital	O&M	Total
Niagara River	CSO 011	Enhanced High-Rate Clarification Facility at Broderick Park	\$ 29,440,495	\$ 5,900,675	\$ 35,341,170
Niagara River	CSO 054	Enhanced High-Rate Clarification Facility at Riverside Park	\$ 5,271,807	\$ 863,428	\$ 6,135,233
Niagara River	CSO 054	Partial Separation	\$ 2,304,688	NA	\$ 2,304,688
Scjaquada Creek	CSO 053 controlled at tributary SPPs	Enhanced High-Rate Clarification Facilities at			
		Canisius College	\$ 43,123,278	\$ 5,900,675	\$ 49,023,953
		City of Buffalo Lot	\$ 1,265,625	\$ 703,638	\$ 1,969,263
		City of Buffalo Lot / Boys Club of Buffalo	\$ 39,125,000	\$ 7,867,566	\$ 46,992,566
		/Tabernacle Baptist Church			
		B T Realty Corporation	\$ 11,734,375	\$ 1,984,805	\$ 13,719,180
		Nevins Thomas / Vacant Lot	\$ 7,046,875	\$ 1,425,907	\$ 8,472,782
		American Axe and Manufacturing Corporation	\$ 29,359,375	\$ 5,900,675	\$ 35,260,050
		Niagara Mohawk Power Corporation	\$ 39,125,000	\$ 7,867,566	\$ 46,992,566
		Schiller Park	\$ 29,359,375	\$ 5,900,675	\$ 35,260,050
		Schiller Park	\$ 1,265,625	\$ 703,638	\$ 1,969,263
Scjaquada Creek	CSO 056	Enhanced High-Rate Clarification Facility at Delaware Park	\$ 789,005	\$ 647,749	\$ 1,436,754
Scjaquada Creek	CSOs 057, 058	Enhanced High-Rate Clarification Facility at Fedco Automotive	\$ 756,774	\$ 647,749	\$ 1,404,523
Scjaquada Creek	CSO 059	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency	\$ 675,954	\$ 647,749	\$ 1,323,703
Scjaquada Creek	CSO 060	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 2,106,808	\$ 753,079	\$ 2,859,887
Scjaquada Creek	CSOs 053, 056	Partial Separation	\$ 585,938	NA	\$ 585,938
	CSOs 057, 058				

Notes:

Alternative 4A includes all modifications listed for Alternative 1. Table 9-11 lists only additional modifications in Alternative 4A that are not included in Alternative 1.

 Alternative 4A 6-Month Sub-Total \$ 921,061,065
 Alternative 1 Total Cost \$ 164,583,400

Alternative 4A 6-Month Total Cost \$ 1,085,644,465
Alternative 4A Cost by Receiving Water Body:

	Capital	O&M	Total
Black Rock Canal	\$ 332,200,151	\$ 56,756,954	\$ 388,957,105
Buffalo River	\$ 248,192,687	\$ 31,458,601	\$ 279,651,488
Cazenovia Creek - B	\$ 6,184,859	\$ 805,387	\$ 6,990,245
Cazenovia Creek - C	\$ 55,881,834	\$ 4,419,596	\$ 60,301,429
Cornelius Creek	\$ 140,976,186	\$ 31,470,266	\$ 172,446,451
Erie Basin	\$ 18,215,784	\$ 2,790,192	\$ 21,005,976
Niagara River	\$ 38,203,989	\$ 6,764,101	\$ 44,968,090
Scjaquada Creek	\$ 94,090,399	\$ 17,233,281	\$ 111,323,680

Table 9-11 Alternative 4A Cost Estimate Summary

Receiving Water Body	CSOs Controlled	Description	12-Month Cost Estimate		
			Capital	O&M	Total
Black Rock Canal	CSO 003	Enhanced High-Rate Clarification Facility at Rich Marina	\$ 950,752	\$ 647,749	\$ 1,598,501
Black Rock Canal	CSO 004	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency	\$ 65,034,141	\$ 15,735,133	\$ 80,769,274
Black Rock Canal	CSO 006	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 14,941,042	\$ 1,984,805	\$ 16,925,847
		City of Buffalo Lot	\$ 19,562,500	\$ 3,933,783	\$ 23,496,283
		Knight, Anthony / City of Buffalo	\$ 39,125,000	\$ 7,867,566	\$ 46,992,566
Black Rock Canal	CSO 010	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency	\$ 7,165,963	\$ 1,425,907	\$ 8,591,870
Black Rock Canal	CSO 012	Enhanced High-Rate Clarification Facility at Ciminelli International Services LLC	\$ 63,085,068	\$ 15,735,133	\$ 78,820,221
Black Rock Canal	CSOs 008, 061	Enhanced High-Rate Clarification Facilities Brown Cameron / Erie Niagara Public Benefit Funding Corporation	\$ 29,568,086	\$ 5,900,675	\$ 35,468,741
Black Rock Canal	CSOs 013, 063	Enhanced High-Rate Clarification Facility at City of Buffalo Water Department	\$ 7,326,294	\$ 703,638	\$ 8,029,932
Black Rock Canal	CSOs 003, 004	Partial Separation	\$ 13,125,000	NA	\$ 13,125,000
Black Rock Canal	CSOs 005, 006				
Black Rock Canal	CSOs 007, 009				
Black Rock Canal	CSOs 010, 012				
Black Rock Canal	CSOs 062, 063				
Black Rock Canal	CSOs 008, 061				
Buffalo River	CSO 017	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 58,796,346	\$ 11,801,350	\$ 70,597,696
Buffalo River	CSO 017	Partial Separation	\$ 9,375,000	NA	\$ 9,375,000
Buffalo River	CSO 022	Enhanced High-Rate Clarification Facility at Buffalo Motor and Generator Corporation	\$ 2,951,149	\$ 753,079	\$ 3,704,228
Buffalo River	CSO 025	Enhanced High-Rate Clarification Facility at Killian-Black Trucking, Inc.	\$ 3,255,194	\$ 863,426	\$ 4,118,620
Buffalo River	CSO 026	Enhanced High-Rate Clarification Facility at Erie County Lot	\$ 59,456,070	\$ 11,801,350	\$ 71,257,420
Buffalo River	CSO 027	Enhanced High-Rate Clarification Facility at P.V.S Chemicals, Inc.	\$ 29,878,246	\$ 5,900,675	\$ 35,778,921
Buffalo River	CSOs 028, 029	Enhanced High-Rate Clarification Facility at 1346 South Park Associates LLC	\$ 39,371,091	\$ 7,867,566	\$ 47,238,657
Buffalo River	CSO 033	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 29,841,663	\$ 5,900,675	\$ 35,742,338
Buffalo River	CSO 034	Enhanced High-Rate Clarification Facility at City of Buffalo, Parks and Recreation Lot	\$ 896,730	\$ 647,749	\$ 1,544,479
Buffalo River	CSO 050	Enhanced High-Rate Clarification Facility at Derigo Sales, Inc. / Vacant Lot	\$ 4,791,549	\$ 1,006,733	\$ 5,798,282
Buffalo River	CSO 051	Enhanced High-Rate Clarification Facility at Buffalo Municipal Housing Authority Lot	\$ 2,587,670	\$ 805,387	\$ 3,393,057
Buffalo River	CSO 052	Enhanced High-Rate Clarification Facility at South Ogden Estate, Ltd. / Vacant Lot	\$ 5,028,893	\$ 1,006,733	\$ 6,035,626
Buffalo River	CSO 064	Enhanced High-Rate Clarification Facility at City of Buffalo, Parks and Recreation Lot	\$ 12,054,205	\$ 1,984,805	\$ 14,039,010
Buffalo River	CSO 066	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 19,786,569	\$ 3,933,783	\$ 23,720,352
Cazenovia Creek - B	CSO 035	Enhanced High-Rate Clarification Facility at Cazenovia Park	\$ 4,777,035	\$ 1,006,733	\$ 5,783,768
Cazenovia Creek - C	CSOs 037, 039	Enhanced High-Rate Clarification Facility at Cazenovia Park	\$ 21,414,059	\$ 3,933,783	\$ 25,347,842
Cazenovia Creek - C	CSO 044	Enhanced High-Rate Clarification Facility at South Side Catholic Club, Inc.	\$ 4,993,450	\$ 1,006,733	\$ 6,000,183
Cazenovia Creek - C	CSOs 046, 049	Enhanced High-Rate Clarification Facility at Vacant Lot	\$ 1,090,178	\$ 647,749	\$ 1,737,927
Cazenovia Creek - C	CSOs 047, 048	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 7,215,201	\$ 1,425,907	\$ 8,641,108
Cazenovia Creek - C	CSOs 047, 048	Partial Separation	\$ 1,835,938	NA	\$ 1,835,938
Cornelius Creek	CSO 055	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 174,113,686	\$ 43,271,615	\$ 217,385,301
Cornelius Creek	CSO 055	Partial Separation	\$ 5,000,000	NA	\$ 5,000,000
Erie Basin	CSO 014	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 19,843,177	\$ 3,933,783	\$ 23,776,960
Erie Basin	CSOs 015, 016	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 20,027,657	\$ 3,933,783	\$ 23,961,440
Erie Basin	CSOs 014, 015, 016	Partial Separation	\$ 468,750	NA	\$ 468,750



THE WATER DIVISION OF ARCADIS

BUFFALO SEWER AUTHORITY
Stage 3: Long-Term Control Plan

Table 9-11 Alternative 4A Cost Estimate Summary

Receiving Water Body	CSOs Controlled	Description	12-Month Cost Estimate		
			Capital	O&M	Total
Niagara River	CSO 011	Enhanced High-Rate Clarification Facility at Broderick Park	\$ 29,440,495	\$ 5,900,675	\$ 35,341,170
Niagara River	CSO 054	Enhanced High-Rate Clarification Facility at Riverside Park	\$ 6,834,307	\$ 1,006,733	\$ 7,841,040
Niagara River	CSO 054	Partial Separation	\$ 2,304,688	NA	\$ 2,304,688
Scajaquada Creek	CSO 053 controlled at tributary SPPs	Enhanced High-Rate Clarification Facilities at			
		Cornelius College	\$ 72,451,403	\$ 11,801,350	\$ 84,252,753
		City of Buffalo Lot	\$ 6,265,625	\$ 2,061,021	\$ 8,326,646
		City of Buffalo Lot / Boys Club of Buffalo	\$ 58,687,500	\$ 11,801,350	\$ 70,488,850
		/Tabernacle Baptist Church			
		B T Realty Corporation	\$ 19,562,500	\$ 3,933,783	\$ 23,496,283
		Nevins Thomas / Vacant Lot	\$ 11,734,375	\$ 1,964,805	\$ 13,719,180
		American Axle and Manufacturing Corporation	\$ 39,125,000	\$ 7,867,566	\$ 46,992,566
		Niagara Mohawk Power Corporation	\$ 56,687,500	\$ 11,801,350	\$ 70,488,850
		Schiller Park	\$ 39,125,000	\$ 7,867,566	\$ 46,992,566
		Schiller Park	\$ 1,890,625	\$ 753,079	\$ 2,643,704
Scajaquada Creek	CSO 056	Enhanced High-Rate Clarification Facility at Delaware Park	\$ 789,005	\$ 647,749	\$ 1,436,754
Scajaquada Creek	CSOs 057, 058	Enhanced High-Rate Clarification Facility at Fedco Automotive	\$ 1,381,774	\$ 703,638	\$ 2,085,412
Scajaquada Creek	CSO 059	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency	\$ 3,175,954	\$ 863,426	\$ 4,039,380
Scajaquada Creek	CSO 060	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 4,919,308	\$ 1,006,733	\$ 5,926,041
Scajaquada Creek	CSOs 053, 056	Partial Separation	\$ 585,938	NA	\$ 585,938
	CSOs 057, 058				

Note:

Alternative 4A includes all modifications listed for Alternative 1. Table 9-11 lists only additional modifications in Alternative 4A that are not included in Alternative 1.

Alternative 4A 12-Month Sub-Total \$ 1,393,062,958

Alternative 1 Total Cost \$ 164,583,400

Alternative 4A 12-Month Total Cost \$ 1,557,646,358

Alternative 4A Cost by Receiving Water Body:

	Capital	O&M	Total
Black Rock Canal	\$ 466,917,153	\$ 91,054,948	\$ 557,972,101
Buffalo River	\$ 365,308,167	\$ 54,273,311	\$ 419,581,477
Cazenovia Creek - B	\$ 8,372,359	\$ 1,006,733	\$ 9,379,092
Cazenovia Creek - C	\$ 68,553,709	\$ 7,014,172	\$ 75,567,881
Cornelius Creek	\$ 187,913,686	\$ 43,271,615	\$ 231,185,301
Erie Basin	\$ 43,090,784	\$ 7,867,566	\$ 50,958,350
Niagara River	\$ 39,766,488	\$ 6,907,408	\$ 46,673,897
Scajaquada Creek	\$ 140,355,398	\$ 25,972,857	\$ 166,328,256

Table 9-12 Alternative 4B Summary

Receiving Water Body	CSOs Controlled	Description
Black Rock Canal	CSO 003	Enhanced High-Rate Clarification Facility at Rich Marina
Black Rock Canal	CSO 004	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency
Black Rock Canal	CSO 006	Enhanced High-Rate Clarification Facility at City of Buffalo Lot City of Buffalo Lot Knight, Anthony / City of Buffalo
Black Rock Canal	CSO 010	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency
Black Rock Canal	CSO 012	Enhanced High-Rate Clarification Facility at Ciminelli International Services LLC
Black Rock Canal	CSOs 008, 061	Enhanced High-Rate Clarification Facilities Brown Cameron / Erie Niagara Public Benefit Funding Corporation
Black Rock Canal	CSOs 013, 063	Enhanced High-Rate Clarification Facility at City of Buffalo Water Department
Black Rock Canal	CSOs 003, 004	Partial Separation
Black Rock Canal	CSOs 005, 006	
Black Rock Canal	CSOs 007, 009	
Black Rock Canal	CSOs 010, 012	
Black Rock Canal	CSOs 062, 063	
Black Rock Canal	CSOs 008, 061	
Cazenovia Creek - B	CSO 035	Enhanced High-Rate Clarification Facility at Cazenovia Park
Cazenovia Creek - C	CSOs 037, 039	Enhanced High-Rate Clarification Facility at Cazenovia Park
Cazenovia Creek - C	CSO 044	Enhanced High-Rate Clarification Facility at South Side Catholic Club, Inc.
Cazenovia Creek - C	CSOs 046, 049	Enhanced High-Rate Clarification Facility at Vacant Lot
Cazenovia Creek - C	CSOs 047, 048	Enhanced High-Rate Clarification Facility at City of Buffalo Lot
Cazenovia Creek - C	CSOs 047, 048	Partial Separation
Cornelius Creek	CSO 055	Enhanced High-Rate Clarification Facility at City of Buffalo Lot
Cornelius Creek	CSO 055	Partial Separation

Table 9-12 Alternative 4B Summary

Receiving Water Body	CSOs Controlled	Description
Niagara River	CSO 011	Enhanced High-Rate Clarification Facility at Broderick Park
Niagara River	CSO 054	Enhanced High-Rate Clarification Facility at Riverside Park
Niagara River	CSO 054	Partial Separation
Scajaquada Creek	CSO 053 controlled at tributary SPPs	Enhanced High-Rate Clarification Facilities at Canisius College City of Buffalo Lot City of Buffalo Lot / Boys Club of Buffalo /Tabernacle Baptist Church B T Realty Corporation Nevins Thomas / Vacant Lot American Axle and Manufacturing Corporation Niagara Mohawk Power Corporation Schilier Park Schilier Park
Scajaquada Creek	CSO 056	Enhanced High-Rate Clarification Facility at Delaware Park
Scajaquada Creek	CSOs 057, 058	Enhanced High-Rate Clarification Facility at Fedco Automotive
Scajaquada Creek	CSO 059	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency
Scajaquada Creek	CSO 060	Enhanced High-Rate Clarification Facility at City of Buffalo Lot
Scajaquada Creek	CSOs 053, 056 CSOs 057, 058	Partial Separation

Note:

Alternative 4B includes all modifications listed for Alternative 1. Table 9-12 lists only additional modifications in Alternative 4B that are not included in Alternative 1.

Table 9-13 Alternative 4B Cost Estimate Summary

Receiving Water Body	CSOs Controlled	Description	1-Month Cost Estimate		
			Capital	O&M	Total
Black Rock Canal	CSO 003	Enhanced High-Rate Clarification Facility at Rich Marina	\$ -	\$ -	\$ -
Black Rock Canal	CSO 004	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency	\$ 9,456,016	\$ 1,425,907	\$ 10,881,923
Black Rock Canal	CSO 006	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 7,909,792	\$ 1,006,733	\$ 8,916,525
		City of Buffalo Lot	\$ 6,265,625	\$ 1,139,292	\$ 7,404,917
		Knight, Anthony / City of Buffalo	\$ -	\$ -	\$ -
Black Rock Canal	CSO 010	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency	\$ 3,259,713	\$ 863,426	\$ 4,123,139
Black Rock Canal	CSO 012	Enhanced High-Rate Clarification Facility at Ciminelli International Services LLC	\$ 20,022,588	\$ 3,933,783	\$ 23,956,371
Black Rock Canal	CSOs 008, 061	Enhanced High-Rate Clarification Facilities Brown Cameron / Erie Niagara Public Benefit Funding Corporation	\$ 1,474,316	\$ 703,638	\$ 2,177,954
Black Rock Canal	CSOs 013, 063	Enhanced High-Rate Clarification Facility at City of Buffalo Water Department	\$ -	\$ -	\$ -
Black Rock Canal	CSOs 003, 004	Partial Separation	\$ 13,125,000	NA	\$ 13,125,000
Black Rock Canal	CSOs 005, 006				
Black Rock Canal	CSOs 007, 009				
Black Rock Canal	CSOs 010, 012				
Black Rock Canal	CSOs 062, 063				
Black Rock Canal	CSOs 008, 061				
Cazenovia Creek - B	CSO 035	Enhanced High-Rate Clarification Facility at Cazenovia Park	\$ 714,535	\$ 647,749	\$ 1,362,284
Cazenovia Creek - C	CSOs 037, 039	Enhanced High-Rate Clarification Facility at Cazenovia Park	\$ -	\$ -	\$ -
Cazenovia Creek - C	CSO 044	Enhanced High-Rate Clarification Facility at South Side Catholic Club, Inc.	\$ -	\$ -	\$ -
Cazenovia Creek - C	CSOs 046, 049	Enhanced High-Rate Clarification Facility at Vacant Lot	\$ -	\$ -	\$ -
Cazenovia Creek - C	CSOs 047, 048	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 2,058,951	\$ 753,079	\$ 2,812,030
Cazenovia Creek - C	CSOs 047, 048	Partial Separation	\$ 1,835,938	NA	\$ 1,835,938
Cornelius Creek	CSO 055	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 84,613,686	\$ 15,735,133	\$ 100,348,819
Cornelius Creek	CSO 055	Partial Separation	\$ 5,000,000	NA	\$ 5,000,000
Niagara River	CSO 011	Enhanced High-Rate Clarification Facility at Broderick Park	\$ 7,127,985	\$ 1,425,907	\$ 8,553,902
Niagara River	CSO 054	Enhanced High-Rate Clarification Facility at Riverside Park	\$ 4,021,807	\$ 753,079	\$ 4,774,886
Niagara River	CSO 054	Partial Separation	\$ 2,304,688	NA	\$ 2,304,688
Scajaquada Creek	CSO 053 controlled at tributary SPPs	Enhanced High-Rate Clarification Facilities at Canisius College	\$ 25,498,278	\$ 1,984,805	\$ 27,483,083
		City of Buffalo Lot	\$ -	\$ -	\$ -
		City of Buffalo Lot / Boys Club of Buffalo / Tabernacle Baptist Church	\$ 19,562,500	\$ 3,933,783	\$ 23,496,283
		B T Realty Corporation	\$ 2,515,625	\$ 805,387	\$ 3,321,012
		Nevins Thomas / Vacant Lot	\$ -	\$ -	\$ -
		American Axle and Manufacturing Corporation	\$ 11,734,375	\$ 1,984,805	\$ 13,719,180
		Niagara Mohawk Power Corporation	\$ 19,562,500	\$ 3,933,783	\$ 23,496,283
		Schiller Park	\$ 19,562,500	\$ 3,933,783	\$ 23,496,283
		Schiller Park	\$ -	\$ -	\$ -
Scajaquada Creek	CSO 056	Enhanced High-Rate Clarification Facility at Delaware Park	\$ -	\$ -	\$ -
Scajaquada Creek	CSOs 057, 058	Enhanced High-Rate Clarification Facility at Fedco Automotive	\$ -	\$ -	\$ -
Scajaquada Creek	CSO 059	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency	\$ -	\$ -	\$ -
Scajaquada Creek	CSO 060	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 856,808	\$ 647,749	\$ 1,504,557
Scajaquada Creek	CSOs 053, 056	Partial Separation	\$ 585,938	NA	\$ 585,938
	CSOs 057, 058				

Note:

Alternative 4B includes all modifications listed for Alternative 1. Table 9-13 lists only additional modifications in Alternative 4B that are not included in Alternative 1.

Alternative 4B 1-Month Sub-Total \$ 294,680,994
Alternative 1 Total Cost \$ 164,583,400

Alternative 4B 1-Month Total Cost \$ 459,264,394

Alternative 4B Cost by Receiving Water Body:

	Capital	O&M	Total
Black Rock Canal	\$ 138,908,233	\$ 19,350,115	\$ 158,258,347
Buffalo River	\$ 87,237,792	\$ -	\$ 87,237,792
Cazenovia Creek - B	\$ 4,309,859	\$ 647,749	\$ 4,957,607
Cazenovia Creek - C	\$ 35,899,772	\$ 753,079	\$ 36,652,852
Cornelius Creek	\$ 78,413,686	\$ 15,735,133	\$ 94,148,819
Erie Basin	\$ 2,751,200	\$ -	\$ 2,751,200
Niagara River	\$ 14,841,489	\$ 2,178,986	\$ 16,820,475
Scajaquada Creek	\$ 51,490,541	\$ 6,946,760	\$ 58,437,301

Table 9-13 Alternative 4B Cost Estimate Summary

Receiving Water Body	CSOs Controlled	Description	2-Month Cost Estimate		
			Capital	O&M	Total
Black Rock Canal	CSO 003	Enhanced High-Rate Clarification Facility at Rich Marina	\$ -	\$ -	\$ -
Black Rock Canal	CSO 004	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency	\$ 41,534,141	\$ 7,867,566	\$ 49,401,707
Black Rock Canal	CSO 006	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 9,472,292	\$ 1,139,292	\$ 10,611,584
		City of Buffalo Lot	\$ 11,734,375	\$ 1,894,805	\$ 13,719,180
		Knight, Anthony / City of Buffalo	\$ 1,890,625	\$ 753,079	\$ 2,643,704
Black Rock Canal	CSO 010	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency	\$ 4,822,213	\$ 1,006,733	\$ 5,828,946
Black Rock Canal	CSO 012	Enhanced High-Rate Clarification Facility at Ciminelli International Services LLC	\$ 20,022,588	\$ 3,933,783	\$ 23,956,371
Black Rock Canal	CSOs 008, 061	Enhanced High-Rate Clarification Facilities Brown Cameron / Erie Niagara Public Benefit Funding Corporation	\$ 11,943,066	\$ 1,984,805	\$ 13,927,871
Black Rock Canal	CSOs 013, 063	Enhanced High-Rate Clarification Facility at City of Buffalo Water Department	\$ -	\$ -	\$ -
Black Rock Canal	CSOs 003, 004	Partial Separation	\$ 13,125,000	NA	\$ 13,125,000
Black Rock Canal	CSOs 005, 006				
Black Rock Canal	CSOs 007, 009				
Black Rock Canal	CSOs 010, 012				
Black Rock Canal	CSOs 062, 063				
Black Rock Canal	CSOs 008, 061				
Cazenovia Creek - B	CSO 035	Enhanced High-Rate Clarification Facility at Cazenovia Park	\$ 1,339,535	\$ 703,638	\$ 2,043,173
Cazenovia Creek - C	CSOs 037, 039	Enhanced High-Rate Clarification Facility at Cazenovia Park	\$ 4,367,184	\$ 805,387	\$ 5,172,571
Cazenovia Creek - C	CSO 044	Enhanced High-Rate Clarification Facility at South Side Catholic Club, Inc.	\$ -	\$ -	\$ -
Cazenovia Creek - C	CSOs 046, 049	Enhanced High-Rate Clarification Facility at Vacant Lot	\$ -	\$ -	\$ -
Cazenovia Creek - C	CSOs 047, 048	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 3,308,951	\$ 863,426	\$ 4,172,377
Cazenovia Creek - C	CSOs 047, 048	Partial Separation	\$ 1,835,938	NA	\$ 1,835,938
Cornelius Creek	CSO 055	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 80,238,686	\$ 19,668,916	\$ 99,907,602
Cornelius Creek	CSO 055	Partial Separation	\$ 5,000,000	NA	\$ 5,000,000
Niagara River	CSO 011	Enhanced High-Rate Clarification Facility at Broderick Park	\$ 19,643,620	\$ 3,933,783	\$ 23,577,403
Niagara River	CSO 054	Enhanced High-Rate Clarification Facility at Riverside Park	\$ 4,021,807	\$ 753,079	\$ 4,774,886
Niagara River	CSO 054	Partial Separation	\$ 2,304,688	NA	\$ 2,304,688
Scajaquada Creek	CSO 063 controlled at tributary SPPs	Enhanced High-Rate Clarification Facilities at			
		Canisius College	\$ 25,498,278	\$ 1,984,805	\$ 27,483,083
		City of Buffalo Lot	\$ 640,625	\$ 647,749	\$ 1,288,374
		City of Buffalo Lot / Boys Club of Buffalo	\$ 29,359,375	\$ 5,900,675	\$ 35,260,050
		/Tabernacle Baptist Church			
		B T Realty Corporation	\$ 4,703,125	\$ 1,006,733	\$ 5,709,858
		Nevins Thomas / Vacant Lot	\$ 1,265,625	\$ 703,638	\$ 1,969,263
		American Axle and Manufacturing Corporation	\$ 19,562,500	\$ 3,933,783	\$ 23,496,283
		Niagara Mohawk Power Corporation	\$ 19,562,500	\$ 3,933,783	\$ 23,496,283
		Schiller Park	\$ 19,562,500	\$ 3,933,783	\$ 23,496,283
		Schiller Park	\$ 640,625	\$ 647,749	\$ 1,288,374
Scajaquada Creek	CSO 056	Enhanced High-Rate Clarification Facility at Delaware Park	\$ -	\$ -	\$ -
Scajaquada Creek	CSOs 057, 058	Enhanced High-Rate Clarification Facility at Fedco Automotive	\$ 756,774	\$ 647,749	\$ 1,404,523
Scajaquada Creek	CSO 059	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency	\$ -	\$ -	\$ -
Scajaquada Creek	CSO 060	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 1,481,808	\$ 703,638	\$ 2,185,446
Scajaquada Creek	CSOs 053, 056	Partial Separation	\$ 585,938	NA	\$ 585,938
	CSOs 057, 058				

Note:

Alternative 4B includes all modifications listed for Alternative 1. Table 9-13 lists only additional modifications in Alternative 4B that are not included in Alternative 1.

 Alternative 4B 2-Month Sub-Total \$ 429,666,758
 Alternative 1 Total Cost \$ 164,583,400

Alternative 4B 2-Month Total Cost \$ 594,250,158

Alternative 4B Cost by Receiving Water Body:

	Capital	O&M	Total
Black Rock Canal	\$ 205,802,295	\$ 32,739,538	\$ 238,541,833
Buffalo River	\$ 87,237,792	\$ -	\$ 87,237,792
Cazenovia Creek - B	\$ 4,934,859	\$ 703,638	\$ 5,638,497
Cazenovia Creek - C	\$ 41,516,956	\$ 1,668,813	\$ 43,185,769
Cornelius Creek	\$ 94,038,686	\$ 19,668,916	\$ 113,707,602
Erie Basin	\$ 2,751,200	\$ -	\$ 2,751,200
Niagara River	\$ 27,157,114	\$ 4,686,863	\$ 31,843,977
Scajaquada Creek	\$ 61,368,877	\$ 9,974,612	\$ 71,343,490

Table 9-13 Alternative 4B Cost Estimate Summary

Receiving Water Body	CSOs Controlled	Description	3-Month Cost Estimate		
			Capital	O&M	Total
Black Rock Canal	CSO 003	Enhanced High-Rate Clarification Facility at Rich Marina	\$ -	\$ -	\$ -
Black Rock Canal	CSO 004	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency	\$ 41,534,141	\$ 7,867,566	\$ 49,401,707
Black Rock Canal	CSO 006	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 10,253,542	\$ 1,425,907	\$ 11,679,449
		City of Buffalo Lot	\$ 11,734,375	\$ 1,984,805	\$ 13,719,180
		Knight, Anthony / City of Buffalo	\$ 4,703,125	\$ 1,006,733	\$ 5,709,858
Black Rock Canal	CSO 010	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency	\$ 6,384,713	\$ 1,139,292	\$ 7,524,005
Black Rock Canal	CSO 012	Enhanced High-Rate Clarification Facility at Ciminelli International Services LLC	\$ 29,819,463	\$ 5,900,675	\$ 35,720,138
Black Rock Canal	CSOs 008, 061	Enhanced High-Rate Clarification Facilities Brown Cameron / Erie Niagara Public Benefit Funding Corporation	\$ 19,771,191	\$ 3,933,783	\$ 23,704,974
Black Rock Canal	CSOs 013, 063	Enhanced High-Rate Clarification Facility at City of Buffalo Water Department	\$ -	\$ -	\$ -
Black Rock Canal	CSOs 003, 004	Partial Separation	\$ 13,125,000	NA	\$ 13,125,000
Black Rock Canal	CSOs 005, 006				
Black Rock Canal	CSOs 007, 009				
Black Rock Canal	CSOs 010, 012				
Black Rock Canal	CSOs 062, 063				
Black Rock Canal	CSOs 008, 061				
Cazenovia Creek - B	CSO 035	Enhanced High-Rate Clarification Facility at Cazenovia Park	\$ 1,339,535	\$ 703,638	\$ 2,043,173
Cazenovia Creek - C	CSOs 037, 039	Enhanced High-Rate Clarification Facility at Cazenovia Park	\$ 8,117,184	\$ 1,139,292	\$ 9,256,476
Cazenovia Creek - C	CSO 044	Enhanced High-Rate Clarification Facility at South Side Catholic Club, Inc.	\$ -	\$ -	\$ -
Cazenovia Creek - C	CSOs 046, 049	Enhanced High-Rate Clarification Facility at Vacant Lot	\$ -	\$ -	\$ -
Cazenovia Creek - C	CSOs 047, 048	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 4,871,451	\$ 1,006,733	\$ 5,878,184
Cazenovia Creek - C	CSOs 047, 048	Partial Separation	\$ 1,835,938	NA	\$ 1,835,938
Cornelius Creek	CSO 055	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 95,863,686	\$ 23,602,699	\$ 119,466,385
Cornelius Creek	CSO 055	Partial Separation	\$ 5,000,000	NA	\$ 5,000,000
Niagara River	CSO 011	Enhanced High-Rate Clarification Facility at Broderick Park	\$ 19,643,620	\$ 3,933,783	\$ 23,577,403
Niagara River	CSO 054	Enhanced High-Rate Clarification Facility at Riverside Park	\$ 4,646,807	\$ 805,387	\$ 5,452,194
Niagara River	CSO 054	Partial Separation	\$ 2,304,688	NA	\$ 2,304,688
Scajaquada Creek	CSO 053 controlled at tributary SPPs	Enhanced High-Rate Clarification Facilities at			
		Canisius College	\$ 33,325,403	\$ 3,933,783	\$ 37,260,186
		City of Buffalo Lot	\$ 640,625	\$ 647,749	\$ 1,288,374
		City of Buffalo Lot / Boys Club of Buffalo	\$ 39,125,000	\$ 7,867,566	\$ 46,992,566
		Tabernacle Baptist Church			
		B T Realty Corporation	\$ 7,046,875	\$ 1,425,907	\$ 8,472,782
		Navins Thomas / Vacant Lot	\$ 3,140,625	\$ 863,426	\$ 4,004,051
		American Axe and Manufacturing Corporation	\$ 19,562,500	\$ 3,933,783	\$ 23,496,283
		Niagara Mohawk Power Corporation	\$ 29,359,375	\$ 5,900,675	\$ 35,260,050
		Schiller Park	\$ 19,562,500	\$ 3,933,783	\$ 23,496,283
		Schiller Park	\$ 640,625	\$ 647,749	\$ 1,288,374
Scajaquada Creek	CSO 056	Enhanced High-Rate Clarification Facility at Delaware Park	\$ -	\$ -	\$ -
Scajaquada Creek	CSOs 057, 058	Enhanced High-Rate Clarification Facility at Fedco Automotive	\$ 756,774	\$ 647,749	\$ 1,404,523
Scajaquada Creek	CSO 059	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency	\$ 675,954	\$ 647,749	\$ 1,323,703
Scajaquada Creek	CSO 060	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 1,481,808	\$ 703,638	\$ 2,185,446
Scajaquada Creek	CSOs 053, 056	Partial Separation	\$ 585,938	NA	\$ 585,938
	CSOs 057, 058				

Note:

Alternative 4B includes all modifications listed for Alternative 1. Table 9-13 lists only additional modifications in Alternative 4B that are not included in Alternative 1.

Alternative 4B 3-Month Sub-Total \$ 522,457,310

Alternative 1 Total Cost \$ 164,583,400

Alternative 4B 3-Month Total Cost \$ 687,040,710

Alternative 4B Cost by Receiving Water Body:

	Capital	O&M	Total
Black Rock Canal	\$ 248,181,358	\$ 41,334,503	\$ 289,515,861
Buffalo River	\$ 87,237,792	\$ -	\$ 87,237,792
Cazenovia Creek - B	\$ 4,934,859	\$ 703,638	\$ 5,638,497
Cazenovia Creek - C	\$ 46,829,456	\$ 2,146,026	\$ 48,975,482
Cornelius Creek	\$ 109,683,686	\$ 23,602,699	\$ 133,286,385
Erie Basin	\$ 2,751,200	\$ -	\$ 2,751,200
Niagara River	\$ 27,762,114	\$ 4,739,170	\$ 32,501,284
Scajaquada Creek	\$ 74,056,394	\$ 13,077,816	\$ 87,134,209

Table 9-13 Alternative 4B Cost Estimate Summary

Receiving Water Body	CSOs Controlled	Description	4-Month Cost Estimate		
			Capital	O&M	Total
Black Rock Canal	CSO 003	Enhanced High-Rate Clarification Facility at Rich Marina	\$ -	\$ -	\$ -
Black Rock Canal	CSO 004	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency	\$ 61,096,541	\$ 11,801,350	\$ 72,897,991
Black Rock Canal	CSO 006	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 10,253,542	\$ 1,425,907	\$ 11,679,449
		City of Buffalo Lot	\$ 11,734,375	\$ 1,984,805	\$ 13,719,180
		Knight, Anthony / City of Buffalo	\$ 7,046,875	\$ 1,425,907	\$ 8,472,782
Black Rock Canal	CSO 010	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency	\$ 6,384,713	\$ 1,139,292	\$ 7,524,005
Black Rock Canal	CSO 012	Enhanced High-Rate Clarification Facility at Cimminell International Services LLC	\$ 29,819,463	\$ 5,900,675	\$ 35,720,138
Black Rock Canal	CSOs 008, 061	Enhanced High-Rate Clarification Facilities Brown Cameron / Erie Niagara Public Benefit Funding Corporation	\$ 19,771,191	\$ 3,933,783	\$ 23,704,974
Black Rock Canal	CSOs 013, 063	Enhanced High-Rate Clarification Facility at City of Buffalo Water Department	\$ 6,701,294	\$ 847,749	\$ 7,549,043
Black Rock Canal	CSOs 003, 004	Partial Separation	\$ 13,125,000	NA	\$ 13,125,000
Black Rock Canal	CSOs 005, 006				
Black Rock Canal	CSOs 007, 009				
Black Rock Canal	CSOs 010, 012				
Black Rock Canal	CSOs 062, 063				
Black Rock Canal	CSOs 008, 061				
Cazenovia Creek - B	CSO 035	Enhanced High-Rate Clarification Facility at Cazenovia Park	\$ 1,964,535	\$ 753,079	\$ 2,717,614
Cazenovia Creek - C	CSOs 037, 039	Enhanced High-Rate Clarification Facility at Cazenovia Park	\$ 8,898,434	\$ 1,425,907	\$ 10,324,341
Cazenovia Creek - C	CSO 044	Enhanced High-Rate Clarification Facility at South Side Catholic Club, Inc.	\$ -	\$ -	\$ -
Cazenovia Creek - C	CSOs 046, 049	Enhanced High-Rate Clarification Facility at Vacant Lot	\$ 1,090,178	\$ 647,749	\$ 1,737,927
Cazenovia Creek - C	CSOs 047, 048	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 4,871,451	\$ 1,006,733	\$ 5,878,184
Cazenovia Creek - C	CSOs 047, 048	Partial Separation	\$ 1,835,938	NA	\$ 1,835,938
Cornelius Creek	CSO 055	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 111,519,936	\$ 27,536,482	\$ 139,056,418
Cornelius Creek	CSO 055	Partial Separation	\$ 5,000,000	NA	\$ 5,000,000
Niagara River	CSO 011	Enhanced High-Rate Clarification Facility at Broderick Park	\$ 19,643,620	\$ 3,933,783	\$ 23,577,403
Niagara River	CSO 054	Enhanced High-Rate Clarification Facility at Riverside Park	\$ 5,271,807	\$ 863,426	\$ 6,135,233
Niagara River	CSO 054	Partial Separation	\$ 2,304,688	NA	\$ 2,304,688
Scjaquada Creek	CSO 053 controlled at tributary SPPs	Enhanced High-Rate Clarification Facilities at Canisius College	\$ 33,326,403	\$ 3,933,783	\$ 37,260,186
		City of Buffalo Lot	\$ 640,625	\$ 647,749	\$ 1,288,374
		City of Buffalo Lot / Boys Club of Buffalo	\$ 39,125,000	\$ 7,867,566	\$ 46,992,566
		Tabernacle Baptist Church			
		B T Realty Corporation	\$ 7,046,875	\$ 1,425,907	\$ 8,472,782
		Nevins Thomas / Vacant Lot	\$ 6,265,625	\$ 1,139,292	\$ 7,404,917
		American Axle and Manufacturing Corporation	\$ 19,562,500	\$ 3,933,783	\$ 23,496,283
		Niagara Mohawk Power Corporation	\$ 29,359,375	\$ 5,900,675	\$ 35,260,050
		Schiller Park	\$ 19,562,500	\$ 3,933,783	\$ 23,496,283
		Schiller Park	\$ 640,625	\$ 647,749	\$ 1,288,374
Scjaquada Creek	CSO 056	Enhanced High-Rate Clarification Facility at Delaware Park	\$ -	\$ -	\$ -
Scjaquada Creek	CSOs 057, 058	Enhanced High-Rate Clarification Facility at Fedco Automotive	\$ 756,774	\$ 647,749	\$ 1,404,523
Scjaquada Creek	CSO 059	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency	\$ 675,954	\$ 647,749	\$ 1,323,703
Scjaquada Creek	CSO 060	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 1,481,808	\$ 703,638	\$ 2,185,446
Scjaquada Creek	CSOs 053, 056	Partial Separation	\$ 585,938	NA	\$ 585,938
	CSOs 057, 058				

Note:
Alternative 4B includes all modifications listed for Alternative 1. Table 9-13 lists only additional modifications in Alternative 4B that are not included in Alternative 1.

Alternative 4B 4-Month Sub-Total \$ 583,219,732
Alternative 1 Total Cost \$ 164,583,400

Alternative 4B 4-Month Total Cost \$ 747,803,132

Alternative 4B Cost by Receiving Water Body:	Capital	O&M	Total
Black Rock Canal	\$ 278,726,401	\$ 46,506,245	\$ 325,232,647
Buffalo River	\$ 87,237,792	\$ -	\$ 87,237,792
Cazenovia Creek - B	\$ 5,558,859	\$ 753,079	\$ 6,312,938
Cazenovia Creek - C	\$ 48,700,885	\$ 3,080,389	\$ 51,781,274
Cornelius Creek	\$ 125,319,936	\$ 27,536,482	\$ 152,856,418
Erie Basin	\$ 2,751,200	\$ -	\$ 2,751,200
Niagara River	\$ 26,407,114	\$ 4,797,209	\$ 31,204,323
Scjaquada Creek	\$ 75,243,894	\$ 13,182,645	\$ 88,426,538

Table 9-13 Alternative 4B Cost Estimate Summary

Receiving Water Body	CSOs Controlled	Description	6-Month Cost Estimate		
			Capital	O&M	Total
Black Rock Canal	CSO 003	Enhanced High-Rate Clarification Facility at Rich Marina	\$ -	\$ -	\$ -
Black Rock Canal	CSO 004	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency	\$ 81,096,641	\$ 11,801,350	\$ 72,897,991
Black Rock Canal	CSO 006	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 10,253,542	\$ 1,425,907	\$ 11,679,449
		City of Buffalo Lot	\$ 11,734,375	\$ 1,984,805	\$ 13,719,180
		Knight, Anthony / City of Buffalo	\$ 11,734,375	\$ 1,984,805	\$ 13,719,180
Black Rock Canal	CSO 010	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency	\$ 7,165,983	\$ 1,425,907	\$ 8,591,870
Black Rock Canal	CSO 012	Enhanced High-Rate Clarification Facility at Ciminsili International Services LLC	\$ 39,585,088	\$ 7,867,566	\$ 47,452,654
Black Rock Canal	CSOs 008, 061	Enhanced High-Rate Clarification Facilities Brown Cameron / Erie Niagara Public Benefit Funding Corporation	\$ 29,568,066	\$ 5,900,675	\$ 35,468,741
Black Rock Canal	CSOs 013, 063	Enhanced High-Rate Clarification Facility at City of Buffalo Water Department	\$ 6,701,294	\$ 647,749	\$ 7,349,043
Black Rock Canal	CSOs 003, 004	Partial Separation	\$ 13,125,000	NA	\$ 13,125,000
Black Rock Canal	CSOs 005, 006				
Black Rock Canal	CSOs 007, 009				
Black Rock Canal	CSOs 010, 012				
Black Rock Canal	CSOs 062, 063				
Black Rock Canal	CSOs 008, 061				
Cazenovia Creek - B	CSO 035	Enhanced High-Rate Clarification Facility at Cazenovia Park	\$ 2,589,535	\$ 805,387	\$ 3,394,922
Cazenovia Creek - C	CSOs 037, 039	Enhanced High-Rate Clarification Facility at Cazenovia Park	\$ 13,585,934	\$ 1,984,805	\$ 15,570,739
Cazenovia Creek - C	CSO 044	Enhanced High-Rate Clarification Facility at South Side Catholic Club, Inc.	\$ 930,950	\$ 647,749	\$ 1,578,699
Cazenovia Creek - C	CSOs 046, 049	Enhanced High-Rate Clarification Facility at Vacant Lot	\$ 1,090,178	\$ 647,749	\$ 1,737,927
Cazenovia Creek - C	CSOs 047, 048	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 6,433,951	\$ 1,139,292	\$ 7,573,243
Cazenovia Creek - C	CSOs 047, 048	Partial Separation	\$ 1,835,938	NA	\$ 1,835,938
Cornelius Creek	CSO 055	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 127,176,166	\$ 31,470,266	\$ 158,646,452
Cornelius Creek	CSO 055	Partial Separation	\$ 5,000,000	NA	\$ 5,000,000
Niagara River	CSO 011	Enhanced High-Rate Clarification Facility at Broderick Park	\$ 29,440,495	\$ 5,900,675	\$ 35,341,170
Niagara River	CSO 054	Enhanced High-Rate Clarification Facility at Riverside Park	\$ 5,271,807	\$ 863,426	\$ 6,135,233
Niagara River	CSO 054	Partial Separation	\$ 2,304,688	NA	\$ 2,304,688
Scajaquada Creek	CSO 053 controlled at tributary SPPs	Enhanced High-Rate Clarification Facilities at Canisius College	\$ 43,123,278	\$ 5,900,675	\$ 49,023,953
		City of Buffalo Lot	\$ 1,265,625	\$ 703,638	\$ 1,969,263
		City of Buffalo Lot / Boys Club of Buffalo	\$ 39,125,000	\$ 7,867,566	\$ 46,992,566
		Tabernacle Baptist Church			
		B T Realty Corporation	\$ 11,734,375	\$ 1,984,805	\$ 13,719,180
		Nevins Thomas / Vacant Lot	\$ 7,046,875	\$ 1,425,907	\$ 8,472,782
		American Axe and Manufacturing Corporation	\$ 29,359,375	\$ 5,900,675	\$ 35,260,050
		Niagara Mohawk Power Corporation	\$ 39,125,000	\$ 7,867,566	\$ 46,992,566
		Schiller Park	\$ 29,359,375	\$ 5,900,675	\$ 35,260,050
		Schiller Park	\$ 1,265,625	\$ 703,638	\$ 1,969,263
Scajaquada Creek	CSO 056	Enhanced High-Rate Clarification Facility at Delaware Park	\$ 789,005	\$ 647,749	\$ 1,436,754
Scajaquada Creek	CSOs 057, 058	Enhanced High-Rate Clarification Facility at Fedco Automotive	\$ 756,774	\$ 647,749	\$ 1,404,523
Scajaquada Creek	CSO 059	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency	\$ 675,954	\$ 647,749	\$ 1,323,703
Scajaquada Creek	CSO 060	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 2,106,808	\$ 753,079	\$ 2,859,887
Scajaquada Creek	CSOs 053, 056	Partial Separation	\$ 585,938	NA	\$ 585,938
	CSOs 057, 059				

Note:

Alternative 4B includes all modifications listed for Alternative 1. Table 9-13 lists only additional modifications in Alternative 4B that are not included in Alternative 1.

Alternative 4B 6-Month Sub-Total \$ 710,392,596

Alternative 1 Total Cost \$ 164,583,400

Alternative 4B 6-Month Total Cost \$ 874,975,996

Alternative 4B Cost by Receiving Water Body:

	Capital	O&M	Total
Black Rock Canal	\$ 332,200,151	\$ 56,758,954	\$ 388,957,105
Buffalo River	\$ 87,237,792	\$ -	\$ 87,237,792
Cazenovia Creek - B	\$ 6,184,859	\$ 805,387	\$ 6,990,245
Cazenovia Creek - C	\$ 55,881,834	\$ 4,419,595	\$ 60,301,429
Cornelius Creek	\$ 140,976,186	\$ 31,470,266	\$ 172,446,451
Erie Basin	\$ 2,751,200	\$ -	\$ 2,751,200
Niagara River	\$ 38,203,989	\$ 6,764,101	\$ 44,968,090
Scajaquada Creek	\$ 94,090,399	\$ 17,233,281	\$ 111,323,680

Table 9-13 Alternative 4B Cost Estimate Summary

Receiving Water Body	CSOs Controlled	Description	12-Month Cost Estimate		
			Capital	O&M	Total
Black Rock Canal	CSO 003	Enhanced High-Rate Clarification Facility at Rich Marina	\$ 950,752	\$ 647,749	\$ 1,598,501
Black Rock Canal	CSO 004	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency	\$ 65,034,141	\$ 15,735,133	\$ 80,769,274
Black Rock Canal	CSO 006	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 14,941,042	\$ 1,984,805	\$ 16,925,847
		City of Buffalo Lot	\$ 19,562,500	\$ 3,933,783	\$ 23,496,283
		Knight, Anthony / City of Buffalo	\$ 39,125,000	\$ 7,867,566	\$ 46,992,566
Black Rock Canal	CSO 010	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency	\$ 7,165,963	\$ 1,425,907	\$ 8,591,870
Black Rock Canal	CSO 012	Enhanced High-Rate Clarification Facility at Ciminelli International Services LLC	\$ 63,085,088	\$ 15,735,133	\$ 78,820,221
Black Rock Canal	CSOs 008, 061	Enhanced High-Rate Clarification Facilities Brown Cameron / Erie Niagara Public Benefit Funding Corporation	\$ 29,568,066	\$ 5,900,675	\$ 35,468,741
Black Rock Canal	CSOs 013, 063	Enhanced High-Rate Clarification Facility at City of Buffalo Water Department	\$ 7,326,294	\$ 703,638	\$ 8,029,932
Black Rock Canal	CSOs 003, 004	Partial Separation	\$ 13,125,000	NA	\$ 13,125,000
Black Rock Canal	CSOs 005, 006				
Black Rock Canal	CSOs 007, 009				
Black Rock Canal	CSOs 010, 012				
Black Rock Canal	CSOs 062, 063				
Black Rock Canal	CSOs 008, 061				
Cazenovia Creek - B	CSO 035	Enhanced High-Rate Clarification Facility at Cazenovia Park	\$ 4,777,035	\$ 1,006,733	\$ 5,783,768
Cazenovia Creek - C	CSOs 037, 039	Enhanced High-Rate Clarification Facility at Cazenovia Park	\$ 21,414,059	\$ 3,933,783	\$ 25,347,842
Cazenovia Creek - C	CSO 044	Enhanced High-Rate Clarification Facility at South Side Catholic Club, Inc.	\$ 4,993,450	\$ 1,006,733	\$ 6,000,183
Cazenovia Creek - C	CSOs 046, 049	Enhanced High-Rate Clarification Facility at Vacant Lot	\$ 1,090,178	\$ 647,749	\$ 1,737,927
Cazenovia Creek - C	CSOs 047, 048	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 7,215,201	\$ 1,425,907	\$ 8,641,108
Cazenovia Creek - C	CSOs 047, 048	Partial Separation	\$ 1,835,938	NA	\$ 1,835,938
Cornelius Creek	CSO 055	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 174,113,686	\$ 43,271,615	\$ 217,385,301
Cornelius Creek	CSO 055	Partial Separation	\$ 5,000,000	NA	\$ 5,000,000
Niagara River	CSO 011	Enhanced High-Rate Clarification Facility at Broderick Park	\$ 29,440,495	\$ 5,900,675	\$ 35,341,170
Niagara River	CSO 054	Enhanced High-Rate Clarification Facility at Riverside Park	\$ 6,834,307	\$ 1,006,733	\$ 7,841,040
Niagara River	CSO 054	Partial Separation	\$ 2,304,688	NA	\$ 2,304,688
Scajaquada Creek	CSO 053 controlled at tributary SPPs	Enhanced High-Rate Clarification Facilities at Canisius College	\$ 72,451,403	\$ 11,801,350	\$ 84,252,753
		City of Buffalo Lot	\$ 6,265,625	\$ 2,061,021	\$ 8,326,646
		City of Buffalo Lot / Boys Club of Buffalo / Tabernacle Baptist Church	\$ 58,687,500	\$ 11,801,350	\$ 70,488,850
		B T Realty Corporation	\$ 19,562,500	\$ 3,933,783	\$ 23,496,283
		Novins Thomas / Vacant Lot	\$ 11,734,375	\$ 1,984,805	\$ 13,719,180
		American Axle and Manufacturing Corporation	\$ 39,125,000	\$ 7,867,566	\$ 46,992,566
		Niagara Mohawk Power Corporation	\$ 58,687,500	\$ 11,801,350	\$ 70,488,850
		Schiller Park	\$ 39,125,000	\$ 7,867,566	\$ 46,992,566
		Schiller Park	\$ 1,890,625	\$ 753,079	\$ 2,643,704
Scajaquada Creek	CSO 056	Enhanced High-Rate Clarification Facility at Delaware Park	\$ 789,005	\$ 647,749	\$ 1,436,754
Scajaquada Creek	CSOs 057, 058	Enhanced High-Rate Clarification Facility at Fedco Automotive	\$ 1,381,774	\$ 703,638	\$ 2,085,412
Scajaquada Creek	CSO 059	Enhanced High-Rate Clarification Facility at Erie County Industrial Development Agency	\$ 3,175,954	\$ 663,426	\$ 4,039,380
Scajaquada Creek	CSO 060	Enhanced High-Rate Clarification Facility at City of Buffalo Lot	\$ 4,919,308	\$ 1,006,733	\$ 5,926,041
Scajaquada Creek	CSOs 053, 056	Partial Separation	\$ 585,938	NA	\$ 585,938
	CSOs 057, 058				

Note:

Alternative 4B includes all modifications listed for Alternative 1. Table 9-13 lists only additional modifications in Alternative 4B that are not included in Alternative 1.

Alternative 4B 12-Month Sub-Total \$ 1,012,512,122

Alternative 1 Total Cost \$ 164,583,400

Alternative 4B 12-Month Total Cost \$ 1,177,095,522

Alternative 4B Cost by Receiving Water Body:

	Capital	O&M	Total
Black Rock Canal	\$ 466,917,153	\$ 91,054,948	\$ 557,972,101
Buffalo River	\$ 87,237,792	\$ -	\$ 87,237,792
Cazenovia Creek - B	\$ 8,372,359	\$ 1,006,733	\$ 9,379,092
Cazenovia Creek - C	\$ 68,553,709	\$ 7,014,172	\$ 75,567,881
Cornelius Creek	\$ 187,913,886	\$ 43,271,615	\$ 231,185,501
Erie Basin	\$ 2,751,200	\$ -	\$ 2,751,200
Niagara River	\$ 39,786,489	\$ 6,907,408	\$ 46,693,897
Scajaquada Creek	\$ 140,365,399	\$ 25,972,857	\$ 166,338,256

BUFFALO SEWER AUTHORITY
Stage 3: Long-Term Control Plan

Table 9-14 Alternative 5 Cost Estimate Summary

Receiving Water Body	Watershed Acreage to be Separated	Cost
Black Rock Canal	5,354	\$267,692,734
Buffalo River	6,443	\$322,134,902
Cazenovia Creek - B	81	\$4,057,450
Cazenovia Creek - C	945	\$47,264,200
Cornelius Creek	4,121	\$206,044,550
Erie Basin Marina	524	\$26,212,400
Niagara River	624	\$31,223,950
Scajaquada Creek	2,127	\$106,358,016
Total	20,220	\$1,010,988,202



