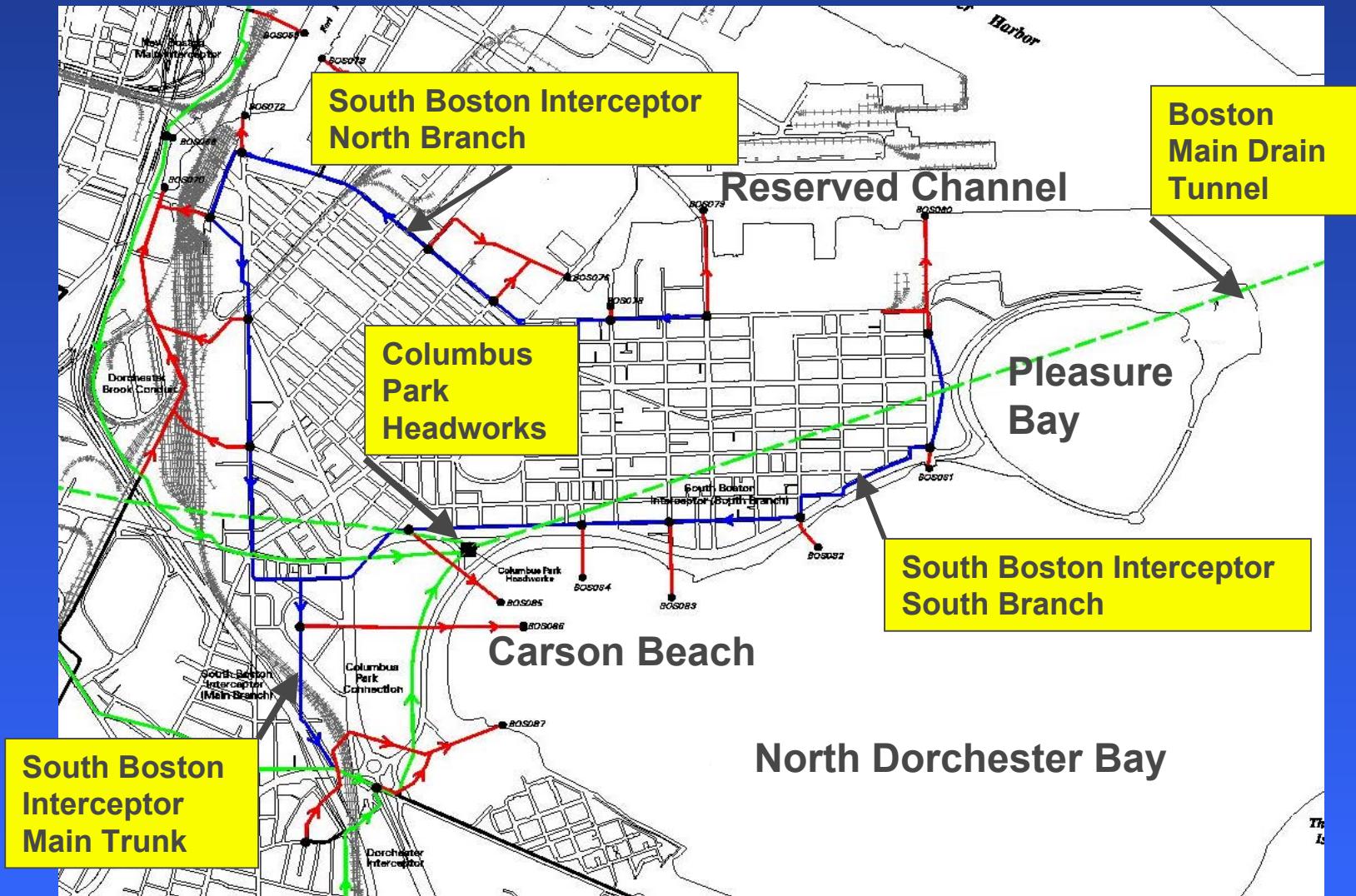


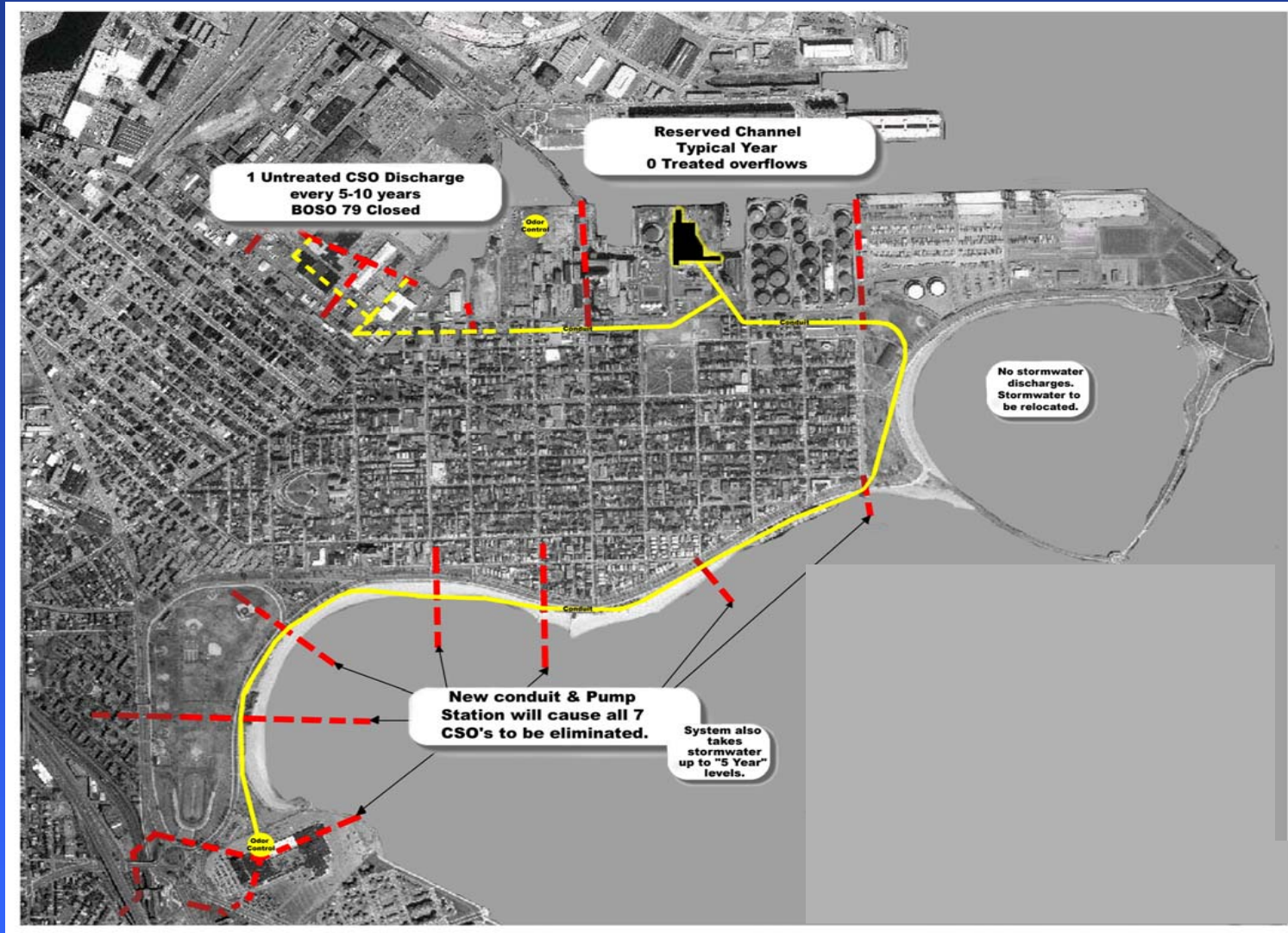


South Boston CSO Reassessment
Wastewater Advisory Committee November 1, 2002

South Boston CSO System



Recommended Plan



Reassessment and MEPA Process

- **Phase I**

- Update Baseline Conditions (System Flows and WQ)
- Identify and Screen a Full Range of Control Options
- Identify and Evaluate Site Options

- **Phase II**

- Detailed Evaluation of Shortlisted Control Alternatives
- Select a New Recommended CSO Control Plan
- Submit SEIR for MEPA Review and Public Comment

- **Public Participation/Consensus Building Throughout**

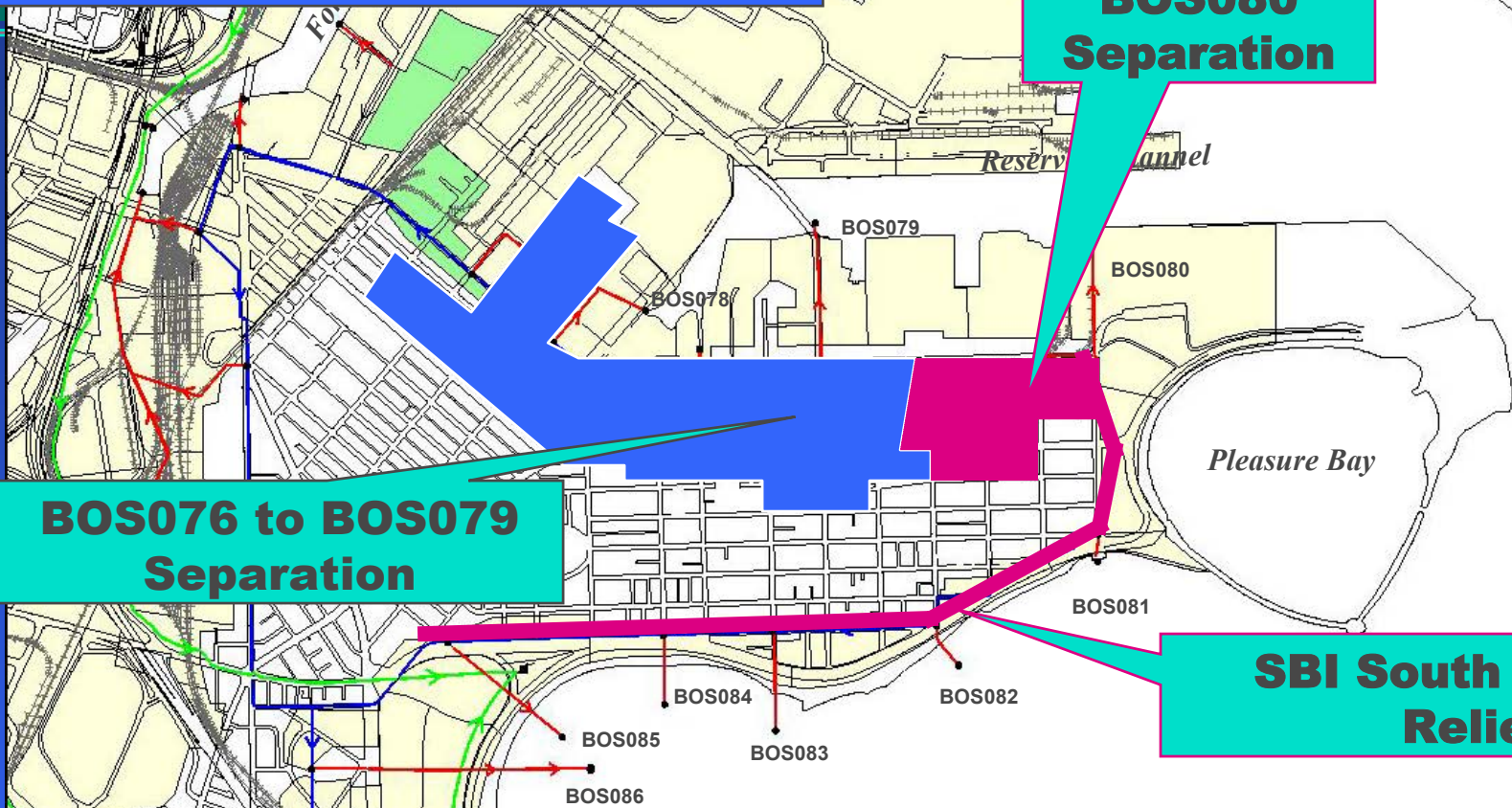
Reassessment Goal

- Recommend an implementable CSO control plan for the beaches and Reserved Channel that:
 - is acceptable to the public
 - meets State and National CSO control policy requirements and complies with WQ standards
 - is acceptable to the Federal Court
 - is approved by MWRA Board

Four Control Options

- **N. Dorch. Bay: Interceptor Relief**
Res. Channel: Sewer Separation
- **N. Dorch. Bay: Storage Conduit**
Res. Channel: Sewer Separation
- **N. Dorch. Bay: Storage with Phased
NDB Separation**
Res. Channel: Sewer Separation
- **N. Dorch. Bay: CSO Relocation (Previous Plan)**
Res. Channel: Tunnel Storage (Previous Plan)

Option 1 NDB Interceptor Relief with RC Sewer Separation



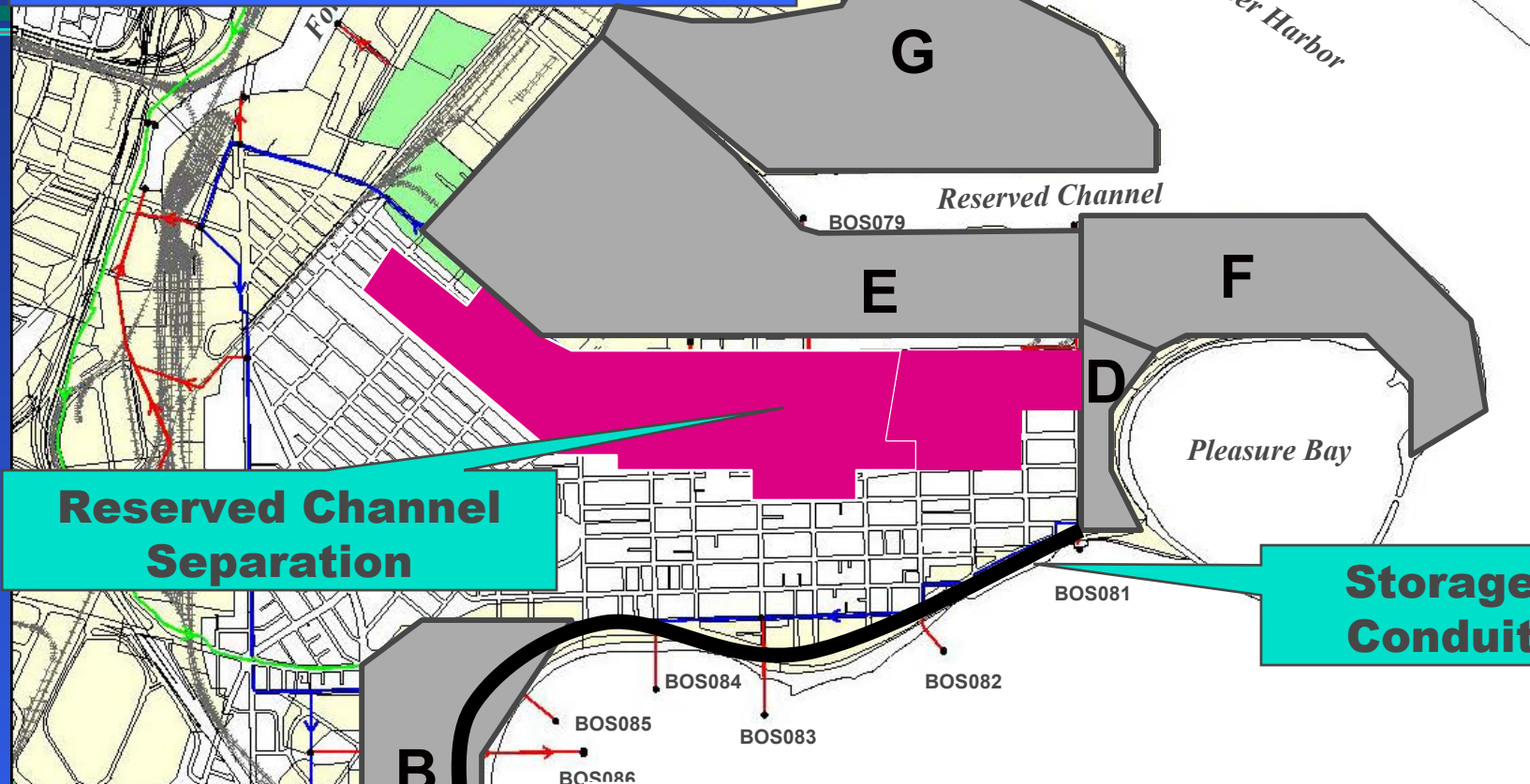
**BOS076 to BOS079
Separation**

**BOS080
Separation**

**SBI South Branch
Relief**

Est. Cost	\$100M
N. Dorch. Bay	No CSO Discharge in Typical Year no Change in SW
Res. Chan.	3 CSO Discharges in Typical Year

Option 2 NDB Storage Conduit with RC Sewer Separation

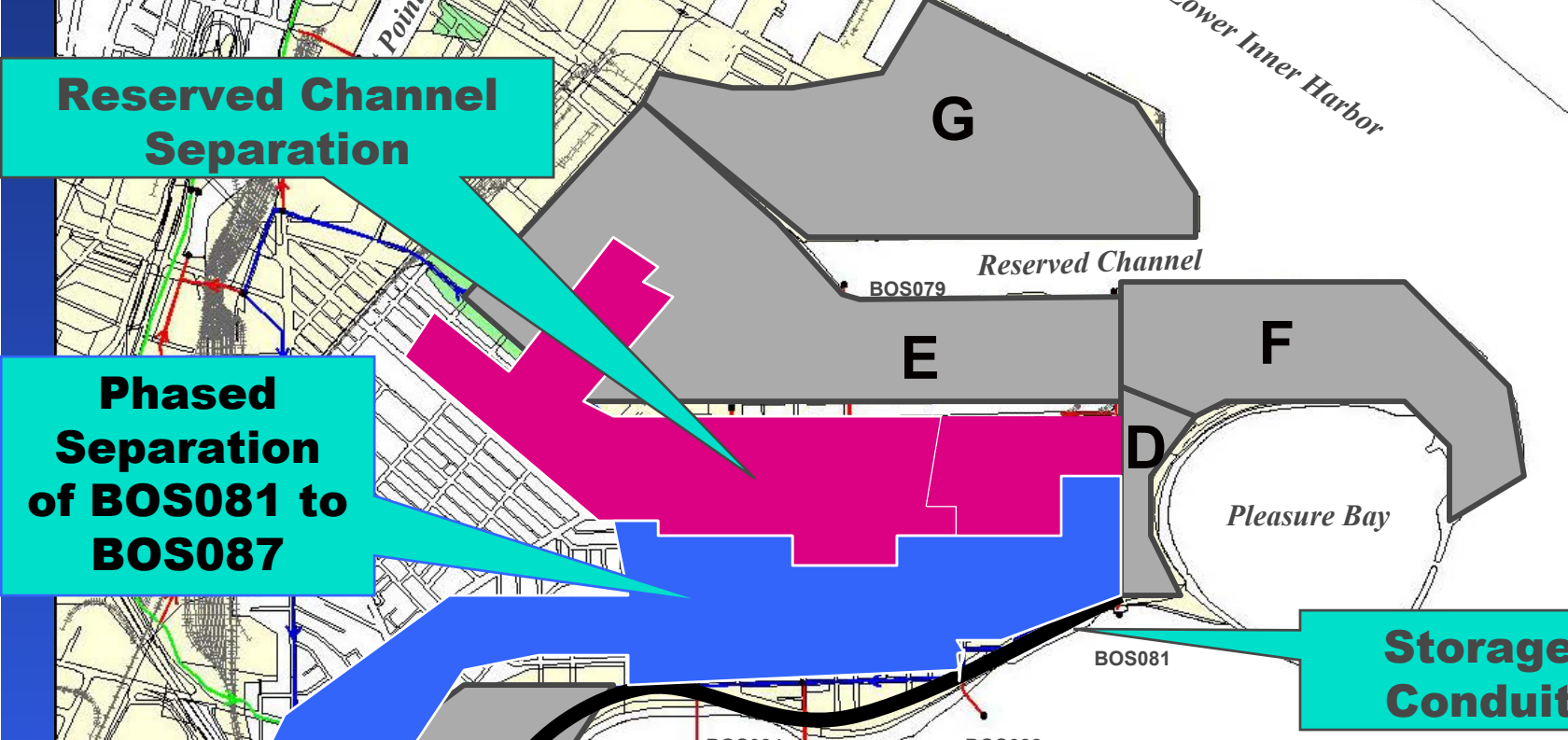


Reserved Channel Separation

Storage Conduit

Est. Cost	\$130-\$230M
NDB	No CSO Discharge in Typ yr or up to 5 yr Storm No SW Discharge in Typ yr or up to 5 yr Storm
RC	3 Untreated CSO Discharges in Typical Year

Option 3 - NDB Storage Conduit and Phased Sewer Separation With RC Sewer Separation



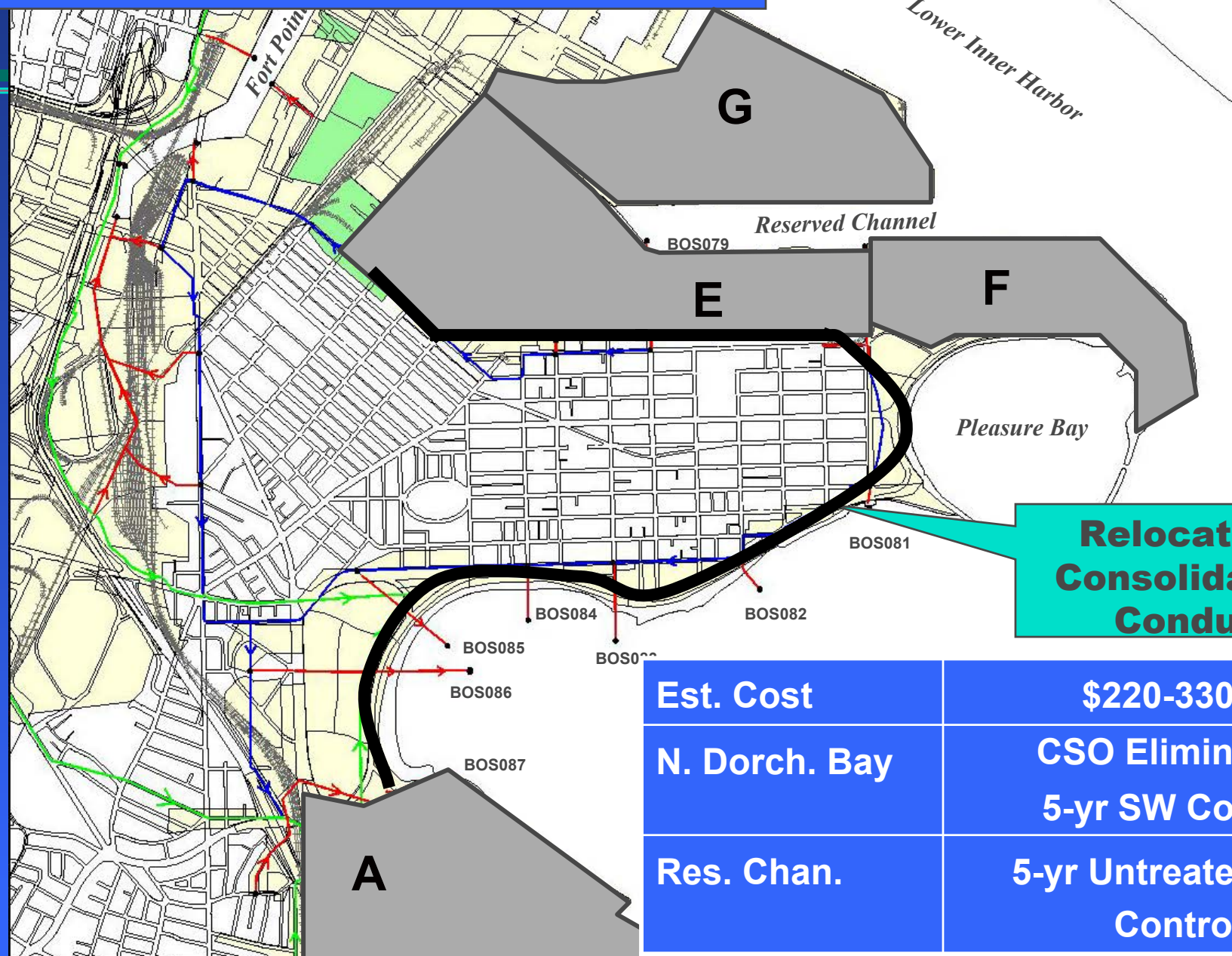
Reserved Channel Separation

Phased Separation of BOS081 to BOS087

Storage Conduit

Est. Cost	\$190 to \$270 Million
NDB	<p>With Storage :</p> <ul style="list-style-type: none"> No CSO Discharge in Typ yr or up to 5 yr Storm No SW Discharge in Typ yr or up to 5 yr Storm <p>With Storage and Separation:</p> <ul style="list-style-type: none"> No CSO Discharge in Typ yr or up to 25 yr Storm 2 SW discharges in Typical Year
RC	3 Untreated CSO Discharges in Typical Year

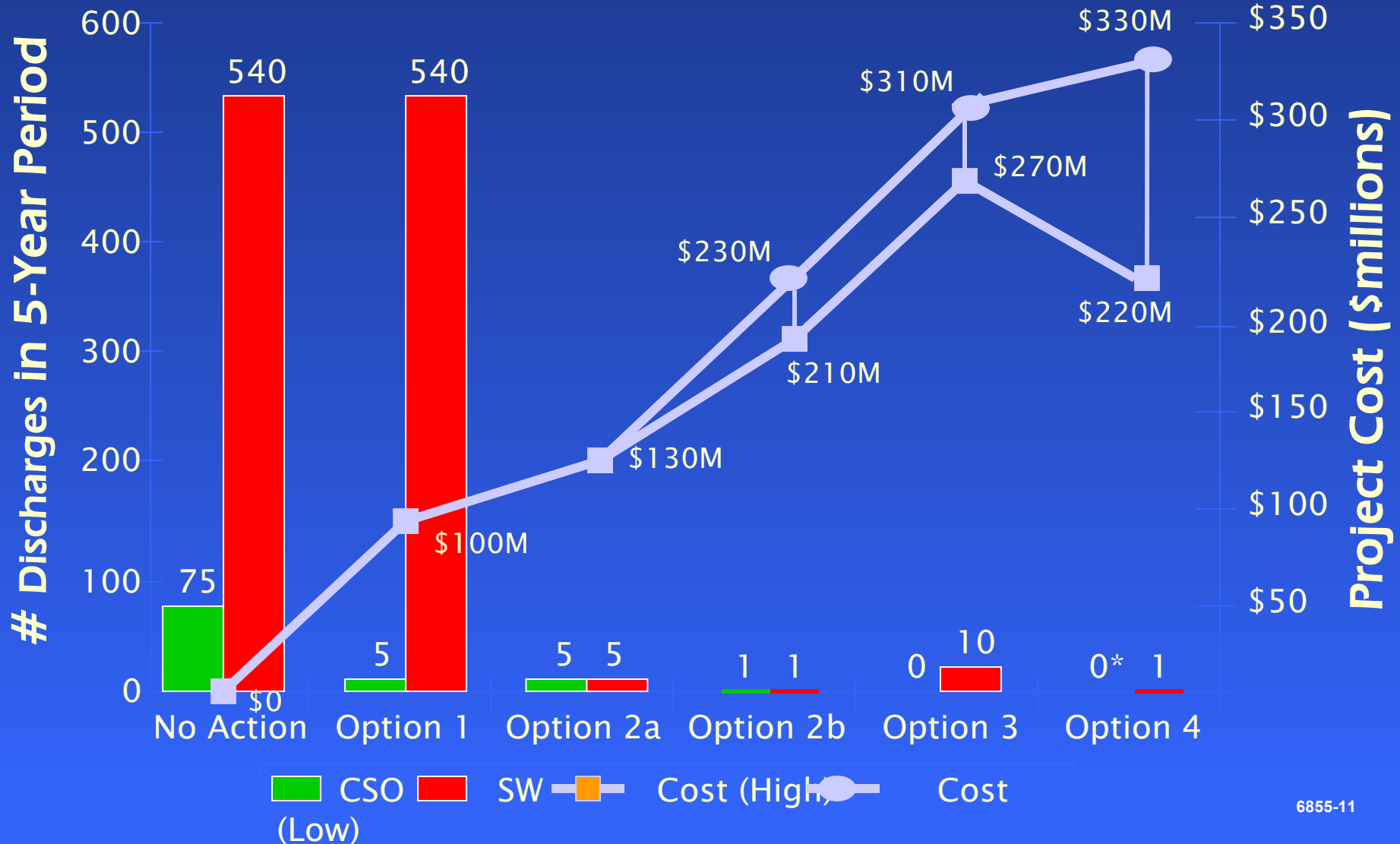
Option 4 - NDB CSO Relocation/ RC Consolidation (Previous Plan)



**Relocation/
Consolidation
Conduit**

Est. Cost	\$220-330 M
N. Dorch. Bay	CSO Elimination 5-yr SW Control
Res. Chan.	5-yr Untreated CSO Control

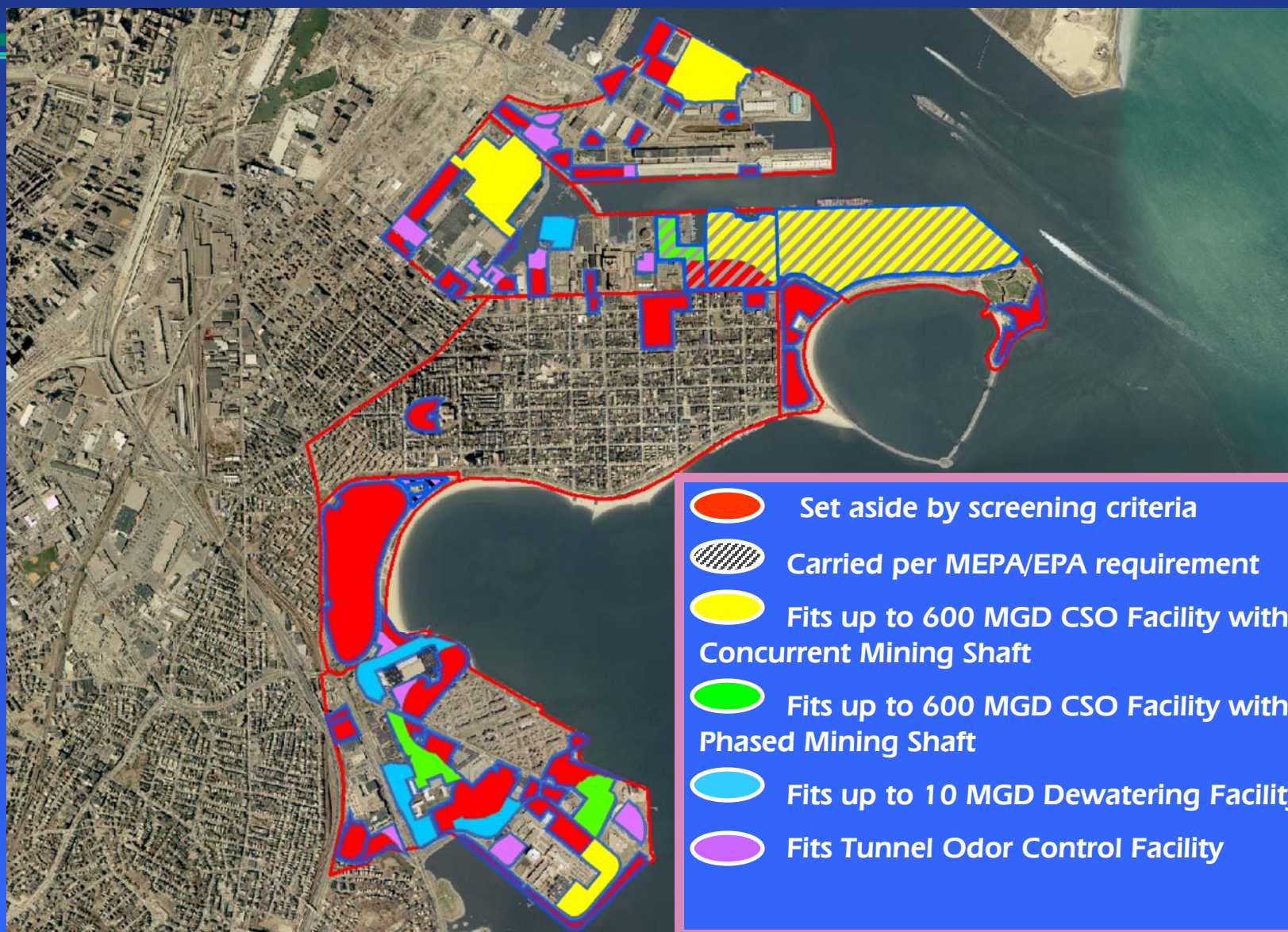
Cost/Performance of CSO Control Options for 5-Year Period



Minimum Site Size Requirements

Facility	Approximate Site Requirements	
	Permanent Facility	Facility and Construction
600 MGD CSO Facility with Concurrent Mining Shaft	3 acres	10 acres
600 MGD CSO Facility with Phased Mining Shaft	3 acres	6 acres
Mining Shaft Only	0.25 acres	4 acres
10 MGD Dewatering Facility	0.5 acres	4 acres
Tunnel Odor Control Facility	0.5 acres	0.75 acres

Summary of Potential Sites after Initial Screening

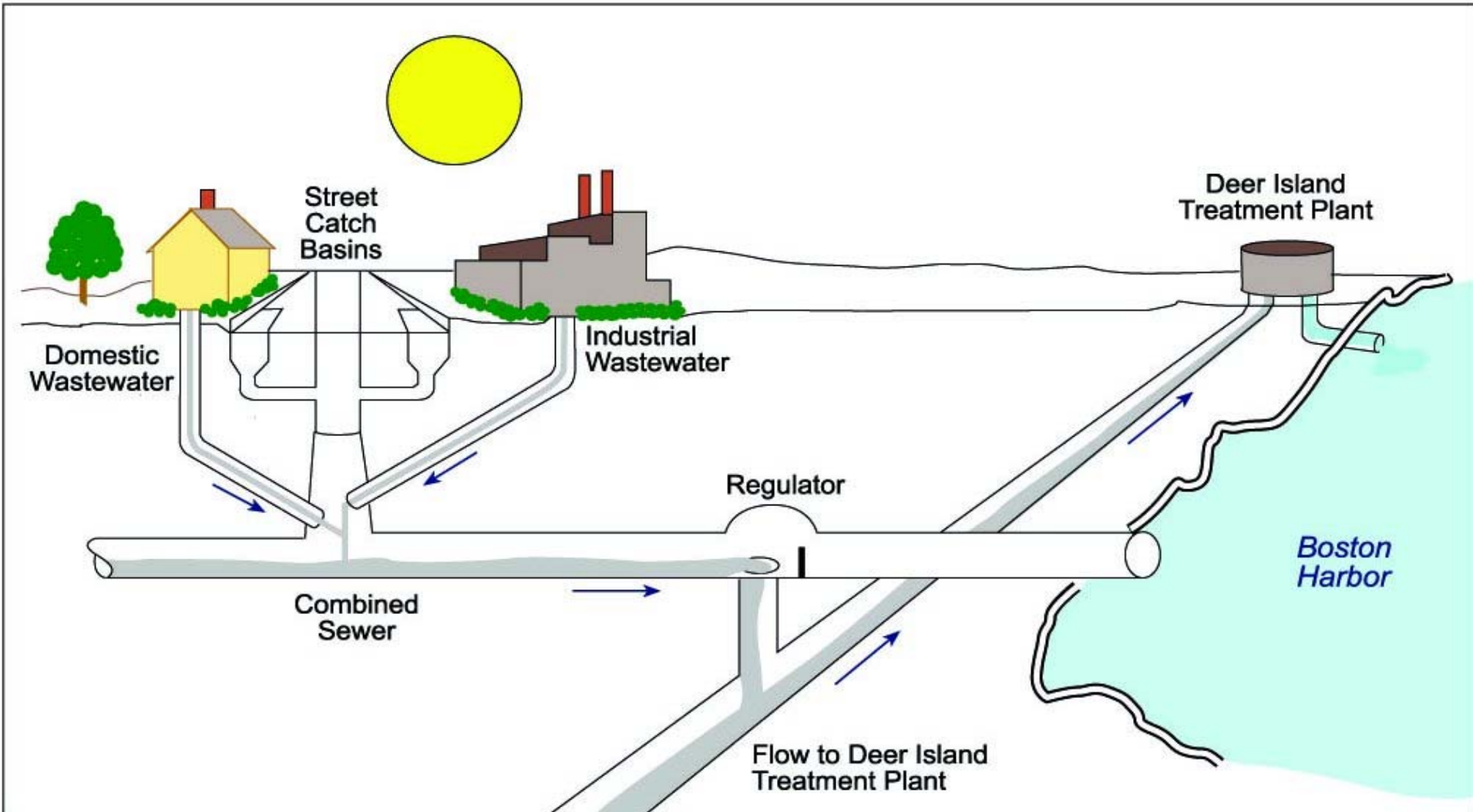


Next Steps

- **Complete WQ Sampling Program (November 02)**
- **Complete Phase I Evaluations (December 02)**
 - Cost/Performance
 - Initial Look at Water Quality Impacts
 - Start Detailed Siting Evaluations
 - Short list of potential sites and technologies/levels of control
- **Initiate Phase II of Reassessment (January 03)**
 - Site-specific layouts of alternatives
 - Detailed Evaluation Based on Identified Criteria
- **Complete Phase II Evaluations (Spring 03)**
 - File SEIR with Revised Recommended Plan

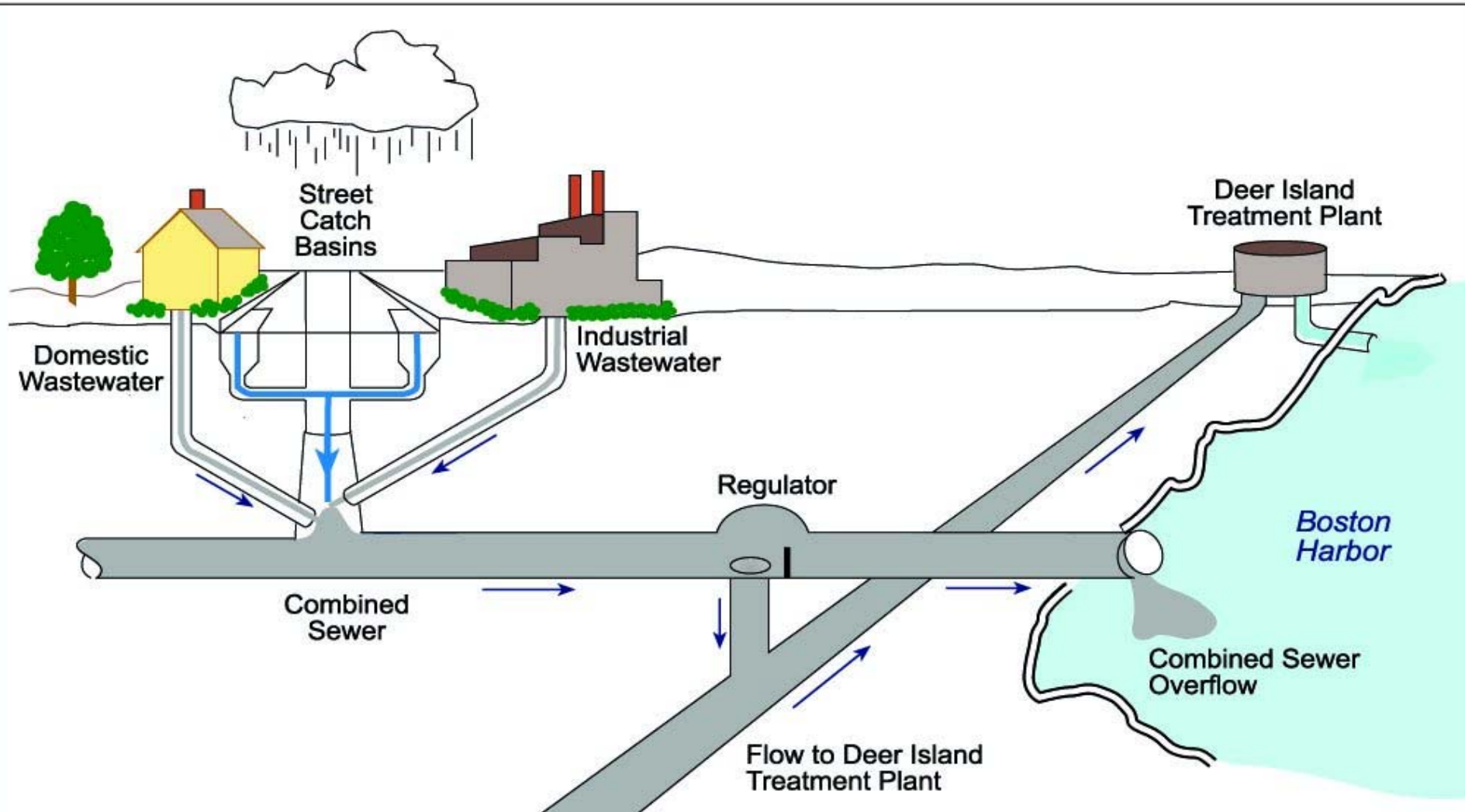
What are CSOs?

DRY WEATHER CONDITIONS



What are CSOs?

WET WEATHER CONDITIONS



Initial Site Screening Criteria Based on Land Use

- **Actively Utilized Park/Recreation Areas**
- **Residences Located within 500 Feet**
- **Future Plans**
- **Historical/Archaeological**

South Boston CSO Reassessment Will Follow MEPA Process

- April 2001 Notice of Project Change Presented Proposed Scope of Work
- Reassessment Will Result in a Supplemental Environmental Impact Report (SEIR)



Summary of Alternatives Screening Process

- **165: Initial Number of Alternatives**
- **67: Remaining Alts after Initial Screening, Comparing Similar Alts**
- **41: Remaining Alts after Combining N. Dorch. Bay and Res. Chan. Alts as Appropriate**
- **4: Major CSO Control Options, based on Inspection of Remaining 41 Alternatives**

Site Screening Criteria Based on Size/Configuration

- **After applying land use criteria:**
 - **Sites too small to construct a facility**
 - **Sites with a configuration precluding construction of a facility**