Redevelopment Within a Sensitive Watershed

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Redevelopment Within a Sensitive Watershed

- Partnering With the MA Department of Conservation and Recreation, the City of Cambridge and Community Groups
- This workshop was produced in collaboration with the Friends of Alewife Reservation and Lesley University
- Project Developer is The Bulfinch Companies, Inc.
Project and Regional Context

- Redevelopment of office park campus in a small urban watershed
- Phased long term redevelopment to follow a Master Plan
- Redevelopment site adjacent to Little River and wetlands
- Site located almost entirely within Little River 100 year floodplain; supports wetlands
Regional Context

- Area is oasis of open space falling within three communities and given high priority by each
- Adjacent to MA Department of Conservation and Recreation Alewife Brook Reservation
- Active “Friends” group - Friends of Alewife Reservation
- Master Plan included restoration of portions of Alewife Brook Reservation
Regional Context

- Arlington
- DCR Alewife Reservation
- Cambridge
- Belmont
- Little River
Local Watershed Activities

Regulatory/Community Issues

- Coordination with FEMA Flood Study progress
- Coordination with DCR regarding restoration of Alewife Brook Reservation
- Contributing to City’s goals for water quality improvement
Local Watershed Activities
CSO Improvements

CSO Stormwater Management Improvements Proposed by City of Cambridge
Redevelopment
Master Plan Approved by City

Architect: ADD Inc., Cambridge, MA
Redevelopment Phase 1

- New Building: Smithsonian Astrophysical Observatory
- Demolition of select existing buildings
- Removal of parking lot from MDC property
- Creation of pedestrian pathway as link to regional transportation system (bike, subway, bus, parking)
Redevelopment Conditions Previous to Phase 1

- Property Line
- Wetlands
- Entire Site is in Little River Floodplain

Central Marsh

Little River

Alewive MBTA Station
Redevelopment
Pre and Post Phase 1 Construction
Redevelopment
Building Demolition

Building 20A and bridge

Building and bridge removed
Open Space Improvement
Former MDC Parking Lot

- 454 space parking lot removed; preserved spaces for visitor parking
- Initial restoration included upland meadow, wetland, floodplain, preservation of existing trees
Open Space Improvement
DCR Pedestrian Pathway

- Pathway to MBTA
- Replaced informal pathway with directed route
Central Marsh Restoration Goals

- Improve biodiversity by expanding areas that support diverse species
- Improve wildlife habitat value
- Potentially improve water quality
Central Marsh Restoration
Issues

- Stagnant emergent marsh dominated by invasive species
- Tributary to Little River
- Could improvement of marsh biodiversity assist in improving Little River water quality?
Central Marsh Restoration Action

- Convened a Committee representing three towns, state and federal agencies, a Friends Group, and neighborhood groups
- Designed stormwater management to improve flow toward marsh
Central Marsh Restoration
CZM Coordination

- Obtained grant from MA Office of Coastal Zone Management to determine potential for wetland restoration
- CZM conducted study to evaluate marsh hydrology
Central Marsh Restoration
Stormwater Management

- Stormwater management designed to improve stormwater pulsing to Central Marsh

Architect: ADD, Inc, Cambridge, MA
Central Marsh Restoration

Invasive Species

- Conducted cover type mapping with Friends of Alewife volunteers and students from Lesley University
- Permitting for test plot to control *Phragmites*
Results
Successful Collaboration

- Worked with City of Cambridge to develop environmentally-sensitive Master Plan
- Coordinated with neighboring towns to work toward wetland restoration
- Coordinated with MA DCR to restore open space
Results

Ecological Restoration

- Improved hydrologic flow to stagnant wetland
- Reduced impervious cover
- Improved condition of 100-year floodplain and riparian corridor
- Developing test plot to improve diversity in Central Marsh area