

Brookline Reservoir Park



JUNE 20, 2017

BROOKLINE RESERVOIR PARK



Welcome Everyone!



- Introduction—Goals, Process, Funding
- Existing Conditions and Site Analysis
- State Requirements for Dam Safety
- Open Discussion
- Summary and Conclusion

Project Goals and Priorities



- Safety and accessibility;
- Community gathering;
- Opportunities for people of all ages and abilities; and
- Beautiful, natural, historic open space.

Project Objectives to Meet Goals



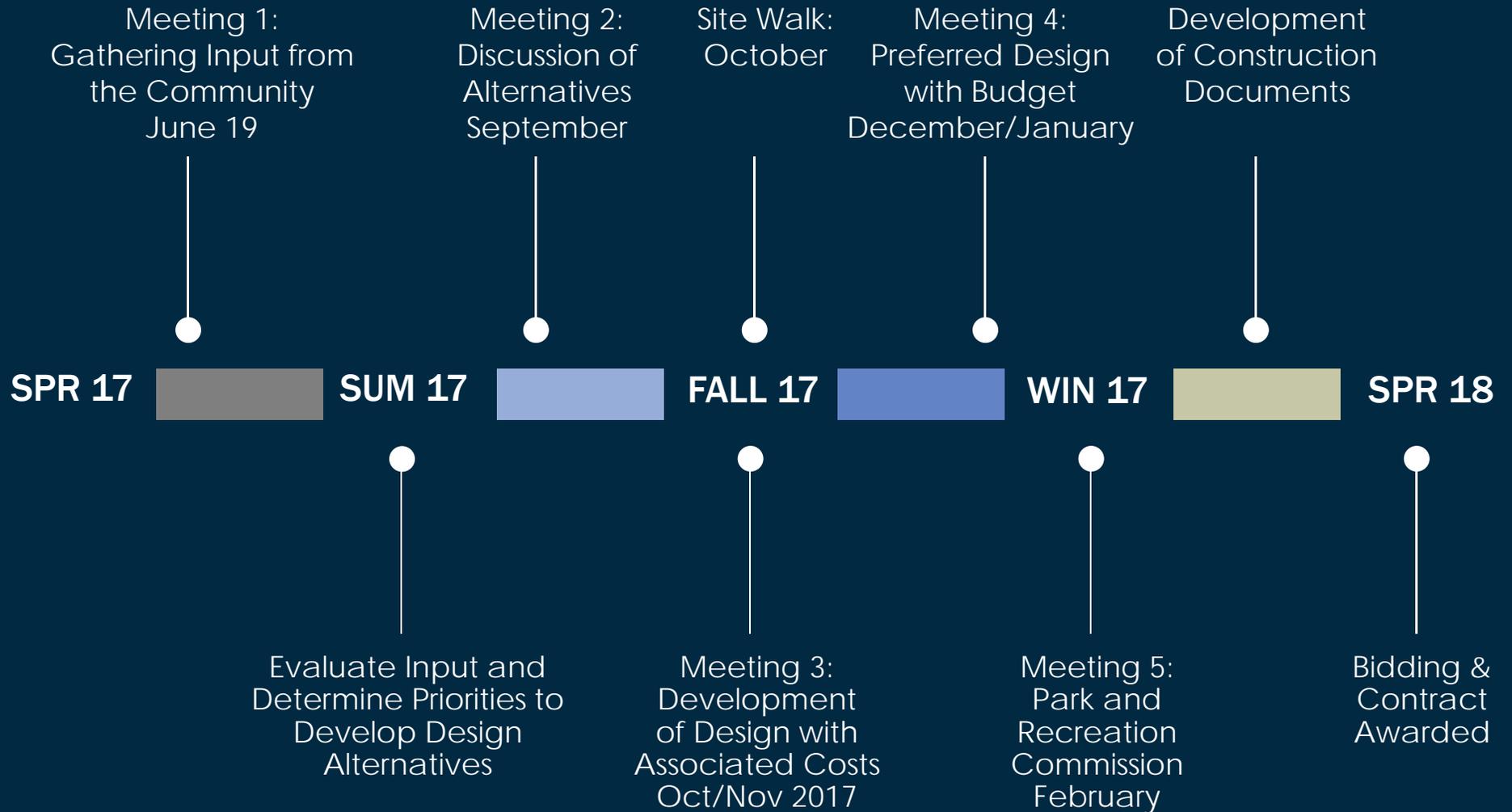
- Universal access and renovation of the walking paths;
- Masonry repair ;
- Destinations for seating and picnicking;
- Turf and planting renovation, including removal of invasives;
- Strategy for a directive from the state's Office of Dam Safety;
- Interpretive signage;
- Grading and drainage;
- Comfort station within the Gate House; and
- Treatment of the park's perimeter and entrances.

Design Review Process



- Establishment of a Design Review Committee;
- Open discussion in public meetings of alternative solutions;
- Final presentation to and vote by Park and Recreation Commission; and
- Development of construction bid package by Town staff.
- Total project budget is \$2.2 million, including the gate house and masonry repair at reservoir basin.

Project Timeline





EXISTING CONDITIONS

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Existing Conditions—Survey

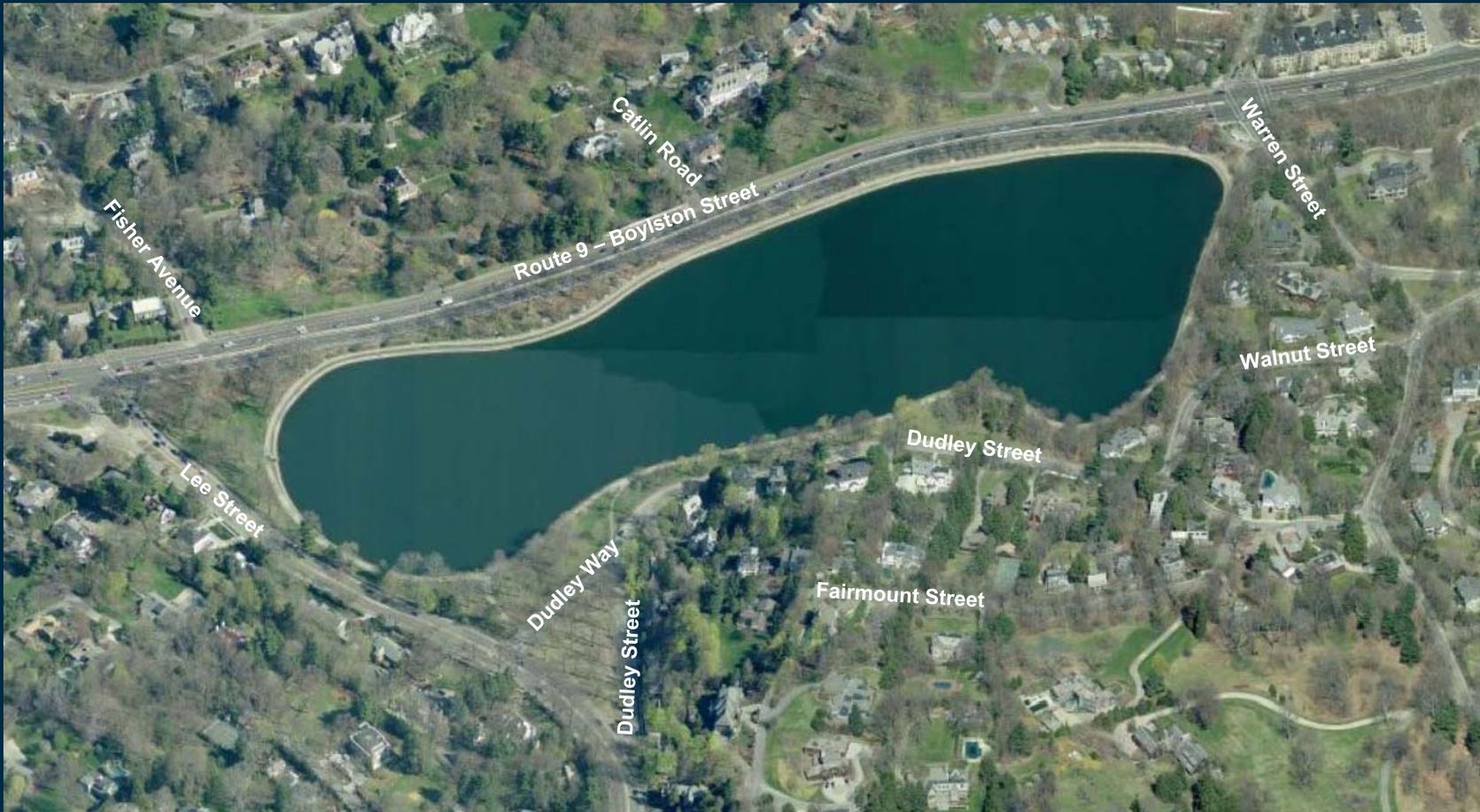


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Existing Conditions—Aerial View

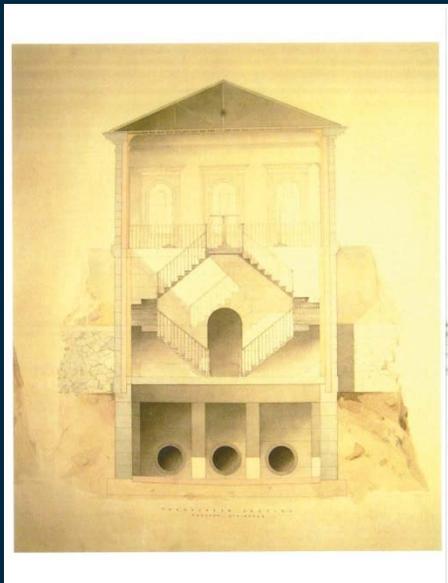
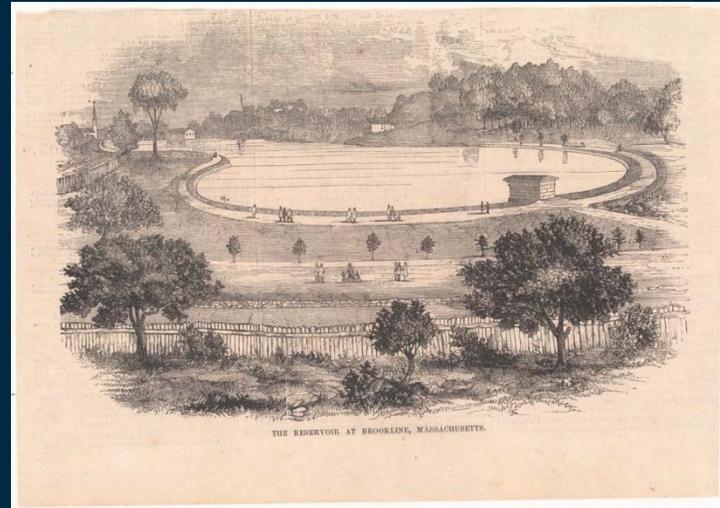
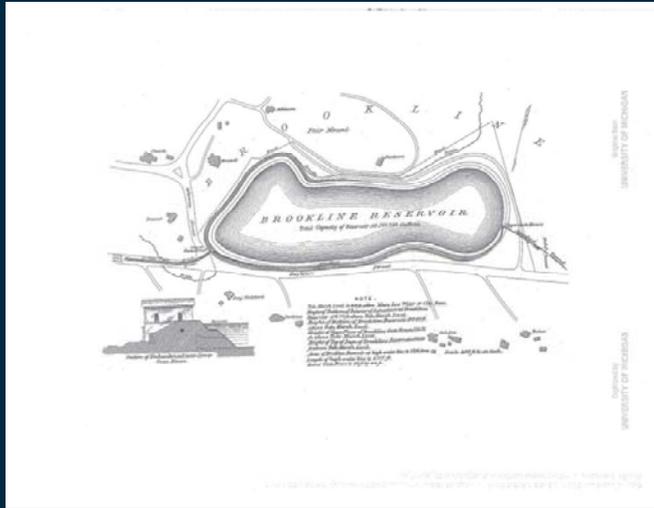


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Significance of the Park--Historic



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Significance of the Park—Recreational, Natural, Aesthetic, Community



Community Events



Fishing

Significance of the Park—Recreational, Natural, Aesthetic, Community



Walking for companionship
or exercise



Running, with or without dogs

Significance of the Park—Recreational, Natural, Aesthetic, Community



Desirable wildlife



Nuisance wildlife

Significance of the Park—Recreational, Natural, Aesthetic, Community



Fall color



Spring color

Significance of the Park—Recreational, Natural, Aesthetic, Community



Family outings



Popular location for donor benches



OPPORTUNITIES AND ISSUES

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Park Entrances



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Park Entrances



At Warren Street



Informal entrance at Rte. 9/Lee St.



At Walnut Street

Park Entrances



At Dudley Street near Lee Street



Informal entrance at Dudley St.



At Dudley Street

Pedestrian Circulation



Pedestrian Circulation



Stonedust path



Pinch point at gate house



Pedestrian desire line

Accessibility



Uneven surface



Steep slope exceeds 1:20



Informal entrance:
steep, unpaved



Inaccessible stairs

Edge Conditions



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Edge Conditions



Lee Street



Route 9 Eastbound

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Edge Conditions



Walnut Street



Dudley Way
Approaching Lee Street



Dudley Street

Signage



Interpretive signage



Regulatory signage

Drainage and Utilities



Regrading needed



Gully in stonedust

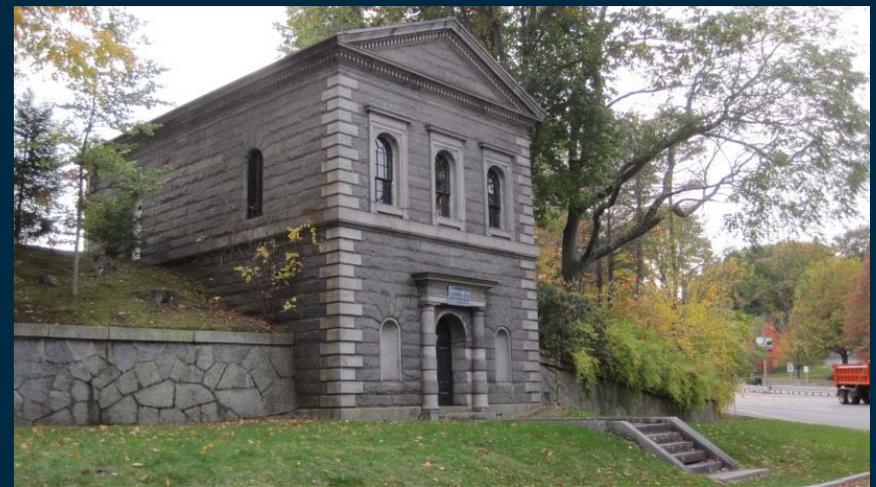


Washout in stonedust

Structures



Upper Gate House



Lower Gate House

Masonry Repair



Repair needed at basin armature



Joints deteriorating,
volunteer growth



Repair needed at
Dudley Street wall

Lawns and Vegetation



Signature Cherry trees



Invasive vegetation



Trees over lawn



Varied tree species



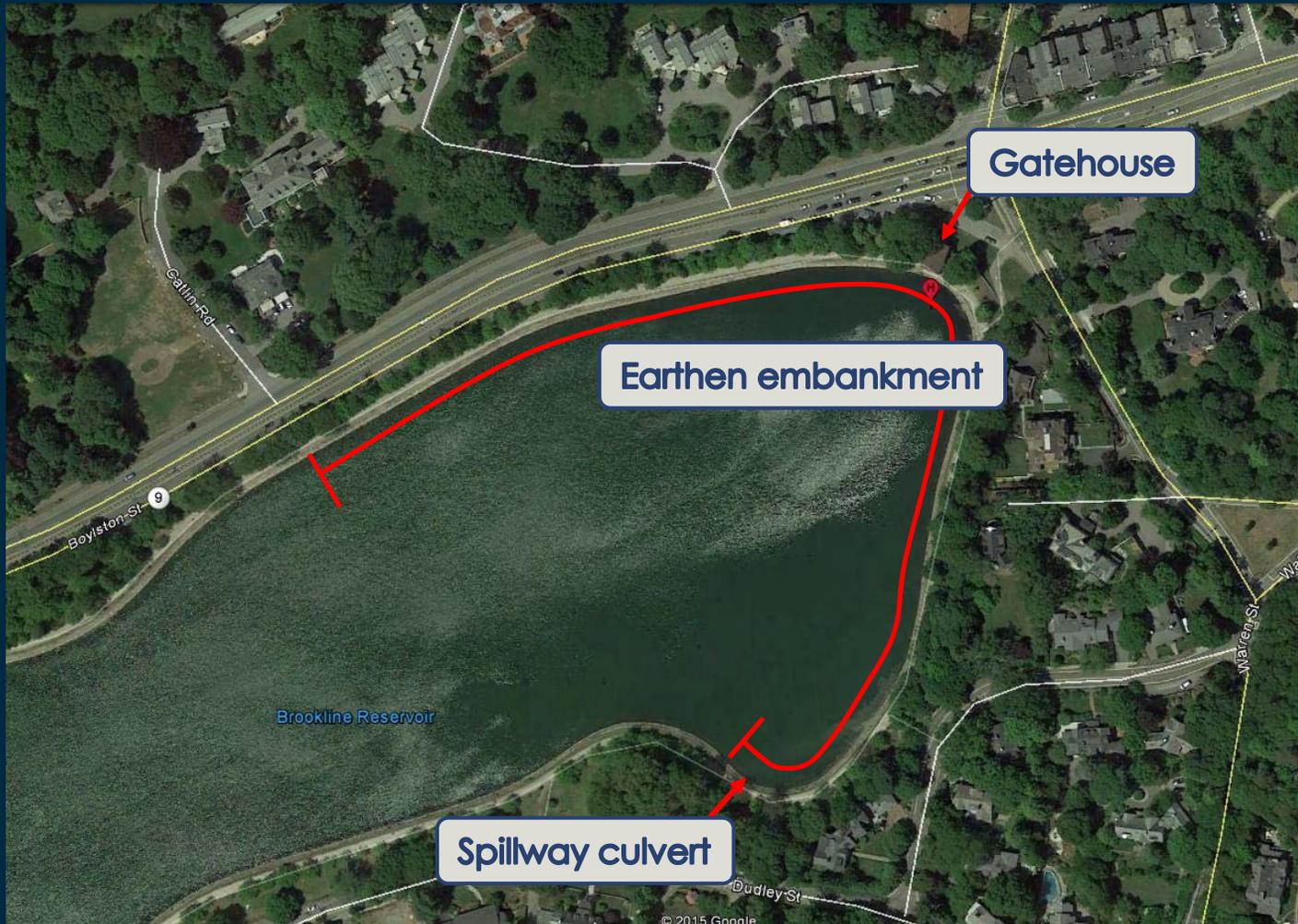
DAM SAFETY COMPLIANCE

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State Requirements for Dam Safety Compliance



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State Requirements for Dam Safety Compliance

- ◆ REGULATED BY MASSDCR OFFICE OF DAM SAFETY (ODS)

- ◆ "INTERMEDIATE" SIZED STRUCTURE

 - 19 FEET MAXIMUM HEIGHT

 - 300 ACRE-FEET OF AVAILABLE STORAGE OF WATER

 - 98,000,000 GALLONS

- ◆ "HIGH" HAZARD CLASSIFICATIONS

 - FAILURE WOULD LIKELY CAUSE:

 - LOSS OF LIFE

 - SERIOUS DAMAGE TO HOMES, MEDICAL FACILITIES,
AND COMMERCIAL DEVELOPMENTS

*HAZARD CLASS HAS NOTHING TO DO WITH THE DAM'S
CONDITION*

State Requirements for Dam Safety Compliance

2014 INSPECTION

- ♦ DAM IS GENERALLY WELL MAINTAINED
- ♦ OBSERVED DEFICIENCIES

- TREES AND BRUSH ON DOWNSTREAM SLOPE
- BARE SOIL ON DOWNSTREAM SLOPE FROM SHADING
- SMALL ANIMAL BURROWS
- EROSION ALONG GATEHOUSE
- MINOR DEPRESSIONS ALONG CREST
- MINOR DETERIORATION OF DOWNSTREAM WALL
- MINOR DETERIORATION OF UPSTREAM GRANITE PAVING

State Requirements for Dam Safety Compliance

ODS POLICY ON TREES ON DAMS

- Dam embankments must be maintained free of trees and brush
- No trees and brush within 20 feet of dam or appurtenant structures
- Healthy uniform cover of grass is recommended
- Permit required if vegetation to be removed is greater than 4 inches in diameter

<http://www.mass.gov/eea/agencies/dcr/conservation/dam-safety/policy-on-trees-on-dams.html>

State Requirements for Dam Safety Compliance

COORDINATION WITH ODS

- ODS Order Dated September 12, 2014
- Meeting with ODS to observe existing conditions
- TOB - Survey/Inventory of Trees/Assessment of Condition
- Presentation – October 13, 2015 – Tighe & Bond/Brookline Engineering Division: Condition and Status of Brookline Reservoir Park as Dam.
- Site Walk – November 20, 2015 – Neighbors, Park and Recreation Commission, Staff
- February 24, 2016 – Tighe & Bond Submits 3 Phase Tree Management Plan
- Meeting with ODS to discuss Tree Management Plan
- Tighe & Bond Field Inspection 2017

THIS DESIGN REVIEW COMMITTEE PROCESS WILL DEVELOP IN MORE DETAIL THE APPROACH TO DAM TREATMENT.



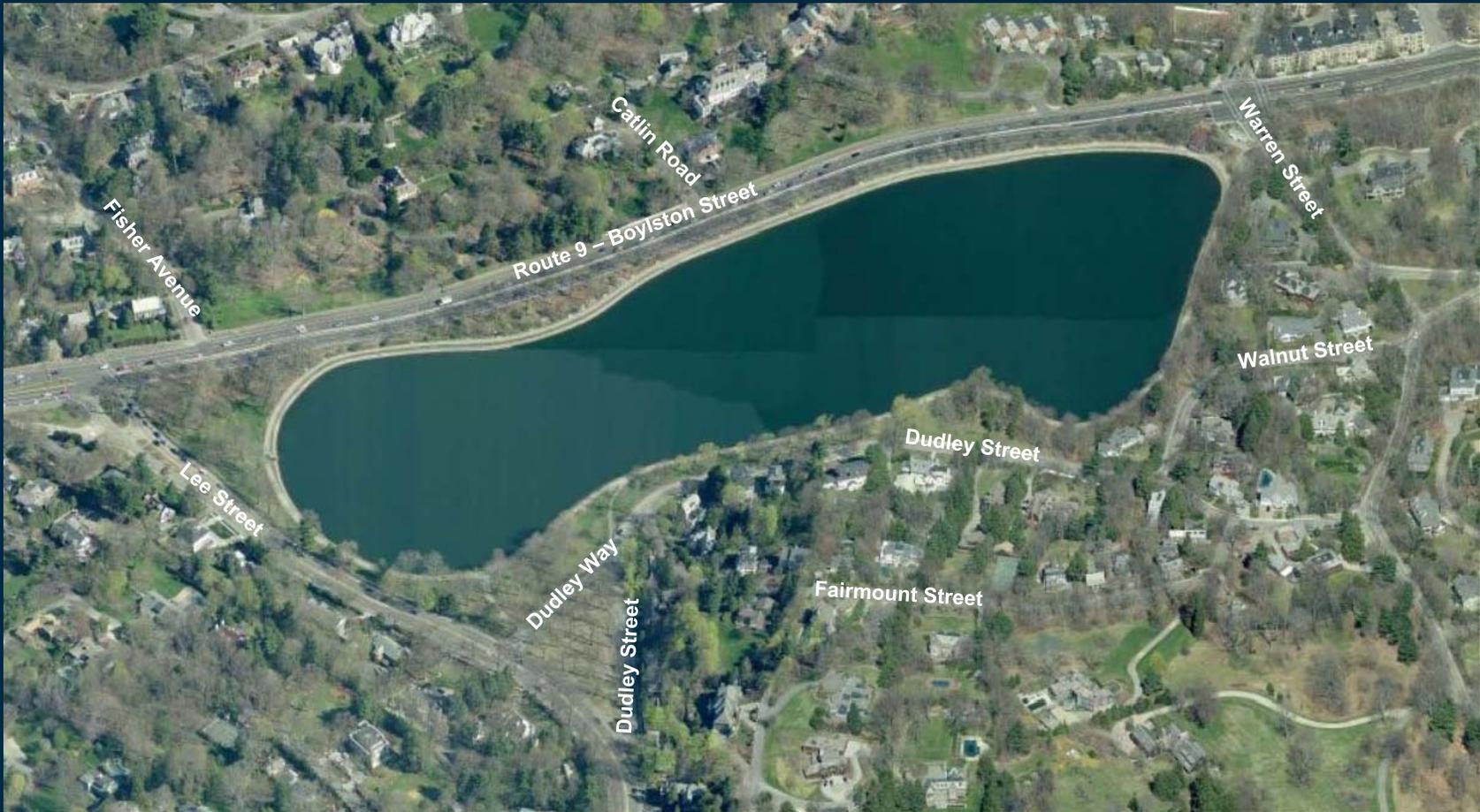
What do YOU want for your park?
What do you like best about the park?
What would be the biggest improvement?

Contact Information

Your input is valuable - Please
contact us with your ideas!

Parks and Open Space Division
Town of Brookline
Annie Blair, Landscape Architect
333 Washington Street
Brookline, MA 02445

Telephone: 617-730-2616
Email: ablair@brooklinema.gov



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