

# MEMORANDUM



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DATE: 2/25/15

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RE: DEERING OAKS RAVINE PLANTINGS

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TO: DEB ANDREWS

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CC: WOODARD & CURRAN (FORWARDED TO COMMITTEE MEMBERS).

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## HISTORICAL PRECEDENT (from 1994 Deering Oaks Master Plan, by Halvorsen Company)

The western ravine – also referenced by Goodwin as “the gully” - has always challenged Goodwin’s original intentions for the area. He had proposed for the ravine a fountain at its western edge with a stepped series of cascading pools emptying into Deering Oaks pond. One pool, located at the head of the ravine, was constructed in 1889 however water supply was deemed inadequate to create the full intended effect for the cascading series of pools proposed in the original plan. In 1914 a water supply line was installed at the head of the ravine, as suggested by Goodwin many years prior. The Annual Report of 1912 reported that water flowed into an upper level pond and over a dam into the main pond.

Maintaining plantings along ravine side slopes proved to be challenging. The City planted these areas several times between 1912 and the 1930s. While Goodwin worked with a fairly narrow palette of native trees and shrubs, plantings proposed during this era included ornamental and exotic species popular at the time. A 1935 planting plan by William Dougherty showed an elaborate ornamental scheme for the upper pond and ravine. By the time of the 1994 Master Plan, this area was largely in disrepair. The Plan called for a feasibility study for re constructing the upper pond in the ravine. The popular Ravine Pool was subsequently added in 2000. The 1994 Master Plan called for restoring the natural beauty and ecological health of Deering Oaks, including the enhancement of understory plantings around pond perimeters to enhance the landscape composition, limit visitor access to the edge to decrease erosion and to reduce maintenance. Recommendations included increasing shrub and groundcover plantings to embellish the landscape and create cross-supporting plant communities.

For the ravine, Goodwin originally envisioned a naturalistic edge with steep slopes and heavy plantings. The natural edges of the ravine were retained until recently, when sloped granite curbing was added to reinforce the banks. The 1994 Master Plan stipulated that this style of reinforcement be discontinued in favor of a stacked curb edge and recommended that this treatment be continued to the concrete bridge across the ravine. The Plan called for reserving the naturalistic treatment to the ravine area above the bridge. While this area has since been planted, bank edges were formalized to reduce erosion. The Master Plan did not make specific provisions for the lower ravine area, where plantings are now being proposed.

## PROPOSED TREATMENT

We believe that the overall goals and approach for this planting project are consistent with Goodwin’s vision of the ravine as a naturalized landscape. While the 1935 planting plan for the

ravine provided an opportunity to mimic former plantings, we felt that the plant palette was not in keeping with Goodwin's preferred native plant palette. As well, the primary goal for improving this area – as directed by the TSE – is to enhance the buffer to reduce runoff and erosion. To achieve these benefits, the plantings need to thrive and be appropriate for stabilization. Past planting efforts likely failed, in part, because plant selection was based on a desired ornamental effect rather than in response to natural function or soil conditions. We've selected shrubs that do well in heavy clay soils and tend to colonize in natural settings. It is not the intent that these plantings should receive intensive management, but left to naturalize. For this reason, we limited plantings east of the old bridge abutment, where the pond widens and the landscape becomes more formal.

The proposed plan for lower ravine includes native understory trees, shrubs to stabilize steep banks and herbaceous plants to enhance visual interest and diversity of species in the wetland areas. The reinforced edges of sloped granite will be retained and seeded-in native plants, including grasses and several species of aster, will be nurtured in the spaces between the blocks. The wetland soils just east of the foot bridge will be enhanced with flowering herbaceous plants, such as Blue Flag Iris White Beard Tongue and Wild Bergamot. Colonizing and wettolerant native shrubs, including Winterberry, Summersweet and Elderberry are proposed in groupings along the stabilized bank edge, with Summerweet and Witherod Viburnum proposed in swaths along the northern upland, where the slope is very steep. Hophornbeam trees and Witchhazel plantings supplement the understory in this area.

The proposed plan also recommends that mowing schedule and cutting height be adjusted in the remaining lawn areas between the lower paths and the top of bank in order to achieve a better diversity of grasses and forb species. This will also help to reduce erosive impacts from intensive mowing of the steep slopes. It is recommended that these areas be kept between 5-8 inches tall which creates conditions more favorable for warm season grasses and associated flowering species. For all plantings, the City will need to regularly monitor for invasive species so that plants can be detected and addressed early to avoid higher levels of infestation and the issues associated with them.

There are limited improvements proposed beyond plantings. The plan also calls for improving access to the wetland at the former pedestrian bridge location via stepped reclaim curbing bordered by boulders. These stones will be hand selected for rounded edges and will have similar qualities to those in the Ravine Pool Area. At the request of staff, a portion of the reinforced granite edge will be removed and utilized in this area. The stepped feature will allow visitors to explore plantings along the ravine edge while reducing unwanted impacts to planted areas..

We hope we have adequately described the proposed scope of work as well as the historical precedents for this work. If you have any question, please do not hesitate to contact us.

Sincerely,



**Regina S. Leonard**  
Maine-Licensed Landscape Architect