

Summary of McClennen Park Detention Basin Assessment

The McClennen Park Detention Ponds on Reeds Brook are small constructed ponds that have major value for storm water control and provide wildlife habitat. The Arlington Conservation Commission (ACC) identified iron flocculation (brown water color) as a potential concern in these stormwater detention ponds. A preliminary review of the state of these ponds in 2016 indicated that there may be seepage from the landfill material – which was capped but not lined, that may have caused the iron flocculation of the ponds in certain locations. The ACC hired Brown and Caldwell to evaluate the existing site conditions and make recommendations for further investigation or action, as needed. In the Fall-Winter of 2016, the ACC provided oversight of the contractor's assessment of these ponds, which included document reviews at DEP and on-site sampling of the surface water and sediment (performed in December 2016). The report (submitted in March 2017) of this initial assessment, attached, indicated that **1**) the concentration of volatile organic compounds (VOCs) and metals that are present in the surface water and sediments do **not** pose a risk to human health, **2**) several metals (iron and manganese) were detected at elevated concentrations in surface water and sediment, which **may** pose an ecological risk. The report recommended further investigation of the potential ecological risk from the high levels of metals in the surface water and sediments.

The report includes a history of the site and environmental decisions leading to the capping of the landfill and creation of the stormwater detention ponds; summary of the site visit performed in November 2016 to identify locations for sampling; wetlands observations based on December 2016 site visit; summary of the field sampling performed in December 2016 and tabulated chemical results for surface water and sediments; and conclusions and recommendations for future work.

Based on these findings, we recommend an ecological assessment of the detention ponds be performed using Water Bodies funds. This assessment would be performed in two phases (spring/summer evaluation and fall/winter evaluation) since temporal variability needs to be understood for ecological risk. Results of the initial phase of the ecological assessment will give us enough information to decide whether the second phase is recommended for additional information or if another direction may need to be taken (e.g., no ecological risk is anticipated). If the ecological assessment shows adverse conditions (risk) for organisms, further investigation on the source of the elevated metals may be required (e.g., monitoring wells to assess whether the capped landfill adjacent to the detention ponds is the source of the metals). Based on that assessment, we may find that any solution will be beyond the resources of the Water Bodies fund and may require a combination of CPA and Town financing towards the broader goal of improving the site's aesthetic, recreational, and wildlife functions.

Respectfully Submitted by:

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