7098-7118 Kilbourne Road Revised Reports – EEPAC Review

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Geotechnical Engineering Report Comments

1. Continuous groundwater flows to wetland area and Dingman Creek throughout the year with less than 1m water table variation. Unclear how short-term localized dewatering activities and/or sub-excavation will not have an impact on slope stability given moisture content and substrate size in the sampled boreholes, especially in sections D and F. Further, the organic thicket swamp is sensitive to changes in hydrological change as noted in the Scoped Hydrogeology Study Report. Dewatering is not supportable and basements should not be permitted.

Scoped Hydrogeology Study Report Comments

1. It is not clear why groundwater chemistry samples were unfiltered if this positively biased metals concentrations. This calls into question the exceedances of Aesthetic Objectives (AOs) and Operational Guidelines (OGs) observed on the site for metals that preferentially do not dissolve (e.g. aluminum, iron, and manganese).
2. The report notes a 17.5 % decrease on the local recharge and a 72.6% increase in runoff would be caused by the development. EEPAC's main concern is contamination of groundwater and wetland - mitigation options are in LID design prioritizing de-icing salt management and runoff management. However, introducing clauses around salt use for de-icing for residents seems to shift the responsibility of reducing contamination to residents rather than have a prior solution developed by the proponent. What ability is there in the conditions of development to ensure protection of the wetland features? Further, though the report assesses the magnitude of hydrologic changes will be low, but the wetland is highly sensitive to change in hydrology, so what does a 17.5 % decrease on the local recharge mean for this sensitive habitat? The report is silent on this issue.
3. Warmer water temperatures due to the infiltration of runoff water through LID system, and though there may not be an overall increase in groundwater temperature, would specific points of infiltration from the LID system impact the habitat quality in the wetland? This is also not addressed in the report.
4. De-icing with salt and subsequent contamination of ground/surface water is likely to be greater during freeze/thaw periods during winter months (assuming November to March) by salt runoff from roadways and use by residents. Beyond post-construction monitoring, what adjustments or enforcements can be made in the conditions of development if salt contamination is found to increase during year one of monitoring?
5. Consider implementing a plan for sodium and chloride reduction. For example, homeowner education for proper discharge of pools (including non-saltwater pools) and use of de-icing salts and working with the City of London to reduce de-icing salts on public and private roadways, where safely implementable. Frankly, a condition of the condominium agreement is that no pools should be permitted as it is likely they will discharge to the ESA.
6. Because the report suggests that the adjacent SWM facility might be a contributing factor to high sodium and chloride levels, the City of London should consider what corrective actions can be implemented if this turns out to be the case.