From: Caroline Hill Smith

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Subject: Planning Committee Item 9.2 MZO- Concerns re:Twenty Road West Corbett Land Strategies Hydrogeology Report

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Hello Mayor Horvath and Hamilton Councillors,

I read the staff recommendations to oppose building at Twenty Road West and I strongly **support** their decision. Yet if the reasons staff have outlined are still not enough to compel a rejection of this development proposal/MZO, I can give you one more --**flooding**.

With the recent regulatory changes to the Provincial Policy Statement alongside claw backs to CA responsibilities, the city is on the hook to preserve the quality and quantity of water as outlined in 4.2 of the PPS. During the UBE open house I spoke to staff and Councillor Cassar about the problem of flooding/keeping our freshwater safe in light of the increased city footprint from UBE. Urban flooding is a huge financial burden on every municipality and occurrences now create significantly more damage. I lived in Mount Hope for 30 years. I am very familiar with soil/water properties and specifically drainage and overland flows because of farming/gardening in that area.

I returned to university to study hydrology/hydrogeology which then led to completing a graduate degree studying water policy/ road salt impacts on freshwater systems.

The land north of the airport along Twenty Road West and Dickenson Road West contains large stores of groundwater and acts as **headwaters** for Twenty Mile Creek flowing in an easterly direction. A site visit to the parcel on Dickenson Road West that abuts the Amazon warehouse business complex allowed me to better assess the groundwater/overland flows impacted by paving over farmland as part of the AEGD. I examined groundwater well data on the Dickenson property. I also assessed the current stormwater drainage function and maintenance at Twenty Place directly north of the subject lands. This stormwater drainage system empties into the large Twenty Creek wetland complex. There was evidence of groundwater bubbling to the surface in a retention pond on the Twenty Place property indicating groundwater storage pressurized enough to be forced to the surface.

I examined the findings of **Corbett Land Strategies** Hydrogeologic report and it is my opinion that residential/commercial development that creates large tracts of impermeable surfaces, in light of the AEGD development the city is concurrently pursuing at Dickenson Road West, will result in flooding of existing residential properties to the east/ northeast. Without careful consideration of groundwater and

overland flows, Twenty Mile creek wetland complex adjacent to the stormwater drainage systems could be compromised with excavation of the site. The Corbett Hydrogeologic report acknowledges the area as one of significant groundwater recharge pressurized within aquifer layers as I myself noted from the well data from Dickenson Road West site. Corbett references a SED or safe excavation depth. SED is an arbitrary term that is estimated and can vary greatly within metres. The sheer groundwater storage beneath this parcel will create land instability and upheaval if the SED is breached. The volume of groundwater necessary to be removed is incalculable resulting in catastrophic damage to the Twenty Mile Creek watercourse quality and viability.

In addition, climate change- fuelled storms result in an unpredictable variability in precipitation. The costs to the city for financial relief to flooded properties will be prohibitive.

Staff referred to the necessity for upgrading downstream stormwater infrastructure. This development would essentially be redirecting water flow away from Twenty Mile Creek to Hamilton Harbour. Those costly infrastructure upgrades may ameliorate some flooding but the proposed site development will also result in exponential changes in quality and quantity of runoff further compromising our lake water quality, the source of our drinking water.

The future health and welfare of Hamiltonians depends on sound environmental management not solely upon developer- led urban expansion.

Kindest regards, Caroline Hill Smith, MES- Water

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