

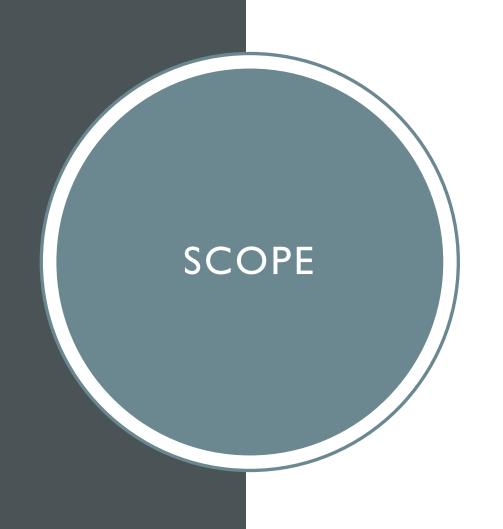
# DUAL- USE UNDERGROUND STORMWATER FACILITIES

SOCIO-ECONOMIC ANALYSIS AND ASSESSMENT FRAMEWORK



HARDY
STEVENSON AND
ASSOCIATES
LIMITED AND
ORACLEPOLL
RESEARCH
LIMITED

- Dave Hardy, RPP, FCIP President, Hardy Stevenson and Associates Limited (HSAL), Planner (social science and socio-economics)
- Mimi Lau, MES, Planner (public health, community benefits and policy)
- Dr. Paul Seccaspina PhD, President, OraclePoll Research Limited (research design, polling and statistics)



#### We were asked to:

- Help inform how Stormwater Management Facilities (SWM ponds) vs Dual-Use Underground Stormwater Facilities (DUSF) with a park on top would compare on the basis of socio-economics.
- b. Prepare a socio-economic evaluation framework for assessing SWM ponds vs DUSFs under varying circumstances.

The socio-economic evaluation methodology has been used by HSAL for:

- assessing the value of timber in support of US-Canada softwood lumber talks
- 2) assessing the full value of conservation area lands. US-based Parks People use this method to calculate the full value of public parks.



- Framed SWM ponds and DUSFs in a way that would provide a like-to-like comparison.
  - Addressed potential for bias by not presenting either facility in it's best or worst light
- Completed SEIA research on the socio-economic characteristics of both facilities.
- Completed statistically significant opinion poll across the GTHA
- Developed criteria, indicators and measures to be used to construct an evaluation framework.
- Noted where data was absent or other reasons we were not able to draw conclusions.

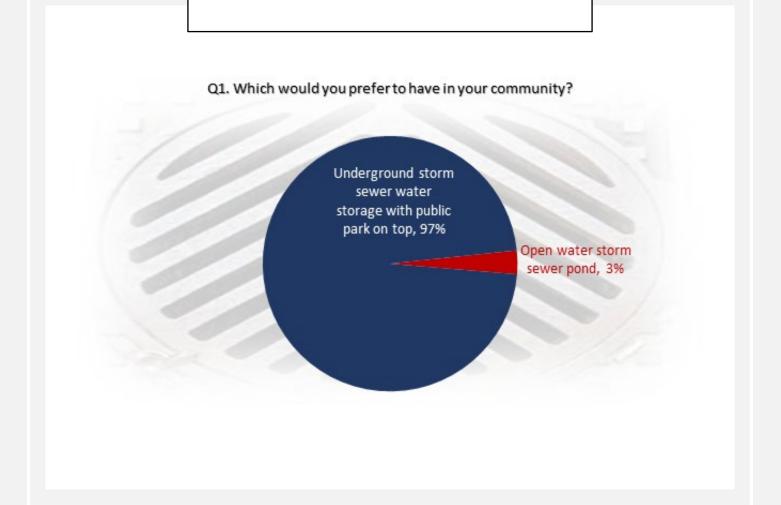


- I. Intrinsic values
  - · Aesthetic values are similar
    - Both facilities can be made to be aesthetically pleasing
    - For Existence and Use values we conclude that DUSFs have more value
    - Poll results show a strong preference for DUSF with a park on top
    - DUSFs can provide community uses that SWM's can't
    - Can fill gaps in parkland deficit
    - DUSFs allow multiple uses compared to single uses for SWM ponds
    - Data gaps did not allow a complete examination of existence values
  - Spiritual values
    - Not able to draw conclusions
    - More work would be required



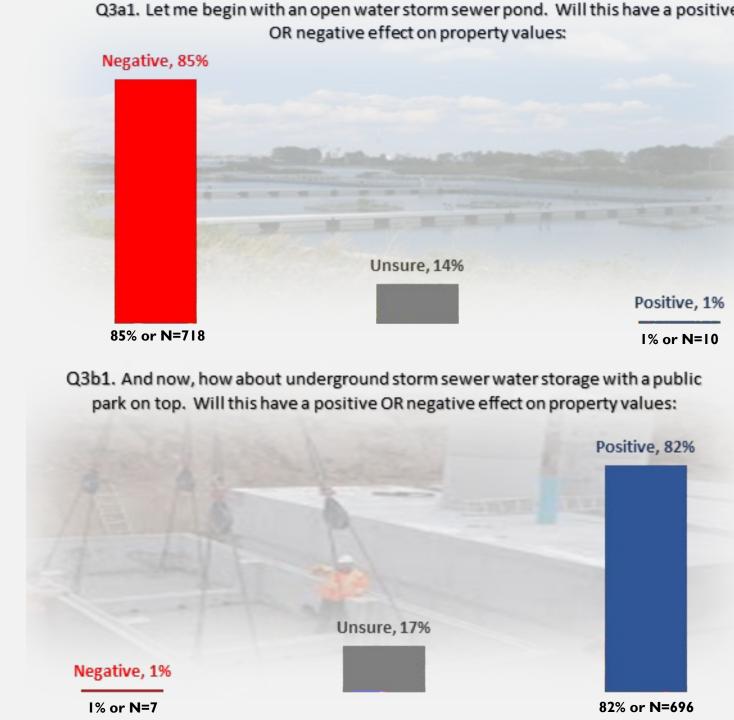


### **ORACLE POLL**



- Toronto N=335 39%
- Peel N=162 19%
- York N=129 15%
- Hamilton N=86 10%
- Durham N=77 9%
- Halton N61 7%
- Total N=850 100%

- SWM ponds perceived to have a negative effect property values
- DUSFs with park on top perceived to have a positive effect on property values
- Strong perceptions of perceived property values with 97% preference for DUSFs with park on top







## Circumstances will be different for each decision

The report includes an evaluation framework that can be used to assess whether a SWM pond or DUSF with a park on top is preferred.



# Application of socio-economic evaluation criteria can help improve decision making.

To what extent would each option meet community needs:

- Deliver intrinsic values (aesthetic, existence, use, spiritual)?
- Support use by multi-cultural communities?
- Support perceived increases in property values?
- Protect health?
- Increase social capital?

#### CONCLUSION

The park on top of a DUSF unlocks the socio-economic value of this method of managing stormwater.

- Is preferred by the public compared to a SWM pond, with overwhelming approval from the surveyed group.
- Is seen to be safer by the public, with a high level of agreement.
- High percentage of people perceive that DUSFs with a park on top provides increased property values.
- Contributes to the parkland needs of a Municipality and the needs of diverse cultural groups.
- Offers better opportunities to build social capital within surrounding communities.

