



Drink Local, Drink Fresh: No Pipeline Required

Presented by Susan Bryant

Water Symposium at *rare*

June 8, 2013

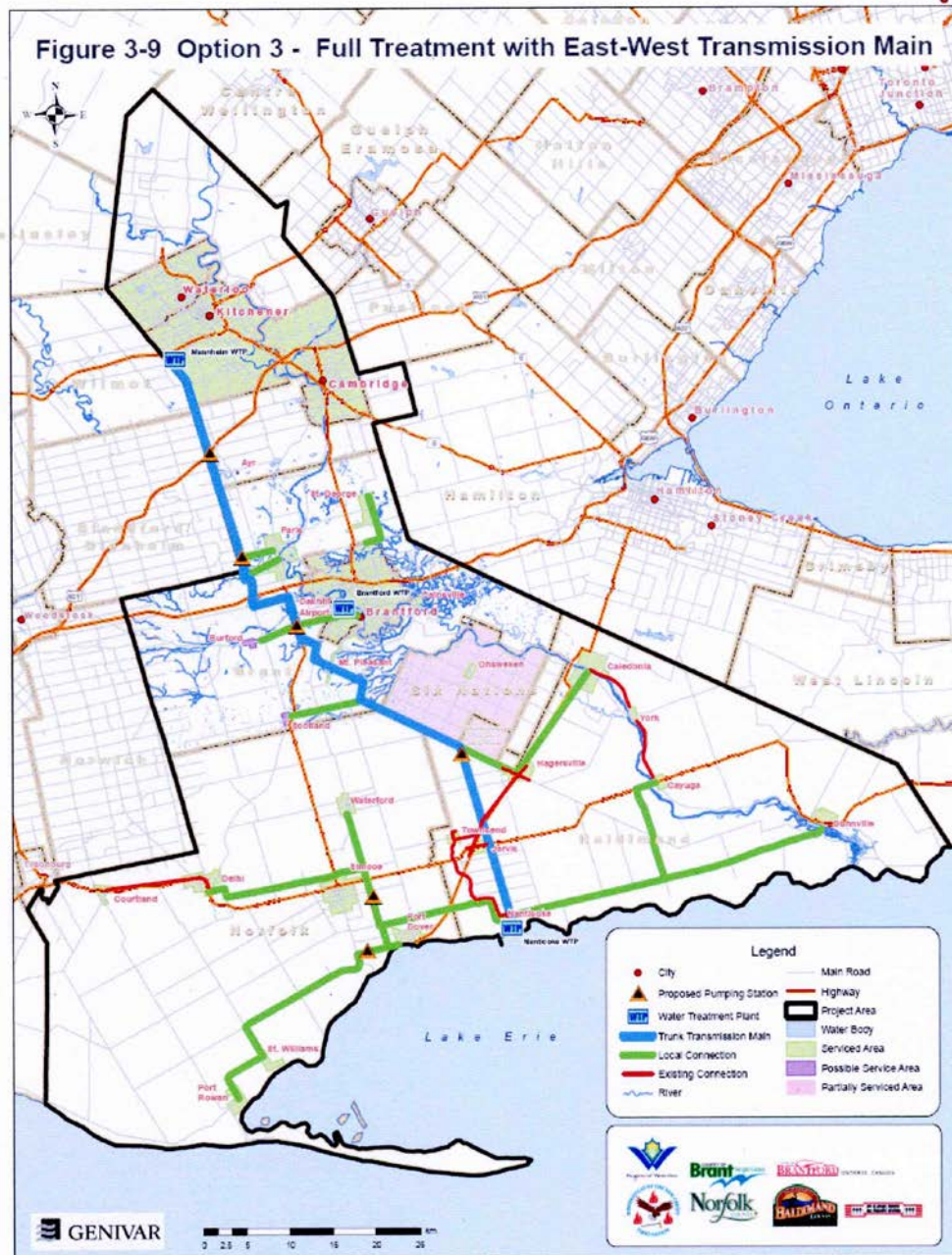
GREN's MISSION

Core Belief We are near the carrying capacity of the essentials for life—water, air, energy, greenspace, aggregate, agricultural land and wetlands.

Our Commitment To find innovative ways to live better with less.

First Goal Implement aggressive water conservation and reuse programs instead of planning on outside water sources, such as a pipeline from Lake Erie to Waterloo Region.

Appendix 1 – “Option 3”

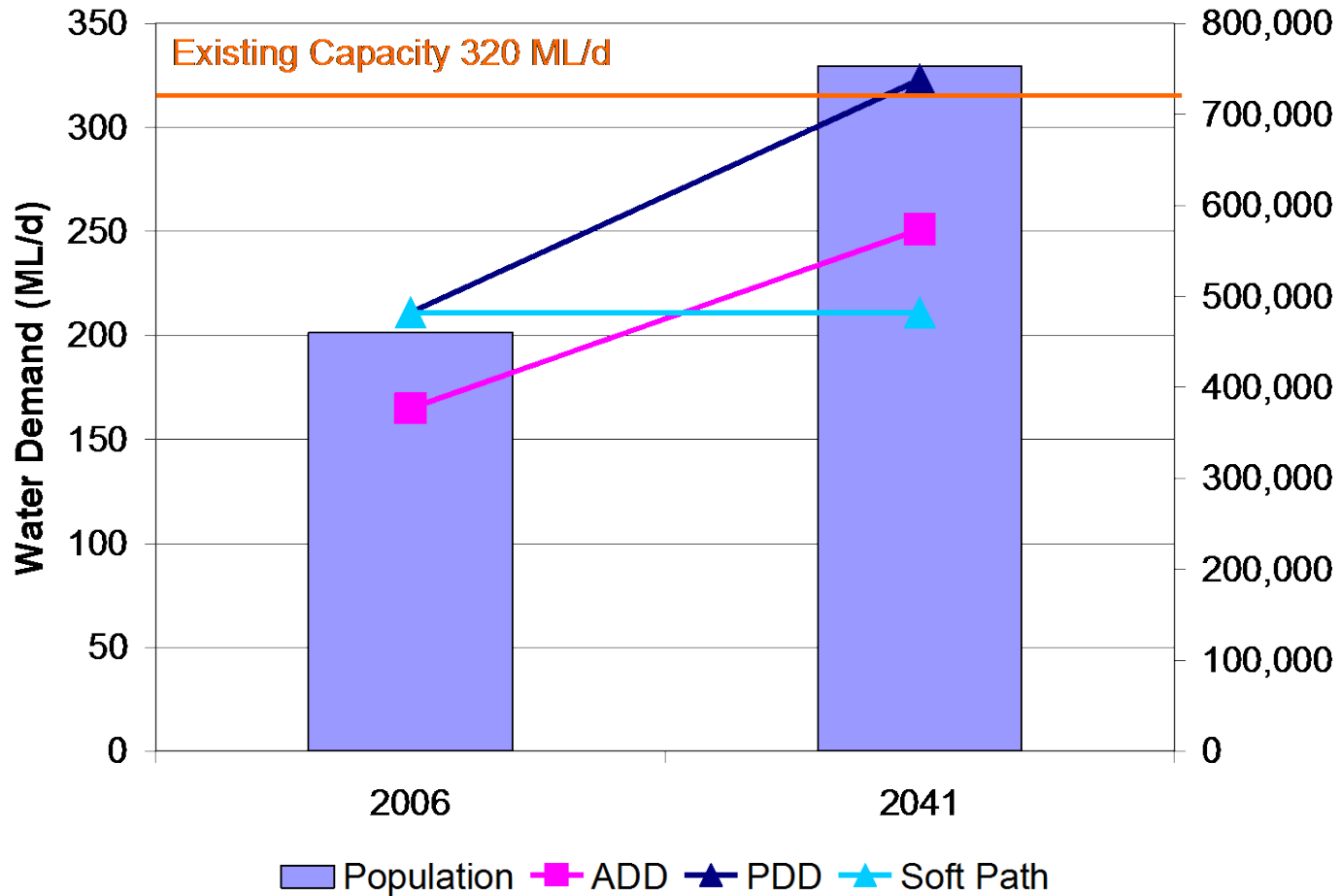


GREN's PLAN

- The Region can grow and prosper using no more water than it uses now---and thus stay within its local water budget.
- Reduce water consumption by 30-35% by 2041. from 209 litres per person per day to 160 litres.
- This goal---and even less than 160--- is easily achievable

... especially given 30 years to reach it!!

Where are We Going?



Water-Wasting Home

350 Lcd

Twentieth Century Technology

Toilets:
13 Lpf – 20 Lpf

Showerheads:
12 Lpm

Faucets:
13 Lpm

Clothes Washers:
170 L/load

Leaks:
10 Lcd – 39 Lcd

New Home (Ontario Building Code)

200 Lcd

Standard Technology

Toilets:
6 Lpf

Showerheads:
9.5 Lpm

Faucets:
8.35 Lpm

Clothes Washers:
120 L/load

Water-Efficient Home

130 Lcd – 160 Lcd

Best Off-the-Shelf Technology

Toilets:
3 Lpf – 4.8 Lpf

Showerheads:
7.6 Lpm – 9.5 Lpm

Faucets:
5.7 Lpm – 8.35 Lpm

Clothes Washers:
55 L/load

Water-Sensitive Home

30 Lcd – 80 Lcd

Twenty-First Century Technology

Toilets:
0 Lpf¹

Showerheads:
0 Lpm – 7.6 Lpm

Faucets:
5.7 Lpm

Clothes Washers:
0 L/load – 55 L/load

WATER SENSITIVE



POLIS Project on Ecological Governance

watersustainabilityproject

Victoria, B.C.

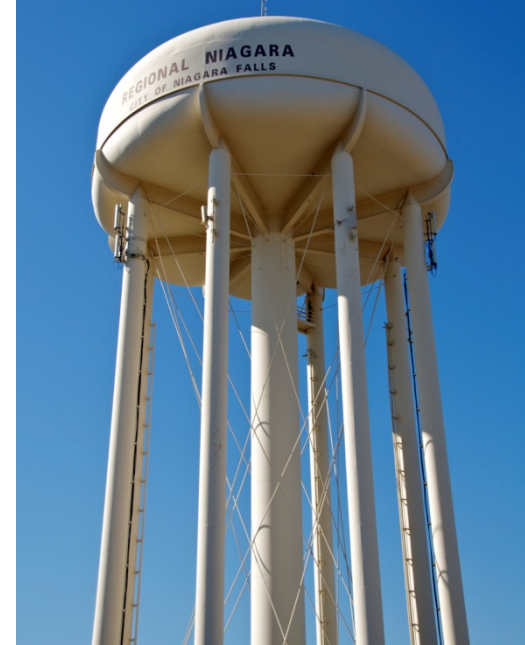


LAKE ERIE

Pipeline Costs

- Phase one of the Lake Erie Pipeline (450 million litres per day) would cost \$1.2 billion in 2008 dollars.
- The project would serve Waterloo Region and six other municipalities.
- Waterloo Region would pay the largest share.
- The \$1.2 billion estimate includes extending the pipe to the boundary of the municipalities, but excludes costs of modifying local distribution systems.

- Annual operating costs -- estimated \$21 million per year.
- Energy costs -- estimated between \$5 million and \$6 million per year.
- All costs are preliminary.
- Many variables -- what to do with local supply, build one line or two or build supplies along the way.





Ontario

GRAND River

Buffalo

Detroit

New York

Detroit River

LAKE ERIE

Erie

Pennsylvania

Michigan

Ohio

Toledo

Cleveland

The Grand River Discharging to Lake Erie



How the Bryants Conserve Water



We use wine and Perrier!