

PEI WATER

Not just a resource to be managed but an integral part of who and where we are.

ENVIRONMENTAL ADVISORY COUNCIL

The Environmental Advisory Council is a group of individuals appointed by the Lieutenant Governor in Council to advise the Minister responsible for the environment on environmental matters.

This is not an Agricultural Panel, neither is it the Chamber of Commerce

- Which begs the questions;
 - Why are there any non-scientists/environmentalists on the panel?
 - Why do we hear companies like Crop Life, Cavendish Farms and Fertilizer Canada, who profit from water degradation?
 - Why speak about balance instead of intergenerational protection?

WATER QUANTITY

Contrary to the language used in the White Paper
much is unknown about the water supply on PEI.

1100
880
660
440
220

374

286

440

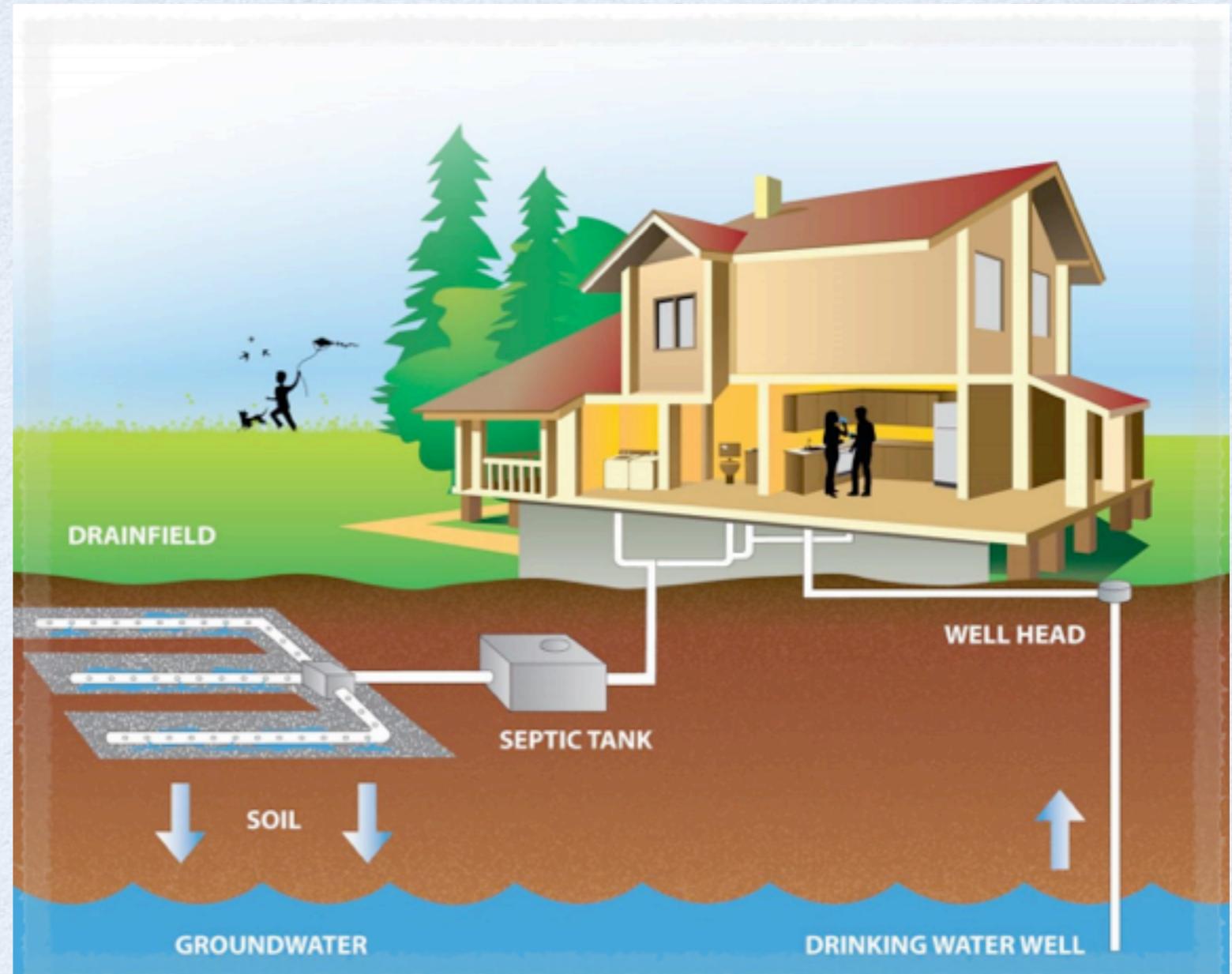
- The initial video assures us with images of water pouring everywhere that we have 800,000 Olympic swimming pools of water refreshing our aquifers every year, while in reality the water supply is often stressed.
- We get 1100 mm Precipitation, **440 mm evaporates**, **286 mm runs off** in streams and rivers, while **374 mm (14.7 inches) remains** to seep into the ground to refresh our aquifers.
- Plants need water to grow. Grass requires an inch of water per week to grow, as do crops including potatoes. Of the 14.7" of water available for recharge, how much water is actually getting in to recharge the aquifer?
- Climate Change will impact these numbers because sudden, severe storms increase run-off and warmer temperatures increase evaporation.

OTHER UNKNOWNS

- Levels of increasing contamination - When will surface contaminants migrate deeper into the water table?
- Sea level rise - when and how much salt water will intrude into our aquifers?
- Changing amounts of precipitation, with sudden and severe weather events. How will these impact recharge?
- There is no monitoring of private wells. How much water is being used now?
- Will we suffer the same type of collapse as other areas once thought to have boundless amounts of water available?

WELLS & SEPTIC SYSTEMS

Pumping a modest amount of water from your well, using it respectfully and returning it through your properly functioning septic system shouldn't effect the water supply.



Provincial Building Code should specify water conservation, including rain and grey water collection



MUNICIPAL SYSTEMS ARE DIFFERENT

This is a familiar picture of the Winter River in August. Charlottetown draws water from this area but instead of returning it here, 19,500,000 lt./day is used, treated and released into the Charlottetown Harbour.

Turning vast amounts of fresh water to salt water a big problem and most places in the world would be shocked by this system. Ditch infilling exacerbates the problem.

CAVENDISH FARMS



Like Municipalities and some other commercial users, Cavendish Farms converts a large volume of water, 9,000,000 lt./day, from fresh to salt. This water must be reused instead.

The plant uses as much water as 46,620 people/day

Our Water Act must require large users to reuse or recycle all ground water.

QUALITY - ADDITIVES

What do we add to our water supply?

Detergents, cleaners, soaps, medications, plastic micro-beads, pesticides, fertilizers, hazardous waste, human waste, shampoo, cosmetics...

Everything that goes on the lawn, in the garden, in the field or down the drain ends up in our water.



Why do we buy and sell chemicals that are not safe to drink?

GROWTH MODEL...

- In 50 years potato acreage has more than doubled while the number of farmers has been reduced by 95%
- The acres / farmer is 35 times higher than in 1965
- This growth model is not suitable for the most densely populated province in Canada.

Of 620,000 acres being farmed on PEI, 270,000 acres (43.5%) are in the potato rotation.

38,112 Metric tons of fertilizer imported to PEI
263 kg / person

1,440 Metric tons of pesticides are used on PEI
7.2 kg / person / year

GROWTH CONTINUED

- Bigger is not better, bigger is just bigger
- On finite PEI we cannot continue with bigger so we must strive for better.
- Canada's Food Island needs better, not just bigger agriculture.

Diversity will sustain us through the turbulent times ahead, we need to be able to feed ourselves.

POTATOES & IRRIGATION

- Agriculture for export is simply value added water
- Are potatoes the most efficient use of water for profit?
 - 44 lt/lb of potatoes, \$0.12/lb potatoes, 88% water \$.0027/lt
(this does not include water used for washing or processing)
- Are there other crops less water reliant or more valuable?
- Less than half of the acreage on PEI is under an Environmental Farm Plan, (EFP).
- What is our long-term (20-50 yr) plan for Agriculture?

LOOK TO CALIFORNIA

- The San Joaquin Valley was once home to the largest freshwater lake west of the Mississippi, Tulare Lake, but that disappeared as farmers siphoned water off for irrigation. Farmers then pumped groundwater from the region's aquifers.
- Farmers continue to drill deeper for groundwater; the result is that the ground is sinking, some areas as much as a foot per year. This affects roads and other infrastructure, but the real danger is that those aquifers could shrink to a point at which they could never be replenished.
- California has some of the toughest regulations in North America, it's citizens use the least amount of water per capita and yet Californians are exporting their scarce water as almonds.
- The price of almonds is about \$4,000 per acre but the cost is much too high..

SUSTAINABILITY

- Academic Scientists
- Concerned NFP's
- Coalitions
- Municipalities
- Fishery Associations
- Farm Associations
- Pesticide Profiteers
- Fertilizer Manufacturers
- Marketing Boards
- Processing Companies

Sustainability to some is about the future, for the others sustainability is just a new word for profit.

Definition of Sustainable

- : able to be used without being completely used up or destroyed
- : involving methods that do not completely use up or destroy natural resources
- : able to last or continue for a long time

MY WATER ACT

- Includes strategies for reducing run-off Island wide; Permeable paving, protected wetlands, rain & grey water collection.
- Focuses on conservation; incentivizes water saving devices.
- Permanently bans Fracking
- Prohibits watering lawns and driveways with potable water.
- Zero tolerance for fish kills.
- Maintains the moratorium on high capacity wells for irrigation and monitors all existing irrigation.

Does not permit irrigation on poorly managed soils or on farms without an Environmental Farm Plan.

THINK OUT OF THE BOX

- Look at all water
- Upgrade rain water
- Incorporate grey water
- Keep water in place
- Maximum allowable pesticide contamination levels are not targets
- Don't just consider the dose - consider the pesticide / fertilizer cocktail
- Compensate Fishers for lost habitat
- Set firm regulations, improve enforcement, and increase penalties
- Reuse and recycling must apply to water - return to watershed
- Climate Change must be considered in every aspect of PEI's Water Act

DARCIE LANTHIER

Energy Systems Engineering Technologist
Blue Dot PEI - Steering Committee,
Environmental Health Co-op - President
Citizens' Alliance - Active Member,
Voluntary Resource Council - Board
Pesticide Free PEI - Board
Food Exchange PEI - Board
Coalition for the Protection of PEI Water
Voluntary Resource Council - Board
Canada World Youth - Host

Home & School Assoc. - 20 years
Canada Games - Sport Co-ordinator
PEI Women's Institute - Life Member,
President, past Provincial Board Member
PEI Business Women's Association -
Founding Member, Event Organizer
Tackle Football League - Past President
DCI - Business Award Winner
Gardener, Organizer, Feminist, Builder,
Parent, Cook, Teacher...

According to a recent Nanos poll, a majority of Canadians not only view groundwater as a public commons, but want to see this so-called “hidden treasure” carefully mapped, monitored and protected. They oppose allowing private companies to take as much groundwater as they need to run their businesses.