

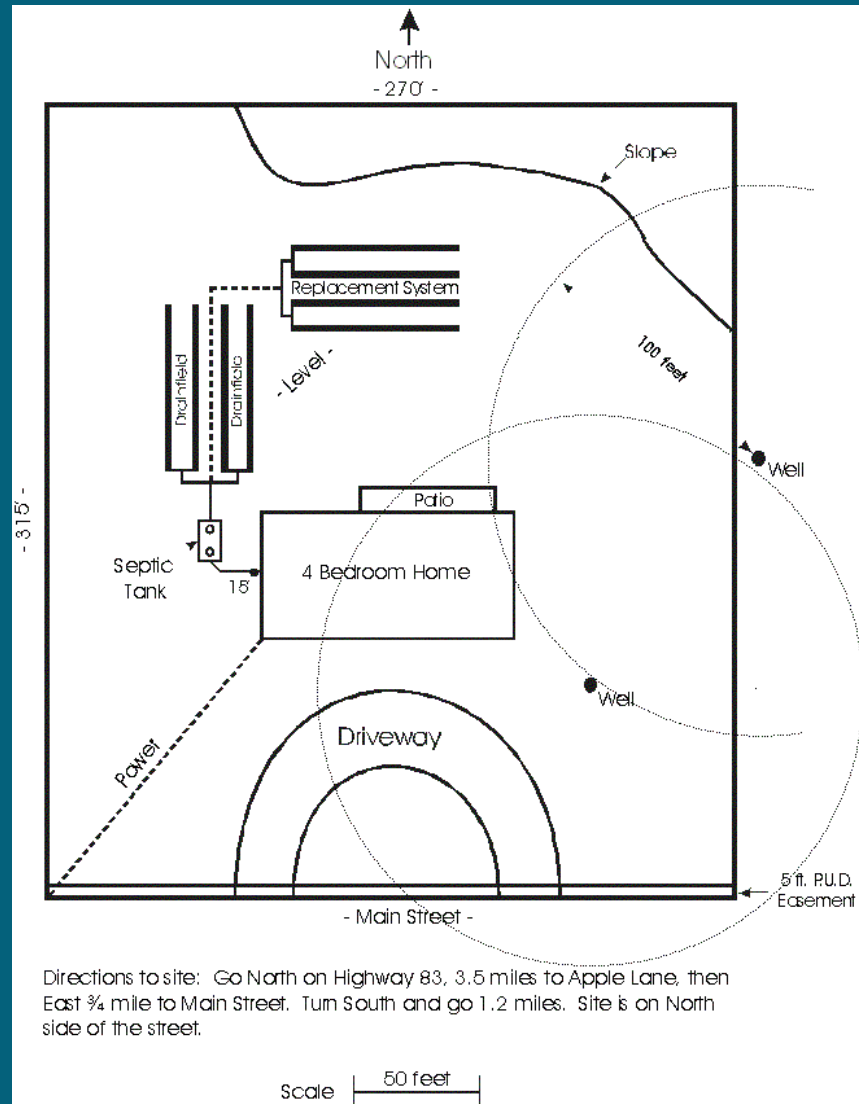
Septic Systems and Wells

Rules and Guidelines

BCGWA Regional Meeting

Parksville, 28 Nov 2015

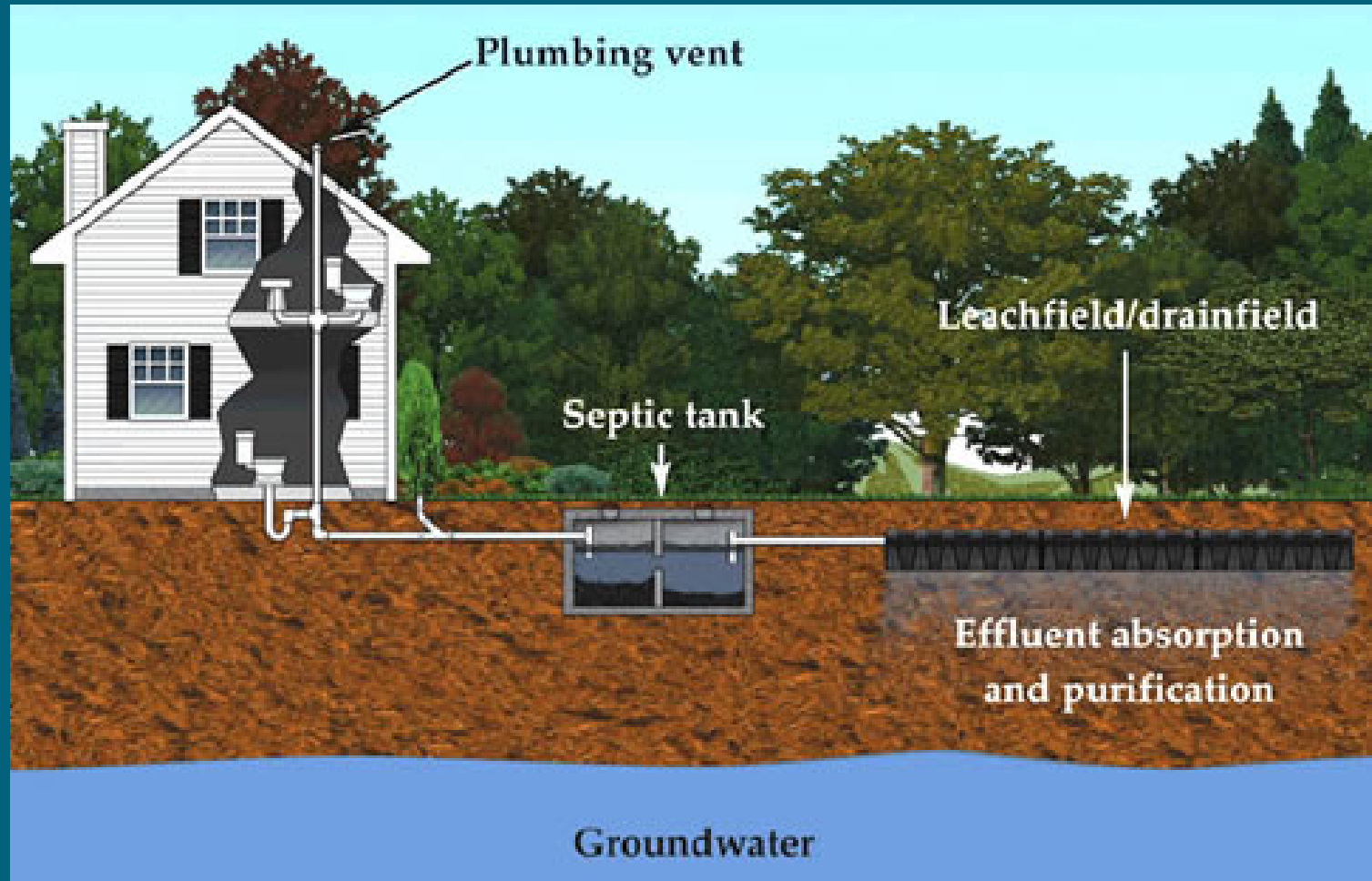
Septic systems and water wells



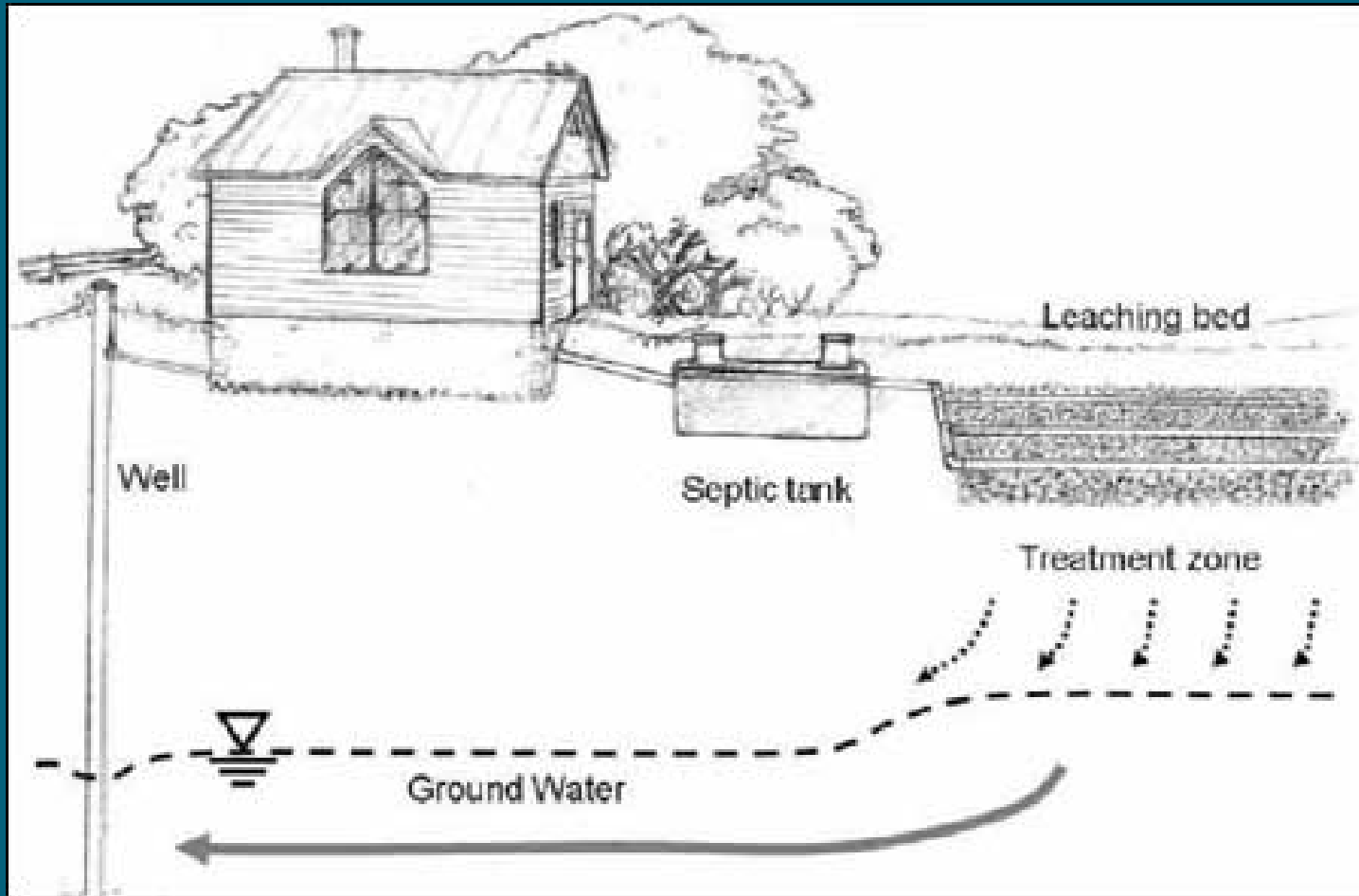
Outline:

1. How do septic systems work?
2. What rules apply?
3. Sewage Regulations.
4. Design guidelines.

How do septic systems work?



How are water wells protected?



What kind of rules apply?

1. Sewage Regulations (Laws)
2. Design Standards and Guidelines:
 - a) Standard Practice Manual - for ROWPs*
 - b) APEGBC Guidelines - for Professionals

**ROWP – Registered Onsite Wastewater Practitioner*

Sewerage System Regulation (SSR)

- For flows of less than 5,000 gallons/day.
- *22,700 litres/day*
- This is the law; it is not flexible.

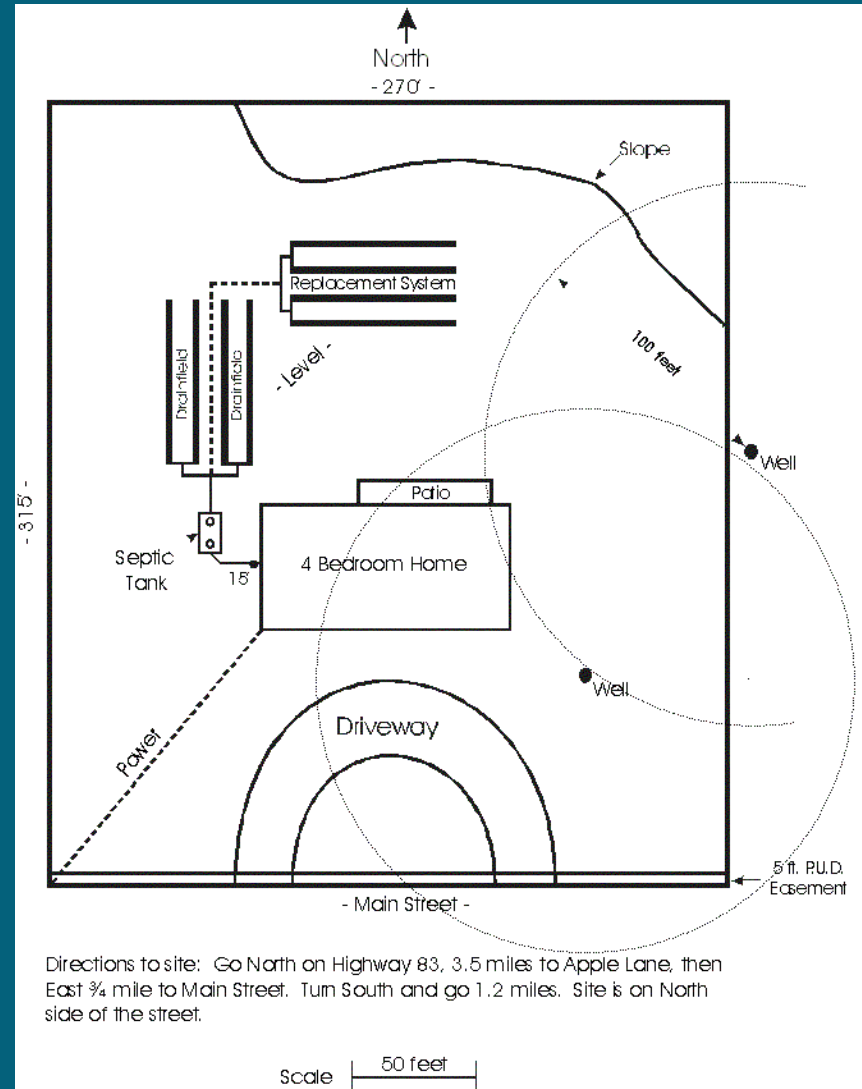
Sewerage System Regulation (SSR)

The SSR says who can design and install systems:

- Flow is less than 9,000 litres/day: ROWP or Professional.
- Flow is more than 9,000 litres/day: Professional.
- Homeowners cannot design or install systems.

SSR and water wells:

- The septic tank and drainfield must be 30 m away from all water wells



SSR and Water Wells

NEW RULE: This setback can be reduced, but:

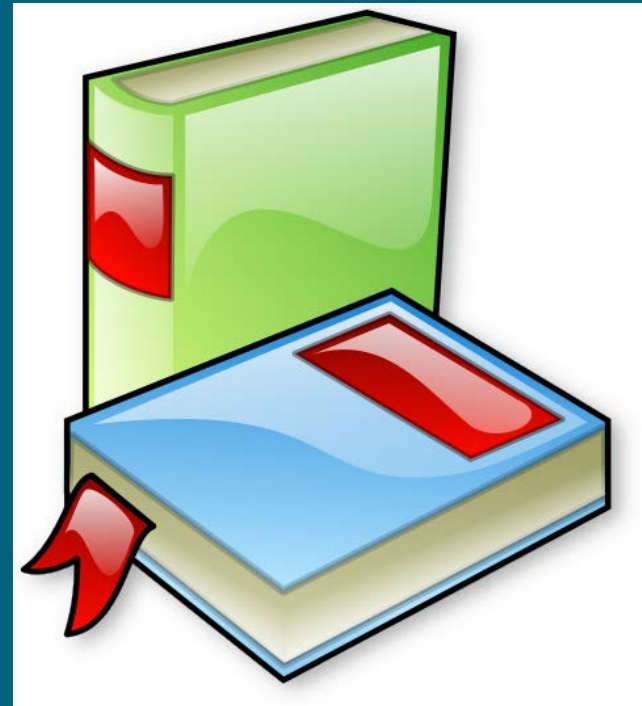
- Only by a hydrogeologist or groundwater engineer.
- Need a hydrogeology study.
- Need a report signed and stamped.

SSR and Water Wells

- There are no *laws* for setbacks to other wells.
- *Examples: irrigation, monitoring, geothermal.*
- There are standards and guidelines for these wells.

Sewerage System Standard Practice Manual (the SPM)

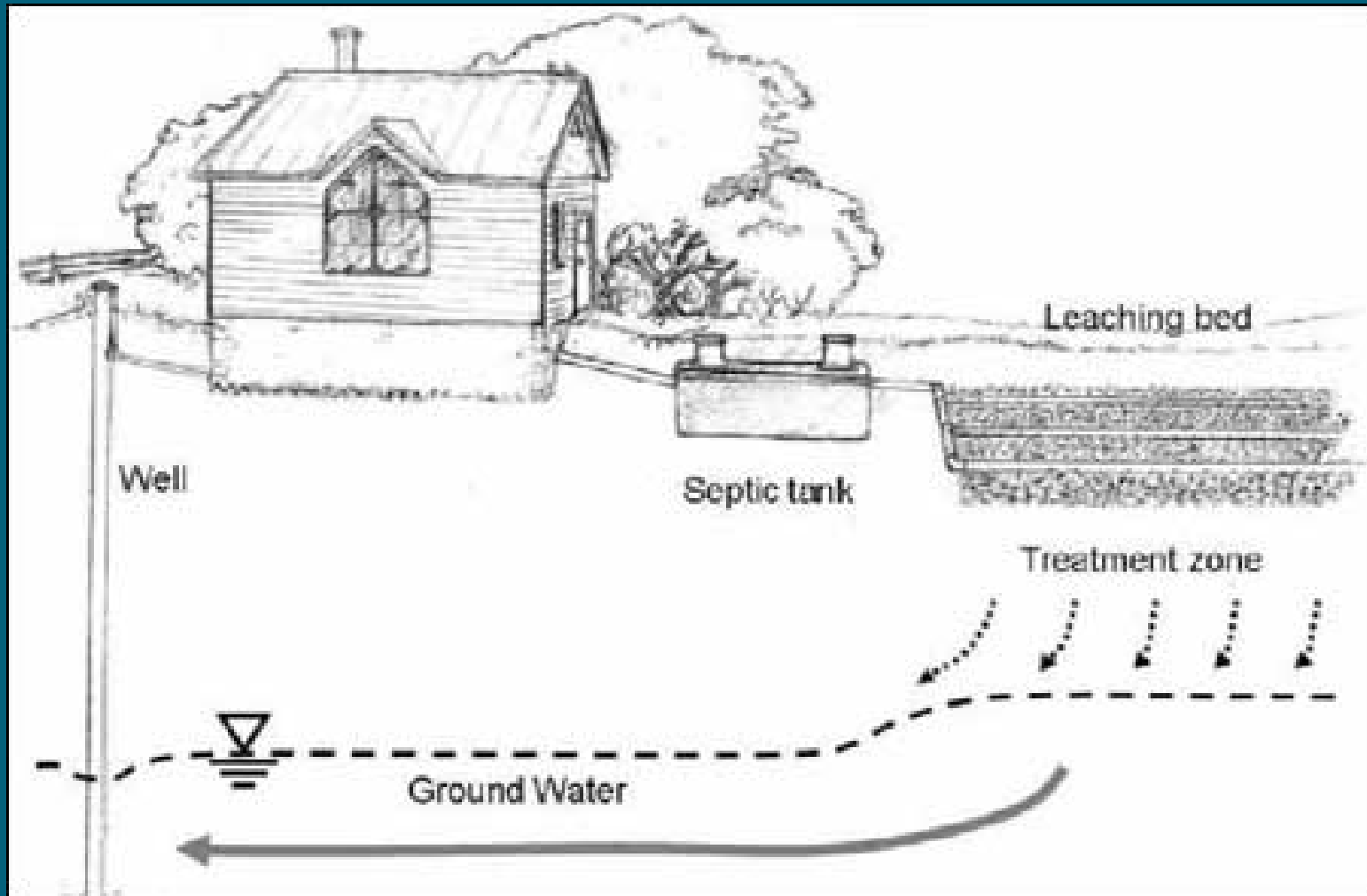
- Forms part of the SSR – Sewerage System Regulation.
- Covers the design, installation, and maintenance of septic systems.



The SPM

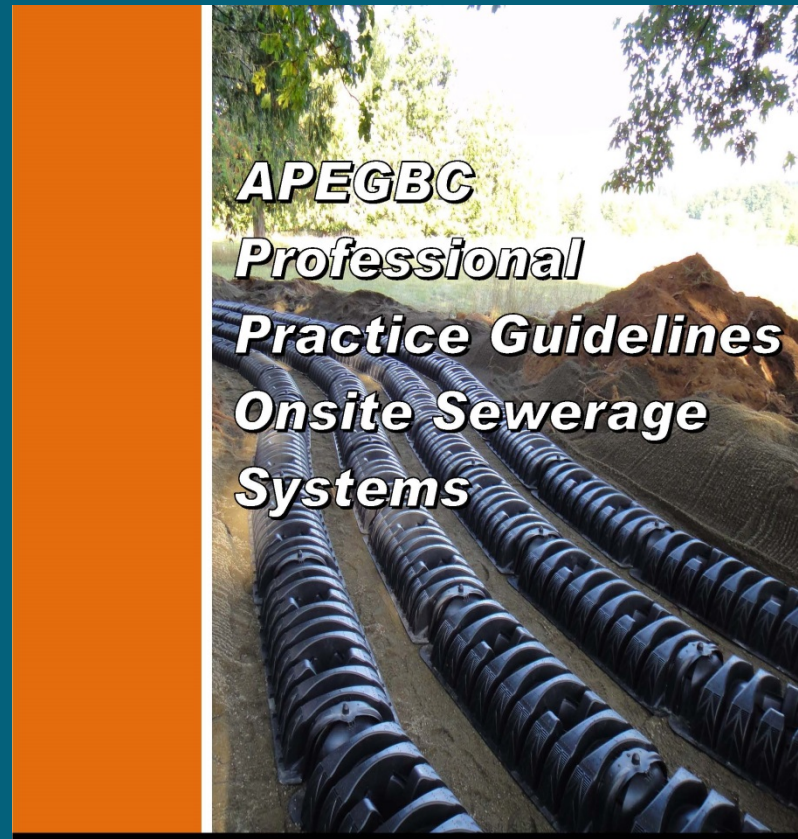
- For ROWPs: Standards that they must follow.
- For *Professionals*: This is a *guideline*.
- Includes setback distances for other types of wells.

SPM minimum vertical separation



APEGBC Guidelines

- For professional engineers and hydrogeologists only



Professional Engineers
and Geoscientists of BC



Version 1.2 – January 7, 2013
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APEGBC Guidelines

- Sets out the *Process* for engineers and geologists.
- Does not include strict standards.
- Not a design manual.
- Recommendations for water wells.
- Outlines *How to evaluate a setback distance*.

Municipal Wastewater Regulation (MWR)

- For sewage flows of more than 5,000 gallons/day
- *22,700 litres per day*
- Systems must be designed by engineers.

Municipal Wastewater Regulation (MWR)

- The MWR has minimum allowable setbacks.
- The standard well setback distance is 300 m.
- In unusual situations, this may be reduced to 60 m.
- Can never allow less than 60 m to a water well.
- This applies to drinking water wells only.
- No rules for other wells.

Ground Water Protection Regulation (GWPR)

- Covers the drilling and construction of water wells.
- It does not include minimum setback distances.
- Mike Wei will discuss this.
- Setback distances could be added in the future.

Thank you

