6 Key Risks and Opportunities:

Water and Wastewater Management for Ontario Wineries

Summary

Wine Council of Ontario

bloom

Prepared for:

Wine Council of Ontario

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Down the drain

Ontario wineries are facing a number of risks related to water that will directly impact their profitability and limit their ability to expand. The Wine Council of Ontario recognized these issues, retaining BLOOM to profile the state of the sector through a comprehensive survey of wineries, site visits, and interviews. The result was the identification of six key risks, as follows.

1. Reliance on Off-Site Wastewater Disposal

Issues

- Almost 50% of wineries rely on external contractors to transport at least a portion of their wastewater off-site for disposal.
- Off-site wastewater disposal can cost a medium-sized winery upwards of $10,000 per year in haulage costs alone.
  - If surcharges based on wastewater strength are applied, the cost could increase by $4,000-10,000 annually

2. Sub-optimal Lees Management

Issues

- Wine lees can contain up to 10% of a winery's total wine production.
- Unfiltered lees are a major source of biological oxygen demand (BOD) in water, dramatically increasing the cost of wastewater management.
- Sending lees down the drain can increase a winery's BOD levels from 2,000 mg/L to 25,000 mg/L

3. Water Supply Uncertainty

Issues

- Almost 50% of wineries do not have a municipal water supply connection.
- 1/3 of wineries do not have sufficient supply from their on-site sources, and must truck in water (typically 10x higher cost).
- Only 9% of wineries have practices in place to reduce water consumption through reuse or recycling practices.
- Wineries generally do not have a good understanding of their well capacity.

4. Rising Cost of Wastewater Management

Issues

- Almost 70% of wineries that produce more than 20,000 cases per year indicate that rising wastewater management costs are a significant concern
- Rainwater often enters the wastewater system through downspouts and storm drains instead of being used as a fresh water resource
- Wineries are paying to manage wastewater instead of finding efficiences to reduce wastewater generation

5. Constraints to Business Growth and Expansion

Issues

- A number of wineries indicated concerns with having sufficient water supply and wastewater treatment capacity to enable future growth
- One significant issue was the need to increase wastewater system capacity to meet production growth of business expansion
- Treatment systems designed for wine production may not be suitable for hospitality

6. Reactive Government Relations

Issues

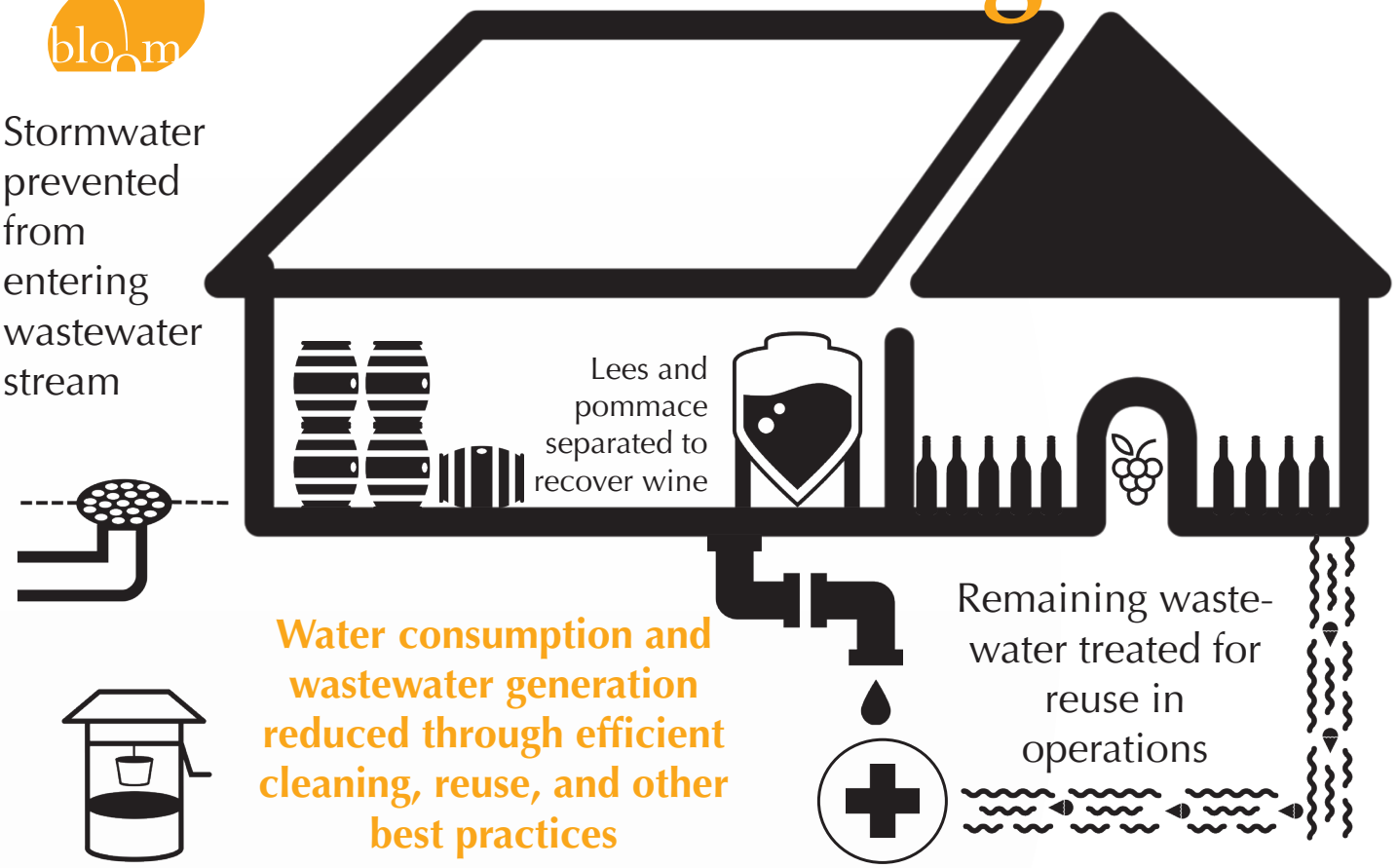
- Many wineries are reluctant to engage with government agencies for fear of more aggressive enforcement
- Government agencies are constrained, and may not have the capacity or technical expertise to assess every site-specific situation
- A lack of good data makes it difficult for regulators to efficiently assess the individual needs of a winery

Converting Risks to Opportunity

Ontario wineries are competing globally with more established and lower-cost wine producing regions. These six risks represent priority issues that, if not addressed, could impact the competitiveness and growth of the Ontario wine sector. By taking a holistic approach to water, wineries will reduce their risks and costs, and improve their margins. Improved water and wastewater management in business planning will not only create a competitive advantage, it can establish Ontario as a global leader in sustainable wine production. For information on how to address the described risks, see our Briefing Note at www.bloomcentre.com

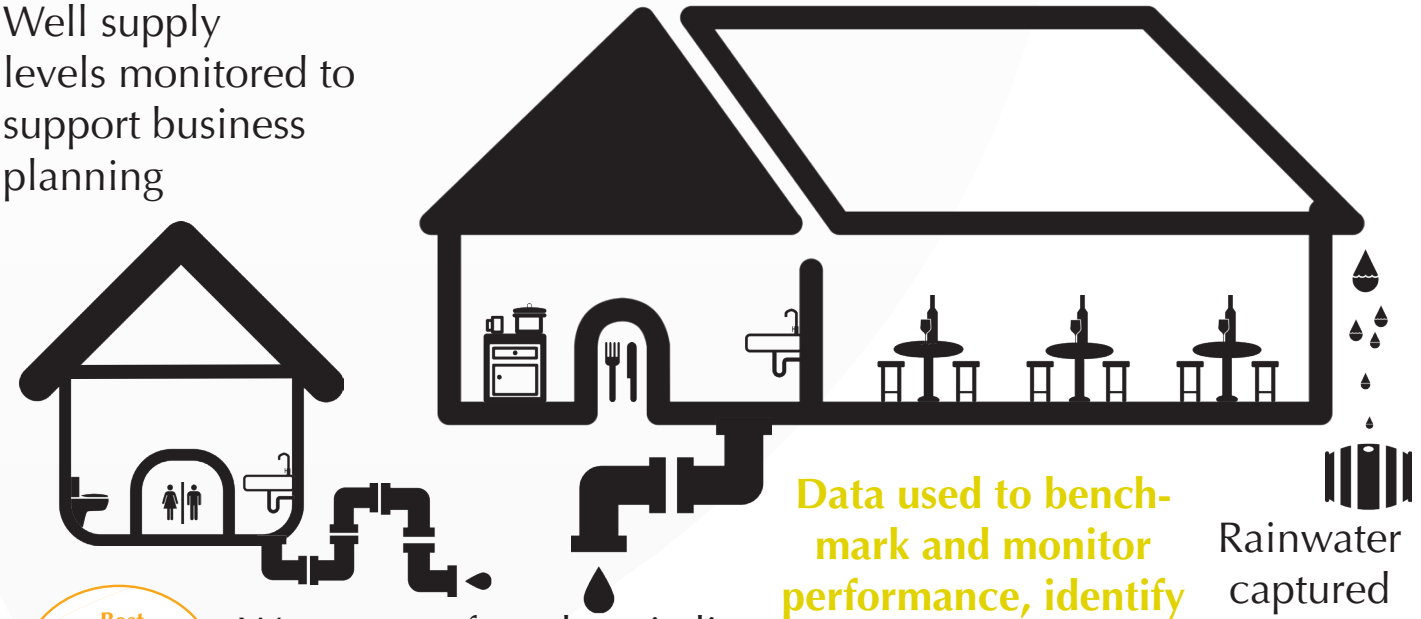
An Integrated Approach Water Management

Stormwater prevented from entering wastewater stream



Water consumption and wastewater generation reduced through efficient cleaning, reuse, and other best practices

Well supply levels monitored to support business planning



Data used to bench-mark and monitor performance, identify improvements, and support growth.

Wastewater from hospitality separated from production

Rainwater captured and used as new supply source

Best Use. Best Return.

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