

MONDAY, JULY 28

Welcome to the Real World EPR

Building off our Sunday meeting with Return-It, our Monday itinerary will explore how extended producer responsibility (EPR) regulations work in practice along with other thorny challenges in the world of waste management.

We'll begin with **Lululemon**, the Vancouver-based athleisure clothing and accessory giant that generated \$10.6 billion in sales in 2024. At their global headquarters, we'll explore their circularity programs and gain insights into their perspectives on EPR policies. As you can imagine, they are keenly monitoring California as we implement EPR for plastics & packaging as well as textiles.

We will then spend the rest of the day with **GFL Environmental Services**, a comprehensive waste management company that plays a crucial role in British Columbia's EPR landscape. We'll tour two of their specialized facilities: first, the household hazardous waste (HHW) facility in Delta, which processes motor oil, filters, antifreeze, petroleum packaging, and batteries, and secondly, their refinery in North Vancouver that efficiently reprocesses used engine oil into a new product ready to sell to consumers (80% recovered for motor oil again and 20% for coke that goes into roofing material). Our Delegation will get to see up close (and safely) how advanced recycling infrastructure prevents hazardous materials from contaminating waterways and the land while creating valuable market-ready products.

GFL is the service provider on behalf of Interchange Recycling, which is the producer responsibility organization for used oil and antifreeze in BC. GFL and Interchange will help us understand what a successful EPR value chain can look like.

TERMS TO KNOW

EPR – Extended Producer Responsibility is a policy framework that ensures manufacturers and brand owners are financially and operationally responsible for the entire lifecycle of their products, including collection, recycling, and disposal costs. Under EPR programs, companies must either directly manage their products' end-of-life or pay fees to cover these services, creating economic incentives to design more sustainable, recyclable products from the outset. Many EPR programs are funded by charging a consumer a small non-refundable fee for the collection and management of that product.

California has several materials already managed under an EPR regime, with several others soon to be, including carpet, batteries, mattresses, paint, pharmaceutical and sharps, packaging, and textiles.

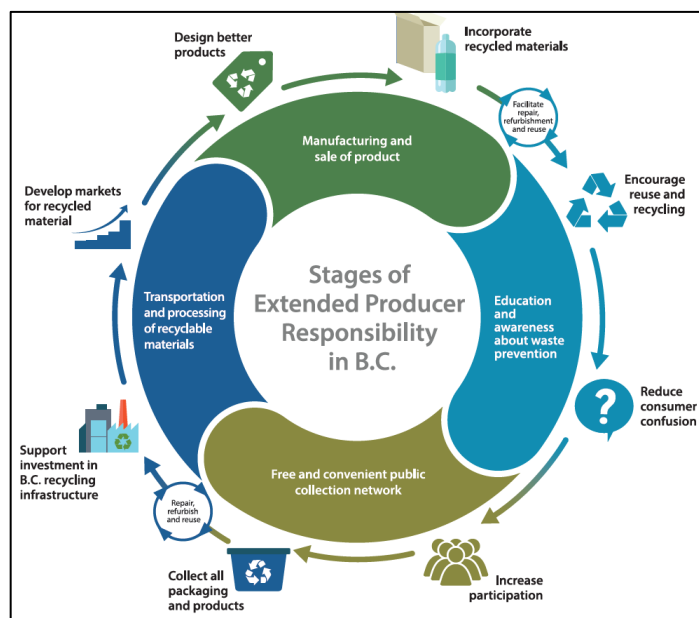
PRO – Producer Responsibility Organization is a non-profit group formed by manufacturers and product sellers to fulfill their obligations under Extended Producer Responsibility (EPR) laws. These organizations coordinate and fund the collection, recycling, and proper disposal of products and packaging, helping producers comply with EPR requirements through shared waste management systems.

HHW – Household Hazardous Waste refers to potentially dangerous materials commonly found in homes that require special handling and disposal due to their toxic, corrosive, flammable, or reactive properties. This includes items like motor oil, paint, batteries, cleaning chemicals, pesticides, and automotive fluids that can contaminate soil and water if improperly disposed of through regular waste streams.

THEMES

A Mature EPR Ecosystem – What’s Working Well? Where is There Room for Improvement? This will be CFEE’s fourth visit to British Columbia as part of “California’s Recycling Challenge.” We keep returning in part because BC has the most robust extended producer responsibility (EPR) ecosystem in North America, with 16 different product categories managed by an EPR plan and more products to be added as the regulator sees fit. (Yes, it’s worth emphasizing their regulator is empowered under existing law to expand coverage to new products, eliminating the need to return to the Legislature to add each item one by one.) See the EPR vision in British Columbia on the right.

What makes their model particularly impressive is the cross-product collaboration among producer responsibility organizations (PROs). Rather than operating in isolation, PROs partner with each other to enhance product recovery and processing efforts. The GFL Delta facility exemplifies this approach, collecting not just liquid waste (managed by Interchange Recycling) but also batteries (managed by Call2Recycle). Return-It does the same at many of their drop off centers where they collect bottles & cans as well as small appliances and other electronics.



Another remarkable success is BC's lean regulatory structure. A small, nimble team oversees all these programs with just a handful of staff—not the hundreds that other jurisdictions might require. To maintain accountability without heavy regulatory oversight, the system relies on independent third-party auditors who examine program performance and verify goal achievement. This approach also builds trust among the producers within a given PRO. It ensures competing companies worry less about business advantages gained or lost by the PRO erroneously sharing information with their competitors.

While the EPR model generally works well in BC, our group should examine some friction points. For instance, various PROs once separately oversaw cellphones, medical equipment, electronic toys, and lottery vending equipment. Over time, as these smaller entities faced difficulties meeting their mandates, the regulator merged those products under established PROs, hoping to improve product design, recovery, and recycling outcomes. What other shortcomings or gaps might we be able to discern during our meetings and tours?

Who Pays in EPR? Who Determines Fee Structure and Needed Infrastructure and Operations? In Extended Producer Responsibility systems, funding typically comes through non-refundable fees such as eco fees, container recycling fees (CRF), and environmental handling fees (EHF). These fees are integrated into product pricing (i.e. meaning consumers are helping to pay), with PROs responsible for determining fee structures and optimizing recovery and recycling efforts in compliance with EPR regulations. This approach gives producers

flexibility to design cost-effective systems while ensuring adequate funding for end-of-life product management and environmental compliance goals.

From previous visits to British Columbia, the regulator stressed their desire to only play the most limited role as plan certifiers, rather than as authors or overbearing editors. If the regulator exerts excessive control over the plans, the opportunity for producers to devise innovative, lowest cost programs is diminished.

A noted benefit of allowing producers to run the program is the reduction of waste management expenses. For instance, the additional cost per refrigerator sold in BC is \$11.50 CAD as a result of EPR. This covers operating costs of the PRO to collect and recycle fridges. BC's regulator estimated the cost would be upwards of \$150 CAD per fridge with more prescriptive regulations seen in other jurisdictions. California take note!

What Will It Take to Weave a Successful EPR for Textiles in California – Last year, California passed SB 707, a first-of-its-kind EPR framework for textiles in the United States. It was genuinely trailblazing legislation that could serve as a model for other states and even British Columbia. Like other EPR models, the legislation shifts waste management costs from municipalities to textile producers, requiring brands to manage their products' end-of-life disposal and meet recycling targets.

This shift raises intriguing questions about how garment producers like Lululemon view the law and what they think it will take for the regulations to foster a successful system. Do they largely view it as a golden opportunity to scale their polyester recycling technology and other waste reduction efforts? Or are they more cautious about implementation timelines, regulatory specifics, and enforcement mechanisms?

Used Oil Recycling in California – To EPR or Not EPR? There is a live question in front of the Legislature as to what should be the right regulatory approach for used oil management in California. The state currently operates under the California Oil Recycling Enhancement Act, which imposes charges on lubricating oil sales to fund recycling incentives and collection programs through the California Used Oil Recycling Fund—a system that has functioned for decades but places the financial and operational burden on government agencies and ultimately taxpayers.

As we visit GFL facilities, we will see an alternative system in action – the EPR model. Our Delegation will need to consider if EPR for used oil might be the right fit for California or if we should stick with our tax-based, more traditional command and control regulatory approach.

QUESTIONS

- What does Lululemon like about SB707 (California's EPR for textiles)? What are they hoping to see as the regulations are fleshed out?
- What are some of the cost and benefit tradeoffs of Lululemon becoming a leader in the sustainability and circularity space? What does it mean for their clothes to be "enzymatically" recycled? Why have they adopted that technology?
- In addition to considering EPR for motor oil, California is also exploring EPR for all household hazardous waste – how is the EPR model working for HHW in British Columbia? What successes has BC seen in the recovery and processing of HHW that otherwise would not have happened without EPR?

TUESDAY, JULY 29

No Battery Left Behind – A New Life for Electric Vehicle (EV) Batteries



Moment Energy repurposes EV battery modules into energy storage systems that can even recharge other EVs like pictured above

For our final day in Vancouver, we will start with a roundtable meeting at our hotel to discuss a growing waste management challenge in California – electric vehicle (EV) batteries. California is currently seeing approximately 30,000-35,000 EV battery retirements annually and this is expected to increase significantly in the coming years. Hundreds of thousands of battery packs will need to be collected, repurposed, or recycled to prevent hazardous waste risks and secure critical materials. While there are several companies already successfully providing recycling solutions in California, many believe there needs to be more comprehensive planning to prepare for the coming wave.

To help us think through how to approach this challenge, we have invited Canada's leading stewardship company for EV batteries, **Call2Recycle**. They will explain the regulations under which they operate, how they have structured their program, their successes and setbacks, and their plans for expansion nationwide in Canada and in British Columbia.

Call2Recycle will be joined alongside **Moment Energy**, an exciting startup that builds energy storage systems using repurposed EV batteries—giving them a "second life." They partner directly with major automakers like Nissan and Mercedes-Benz to source retired battery packs. After the meeting, we will bus over to Moment Energy's facility to see what it looks like to transform an EV-battery into an energy storage system.

Moment Energy is the recipient of a \$20 million grant from the U.S. Department of Energy to construct the world's first gigafactory dedicated to repurposing EV batteries (sorry Californians, it seems it will be built in Texas, where our Lone Star State counterparts will enjoy another spoil of a market we created...)

THEMES

California Helped Give Rise to Electric Vehicles, Now It's Time to Ready for their Retired Batteries

California's leadership in electric vehicle deployment means it is also poised to face the nation's largest volume of EV batteries reaching end-of-life. With more than a million EVs already on the road and strong annual sales growth, the state is only beginning to see the earliest wave of battery retirements. Over the next decade, however, these numbers are expected to rise sharply as batteries from vehicles sold in the 2010s and early 2020s age out. Across the United States, the Department of Energy projects that there will be four million metric tons of retired EV batteries annually by 2040.

The Potential for a New Booming Industry – Forecasts point to a booming secondary market, with “second-life” batteries — retired EV packs repurposed for stationary energy storage — expected to grow to \$10 billion a year by 2030. For California, this convergence of challenges and opportunities highlights the strategic value of developing a strong in-state battery reuse and recycling sector. Not only could it drive substantial economic activity and high-quality jobs, it would also help secure critical materials like lithium, cobalt, and nickel, reducing U.S. dependence on supply chains dominated by countries such as China.

A High Value Material – How Should That Inform the Type of Waste Management Approach?

Given that spent EV batteries contain highly valuable and strategically important materials like lithium, nickel, and cobalt, policymakers and industry leaders are grappling with the framework for managing this waste stream and considering if an extended producer responsibility (EPR) model would be the right solution.

Under an EPR approach, manufacturers would bear significant responsibility for ensuring batteries are collected, transported, and recycled, effectively closing the loop on critical minerals. Advocates argue this would incentivize design for recyclability, stabilize recovery markets, and reduce public costs. Others contend that because of the clear value embedded in EV batteries, market forces alone could drive robust recycling without the administrative burdens of EPR, provided clear safety and handling standards are in place.

QUESTIONS

- With service providers already existing to manage end-of-life EVs given their high value, is a new regulatory approach needed?
- What regulatory frameworks are needed to distinguish between batteries suitable for "second life" applications versus those that should go directly to recycling?
- What testing goes into Moment Energy's repurposed batteries to ensure they are just as safe as any storage systems built with virgin materials?
- How can California capture more of the multi-billion-dollar "second-life" battery market?
- What happens to the recycling infrastructure investments if battery technology evolves rapidly (e.g., solid-state batteries) and current recycling methods become obsolete?
- How can California coordinate with other states and countries to create consistent standards for EV battery handling and recycling?

TUESDAY, JULY 29

Smart Sorting: AI Learns the Language of Fibers



Globally, less than 1 percent of textile waste is recycled into new textiles, with the vast majority ending up in landfills or incinerated. This represents a major loss of valuable resources and a significant environmental burden when landfilled. In recent years, clothing companies around the world have started take this issue more seriously, inviting a wave of innovation in this space.

Enter **Sixone Labs**, a Vancouver-start up that thinks it has the right technology to revolutionize textile recycling. Sixone is a pioneer in the field of advanced textile recycling thanks to their novel use of artificial intelligence (AI) to enable the conversion of post-consumer polyester waste into reusable, high-quality raw materials.

Our Delegation will visit Sixone's facilities to learn how their proprietary, patent-pending technology platform combines:

- Advanced spectroscopy – a technique that studies how matter interacts with and emits electromagnetic radiation, like light, across different wavelengths – to create chemical fingerprints of textiles
- AI to predict optimal recycling outcomes and recommend precise reaction conditions
- Targeted chemical reactions to selectively extract polyester monomers from blended clothing, which are then repolymerized into pellets for reincorporation into textile production

MEETING THEMES

An Innovation Paradox – California Birthing New Markets & Companies That Mature Elsewhere

It is a story that CFEE hears often during our travels. Cool company has a cool technology that meets a new market need – a need that only came about due to California policy action. Yet instead of locating in California and generating the jobs and economic activity and local environmental benefits that would come with it, they look elsewhere because California legislative and regulatory policy makes it just too dang hard to so in state.

Such is the case with Sixone and some other companies primed to be key answers to comply with California's new textile law (SB 707 – EPR for textiles as discussed with Lululemon on Monday). Despite having many potential customers within the state, Sixone is likely to set up its first American operations in non-California states. Their pending decision to locate outside California stems from a combination of complex and lengthy permitting processes, regulatory uncertainty, high operating costs...stop me if you've heard this before!

AI as a Serious Tool for the Circular Economy – While it's still too early to tell how transformative AI might be for society, it is already being used broadly across many sectors of the economy, including waste management, to change the way folks are doing business, often for the better. Key applications of AI in accelerating circularity include:

- **Enhanced Sorting and Identification:** AI-powered optical sorting systems accurately identify and separate different material compositions, distinguishing pure polyester from blends and identifying contaminants. This precision is key for effective recycling, as even small impurities can compromise the quality of recycled materials.
- **Waste Stream:** Machine learning algorithms can analyze vast datasets on waste composition, generation patterns, and contamination levels to provide insights for better waste management strategies, predict future waste flows, and optimize collection routes.
- **Quality Control and Assurance:** AI-driven systems can monitor the quality of recycled materials in real-time, ensuring that output meets industry standards and is suitable for re-entry into manufacturing supply chains, thereby increasing market confidence in recycled content.
- **Scalability and Efficiency:** By automating complex tasks and improving material purity and process control, AI can help to process vast quantities of diverse waste materials more efficiently and consistently than traditional methods, making high-volume recycling economically viable.

QUESTIONS TO CONSIDER

- What collaborative initiatives between state agencies, research institutions, industry, and technology developers are needed to create a thriving ecosystem for textile circularity in California?
- What specific policy reforms can California consider to actively attract and retain advanced textile recycling companies like Sixone within the state? How can SB 707 implementation be a vehicle for encouraging local economic development opportunities?
- In a world where AI can lead to major advances in our ability to recycle materials, might there come a time to reconsider our traditional waste hierarchy, where waste prevention & reduction currently reign supreme? That is, if we could begin recycling whole new types of materials into end products with high value – would it make sense to encourage more consumption under such a scenario?

TUESDAY, JULY 29

Shedding Old Habits – Anaconda Systems & A New Way to Compost



Before we depart Vancouver, we will make one last stop to learn about one of BC's most innovative composting companies, **Anaconda Systems**.

Anaconda utilizes an advanced, accelerated in-vessel composting technology to rapidly transform organic waste into high-quality compost. Unlike traditional composting methods that can take months to break down organics, Anaconda's system reduces the processing time to 96 hours (4 days). In doing so, it allows for continuous intake of organic materials and minimizes odor and leachate (water that percolates through a solid and leaches out some of the constituents) while still producing a stable, nutrient-rich product.

We will see firsthand how Anaconda's compact design allows it to process 30,000 tons of organic waste per year, including food waste, yard waste, and agricultural byproducts, on a footprint of less than two city blocks. Anaconda believes, and is proving, its technology can be an efficient solution for space-constrained urban environments and a versatile alternative for managing municipal and commercial organic waste.

MEETING THEMES

California's Organic Waste Mandate and Implementation Challenges – SB 1383 (Lara 2016) sets targets to reduce organic waste disposal in landfills by 75 percent by 2025 and increase edible food recovery by 20 percent by 2025. Yet if you look around California and speak with city and county managers, many local governments are significantly behind in building the needed infrastructure to comply with SB 1383 and are seeking relief from the Legislature. The deficiencies include a shortage of composting facilities, inadequate collection systems, and a lack of market demand for finished compost.

Being a Disruptor Ain't Easy, Even When Policy Signals Align – As we will learn from Anaconda, they continue to wrestle with various market challenges, even as many government officials champion their technology (see the video in the Yapp). Established players, entrenched relationships, and general caution about novel approaches have made their journey one of fits and starts.

Looking back to California, Anaconda's uneven experience elsewhere might explain part of why it's been so difficult to get local governments SB 1383 compliant. Even with SB 1383 compelling local governments to improve organics diversion, potential solutions providers—despite offering what appears to be an excellent service—still face a variety of obstacles that can slow or prevent their adoption in communities that would otherwise benefit.

Compostable Packaging: Friend or Foe? The concept of compostable packaging has emerged as a seemingly environmentally-friendly alternative to traditional plastics, but the reality on the ground for composting facilities is more complex.

→ **What is compostable packaging?** Truly compostable packaging, like those certified by the Biodegradable Products Institute (BPI), must completely break down into non-toxic components within a specific timeframe, typically 180 days, and leave no visible residue. For this full breakdown to occur, specific conditions, including temperature, moisture, and aeration, must be met.

→ **From the composters' perspective**, however, there are significant reservations for several reasons:

- *Consumer Confusion:* Look-alike compostable packaging that has visual similarities to conventional plastics creates widespread confusion among consumers and leads to mis-sorting at the source.
- *Contamination Issues:* Consumer confusion, in all its iterations, directly results in high contamination rates in organic waste streams. Composters receive conventional plastics, glass, and other non-compostable materials mixed with organics, requiring costly and labor-intensive manual or mechanical sorting to remove these impurities before processing can even begin.
- *Limited Value:* Compostable packaging materials provide minimal nutritional value to the final compost product and can complicate the composting process. For high-quality feedstock, composting materials fall short, as the process requires pure organic matter.

QUESTIONS TO CONSIDER

- How is British Columbia faring on its organic diversion efforts? Have they done a better job supporting localities in their efforts to keep organics out of landfills?
- How does Anaconda mitigate contamination of the loads that are brought in? With Anaconda's hyper-fast composting process, does it have novel contamination considerations to ensure the end-product is safe and healthy?
- What does the market for compost look like? How can government expand and stabilize the market so

that composters like Anaconda have confidence they will have somewhere to sell and move their product?

WEDNESDAY, JULY 30

The End of the Line – Destination Landfill



For our first meeting on beautiful Vancouver Island, we will peek behind the waste management curtain to see what happens when trash doesn't get a happy ending. If it cannot be reused, recycled, composted, or incinerated, it gets buried in the earth. Lucky you, this will be CFEE's first ever visit to the "dump!"

We will tour the Hartland Landfill, which serves the 440,000 residents in the Victoria metro area and processes nearly 200,000 tons of waste each year. Hartland happens to be one of the most advanced landfills in North America, it boasts rigorous environmental management programs and comprehensive diversion efforts. Ironically, the landfill is set against a picturesque backdrop of sea and sky with majestic Bald Eagles and sea gulls helping to manage the waste at no extra cost.

Hartland Landfill also features a state-of-the-art renewable natural gas facility that captures methane from decomposing waste. By creating a low-carbon fuel instead of letting methane emit freely, it is estimated that GHG emissions will be reduced by 500,000 tons over 25 years.

TERMS TO KNOW

RNG – Renewable Natural Gas - Renewable natural gas (RNG) is methane captured from decomposing organic waste, including landfills, livestock waste, wastewater sludge, food waste, and other sources. It can then be injected into pipelines as a low-carbon fuel.

THEMES

There's Always Some Waste That Cannot Be Reused or Recycled – Where It Goes Next Is a Choice

Even in the most sustainable, low-waste countries in the world, there is still a significant amount of discarded material that isn't suitable to be recycled or otherwise salvaged. Alas, you are really left with two approaches for this type of waste: 1) it can go to a waste-to-energy facility (i.e. incinerated with the resulting heat used to make energy) or 2) it can go to a landfill.

Many countries, especially in Europe (like Norway), have decided that burying garbage in the ground is a poor use of resources and have banned landfilling, opting instead to send all their trash to waste-to-energy (WtE) facilities. Other countries, like France & South Korea, do a fair amount of each, providing options to local governments to determine the most suitable approach.

On the other end of the spectrum, there are otherwise environmentally-focused jurisdictions, like California, Washington State, & New Zealand, that have made landfilling their preferred solution due to plentiful land that makes it a cheaper option and a sense that waste-to-energy is a greater evil. Some are concerned WtE incentivizes the production of trash to feed the incineration beast, which then results in worse air quality and carbon emissions.

After the last WtE site in California (located in Stanislaus County) closed its doors for good, California is now a landfill-only state when it comes to dealing with waste that cannot be reused, recycled, or composted. We have nearly 300 landfills, 53 of which are currently operational. According to CalRecycle, California sends approximately 6.3 pounds of trash *per person* to the landfill *every day*.

Methane & Landfills: An Important Climate Opportunity – Methane traps 28 times more heat than CO₂, yet it often gets less attention in climate policy. In 2022, California emitted 36 million tons of methane, about 12 percent of the state's total greenhouse gases, with landfills alone releasing nearly 8 million tons per year — and rising. SB 1383 (2016 Lara) aims to cut methane emissions 40 percent below 2013 levels by 2030, but local governments are struggling to meet aggressive organic waste diversion targets and building new composting infrastructure.

This gap highlights a major opportunity: investing in landfill RNG facilities. We will see the Hartland RNG project and learn how it captures methane from decomposing waste and turns it into a low-carbon fuel. Such projects tackle a potent climate threat by leveraging existing facilities instead of building entirely new ones.

The Right Way to Landfill – While it is easy to look down (and hold) your nose at landfills, they are perhaps underappreciated for their important role in preventing trash from flowing freely into our waterways, public lands, and communities. And the Hartland Landfill is a shining example of the right way to do so.

At the best landfills, it is critical to provide one last opportunity to keep waste out of the ground if it can otherwise be salvaged or recycled or is just plain toxic. We will see firsthand how Hartland implements this step at their public drop off center, which accepts bottles & cans, textiles, electronics, hazardous waste, and organic materials like kitchen scraps and yard and garden waste. Importantly, they work closely with product stewardship organizations (like those we had met with earlier in the week) to help them in their product recovery efforts.

Once that material is filtered out, Hartland has thoughtful structures that encourage diversion and fund improvements. Different materials are charged differently depending on what behavior landfill managers are trying to incentivize.

If folks/trash then make it past the public drop off and the pricey tipping fee, Hartland features advanced leachate systems to protect groundwater and continuous monitoring of water and air that builds public trust. Lastly, Hartland now has robust renewable gas capture infrastructure to cut the climate impacts of decomposing trash.

Tipping Point – The Challenges of Setting the Right Price of Admission for Landfills – Hartland Landfill, like many peer facilities, has thoughtful fees designed to cover the full costs of landfill operations and investments like its renewable natural gas facility. But this price setting is a careful balancing act...it must be high enough to encourage waste reduction and fund environmental measures, but not so high it pushes waste elsewhere and spurs illegal dumping.

In an example of successful pricing and smart operating, Hartland established an increased price for wood waste and shingles while also providing an onsite area to offload such materials, which would then be recovered by a recycler. As a result of that program, Hartland saw a **10 percent** decrease of landfill disposal in the region. A great success story!

Beyond fees, banning certain items from landfills can also be a tricky proposition. While it might seem straightforward to prohibit unwanted materials, doing so without a solid plan for recovery or alternative disposal often backfires—leading to illegal dumping elsewhere or people smuggling banned items into the landfill anyway.

QUESTIONS

- What costs are associated with investing in renewable natural gas projects at landfills?
- Can landfill RNG align with efforts to do more composting? Can both projects pencil out or do communities need to favor one solution over the other?
- With waste-to-energy disfavored in California, what happens to medical waste and contraband that isn't suitable to go to landfills?
- How much more capacity does the Hartland Landfill have? What is the plan for disposal once it is too full to take any more trash?
- There is wide diversity of tipping fees throughout California, but generally, the tipping fees are lower than what Hartland Landfill charges. How are California landfill operators thinking about fee increases at a time when affordability is top of mind for communities and illegal dumping remains a significant challenge?

WEDNESDAY, JULY 30

From Pit to Paradise:
Admiring a Beautiful Transformation at Butchart Gardens



After our landfill tour, we will venture over to Butchart Gardens, one of the crown jewels of Vancouver Island. While the Gardens may seem like a pristine preserve a world away from the mucky work of landfilling, Butchart Gardens is in fact a world-renowned example of environmental remediation and visionary landscape design.

The site was originally a limestone quarry, operated by Robert Pim Butchart for his cement manufacturing business in the early 20th century (much of the cement in fact helped to build cities in California!). As the quarry depleted, Jennie Butchart, Robert's wife, envisioned transforming the barren, industrial scar into a sunken garden. Beginning in 1904, she meticulously oversaw the planting of flowers, shrubs, and trees, slowly covering the vast pit into the vibrant, lush oasis. Today, the Gardens attract over a million visitors annually, showcasing how rehabilitation and sustainability can also create economic and cultural value.

MEETING THEMES

Transforming Industrial Sites – Sometimes It Just Takes a Little Bit of Persistence and Patience: The Butchart Gardens transformation began in 1904 when Jennie Butchart decided to beautify her husband's exhausted limestone quarry, starting by hauling soil in a wheelbarrow and planting sweet peas. What began as a personal hobby with no business plan gradually evolved over decades into a world-class attraction.

The key wasn't massive upfront investment but sustained commitment. The family simply reinvested profits back into the park year after year, expanding and diversifying the gardens as they went along. When Butchart Gardens turned 100 years old in 2004, the Canadian government recognized all their hard work and its special status by designating it a National Historic Site of Canada.

Circular, Sustainable, AND Profitable – It Can Be Done! Butchart Gardens proves that sustainability and profitability aren't mutually exclusive. Several examples we will learn about during our visit include:

- Comprehensive composting that turns garden waste into nutrient-rich soil. This eliminates disposal fees and drastically reduces fertilizer purchasing costs while creating a superior growing medium.
- Growing almost all plants onsite from seeds and cuttings reduces plant acquisition costs by 70-80 percent and eliminates transportation expenses. It allows enables the custom creation of unique varieties that enhances the visitor experience, keeping folks coming through the gates!
- Eliminating single-use plastics reduces waste disposal costs and positions the Gardens as a sustainability leader that attracts corporate events and educational tours (like the exceptional and acclaimed "California's Recycling Challenge" program – we don't just visit any old garden!).

QUESTIONS TO CONSIDER

- What industrial sites in California are ripe for creative rebirth? What types of policies, tax incentives, or programs could take our urban industrial sites, depleted quarries, brownfields, etc. and turn it into them into environmental and economic wins?
- Beyond tourism, what diverse economic opportunities (e.g., ecological research, green job creation, local food production) can be cultivated through the strategic rehabilitation of industrial lands in California?
- Beyond banning single use plastic bottles, what other waste prevention and reduction measures has Butchart Gardens considered but opted NOT to do? Are there environmental improvements they would like to make but find the cost or convenience too challenging at this time?

THURSDAY, JULY 31

Oh, Canada!



We will start our Thursday with a meeting and tour of British Columbia's lovely parliament building (above). We will meet with elected officials, continuing our conversation from the night before. Our discussion will focus on how British Columbia and California can work together on issues of mutual importance. We will also receive an update on the latest news in the world of recycling and the circular economy.

Overview of Canada's Parliamentary System: Canada practices a parliamentary democracy, a system where the executive and legislative branches are fused together. Unlike systems where these branches are separate, the executive (government) is drawn from and accountable to the legislature (parliament), with the party commanding majority support in parliament forming the government and its leader becoming Prime Minister or Premier.

Like the United States, lawmaking responsibilities are distributed and shared among federal, provincial, and territorial governments, with judicial oversight to ensure constitutional adherence.

At the provincial level, the British Columbia government is formed by political parties that maintain majority support in the **Legislative Assembly**, either through a majority government (one party wins most seats) or a minority government (parties combine to form a government). The Lieutenant Governor asks the supported party leader to serve as Premier, who then appoints the Cabinet. This executive branch wields significant power but remains accountable through individual and collective ministerial responsibilities and legislative oversight.

How Many Elected Officials in BC Parliament? Meeting Frequency? What Does B.C. Government Oversee? British Columbia's Legislature consists of the Lieutenant Governor and 93 elected MLAs (Members of the Legislative Assembly), each representing approximately 57,000 residents from the province's 5.3 million population. The Legislative Assembly includes members from the governing party, opposition parties, and independents. The main political parties are the BC New Democratic Party

(center-left), BC United (center to center-right, formerly BC Liberals), BC Green Party (left-leaning environmentalist), and BC Conservative Party (right-wing)

MLAs serve dual roles: representing their constituents' interests through participation in legislative debates and sessions, while also potentially serving broader provincial functions through cabinet committee memberships or ministerial appointments within government ministries. This structure enables both local representation in lawmaking and provincial executive governance.

Like our Legislature which has been enjoying Special Sessions more than usual, the Legislative Assembly may be called in during a planned period of adjournment to tackle urgent legislation or other public matters.

Top Political Issues in British Columbia at the Moment: Several of the most pressing issues Canada & BC face today include housing prices and health care. The economy, inflation/rising interest rates, and U.S. tariffs/trade are also hot topics that elected officials are expected to address.

With regards to the environment, climate change impacts and wildfires continue to be key priority areas. Interestingly, BC is moving to eliminate its carbon tax, which had been in place for over a decade and a half. According to BC Finance Minister Brenda Bailey, it was removed after becoming "too politically divisive and a distraction from the important issues."

Potential for CA and BC Engagement Via the Pacific Coast Collaborative (PCC): The Pacific Coast Collaborative (PCC) is an international governmental agency originally formed in 2008 between British Columbia, Washington, Oregon, and California, with Alaska joining later as an additional member. The Collaborative's purpose is to work together building a low-carbon economy while achieving global leadership in sustainable economic development, attracting new jobs and encouraging investment and innovation for the Pacific Coast.

While its utility has waxed and waned depending on who was Governor or Premier, it is an established framework for aligning on issues of mutual importance, enabling the coordination of regulatory approaches, the sharing of best practices, and the development of compatible systems and infrastructure that could benefit the region economically and environmentally.

QUESTIONS TO CONSIDER

- How does BC view California as U.S. tariffs discussions heat up and general friction between Canada and the United State increases?
- How could the PCC become a more robust vehicle for California and BC engagement? What would be the key topics that we would want to address?
- How could the California Legislature take a more leading role in operationalizing the PCC or other Pacific Coast working groups?

THURSDAY, JULY 31

Malahat Nation – Thinking in Generational Terms



We will explore Malahat SkyWalk to experience the beauty of Vancouver Island and learn about one of the local First Nations who are meeting their challenges with remarkable ambitions

For our final meeting of the 2025 California's Recycling Challenge, we will head north and meet with leaders and partners with Malahat First Nation. The Malahat have inhabited Vancouver Island for thousands of years and are recognized for their stewardship practices and collaboration with the BC Provincial Government to explore, design, and implement sustainable development opportunities with a generational mindset.

We will first visit Malahat Skywalk, a 10-story wooden structure that gives a soaring view of the Salish sea and surrounding area. (It also is home of a 7-story slide that is not for the faint out heart). We will meet with one of the project owners to hear how Malahat worked with outside partners to develop a model of eco-tourism, Indigenous cultural storytelling, and climate-smart design by using locally sourced timber that not only minimizes carbon impact but also supports local economies and honors the land's deep heritage.

We will then head onward to meet with tribal leaders from Malahat to learn about how this small community has big plans thanks to their far-seeing approach. They are working on everything from solar-powered community buildings and a 100,000 ft² battery energy storage facility to affordable housing, waterfront industrial developments, and energy production.

THEMES

Eco-Tourism, Culture, and Innovation – The Malahat SkyWalk

The Malahat SkyWalk on Vancouver Island is a striking example of how eco-tourism, cultural storytelling, and sustainable design can come together to create a unique regional destination.

Built primarily from locally sourced Douglas fir and western red cedar, the SkyWalk provides breathtaking panoramic views of the Salish Sea, Gulf Islands, and distant Mount Baker. The use of timber, a renewable resource that actively stores carbon, significantly lowers the project's carbon footprint compared to steel or concrete.

Notably, the SkyWalk is operated by a non-tribal enterprise. As part of this innovative partnership, Malahat had a direct hand in shaping the SkyWalk's cultural and environmental storytelling. Malahat also receives a share of its revenues, ensuring the attraction directly supports the Nation's economic prosperity alongside its broader tourism and climate goals.

Following Their Lead: Tribal Partnerships Rooted in Respect and Results

Malahat Nation has formed a dynamic alliance with the BC provincial government, federal agencies, and industry leaders to turn its ambitious sustainability goals into reality. At the heart of this effort is the \$75 million, Indigenous-led gigafactory—a 100,000 ft² battery energy storage system (BESS) assembly plant being built with Energy Plug that will produce 1 GWh per year and create over 210 local jobs, with Malahat holding 51% ownership alongside global partners like Siemens, Johnson Controls, and Taiwan-based firms.

Complementing this, Malahat Nation is working with Shift Clean Energy and Solar Earth through BC's Indigenous Clean Energy Initiative to solar power its community buildings and enable a renewable microgrid. Together, these ventures—fueled by provincial investment, technology transfer, and Indigenous leadership—are charting a path toward energy sovereignty, cultural stewardship, and a prosperous, low-carbon economy.

The Circular Economy Through Indigenous Eyes: Generational Thinking Meets Modern Innovation

What sets the Malahat approach apart is how Indigenous values of stewardship and seven-generation thinking align naturally with circular economy principles. Rather than viewing waste and resources through short-term economic cycles, the Malahat Nation's projects demonstrate how traditional ecological knowledge can inform modern sustainable development. Their battery storage facility, for instance, isn't just about energy storage—it's about creating a resilient energy system that can serve the community for generations while providing economic benefits that stay within the community. This long-term perspective offers valuable lessons for California policymakers grappling with how to balance immediate economic pressures with sustainable development goals.

QUESTIONS

- What are the potential trade-offs between promoting sustainable tourism and protecting cultural sites and traditional practices?
- Should mass timber construction, as demonstrated in the SkyWalk, be scaled up in California while ensuring sustainable forestry practices?
- What lessons from the Malahat's 51 percent ownership model in the battery facility could apply to California's approach to energy storage and renewable projects on tribal lands? What policy innovations are needed to support Indigenous-led energy projects that prioritize community ownership and long-term sustainability?