

Journey to ZERO WASTE.

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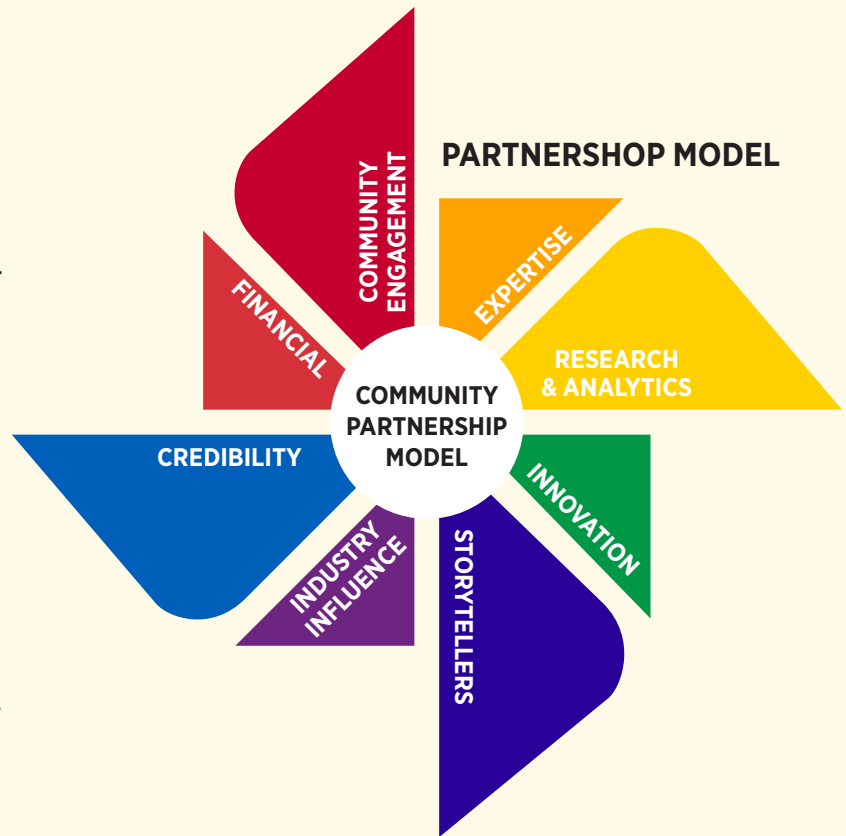
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INTRODUCTION

The Pacific National Exhibition (PNE) is committed to improving our environmental footprint and is working to achieve the goals of the Greenest City Action Plan and Healthy City Strategy. One of the key strategies we have leveraged is the collaboration with our corporate, industry and community partners in moving our vision forward. Notable success was identified each year as we on-boarded new partners into the PNE strategy. Our Zero Waste partners provide us not only the capital investment but more importantly the expertise and the access to resources that we would not otherwise have.

In 2016, after 4 years of working with our partners on Zero Waste, we took a big step forward when we moved from measuring Zero Waste impact on one-day to a full 15-day Fair measurement. While there were strong efforts and resulting measurements in achieving Zero Waste between 2012 and 2016, we were revisiting the same challenges year over year including high contamination in our streams; low refundable collection; congested diversion bins front- and back-of-house; and limited cross department collaboration and communication within teams impacting the diversion. As a result, in 2016 we truly took ownership of not just the means but the method and we empowered the team to move our mandates forward.



BACKGROUND

Sustainability has always been a conversation at the PNE and initial steps were taken but due to the organizations financial constraints, it was not always feasible to make significant infrastructure investment required for larger projects. From the mid-1990s to 2004 the PNE believed that we were relocating. Limited capital investments were made into the facilities and infrastructure. In 2004 ownership passed to the City of Vancouver, the question of relocation was answered and as a city asset we would remain at Hastings Park, on city land.

For seven years following the new ownership the PNE refocused the strategic direction of the organization and made investments into the park site and facilities a priority. Where it was within our means, upgrades and purchases were made to offer the most sustainable solution.

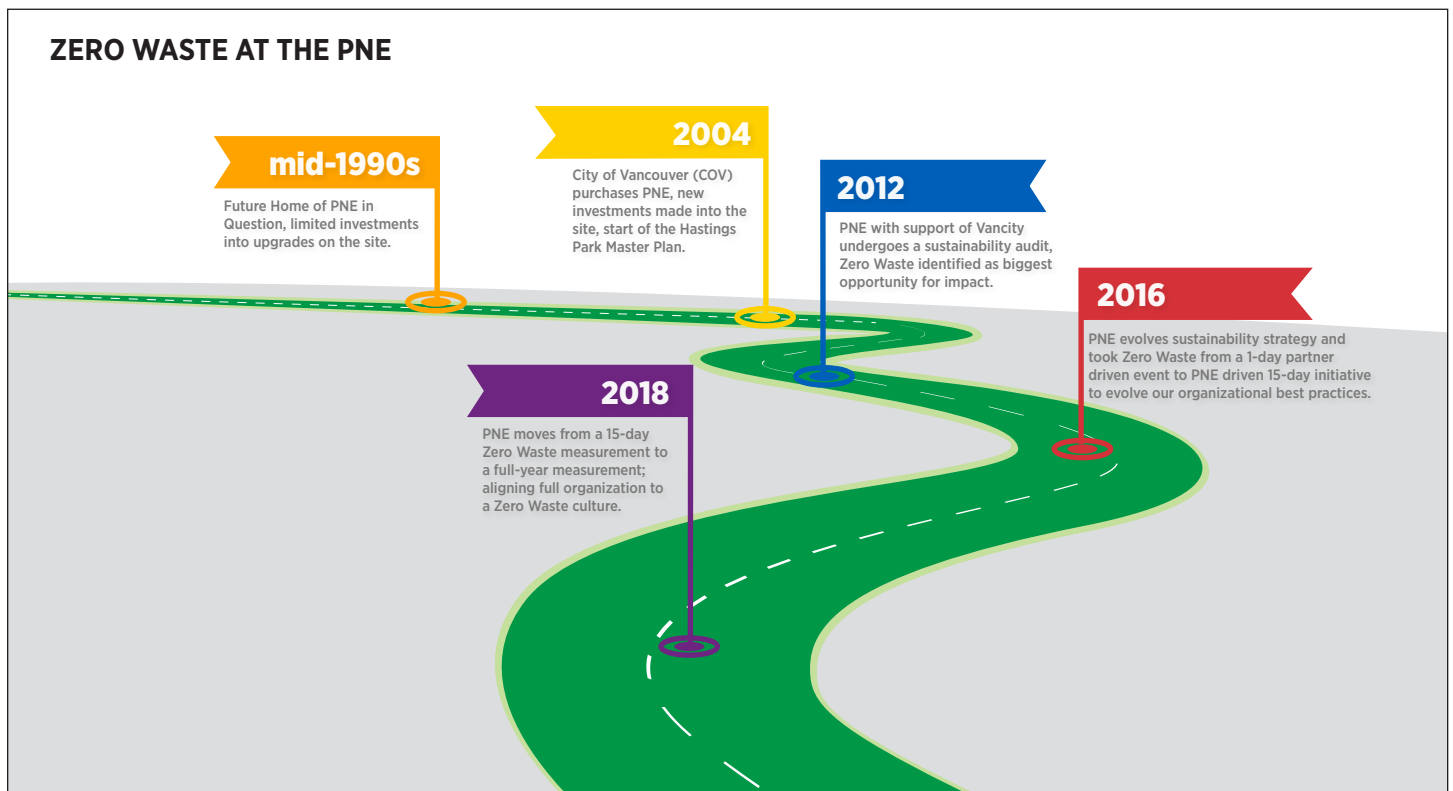
Conversation continued on how to be a sustainable organization and in 2009 when the Greenest City Action Plan was developed, the PNE also made it a priority to build sustainability into our strategic direction. It was identified early on that we could not do this on our own, we needed the assistance of our partners that could both contribute financially but also provide the expertise and resources we needed to build a strategy that could be sustained within our organization. In 2010, the Hastings Park Master Plan was approved which confirmed that over the following 25 years the park would undergo over 250 million dollars in renovations and upgrades in accordance with that Council-approved plan.

In 2012, with the support of our partner Vancity, the PNE contracted a consultant to conduct a sustainability audit of the organization to identify how the PNE could become a more sustainable organization while identifying benchmarks and goals. This was a significant milestone in the PNE and Vancity partnership that had begun in 2006. At the same time the PNE was tasked with aligning to the City of Vancouver's Greenest City Action Plan, Vancity evolved their partnership program to collaborate through partnerships with organizations in three key areas that provide the most impact in creating healthy communities. Sustainability was one of these key areas of impact.

A new three-year partnership was developed to focus on a Zero Waste Day during the annual 15-day Fair and to purchase the three-stream diversion stations.

As part of this audit, we surveyed our staff and asked what the team believed the priority focus should be. The number one priority for our team was Zero Waste. Additionally, the area where our consultants felt we could have the most immediate impact was also Zero Waste.

With alignment on our sustainability priority the PNE's journey to Zero Waste began.



THE JOURNEY

In 2012 and 2013 while the sustainability audit was being conducted we jump started our Zero Waste journey; it began with the addition of an onsite gardening compost system and a new light bulb crusher. For the 2013 Fair we introduced a “No Styrofoam” rule for both internal and external vendors. That year we diverted 20,000 fluorescent light bulbs, 17 tonnes pre-consumer waste and 175 tonnes of animal waste from the landfill.

One of the biggest lessons from 2013 and our audit was that we needed to invest in our infrastructure and educate the public on our diversion streams. In 2014, an initial investment was made into new diversion stations for the full site including Playland. 76 new three-stream stations were purchased and custom signage was developed for the containers to align to our three streams. For the signage we used photos of the containers used on our site as the descriptors for each of the streams. Our soft drink partner Coca Cola provided additional branded refundable container bins shaped as Coca Cola bottles but no signage was made for the refundables.

During the 2014 Fair, Vancity hosted the first Zero Waste Day which involved over 100 onsite educators at the diversion stations and back-of-house sorting from 11 am to 9 pm. The focus was on the Hastings Park side of the Fairgrounds and did not include Playland. For that day we reported a 94% diversion rate. The overall Fair diversion rate for the 15 days was 47% from the landfill.





After our first year of using the new bins in Playland, we identified that in open areas of the park the bins were filling with rain water making bags heavier to carry and breaking upon removal and the bins were attracting a large number of crows after hours. The following year, in 2015, to address our 2014 challenges we had custom-made plexi rain cover tops made for about 25% of the bins for the Playland operations. In addition we added 12 new diversion stations. We worked with our waste hauler, Waste Control Services (WCS) to align our signage on the diversion stations to what other city attractions were using as we recognized that our guests were used to seeing specific symbols across the city and it was confusing for them when they were trying to use our diversion stations that had different signage. Vancity hosted the second Zero Waste Day at the Fair and it was from this day that our true journey began. Our learn from this day was the results were static and identified many gaps in how we were managing the diversion streams as well as our overall education of our guests, which was focused on only one day of the Fair reaching 55,000 people versus the full 15 days of the Fair reaching all guests.

For 2015 we reported a 50% diversion rate for the full Fair showing positive three-percent increase in our diversion efforts. However the number one success factor that came out of 2015 was that we clearly understood that diversion was more than the bins themselves. We needed a strategy to yield strong growth in our diversion efforts. We could not rely on Vancity to own the strategy, to reach a 75% diversion rate by 2020; the PNE had to own the strategy.

THE STRATEGY

In 2016 we revisited the sustainability audit and prepared an overarching organizational strategy to achieve the goals of the audit. Our corporate sustainability strategy consisted of three priorities.

1. Zero Waste: Increase waste diversion by five percent each year to reach 75% diversion by 2020
2. Green Buildings: Through scheduled maintenance plans, replace infrastructure with sustainable options with aim to reduce energy use, water consumption and GHG emissions
3. Green Lifestyle: Align our programs and services that embody strong environmental living values to how we buy, eat, travel and care for the park spaces/nature

Each of our priorities will have an annual action plan prepared that will outline how we will:

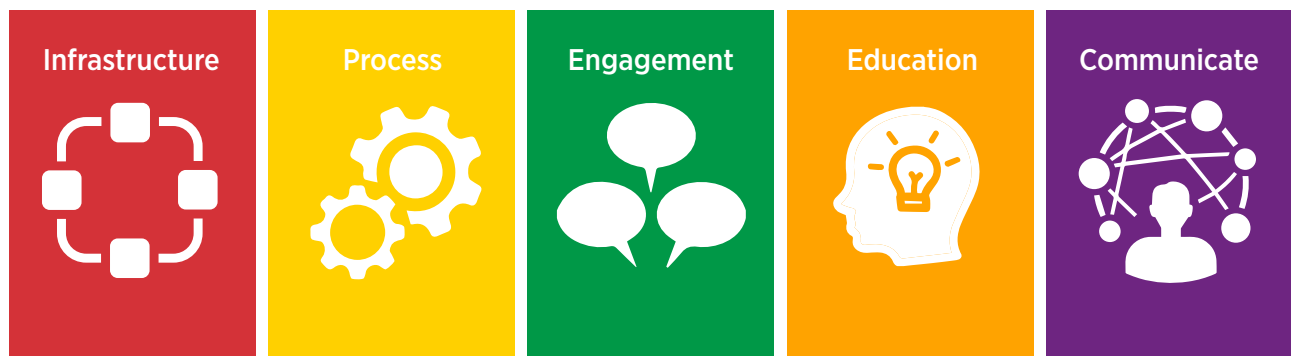
1. Invest in infrastructure that is sustainable, accessible and can integrate into our year round operations.
2. Provide process efficiencies for the PNE team, community and our partners.
3. Build employee engagement through cross department ownership and collaboration.
4. Deliver success through education of our guests and our team.
5. Create an opportunity to communicate the PNE Sustainability Story.

PNE SUSTAINABILITY

Zero Waste

Green Buildings

Green Lifestyle



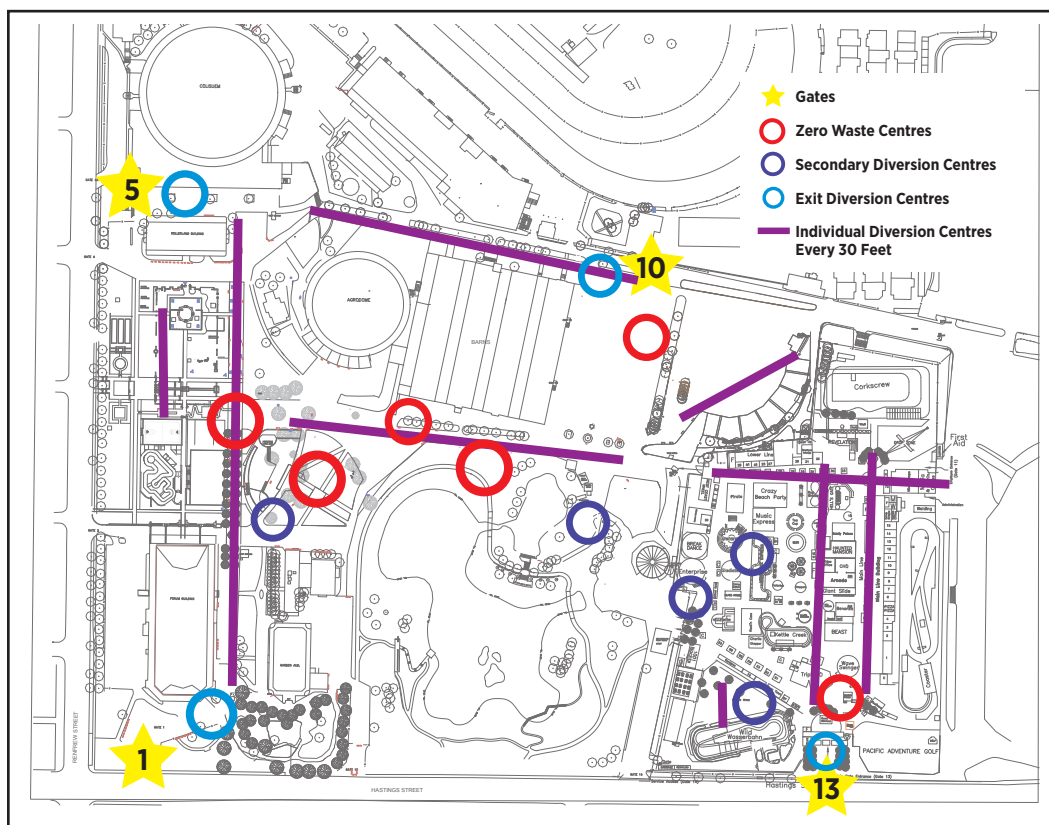
While we recognized that the Zero Waste priority was a year round requirement, we focused the strategy on the 15 days of Fair and applied the key learnings to the full-year operations by identifying key infrastructure and process challenges and engaging employees in the implementing the refinements throughout the year into systematic changes that would build better results year over year.

Following is a summary of how our strategy has built momentum in 2016 and 2017 to set the PNE up to transition to a full year measurement in 2018. This transition is happening two years earlier than originally planned.

In 2016 our focus was to develop carry-forward processes and tools for our year-round team to support year-round diversion. We would continue the Fair Zero Waste Initiative by evolving it to the full 15 days of the Fair. Our success measurements were

- Increase Fair Waste Diversion by five percent from 50.36% in 2015 to 55.36% in 2016
- Increase Fair returnables from approximately 50,000 to 150,000 units
- Decrease soft plastic contamination
- Decrease after 9 pm waste contamination
- Increase vendor participation and success in waste diversion

1. Increase permanent diversion stations by 12; develop a temporary solution for increased volume of diversion solutions needed for Fair
2. Evaluate how we are collecting refundable containers and develop a strategy to increase the volume of refundables diverted and to resolve the overflowing bins during Fair time.
3. During Fair, in peak consumption areas, create large diversion centres with key signage; create smaller diversion centres in high food traffic areas; and strategically place diversion stations at gate entrances and exits reminding our guests of our Zero Waste initiative.



1. Develop back-of-house efficiencies in sorting during peak hours and add back-of-house signage.
2. Strategic scheduling for peak hours of diversion station collection

Engagement Actions

1. Make waste diversion a key objective for full organization versus a responsibility of 1 or 2 people through the creation of a sustainability sub committee
2. Develop vendor checklists, manual and education session on diversion; provide infrastructure to make it easy
3. Celebrate success



Education & Communication Actions

1. Staff large diversion centres to educate our guests on our diversion streams during the full 15 days of Fair
2. Develop general training module for Zero Waste for all employees and role specific training modules for all departments
3. Work with partners, PNE marketing and media teams to tell our story through digital and traditional media channels



[Click to watch video](#)

Two Key Success Factors

1. Partnerships

Vancity has been a major influence on our Zero Waste plans; they showed us what success looked like and assisted us in finding our own path. In 2016 we collaborated on the communication strategy for the Zero Waste Centres and the pre-fair communications campaign to both our followers and their members through integrated social media, in bank signage and radio campaign.

For our guest education strategy to work we needed to increase our bandwidth of team members to work the Zero Waste Centres in educating the public on what goes where. To do this we developed a partnership with The Binners' Project, a group of waste-pickers aided by support staff who is dedicated to improving their economic opportunities, and reducing the stigma they face as informal recyclable collectors. Their passion for recycling is what we needed to fuel the spirit of our initiative.

Expanding on what we started in 2015 we turned to WCS to assist us with the provision of temporary bins, alignment of the placement of the bins to the waste traffic patterns, vendor education, back-of-house process efficiencies and streamlining how we measured success. In addition to the organizational support WCS sponsored the Binner's Project partnership.



Our new partnership with Encorp Pacific was instrumental in developing best practices in container collection in a public space, how to communicate the refundable message and the provision of bins to make it easier for our guests to dispose of their containers and reduce overflowing bins. Prior to our partnership with Encorp Pacific the majority of our refundable containers was either going into the waste stream or onto the ground. In addition Encorp Pacific assisted us in determining how to report our success metrics and centralize the collection results.

2. Ownership of the Goal

Coming out of 2015 it was clear that the PNE team needed to own the strategy and execution of the Zero Waste initiative. We developed a Zero Waste work group and met monthly to begin to centralize our efforts. What came clear from these meetings is while we all had the same bins, we were managing waste differently in each department, used different suppliers and many of the teams were not clear on what our streams were.

One of the key successes of 2016 was aligning with the Playland team in our conversation and providing the same resources across the organization. Until this our two site clean-up teams worked independently but faced with the same challenges.



2016 Results

We reached our goal of 55.36% diversion during the 2016 Fair, with notable successes and learnings along the way.

To reach our goal we set up five large diversion centres grouping the bins together under marque signage. These centres were located in high traffic food areas around key picnic table spaces, festival and entertainment zones. We positioned two educators per station and provided the educators with coupons to reward the guests who are asking great questions and/or diverting their waste correctly, actively looking for guests who were engaged in our success. For year-one of our education initiatives the Binners' Project staffed two centres and the PNE team staffed 3 of the stations. This opportunity yielded 75 income opportunities for the Binners' Project team members over the 15 days of the Fair.



In addition to the large diversion centres we also set up four satellite diversion centres in high food traffic areas with lower volumes of seating but we created highly visible signage identifiers including tear-drop flags and fixed structures creating a strong identifier to the waste centre locations. In these areas we ensured that site clean-up crews were maintaining regular checks on the stations.

At each of the entrances and exits we had key call-to-action messaging relevant to the direction the guest was headed, reminding them to be mindful of their waste and to “Stop Think and Sort” along the way.

Second to our guests, our food vendors create the second highest volume of waste on the site. To ensure we set them up for success we provided advance communication on planning for their diversion needs, hosted an onsite training course and checklist for the onsite teams and we right sized their diversion equipment needs. Our hauler provided regular updates on how our vendors were doing in diverting their waste so that we could course correct their actions along the way.

Both the Binners' Project and the PNE team members received advanced training the diversion streams and wore Zero Waste Ambassador “Ask Me” buttons.

We achieved extraordinary success in each of the streams. Notable mentions go the increase in organics diversion by 53%; mixed containers by 30%; and we increased the total number of refundable units collected from approximately 50,000 units to over 145,000 units.

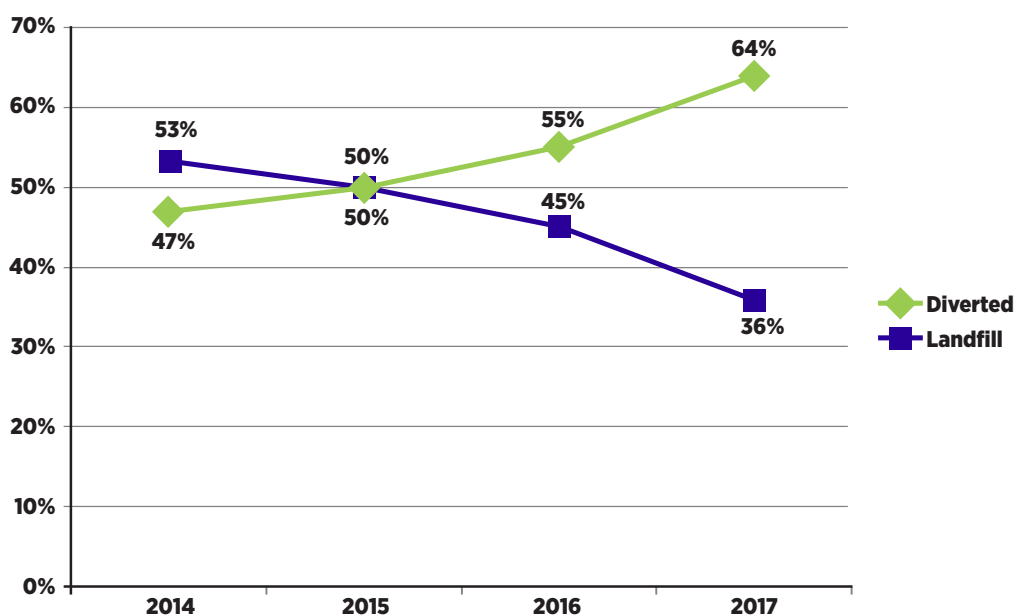
2016 Key Learnings

1. Night time site clean-up crew requires additional training and increased lighting back-of-house; have a dynamic schedule for night time crew to have increased coverage on busier nights.
2. There is a third rush on the diversion stations waste at 11 pm, primarily in concert regress areas and Playland.
3. Refundables in large quantities are leaving the site during the early mornings when site is open to neighborhood bottle collectors.
4. Multiple refundable haulers do not give us the accurate reporting of true diversion and is an ineffective process as it relates to back-of-house infrastructure and training of the team.
5. We need an operational solution to cleaning large concert areas ground waste to ensure it is sorted easily and effectively.
6. Vendors need equipment earlier; onsite check lists to post in food trucks, grease disposal is a challenge for vendors both internal and external. Ribfest vendors in particular are increasing contamination due to bone weight and back-of-house set up
7. We need to align Playland into the overall strategy and include a Zero Waste Centre and increased signage on the Playland site.
8. Use permanent stations at stand-alone stations and temporaries at the centres to allow for better eye level signage at stand-alone diversion stations and at same time increase capacities as the larger Zero Waste Centres.
9. Update and revise the grease diversion infrastructure and training.
10. Have Binners' Project at each of the Zero Waste Centres.

2017 ZERO WASTE ACTION PLAN

Moving forward into 2017 we wanted to build off the momentum, not change course. We refined our actions and achieved an outstanding 9% increase in our diversion rates from 55% to 64%. Our success measurements leading into the Fair were:

1. Increased Fair Waste Diversion by 5% from 55% in 2015 to 60% in 2017
2. Increased Fair returnables from 3.5 metric tonnes to 7 metric tonnes
3. Decreased after 10 pm waste contamination
4. Continued to increase vendor and employee engagement
5. Worked with our partners to tell our shared Zero Waste Story to their stakeholders



Our lessons from 2016 guided our actions for the 2017 plan. We took the same action plan from 2016 and refined it with the following new action items,

Infrastructure Actions

- Increase permanent diversion stations by 12; increase the number of temporary stations from 35 to 47.
- Increase the number of refundable bins by 100; align our refundable collection strategy under one hauler, system and reporting both units and weight.
- Add a Zero Waste Centre to Playland; increase temporary stations in high traffic exit zones inside the park such as outside the Amphitheatre and exit from Livestock barns; move mainline Zero Waste centre to be more visible.

Process Actions

- Train and develop leadership in the overnight site clean-up team to reduce after 10 pm contamination
- Refine large venue cleaning processes such as Amphitheatre to increase diversion from these areas during peak site clean up hours
- Streamline the hauling of the refundables and grease to our main hauler WCS for more efficient pickups, processes and reporting
- Change diversion station collection to be done between midnight and 5 am to prevent large bags of refundables from being collected from the site by neighborhood bottle collectors.

Engagement Actions

- Refine back of house, staff room, company-wide waste diversion signage
- Recognize the individual teams sustainability successes and impact to the organization
- Encourage all departments business/budget planning to include Zero Waste requirements
- Train management and union staff to prevent guests taking large volumes of refundables from the site.

Communication Actions

- Binners' Project to manage all six Zero Waste Centres for the full 15 days
- Refine signage program across the full site including back of house.
- Develop case study and public story.

Two Success Factors

1. Partnerships

In 2017 we did not add any new partners to the program however we did expand our current partnerships.

Waste Control Services increased total number of temporary rolling bins; worked with our Playland operations team to streamline their hauling requirements; added grease diversion infrastructure and hauling best practices (formally hauled by another company); and, developed a year round reporting system for measuring the full diversion rates.

Vancity expanded their partnership to include supporting the increased number of Binners' Project shifts to cover all six stations for the full 15 days of the Fair; additional infrastructure and signage investments; and expanded the guest reward and recognition program onsite.

The Binners' Project partnership has been a rewarding partnership for the PNE both from an expertise and resource but also the opportunity to support an organization through their upstart and development phase, allowing the PNE to extend the impact of their collaboration into the community. In 2015 the Binners' Project had two event-days of income opportunities. In 2016 the PNE began our collaboration and this increased to 26 event days of opportunity and in 2017 this increased to 57 event days of income opportunities. The growth and hard work of the Binners' Project has been outstanding and the PNE is very fortunate to be a part of it.

Our most notable partnership expansion was with Encorp Pacific. In 2016 we focused on infrastructure but we did not evolve our processes and training on how we collect the refundable containers. In 2017 we expanded the partnership by leveraging Encorp

Pacific's expertise on how to report and measure success in a refundable diversion program. By working backwards we were able to align our collection processes and suppliers to these metrics and report an amazing increase from 2016 with over 298,000 units collected in 2017. How did we do this?

- Identified every department that was collecting refundable containers, how they were collecting them, who was hauling them away and what depots they were taking them to
- Set clear reporting expectations by both weight and number of units.
- Increased our total number of refundable bins by 100 across the site.
- Included Encorp Pacific in our Science of Fun Days to education school aged children on recycling.



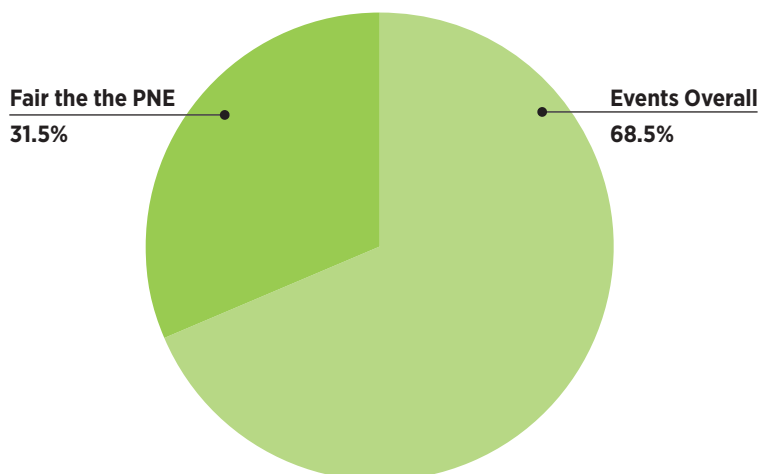
2. Leadership

Leadership from within is as important as leadership from above for an initiative like this to be effective. We empowered our managers to lead their teams in the diversion efforts, make them accountable to the success and involve them in the development of a go-forward strategy to build out a year-round diversion strategy. Waste is not just the maintenance team's responsibility. Having the right people at the table who are directly impacting the success of the strategy evolves our plan from an initiative to a way of doing business.

2017 Results

The success of 2017 stands on the shoulders of a team that took what worked and made it better. We increased our diversion by nine percent by focusing on the key areas of improvement, modeling what worked and leveraging the expertise of the team and our partners. In addition to our Zero Waste impact we had further community impact by increasing our Binners' Project income opportunities from 75 to 260 over the 15-day period.

Income to Binners from 2017 Events



While the outstanding lift in diversion is reason enough to celebrate, the number one result from 2017 was the engagement in the team in identifying and observing what was working and course correcting throughout the full 15 days. Huddles could be seen throughout the site with conversations on:

- How can we make this better?
- Would this work for our year round events?

In 2016 we removed all general waste barrels from the outside grounds. One challenge we had in 2017 was these barrels resurfaced because some team members felt we needed more containers on the site versus trusting the system. Even with increased Fair attendance and the resurgence of the general barrels, our waste saw a total weight reduction by eight percent. One of the outcomes from the general barrels is that we have streamlined the channel of communication for who can request additional bins and placement of these bins.

While our organics diversion stayed the same in 2017 we saw considerable lift in our mixed fibre and mixed containers. The mixed containers increase in diversion is due largely to the consultation and guidance from Encorp Pacific. Our overall mixed containers saw a 38% increase in diversion.

	2014	2015	2016	2017	Variance
Mixed Fibre	7.9	30.83	27.75	64.1	36.35
Mixed Containers & Plastics	18.56	12.3	17.54	35.09	17.55
Organic	43.75	40.46	86.32	86.32	0.00
Agriculture Waste	272.65	179.14	166.85	236.2	69.35
Grease	10	13	11	8.1	(2.90)
Total Diverted	352.86	275.73	306.46	429.81	33.73
Solid Waste	405.37	271	257.96	236.85	
Total	758.23	546.73	567.42	666.66	

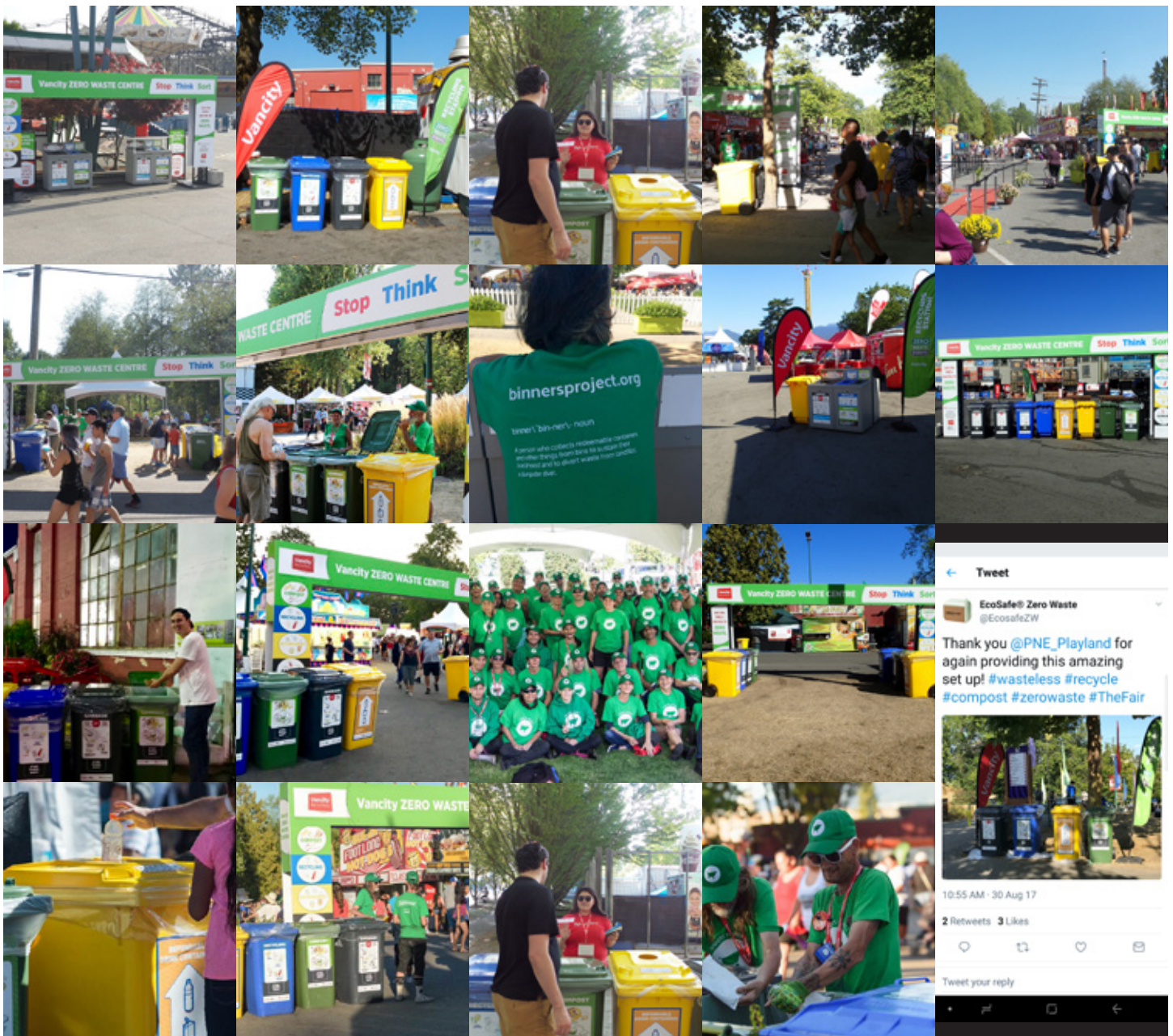
Diverted	47%	50%	55%	64.47%
Landfill	53%	50%	45%	36%

The number one success of 2017 was that we set the benchmarks for a full year measurement in 2018. From this we have been able to identify key actions to work into our 2018 business planning for our fiscal year start of April 1, 2018. The good news is our year-round diversion measurement is tracking to be slightly higher than our 2017 Fair diversion rate, demonstrating the that our primary objective to translate our lessons from Fair to year-round operations is working.



2017 Key Lessons

1. The back-of-house areas are located too far from the site for general collection from the diversion stations throughout the day.
2. Back-of-house areas need to be re-addressed for set up infrastructure and training.
3. Vendor back-of-house areas need to be expanded and new signage needs to be implemented for their diversion stations.
4. Number of bins and volume of bins need to be increased to eliminate the general bins throughout the site with focus on the exits of entertainment venues.
5. We need to include one or two roaming educator teams to float in areas of fluctuating attendance such as coliseum concourse and amphitheatre regress.
6. Refundable collection needs to be aligned under one hauler for the full year not just the 15 days of Fair to pre-empt any mis-communication of hauling and address back-of-house infrastructure.
7. More training and resources is needed for the late night clean-up crew.
8. Permanent diversion stations need to switch the garbage and compost bins to allow for increased compost capacities.



CONCLUSIONS

As we head into our third year of the Zero Waste strategy our primary lesson has been alignment. If priorities in infrastructure, processes and employee engagement communication are not aligned to the end goals then there are too many places for the strategy to break down.

Zero Waste is an evolving task, each year new challenges are identified and we must continue to position our team and our infrastructure evolve with it.

Our infrastructure will continue to be refined including new tops on old diversion stations; switching garbage and compost; purchasing additional larger capacity rolling bins for outside use; streamlining vendor back and guest front of house diversion station set ups; and investing in new back-of-house resources.

Processes in hauling and measuring are evolving to align to a full-year measurement and we are looking at how the garbage is hauled from the site and the collection of the garbage into possible smaller sub back-of-house stations to shorten time of front of house site clean-up teams collection abilities.

We will be including sustainability reporting for all departments during business planning and quarterly reporting periods. In addition we will increase general and role-specific training on diversion for our staff.

The PNE is in a pivotal year as we transition to a full-year strategy. This also involves readdressing our guidelines regarding what is allowed on the site such as moving to fully compostable single use items and expanding areas where we can avoid and reuse items versus recycle.

As we transition to full-year measurements, communication is the key to being successful. Identifying what is being removed from our site is critical to the integrity of our diversion results. Our site is a dynamic site that has many diversion influencers including staff, contractors, clients, suppliers, park users, partners, vendors and tenants. Each of these groups must be held accountable to the results and the PNE must make it easy for them to do so. The good news is our full-year benchmarks are in place for 2018 and the preliminary results show that we can do it.



WE WOULD LIKE TO THANK OUR PARTNERS

Vancity

