

LLOYD ECODISTRICT

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NEIGHBORHOOD OVERVIEW

Lloyd EcoDistrict is a place where businesses, residents, government agencies and nonprofits all share a vision: to build the most sustainable living and working district in North America. Lloyd is a diverse and growing community with a bustling local economy. This vision defines sustainability as building a neighborhood that supports prosperity, environmental quality, and social welfare.

Lloyd EcoDistrict is located just east of Portland's central business district on the east side of the Willamette River. There are over 550 businesses within this growing commercial district, including the Oregon Convention Center and the Moda Center arena, employing more than 23,500 people, and housing 2,500 residents. People come to Lloyd for shopping, employment, conferences, and sporting and entertainment events. The area is well connected by the bicycle network and public transit, with MAX light rail, buses, the Portland Streetcar, and protected bike lanes.

SNAPSHOT

PROJECT TYPE: Existing Business District

SITE SIZE: 400 acres

RESIDENTS: 2,100

DEMOGRAPHICS:

- 82.1% White
- Median Age: 44.3
- Per Capita Income: \$35,282
- 24,000 working professionals in the EcoDistrict

INFRASTRUCTURE:

- Residential Buildings: 5%
- Commercial Buildings: 61%
- Institutional Buildings: 16%
- LEED® Certified Buildings: 7

ANTICIPATED OUTCOMES:

Job creation, return on investment, energy efficiency, district zero-waste, green infrastructure corridors, biophilic design, green streets, building character, retail commercial streets, pedestrian bridges.

KEY STAKEHOLDERS:

- Lloyd Enhanced Services District
- American Assets Trust
- PacifiCorp
- Bonneville Power Administration
- Go Lloyd
- Oregon Department of Environmental Quality
- Lloyd Center Mall
- Metro Regional Headquarters
- City Repair
- Green Building Services



LLOYD ECODISTRICT PARTNERED WITH CITY REPAIR TO CREATE AN INTERSECTION PAINTING

Lloyd has been an urban renewal area since the 1980s. In 2009, the Portland Mayor's office and the City of Portland's urban renewal agency, the Portland Development Commission (now Prosper Portland), created the concept of "ecodistrict pilots". The idea sought to scale up Portland's sustainability practices beyond single green buildings to collective activities and infrastructure at the neighborhood-scale.

Lloyd EcoDistrict was selected to participate in this ecodistrict experiment. With that impetus, Lloyd EcoDistrict was formed in 2011 as a committee of existing stakeholders from the business improvement district (BID) and the transportation management association (TMA).

Today, Lloyd EcoDistrict serves as the backbone of this community-led effort, encompassing leaders from businesses and local institutions as well as passionate individuals who live, work, and spend time in Lloyd. Increasingly, as more people are living in Lloyd, the work of Lloyd EcoDistrict focuses on engaging this changing population to build a resilient community and bridge the gap between businesses and individuals.

ABOUT THE ECODISTRICTS CERTIFIED PROGRAM

EcoDistricts Certified is the standard for community development that makes equity and sustainability fundamental to neighborhoods for all. By embracing the standard, neighborhoods commit to becoming the first certified EcoDistricts in the world. EcoDistricts Certified is the result of seven years of research, pilot projects and the best thinking from international experts. It provides a flexible, holistic, and rigorous "how to" framework for organizing and achieving important public policy, sustainability, and investment goals.

Learn more at:

<https://ecodistricts.org/ecodistricts-certified/>



PROJECT GOVERNANCE

Lloyd EcoDistrict is a nonprofit organization, governed by a volunteer board of directors. We started as a subcommittee of the Enhanced Services District (ESD), funded entirely by individual voluntary corporate donations, made on an annual basis. After the third year, the ESD board voted to support Lloyd EcoDistrict as a project supported by an assessment for ten years. This meant it was possible to have separate finances, and was the impetus to start the process of converting from a 501c6 business association (as the ESD is) to a 501c3.



IMPERATIVES

The certification process begins with a district's commitment to the Imperatives that underpin the Protocol: Equity, Resilience, and Climate Protection. These are indispensable cornerstones of neighborhood sustainability, and making a firm pledge to them at the outset of the process ensures their integration in the Formation, Roadmap, and Performance phases.



1. EQUITY

Lloyd EcoDistrict aims to build a neighborhood with a connected and engaged community and a strong sense of identity and place. In Lloyd, sustainability is a tool not only for environmental protection, but also to improve prosperity and welfare for all. These efforts connect and support the diverse populations who spend time in Lloyd, whether it be those who commute to the district for work, the elderly in assisted living facilities, or the houseless population who rest in a small but organized encampment here. Lloyd EcoDistrict prioritizes programs that distribute benefits equitably among people in the community, seeking to use the district scale to collect, expand, and share resources.



2. RESILIENCE

Lloyd EcoDistrict works to build resiliency in Lloyd by building community. With stronger connections between neighbors, individuals have a deeper web to rely on when responding to a crisis. Whether developing a solar array or teaching people to waste less food, planning for sustainability also helps the community prioritize long-term actions that will best prepare this community for change.



LLOYD ECO FAIR



LLOYD ECODISTRICT GOVERNANCE



3. CLIMATE PROTECTION

Lloyd EcoDistrict takes a four-pronged approach to climate protection, targeting no net increase in energy use, water use, and waste generation, as well as increased access to low-carbon modes of transit. The strong backbone of sustainability leadership among major stakeholders in Lloyd enables the district to take aggressive action on climate change.



ROADMAP

The Roadmap is a performance-based sustainability action work plan that integrates a comprehensive set of project and programmatic investments across a district. The Roadmap sets ambitious performance targets and implementation milestones based on the Imperatives and Priority indicators.

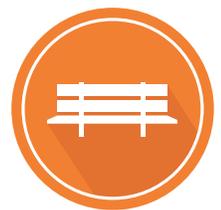
Developed in November 2012, the Lloyd EcoDistrict Roadmap provides an assessment of baseline conditions, adopted performance goals, and recommended strategies that support Lloyd's vision to become the most sustainable neighborhood in North America. With funding support from Prosper Portland (formerly known as the Portland Development Commission), the Roadmap was completed by EcoDistricts (formerly known as POSI) on behalf of Lloyd EcoDistrict. It was informed by the City of Portland bureaus, Metro, and the Lloyd EcoDistrict Board, and was peer reviewed by key technical consultants.



EARLY WINS

PLACE: Lloyd EcoDistrict is about people. It has a mix of residential communities, large and small businesses, schools, churches, and neighborhood groups. As more people move into the neighborhood, the focus of the EcoDistrict's activities and messaging is also changing to reflect community engagement in all of its work. Community outreach has allowed the organization to be an active and inclusive presence for all members of the EcoDistrict, to raise awareness of environmental issues and solutions, and to seek community buy-in for its efforts.

Since 2015, the Lloyd EcoDistrict has provided technical, administrative, and creative support to renters and home owners in the district. Livable Lloyd facilitates collaboration across the district by encouraging individuals to share their ideas for creating a livable, sustainable neighborhood. Livable Lloyd meetings are held monthly in community spaces, where neighbors get to know each other, share resources, and work together to improve and strengthen the community. The program is supported by Lloyd EcoDistrict, Lloyd District Community Association, and Go Lloyd.





Lloyd EcoDistrict's vision of a sustainable living and working district includes an engaged, empowered resident population with connections to their local businesses. In partnership with Elders in Action, the Age-Friendly Campaign (AFC) trained local senior volunteers to provide feedback to businesses on making their customer service and facilities more elder-friendly and accessible. For Elders in Action, this campaign provided a successful way to pilot a new approach to expanding their programs across the city, as well as connecting seniors with sustainability concepts. For Lloyd EcoDistrict, the AFC was a mutually beneficial method of engaging two key demographics in the district: seniors, who make up 25% of the resident population, and the businesses who serve them. The Age-Friendly Campaign was brought to the Lloyd District through a partnership between Lloyd EcoDistrict, Elders in Action, Go Lloyd, Lloyd Center, and the Lloyd District Community Association.

CONNECTIVITY: In Spring 2016, Lloyd EcoDistrict partnered with Go Lloyd, Hassalo on Eight, Green Zebra, Witch Hazel Designs and Education, and City Repair to create the first phase of the district's Pollinator Corridor. Neglected street planters that buffer the district's protected bike lane from the street spurred the idea to create a pollinator corridor. The Lloyd EcoDistrict pollinator corridor is a social sculpture that combines ecology, community engagement, and design. While several cities across the nation have developed pollinator corridors, this is Portland's first. Additionally, this is the nation's first established pollinator bikeway.

Lloyd EcoDistrict and partners engaged with volunteers to plant native perennials in the planters which, once established, will require much less watering and maintenance than annual varieties. In Summer 2017, phase two of plantings took place. Education about pollinator species, native plants, and local ecology was provided to volunteers. Lloyd EcoDistrict aims to continue the corridor along the entire length of NE Multnomah Street as a way of safely separating cyclists from traffic and providing native pollinator habitat.

Additionally, in 2016 Lloyd EcoDistrict partnered again with City Repair to create an intersection painting. City Repair is a nonprofit that facilitates artistic and ecologically-oriented placemaking through projects that honor the interconnection of human communities and the natural world. Over the past year, the community sought input on project locations and design ideas. Intersection paintings typically manifest as a colorful mandala painted in the intersection of two streets. Intersection paintings not only provide community building and placemaking, but they also serve as a traffic calming mechanism to slow vehicles down as they cross intersections. In August 2017, volunteers from Wells Fargo and Color Outside the Lines joined community members to complete the colorful intersection vortex mural, which is located along a bike way adjacent to a senior living facility. This project was an opportunity for those that live, work, and play in Lloyd EcoDistrict to get to know each other and share their talents.



Lloyd EcoDistrict sits at the center of a well-established transportation infrastructure, including access to light rail, a streetcar, and bus and bike infrastructure. While this wealth of public transit brings more than 40% of Lloyd's visitors to the area each year, district leaders were interested in expanding alternative transportation options for people who live and work in the area.

In the summer of 2016, Lloyd EcoDistrict, GenZe, an e-bike manufacturer, and Go Lloyd, the district's transportation management association, launched an E-Fleet Pilot in Lloyd District, offering four businesses access to e-bikes for a trial period. Electric bikes were offered at low prices to employees and residents of Lloyd in order to address problems of traffic congestion, greenhouse gas emissions from car trips and circling for parking, the need for increased physical activity, and affordable transportation for all. The pilot helped employers consider how to offer e-bikes as a part of their vehicle fleet, by assisting with the price and check-out logistics. Workshops taught employees how to safely commute by bike in the city and how to dress for bike commuting in all types of weather, focusing on reducing the barriers to using e-bikes in place of cars. Moving forward, Lloyd EcoDistrict received a grant to help expand the E-Fleet program to residents.

RESOURCE RESTORATION - ENERGY: In 2013, Lloyd EcoDistrict developed the Lloyd Energy Action Plan to help put building owners on the course to achieve the 2035 Energy Efficiency goal. Created in collaboration with district stakeholders, technical advisors, and key partners, the plan outlines fifteen actionable steps over the next five years to achieve the bold goal of no net increase in energy demand based on the 2010 usage baseline. Several catalyzing actions were identified, including establishment of the existing building energy protocol, energy benchmarking and monitoring, and a bulk purchase demonstration pilot. The Lloyd EcoDistrict Energy Efficiency working group of community members and stakeholders was created to steward the Energy Action Plan. This group provides a monthly forum for key stakeholders to share results of energy efficiency projects, pool resources, and develop and promote new energy efficiency solutions for the EcoDistrict. Public partners bring new programs and implement projects in their own offices and industry partners work hard to implement these energy efficiency projects in their businesses. Together, the group developed a number of energy efficiency strategies, including the first bulk purchase pilot, an LED retrofit program.



Existing building energy use needs to be reduced by 33% by 2035 in order to meet the district's goal of no net increase in energy consumption. As of 2015, existing buildings have reduced their energy use by 12.2%. This achievement is nearly halfway to the 2035 goal in only five years. Renewable energy efforts have so far been due to a single large project, and there is missing information about renewable energy credits.





NATURAL ORGANIC RECYCLING MACHINE



RIGHT 2 DREAM TOO - SLEEP AND RECHARGE CAMPAIGN



RENDERING OF HASSALO ON EIGHTH

The Oregon Convention Center's new solar array produces 1% of total renewable energy use district-wide, advancing the district towards a 5-year goal of 4% renewable energy production. This 250,000 square feet installation allows the EcoDistrict to get close to their target of 300,000 square feet of on-site solar needed in the district. A community solar program is being developed for 2017 to help accelerate solar photovoltaic projects in the district.

Lloyd EcoDistrict's LED program, LAMP, is a unique project in which Lloyd EcoDistrict serves as an intermediary, partnering with a lighting contractor to provide volume pricing on a wide variety of LED replacement bulbs at a deep discount to stakeholders. This incentivizes district buildings to upgrade to LEDs, saving energy and money while returning a modest income stream to Lloyd to reinvest in future projects. Additionally, in support of the triple bottom line – people, planet, and prosperity – the program is designed to provide unique social benefits. With each purchase, a portion of the fee is donated to Central City Concern, a nonprofit that provides affordable housing and recovery services for people suffering from homelessness, poverty, and addiction.

LAMP was among the first projects launched within the scope of the Energy Action Plan, established in 2014 to achieve measurable progress toward the district's aggressive energy saving goals. District leaders identified the potential for savings achieved through LED retrofits of commercial buildings, and with a number of retrofit projects in the works, Lloyd EcoDistrict was tasked to go out into the marketplace and attract a supplier and service provider who could provide Lloyd with a volume purchasing arrangement. Seeking to amplify their efforts to an appropriately sustainable scale, Lloyd leaders partnered with the Building Owners and Managers Association Oregon (BOMA) to grow the LED program statewide. The program officially launched in 2016, and the first year's worth of projects to go through LAMP were estimated to result in savings of 228,000 kWh, 312 metric tons of CO₂, and \$28,000 annually.

Lloyd EcoDistrict's invested stakeholders wanted a way to track energy use as a district and measure progress towards the EcoDistrict's energy goals. After exploring several systems, the group decided to use ENERGY STAR® Portfolio Manager® to track utility data. This free web-based tool allows building owners to track and analyze their electricity, gas and water use. It also facilitates tracking the ENERGY STAR® score and potential for certification. By managing data in this system, district members can see how well energy efficiency projects are working to reduce energy consumption in Lloyd. Every year, following an intensive data collection push, Lloyd EcoDistrict's partners, Green Building Services, analyze this data and produce a report for Lloyd analyzing district energy use over time.

RESOURCE REGENERATION - WATER: During the development of the Roadmap, the Lloyd EcoDistrict set an ambitious goal for a no net-increase in potable water demand from 2010 levels, essentially a 58% reduction in demand by 2035. Along with the ENERGY STAR® Portfolio Manager® to track water usage, the EcoDistrict continues to look into the Roadmap's recommended water reduction strategies. These strategies include existing building water conservation retrofits, high performance new buildings, and district water utility. Existing building energy use needs to be reduced by 33% by 2035 in order to meet the district's goal of no net increase in energy consumption. As of 2015, existing buildings have reduced their energy use by 12.2%. This achievement is nearly halfway to the 2035 goal in only five years. Renewable energy efforts have so far been due to a single large project, and there is missing information about renewable energy credits.

The Lloyd EcoDistrict is home to an onsite wastewater system nicknamed NORM (Natural Organic Recycling Machine). Though the Lloyd EcoDistrict did not develop NORM, it is a legacy to the EcoDistrict as it was constructed during the EcoDistrict's beginning days and helped advance its marketability.

The EcoDistrict area is served by a combined sewer, where rainwater is conveyed along with sewage and ultimate is treated as wastewater. Despite city improvement efforts over the last decade, the combined sewer system frequently was unable to adequately handle stormwater runoff from heavy rains, causing sewage and pollutants to flow into the nearby Willamette River. Not wanting to degrade Portland's treasured natural asset any further, American Assets Trust purchased four blocks in the heart of the Lloyd EcoDistrict and collaborated with engineers and architects. The project envisioned a vibrant community that would sustain itself with regards to water and carry the potential to expand and inject life into the Lloyd District while not further damaging the river. It is from this need that Hassalo on Eighth was born.

Pending LEED Neighborhood Development Platinum certification, Hassalo on Eighth boasts the highest level of certification in renewable, clean energy development, green roofs, a bike hub, access to mass transportation, and numerous other eco-friendly technologies and amenities. It is also one of the first urban neighborhoods to treat and recycle its wastewater on site.

In collaboration with GDB Architects, Glumac, and PLACE Studio, Biohabitats, a conservation planning organization, designed NORM. This decentralized treatment and reuse system is designed to divert 100% of the wastewater generated in three new buildings away from the municipal sewer system. The project lessens the burden on this public utility, staving off costly repairs and infrastructure expansion, which garnered considerable support from the City as well as the Oregon Department of Environmental Quality.

NORM treats 45,000 gallons per day to State of Oregon Class A reuse standards through a series of trickling filters and constructed wetlands. The trickling filters are integrated into the design of the park-like pedestrian corridor at the center of the project and the wetlands are an element of the landscaping. Treated wastewater is reused for toilet flushing, running the buildings' cooling systems, and landscape irrigation. Excess, unused treated wastewater is put into dry wells for crucial groundwater recharge, ensuring that no water is wasted in a largely impervious urban area.

RESOURCE REGENERATION - WASTE: Lloyd EcoDistrict has ambitious plans to prevent waste, with goals of no net increase in waste generation through 2035, and recycling or composting 93% of waste by 2035. The Lloyd district generates approximately 2,774 tons of waste annually so the potential greenhouse gas savings from this work is large. In Summer 2016, the EcoDistrict began working on a five-year Waste Reduction Action Plan that outlines key waste reduction actions in the district which are necessary advancements towards the performance goals as outlined in the 2011 Lloyd EcoDistrict Roadmap. A committed team of Lloyd stakeholders, technical experts, public and nonprofit organizations worked together to develop creative solutions to achieve these goals.



VOLUNTEERS HELPING WITH POLLINATOR CORRIDOR



LLOYD ECO FAIR

Fourteen key actions were identified including establishing a sustainable purchasing protocol, hosting a resource fair, and developing classes to teach individuals and commercial kitchens to use food more efficiently. Many of these actions aim to engage the public, with community-building activities that strengthen public awareness of issues around waste, enhance visibility of environmental successes, and provide an entree for individuals to participate in this important work. Additionally, preventing food waste is a major focus of the plan because this is one of the most powerful strategies the district can take to combat climate change. Lloyd's waste is 39 percent food, which represents both a substantial greenhouse gas impact and a waste of valuable resources that could benefit business by reducing operation costs, and help individuals burdened by rising food expenses and food

PERFORMANCE

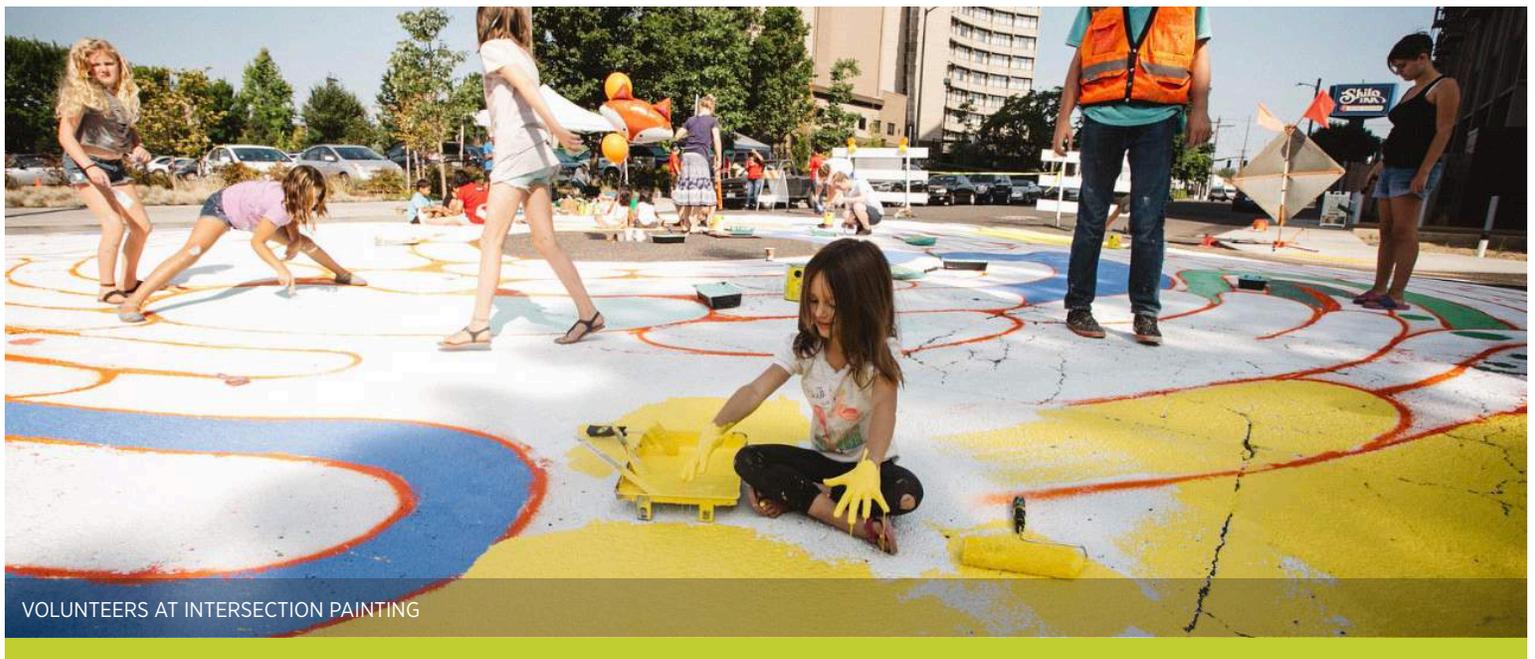
The Performance phase of EcoDistricts certification focuses on measuring impact and gauging a district's progress towards implementing its selected strategies and achieving its performance targets.



The Lloyd EcoDistrict tracks its progress through public annual reports, which can be found on the district's website. Along with annual reports, the district's ENERGY STAR® Portfolio Manager® Report and Lloyd EcoDistrict Roadmap is also available to the public. The Lloyd EcoDistrict will work on engaging with the local community to increase their awareness about the annual reports.

LESSONS LEARNED + CONTINUED CHALLENGES

1. District energy requires substantial capital investments and Lloyd EcoDistrict has found that it is challenging to get businesses to commit funds to shared investments.
2. Out of the five Ecodistricts that were created in Portland, Lloyd EcoDistrict was the one that lasted because we had funding. However, organizationally the Lloyd EcoDistrict still struggles financially to do what it needs to do.



VOLUNTEERS AT INTERSECTION PAINTING



NEXT STEPS

1. Support Lloyd EcoDistrict through meeting EcoDistricts Certified requirements with project management. As neighborhood leadership moves through the certification process, EcoDistricts can provide technical support, training and serve as an information hub to connect the district with others for peer learning and the application of best practices. (2017 – 2019)
2. Though the goals set for the Waste Reduction Plan are ambitious, the Lloyd EcoDistrict aims to meet its baseline within the next 5 years. (2017 – 2021)

“EcoDistricts certification will give the Lloyd EcoDistrict a more formal platform to engage businesses and others in the community and should be helpful in applying rigor and form to the work we’ve been doing.”

– SARAH HEINICKE, EXECUTIVE DIRECTOR OF LLOYD ECODISTRICT

ABOUT ECODISTRICTS

EcoDistricts is nonprofit that advances a new standard for community development. Through its programs and certification standard, EcoDistricts helps create equitable, sustainable, and resilient **neighborhoods for all.**