

Case Study: Portland

GEOG 2311-001

Amanda Q. and Sydney M.



Overview

- The Basics
- What are the Issues?
- How are They Being Addressed?
- Analysis



“Portland, Oregon” Google Maps

<https://www.google.com/maps/place/Portland,+OR,+USA/@45.5234418,-122.7556941,11.06z/data=!4m5!3m4!1s0x54950b0b7da97427:0x1c36b9e6f6d18591!8m2!3d45.515232!4d-122.6783853?hl=en>

Is Portland a Sustainable City?

The Basics

City Population:

Textbook: 609,456^[1]

Updated: 806,749^[2]

(Net: +197,293)

Metropolitan Area:

Textbook: 376 km^{2[3]}

Updated: the same⁴

Population Density:

Textbook: 1,621 people per square km^[5]

Updated: 1,910 people per square km^[6]

(Net: +289)

What are the issues?

- Experiencing climate change⁷
 - Wildfires, air pollution, heat waves, poor water quality, etc
- Reducing mental and physical health of citizens⁸
- Recognized city was engaging in unsustainable living habits⁹




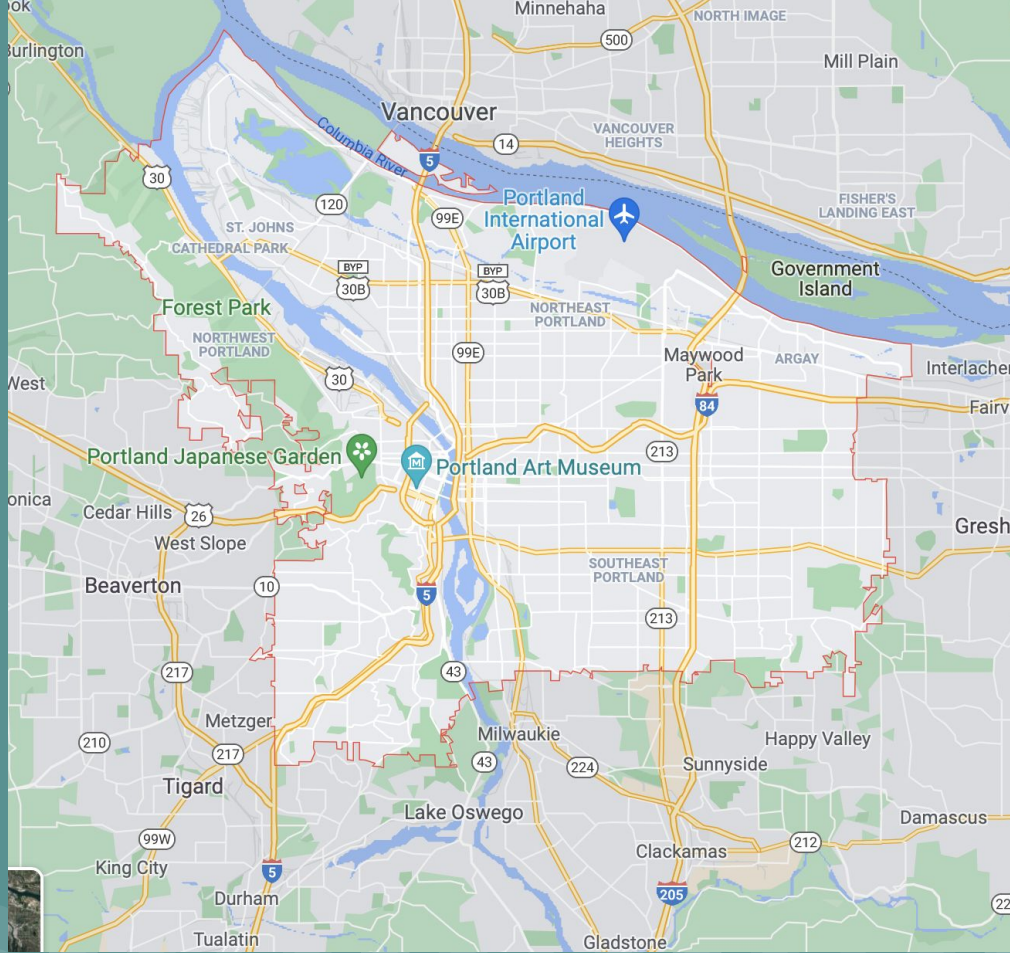
“Portland and Mt. Hood from Pittock Mansion”
Wikimedia Commons.

https://commons.wikimedia.org/wiki/File:Portland_and_Mt._Hood_from_Pittock_Mansion.jpg

How are the issues being addressed?

A. Land Use Strategies

- In the 1970s, set urban growth boundaries¹⁰
 - Encouraging densification
 - Protected green spaces
- 



“Portland, Oregon” Google Maps

<https://www.google.com/maps/place/Portland,+OR,+USA/@45.5234418,-122.7556941,11.06z/data=!4m5!3m4!1s0x54950b0b7da97427:0x1c36b9e6f6d18591!8m2!3d45.515232!4d-122.6783853?hl=en>

- Forest Park
- Smith and Bybee Wetlands Natural Area
 - 2,000 acres (8km²)^[11]
 - One of the largest freshwater wetlands in the U.S.^[12]
- Tryon Creek State Natural Area
 - 2.6km²^[13]
 - Birds and small mammals^[14]
- Oaks Bottom Wildlife Refuge
 - 0.6km²^[15]
 - Wetland, bank of Willamette River
 - Abundance and diversity of birds¹⁶

How are the issues being addressed?

B. Reducing Carbon Emissions

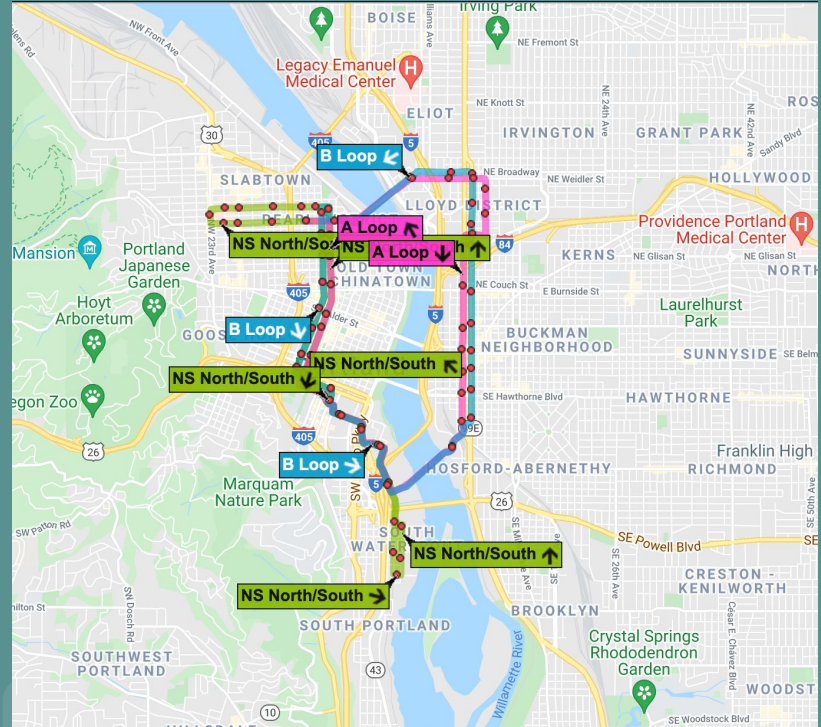
Portland Streetcar

- Operates three lines around a 16 mile track in Portland's Central City¹⁷
- Has been running since July 20, 2001¹⁸
- Over 15,000 rides each day of the week¹⁹
- It is largest modern streetcar system in the United States²⁰



Portland Streetcar

<https://portlandstreetcar.org/about-us/media/photos>



Portland Streetcar Route

<https://retro.umoio.com/googleMap/?a=portland-sc&r=195&r=194&r=193>

How are the issues being addressed?

B. Reducing Carbon Emissions

Multimodal Bridges

- Tilikum Crossing
- “Only bridge in the United States dedicated to light rail, buses, bicycles, and pedestrians only.” (p293)^[21]
- A second similar bridge is under way (Blumenauer Bridge)
 - Allow for pedestrian and bike crossing over the I-84^[22]



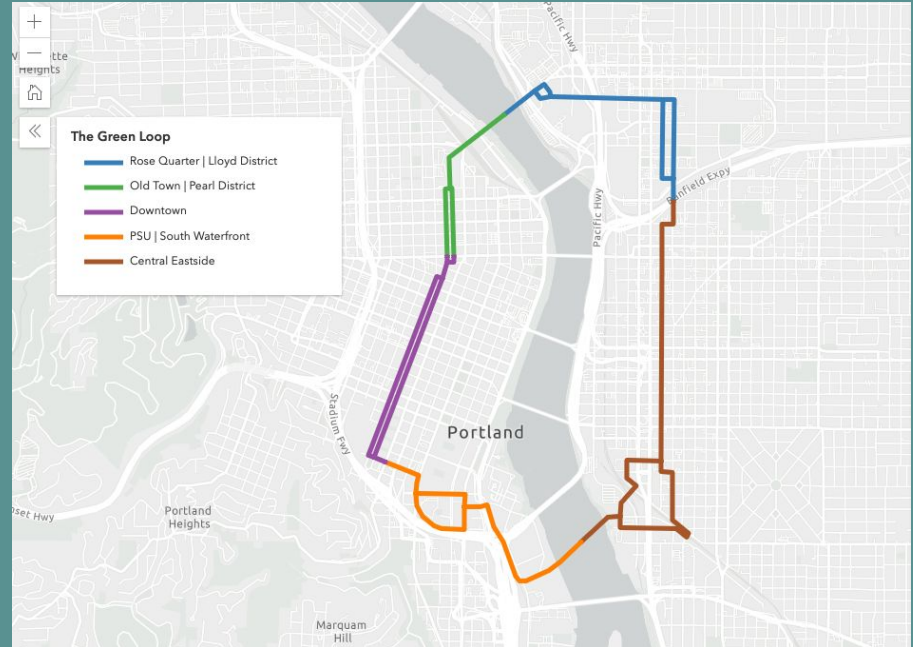
Tilikum Crossing, The Willamette Light Bridge
<https://www.lightthebridges.org/bridges/tilikum-crossing/>

How are the issues being addressed?

B. Reducing Carbon Emissions

The Green Loop Project

- Central City 2035 Plan²³
- 6 mile linear park²⁴
- More than 50,000 new jobs²⁵
- Portland's Central City is the location of 60% of the city's affordable housing units²⁶



Green Loop Project Map

<https://www.portlandmaps.com/bps/greenloop/#map>

How are the issues being addressed?

B. Reducing Carbon Emissions

Sustainable Energy Initiatives

- Leader in energy efficient solutions²⁷
- PECO - Portland Energy Conservation Inc. Founded in Portland, Oregon, in 1979²⁸
- LEED-Certified Buildings (Leadership in Energy and Environmental Design)
- > started in 2000²⁹
- “More LEED Platinum-certified buildings than any other city in the US” (text p293)³⁰



Edith Green Wendell Wyatt Building
<https://portlandgreenenergy.wordpress.com/green-buildings/>

How are the issues being addressed?

C: Recycling/Garbage Pick-Up Programs

- Weekly composting pick-up service (2011)^[31]
 - 2x amount collected
- Every-other week garbage pick up³²
 - 35% decrease in amount to landfill³³
- About 70% residential recycling rate³⁴
 - Vancouver: 68%^[35]
 - America: 32%^[36]

Analysis

Strengths:

Reduce, circulating & clean flows of material

- high recycle rate, spaced out garbage collecting, high rates of composting, and looking at reducing

A prominent place for nature

- developed about 250 different parks and green spaces in the city with a connected system of trails³⁷

People centred development

- “encourage thinking beyond first costs and consideration of the long-term, cumulative impacts of policy and financial decisions” (p295)^[38]
- Green bond

Good work but more needs be done:

Compact & connected patterns of development

- Effective at reducing sprawl and connecting certain parts of the city
- Needs to be more widespread (outside core)

Creative placemaking

- “engage residents and business in the promotion of sustainable practices” (p295)^[39]

Centres of well being

- Green Loop Project 2035

Participatory governance

- Online public access to projects

Is Portland a Sustainable City?

We think that Portland is one of the frontrunners when it comes to working towards having a sustainable city.

While it may not be 100% sustainable yet, the city is actively striving towards sustainability and has been proactive in doing so for many years now.

- It is a city that is known for green initiatives
- Portland actively reviews and adapts their climate action plans, ensuring they keep progressing and incorporating new technology and info as time goes on

Footnotes:

[1] The Worldwatch Institute, *Can a City Be Sustainable?* (Washington: Island Press, 2016)

[2] “Portland, United States,” C40 Cities, accessed February 15, 2022. <https://www.c40.org/cities/portland/>

[3] The Worldwatch Institute, *Can a City Be Sustainable?* (Washington: Island Press, 2016)

[4] “Portland, Oregon,” Wikipedia, Wikimedia Foundation, accessed January 30, 2022, https://en.wikipedia.org/wiki/Portland,_Oregon.

[5] The Worldwatch Institute, *Can a City Be Sustainable?* (Washington: Island Press, 2016)

[6] World Population Review, “Portland, Oregon Population 2021,” Portland, Oregon Population 2021 (Demographics, Maps, Graphs), accessed January 30, 2022, <https://worldpopulationreview.com/us-cities/portland-or-population>.

[7] Monica Samayoa, “Report: Climate Change Is Making Health Problems Worse for Portland Area Residents,” OPB, November 4, 2021, <https://www.opb.org/article/2021/11/04/report-climate-change-is-making-health-problems-worse-for-portland-area-residents/>.

[8] Ibid

[9] Government of Portland, “Innovative Wet Weather Program,” Accessed February 2, 2022, <https://www.portlandoregon.gov/bes/article/62177>

Footnotes:

[10] The Worldwatch Institute, *Can a City Be Sustainable?* (Washington: Island Press, 2016)

[11] “Smith and Bybee Wetlands Natural Area,” Wikipedia, Wikimedia Foundation, accessed February 14, 2022.

https://en.wikipedia.org/wiki/Smith_and_Bybee_Wetlands_Natural_Area

[12] *Ibid*

[13] “Tryon Creek Natural State Area,” Wikipedia, Wikimedia Foundation, accessed February 14, 2022.

https://en.wikipedia.org/wiki/Tryon_Creek_State_Natural_Area

[14] *Ibid*

[15] “Oaks Bottom Wildlife Refuge,” Wikipedia, Wikimedia Foundation, accessed February 14, 2022.

https://en.wikipedia.org/wiki/Oaks_Bottom_Wildlife_Refuge

[16] *Ibid*

[17] “Portland Streetcar,” accessed February 14, 2022.

<https://portlandstreetcar.org/about-us/meet-streetcar>

[18] *Ibid*

[19] *Ibid*

[20] *Ibid*

[21] The Worldwatch Institute, *Can a City Be Sustainable?* (Washington: Island Press, 2016)

[22] The City of Portland, “Congressman Earl Blumenauer Bicycle and Pedestrian Bridge,” Portland.gov, accessed February 16, 2022.

<https://www.portland.gov/transportation/pbot-projects/construction/congressman-earl-blumenauer-bicycle-and-pedestrian-bridge>

[23] The City of Portland, “About the Green Loop,” Portland.gov, accessed February 11, 2022.

<https://www.portland.gov/bps/green-loop/about>

Footnotes:

[24] Ibid

[25] Ibid

[26] Ibid

[27] “PECI,” accessed February 14, 2022.

<https://peci.org/>

[28] Ibid

[29] “Oregon Green Energy Guide,” accessed February 5, 2022.

<https://portlandgreenenergy.wordpress.com/green-buildings/>

[30] The Worldwatch Institute, *Can a City Be Sustainable?* (Washington: Island Press, 2016)

[31] The Worldwatch Institute, *Can a City Be Sustainable?* (Washington: Island Press, 2016)

[32] Ibid

[33] Ibid

[34] Ibid

[35] Statista, “Vancouver’s Recycling Rate from 2000-2018,” Statista, April 22, 2020.

<https://www.statista.com/statistics/1111871/rate-of-recycling-vancouver-canada/>

[36] United States Environmental Protection Agency, “America Recycles Day,” EPA, December 1, 2021,

<https://www.epa.gov/recyclingstrategy/america-recycles-day>

[37] “Green City: Portland,” Green City Times, accessed February 16, 2022. <https://www.greencitytimes.com/portland/>

[38] The Worldwatch Institute, *Can a City Be Sustainable?* (Washington: Island Press, 2016)

[39] Ibid

Bibliography:

“Edith Green Wendell Wyatt Building” Oregon Green Energy Guide. Accessed February 13, 2022. <https://portlandgreenenergy.wordpress.com/green-buildings/>

Government of Portland. “Innovative Wet Weather Program.” Accessed February 2, 2022.

<https://www.portlandoregon.gov/bes/article/62177>

“Green City: Portland.” Green City Times. Accessed February 16, 2022. <https://www.greencitytimes.com/portland/>

“Green Loop Project Map.” Accessed February 10, 2022. <https://www.portlandmaps.com/bps/greenloop/#map>

“Green Loop Project.” About the Green Loop. Accessed January 30, 2022. <https://www.portland.gov/bps/green-loop/about>

Official Guide to Portland. Accessed January 30, 2022. <https://www.travelportland.com/plan/max-light-rail/>

“Oaks Bottom Wildlife Refuge.” Wikipedia. Wikimedia Foundation. Accessed February 14, 2022. https://en.wikipedia.org/wiki/Oaks_Bottom_Wildlife_Refuge

“Oregon Green Energy Guide.” LEED-Certified Buildings. Accessed February 5, 2022. <https://portlandgreenenergy.wordpress.com/green-buildings/>

“PECI.” Accessed February 14, 2022. <https://peci.org/>

“Portland and Mt. Hood from Pittock Mansion.” Wikimedia Commons. Wikipedia. Accessed February 14, 2022.

https://commons.wikimedia.org/wiki/File:Portland_and_Mt._Hood_from_Pittock_Mansion.jpg

“Portland, Oregon.” Google Maps. Google, accessed February 14, 2022.

<https://www.google.com/maps/place/Portland,+OR,+USA/@36.9902064,-111.2931781,3.76z/data=!4m5!3m4!1s0x54950b0b7da97427:0x1c36b9e6f6d18591!8m2!3d45.515232!4d-122.6783853>

Bibliography:

“Portland, Oregon.” Wikipedia. Wikimedia Foundation, accessed January 30, 2022. https://en.wikipedia.org/wiki/Portland,_Oregon

“Portland Streetcar Route,” Google Maps. Accessed February 10, 2022. <https://retro.umoig.com/googleMap/?a=portland-sc&r=195&r=194&r=193> “Portland Streetcar,” Photo + Video. Accessed February 10, 2022. <https://portlandstreetcar.org/about-us/media/photos>

“Portland, United States,” C40 Cities, accessed February 15, 2022. <https://www.c40.org/cities/portland/>

Samayoa, Monica. “Report: Climate Change Is Making Health Problems Worse for Portland Area Residents.” OPB, November 4, 2021.

<https://www.opb.org/article/2021/11/04/report-climate-change-is-making-health-problems-worse-for-portland-area-residents/>

Statista. “Vancouver’s Recycling Rate from 2000-2018.” Statista, April 22, 2020.

<https://www.statista.com/statistics/1111871/rate-of-recycling-vancouver-canada/>

“Smith and Bybee Wetlands Natural Area.” Wikipedia. Wikimedia Foundation. Accessed February 14, 2022.

https://en.wikipedia.org/wiki/Smith_and_Bybee_Wetlands_Natural_Area

The City of Portland. “Congressman Earl Blumenauer Bicycle and Pedestrian Bridge.” Portland.gov. Accessed February 16, 2022.

<https://www.portland.gov/transportation/pbot-projects/construction/congressman-earl-blumenauer-bicycle-and-pedestrian-bridge>

Bibliography:

The City of Portland, Oregon. "Bicycles in Portland Fact Sheet." Bicycle Resources RSS, April 23,

2019. <https://www.portlandoregon.gov/transportation/article/407660>

The Willamette Light Bridge. "Tilikum Crossing." Accessed February 14, 2022. <https://www.lightthebridges.org/bridges/tilikum-crossing/>

The Worldwatch Institute. *Can a City Be Sustainable?*. Washington: Island Press, 2016. Travel Portland.TriMet. "Tilikum Crossing." Accessed January

30, 2022. <https://trimet.org/tilikum/>

"Tryon Creek Natural State Area." Wikipedia. Wikimedia Foundation. Accessed February 14, 2022.

https://en.wikipedia.org/wiki/Tryon_Creek_State_Natural_Area

United States Environmental Protection Agency. "America Recycles Day." EPA, December 1, 2021.

<https://www.epa.gov/recyclingstrategy/america-recycles-day>

World Population Review. "Portland, Oregon Population 2021." Portland, Oregon Population 2021

(Demographics, Maps, Graphs). Accessed January 30, 2022.

<https://worldpopulationreview.com/us-cities/portland-or-population>.