OUR CHANGING CLIMATE



Greenhouse gases are increasing.....





WHAT IS HAPPENING ON A GLOBAL SCALE?

AVERAGE TEMPERATURE IS RISING.



So what does that mean for us?

*

WHERE DO GREENHOUSE GASES (GHG) COME FROM IN KING COUNTY

Most of the GHGs emitted in King County come from transportation and energy use. Purchased goods and services also have GHG emissions associated with them before they reach the consumer. The chart accounts for all GHGs created from goods and services, from production, to transportation, to sale, usage and disposal.



2017 "Geographic Plus" King County Communitywide GHG Emissions



Why work at two scales?

In 2017, King County Government Operations represented ~1.7% of Countywide Scale Emissions



Government Operations



King County-Cities Climate Collaboration



What's our path to 80% Reduction by 2050?





So what does that mean for us?



RISING CO2 LEVELS ARE CHANGING THE CHEMISTRY OF THE OCEANS.



FLOODING



JANUARY 2015: Warm storms bring torrential rain and flooding.

RECORD LOW SNOWPACK

SPRING 2015: Record low snowpack in the Central Cascades.

4% OF AVERAGE SNOWPACK

RECORD TEMPERATURES 2015: Hottest year on record for Washington State. SUMMER 2017: Hottest and driest summer on record for Seattle.

POOR AIR QUALITY SUMMER 2017: Northwest forest fires create unprecedented summer air quality problems in the Puget

Sound

region.

PUBLIC HEALTH IMPACTS DUE TO HEAT

INCREASED HEAT

air temperature in the

Puget Sound region

is increasing (+1.3°F,

projected to be 5.5°F

warmer in the 2050s.

1895-2014), and is

+5.5°F

Average annual



+

INCREASED WILDFIRE THREAT

4 -fold increase in annual area burned projected for Washington's forests by the 2040s.

AVERAGE CASCADE SNOWPACK 25% 55% 1950s-2006 2080s

HEAVY RAIN EVENTS ARE INCREASING

By the 2080s, our heaviest rain events are expected to be 22% heavier.





Washington State Impacts with 1.5°C (2.7°F)







River flooding

Costly stormwater management and flood protection

Negative effects on salmon populations

Snover et al. 2019



Climate change in King County























Climate Change Around the World













Impact of Climate Change on Human Health

Injuries, fatalities, mental health impacts Asthma, cardiovascular disease







Climate Change, Tribes, and Tribal Health

Psychological stress from loss of cultural identity in Native cultures due to: decline or loss of key plant and animal species,

loss of reservation land,

loss of cultural sites to sea level rise

loss or changes in traditional foods

Coast Salish Canoe Journey 2009 landing in Pillar Point; photo by Carol Reiss,

PLACE MATTERS

(Where you live, work, play, etc.)

What was the natural environment like before & after settlers?



1800s



Duwamish Valley | South Seattle

The Waterlines Project



"Redlining" and where people of color were allowed to live

14. RACIAL RESTRICTIONS...No property in said addition shall at any time be sold, conveyed, rented or leased in whole or in part to any person or persons not of the White or Caucausian race. No person other than one of the White or Caucausian race shall be permitted to occupy any property in said addition or portion thereof or building thereon except a domestic servant actually employed by a person of the White or Caucausian race where the latter is an occupant of such property.

15. ANIMALS. No hogs, cattle, horses, sheep, goats, or or similar livestock shall be permitted or maintained on said property at any time. Chicken hens, pigeons, rabbits and other similar small livestock, not exceeding a total of twenty-five in number, shall be permitted but must be kept on the premises of the owner. Not more than one dog and cat may be kept for



Examples of Historical Racial Covenants in South King County Cities

Burien

"No lot shall be sold to or occupied by any person other than of the Caucasian race except in the capacity of servant."

Federal Way

"Said property of any part thereof, shall not be sold or let to or by any person of the jewish, oriental, or negro races, except that a servant not of the Caucasion race but actually employed by a bona-fide owner or resident, may reside on the premises."

Renton

"No race or nationality other than those of the Caucasian race shall use or occupy any dwelling on any lot, except that this covenant shall not prevent occupancy by domestic servants of a different race or nationality employed by an owner or tenant."

Kent

"No persons of other than the Caucasian race shall use or occupy any building or lot, except as servants domesticated with any owner or tenant."

From: https://depts.washington.edu/civilr/covenants_map.htm

Poverty









Percent Speak English Less Than Very Well

> King County 25.4%

> > USA 20.5%

PM2.5 Concentration

Check on your real time local air monitors and air quality here:

Puget Sound Clean Air Agency https://pscleanair.gov/



FOOD HARDSHIP

(% of households that reported running out of food and not having enough money to buy more)

Three areas of King County have a food hardship rate that is significantly higher than average: Federal Way (31%), Des Moines/Normandy Park (31%), Downtown Seattle (30%)

Many areas of **South King County** also have **5 to 7 times more** fast food restaurants and convenience stores, compared to grocery stores, versus the average of 2.5 times more in most areas.

More from Communities Count (King County Public Health data initiative): <u>https://www.communitiescount.org/food-insecurity</u>

King County (2011, 2013 average): 13%



GREEN SPACE

 Many South King County areas have less open green space than areas of North & East County

More from the King County Land Conservation Initiative and Equity: <u>https://kingcounty.gov/services/environment/water-and-land/land-</u> conservation/equity/Map.aspx



Transportation Systems

Buses Sidewalks Roads Trains Cars





KING COUNTY HEALTH AND WELL-BEING MEASURES









Adverse Childhood Experiences





From: https://publichealthinsider.com/2015/05/15/not-so-fast-ny-times-how-a-closer-look-at-neighborhoods-paints-a-different-picture-for-our-kids/

Environmental Health Disparities

Includes an index of:

- Environmental Exposures
- Environmental Effects
- Sensitive Populations
- Socioeconomic Factors

From: Washington State Environmental Health Disparities Map (WA DOH)

https://www.doh.wa.gov/DataandStatis ticalReports/EnvironmentalHealth/Was hingtonTrackingNetworkWTN/Informati onbyLocation/WashingtonEnvironment alHealthDisparitiesMap



More High Heat Days

- Puget Sound region to be 5.5 degrees F warmer in the 2050's.
- More days above 95 degrees F by mid-century.

HEAT RELATED IMPACTS

- Heat-related illness
- Heat stroke
- Breathing problems
- Complications from existing diseases and conditions



Image from initial prototype of King County climate impacts mapping effort

Rate of positive COVID-19 results per 100,000 residents by zipcode



Updated Date

Updated: 05/13/2020 1:00 PM



Select:

In this chart, a statistical method called age-adjustment is used so that I cases rates across race/ethnicity groups that have different age distributions can be compared with one another. The bars represent the rate for each group. The rates for each race/ethnicity are compared to Whites. An orange bar indicates that the rate is significantly higher relative to Whites. A grey bar indicates that the rate is not significantly different than Whites. A dark blue bar indicates that the rate is significantly lower O hospitalized cases than Whites.

O all cases excluding skilled nursing and assisted living residents

Select:

Confirmed cases O deaths





Figure 2: Root Causes and Factors Affecting Sensitivity to Climate Change



Figure Source: https://www.usdn.org/uploads/cms/documents/usdn guide to equitable community-driven climate preparedness- high res.pdf



https://publichealthinsider.com/2019/04/05/climate-changes-health/

Available in 12 languages

GREEN SPACE

King County Land Conservation Initiative



Check out King County's Land Conservation Initiative and Equity page:

https://kingcounty.gov/services/environment/water-and-land/landconservation/equity/Map.aspx



Metro <u>Zero Emission</u> <u>Bus</u> Equity Analysis

- Combined air quality, health, and other demographic risk factors to determine communities most vulnerable to air pollution
- Bus routes highest priority for zeroemission
- Deploying at South Base greatest equity benefit – 62% routes serve most at-risk communities
- Analysis reviewed and informed by a community stakeholder panel



PM2.5 Concentration

Check on your real time local air monitors and air quality here:

Puget Sound Clean Air Agency https://pscleanair.gov/



VIRUSES DON'T DISCRIMINATE

AND NEITHER SHOULD WE

Stigma will NOT fight coronavirus. Sharing accurate information will.

Learn more: kingcounty.gov/ncov

Image (C) Sata Andreamon for Recatosineon.com Wolcome Trust



Seattle.gov Mayor Jenny A. Durkan

Choose a language 🗸 Google Translate Disclaimer

COVID-19: Resources for Community

English አማርኛ	繁體中文	한국어	Soomaali	Español	Tiếng Việt
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Updated May 13, 2020

This page contains information and web links for City of Seattle, King County, Washington State, federal, and community programs and services that help residents significantly impacted by the COVID-19 pandemic. Some of these programs and services are available to everyone regardless of where you live. All Seattle residents regardless of immigration status are eligible for City of Seattle programs and services unless noted otherwise. We will continue updating this page as more resources develop.

Figure 1. "Flattening the curve" matters.



Preparing and acting urgently, boldly, and comprehensively to global challenges is important.

Accurate data and science are critical for informed decision making.

Time \longrightarrow

Harmful Outcomes

2020 Strategic Climate Action Plan: Sustainable & Resilient Frontline Communities







THANK YOU!

Learn more about our climate work: <u>www.kingcounty.gov/climate</u> King County CLIMATE ACTION Clean Future. Strong Communities.