

COLORADO

What Do Trump's Attacks On Science Mean For Colorado?

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TL/DR:

Coloradoans Believe In Climate Change - And They Want Their Leaders To Act:

- <u>68% of Coloradoans</u> believe in climate change, and <u>60% of the state's residents</u> are worried about climate change.
- <u>58% of Coloradoans</u> believe both the President and Congress should do more to address climate change. <u>64% of Coloradoans</u> believe their Governor and local officials should do more.
- <u>Click here to jump to more research below</u>

Trump's Climate Denial Is Harmful To Coloradoans' Health:

- Colorado <u>currently averages</u> 10 extreme heat days annually that number is projected to jump to <u>almost 80</u> extreme heat days by 2050.
- In 2017, Colorado <u>recorded</u> 344 emergency department visits for heat-related illnesses. Currently, <u>more than 100,000</u> Coloradoans are especially vulnerable to extreme heat.
- More than 3.5 million people live in <u>11 Colorado counties</u> that experience unhealthy air.
- In 2019, 10 Colorado Counties <u>received an F grade</u> for their number of days of unhealthy ozone levels and La Plata County <u>received an F grade</u> for particle pollution.
- Trump's close relationship with the coal industry has resulted in looser rules for dumping toxic coal ash.
- Coal ash contains chemicals <u>linked</u> to cancer and other health impacts and is stored in sites at risk of spilling into nearby rivers and lakes under flood conditions.

- Groundwater monitoring at a seven coal power plants in Colorado<u>revealed</u> excess levels of pollutants such as <u>arsenic and selenium</u>.
- <u>Click here to jump to more research below</u>

Trump's Climate Denial Puts The Safety Of Coloradoans At Risk:

- Colorado is at risk from climate-related wildfire and droughts:
 - <u>Studies show</u> climate change is increasing the severity, frequency, and extent of wildfires.
 - In the 2018 wildfire season, wildfires burned 475,803 acres in Colorado. Across the west, the 2018 wildfire season caused \$24.7 billion in damages and 106 deaths.
 - Climate change is <u>already affecting</u> global patterns of drought, and such trends are expected to continue, with longer and more intense droughts <u>predicted</u>.
 - In the last decade, Colorado <u>witnessed</u> four major drought disaster events that caused a total of \$63 billion in damages and 271 deaths.
- Colorado's military bases are at risk from extreme weather events:
 - Buckley Air Force Base is currently at risk for wildfires and potentially could be at risk for future flooding events caused by climate change
 - Cheyenne Mountain is currently at risk for wildfires and flooding caused by climate change
 - Greeley Air National Guard Station is currently at risk for flooding caused by climate change
 - Peterson Air Force Base is currently at risk for wildfires caused by climate change
 - Schriever Air Force Base is currently at risk for wildfires caused by climate change
 - Dry conditions related to climate change contributed to a wildfires during a 2018 infantry and helicopter training exercise
- <u>Click here to jump to more research below</u>

Trump's Climate Denial Hurts Colorado's Economy:

- Climate change will <u>cost</u> Colorado \$1,256,746,333 a year by the year 2100.
- Outdoor recreation in Colorado <u>supports</u> 229,000 jobs and \$28 billion in consumer spending. In 2016, tourism <u>generated</u> \$19.7 billion in visitor spending and supported more than 165,000 jobs.
 - Climate change is causing diminished snowpack, affecting winter tourism and recreation. Ski season is shortening as the amount of <u>snowpack in April</u> has declined by as much as 20 to 60 percent at most monitoring sites since the 1950s.

- 767,000 <u>anglers</u> contribute over \$612 million to Colorado's outdoor economy, but water temperatures is projected to reduce <u>trout habitat</u> by half in this century.
- In the past decade, Colorado has <u>experienced</u> 29 climate-related disasters responsible for over \$136 billion in damages.
- Since Trump assumed office, Colorado has <u>experienced</u> 9 climate-related disasters responsible for a total of \$43 billion in damages.
- Trump's clean cars rollback will <u>cost</u> Coloradoans over \$252 million per year.
- <u>Click here to jump to more research below</u>

Trump's Climate Denial Is Especially Harmful To People Of Color In Colorado:

- Colorado is home to the nation's <u>most polluted</u> zip code Globewille and Elyria-Swansea in Northeast Denver, which suffers a high rate of chronic illness.
 - <u>Globeville and Elyria-Swansea</u> are, respectively, 68% and 84% Latinx, while Denver is 32% Latinx overall.
 - A <u>report</u> found Globeville and Elyria-Swansea youth visited the emergency room for asthma 120 to 140 percent more often than Denver as a whole.
 - As of 2015, <u>Northeast Denver</u> had over two dozen active polluters, two busy interstate highways, diesel train traffic, two Superfund sites, and six brownfield sites.
 - One of the top polluters in the area is the Suncor <u>tar sands oil refinery</u>, which was recently <u>accused</u> by regulators of 114 violations of state and federal law between 2018-2019 alone.
- A Colorado natural gas company <u>moved the site</u> of 24 proposed fracking wells from nearby a predominantly white school to nearby a predominantly Latinx middle school after the community complained.
 - Frontier Academy was 77% white, and <u>Bella Romero Academy</u> was 87% Latinx.
 - The proposed rig near Bella Romero academy is <u>allegedly</u> within the regulated distance of 1,000 feet of the school's athletic fields.
 - Drilling commenced at the fracking wells in the summer of 2019 despite community pushback, and in fall 2019 the state <u>reported unsafe levels of cancer-causing</u> <u>benzene</u> in the air. A report <u>showed</u> 114 instances of unsafe benzene levels in the air surrounding Bella Romero in late 2019 alone.
 - Weld County, home of Bella Romero Academy, is one of the <u>most fracked counties</u> in the U.S. with over 23,000 active oil & gas wells.
 - Trevor Noah's The Daily Show <u>covered</u> the Bella Romero community's efforts to fight the fracking sites.

• <u>Click here to jump to more research below</u>

Colorado Has An Opportunity To Build A Strong Green Economy:

- In 2019, Colorado was home to 7,174 jobs in the <u>solar industry</u> and 7,001 to 8,000 direct jobs in the <u>wind industry</u>.
- <u>Click here to jump to more research below</u>

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HERE'S WHAT'S HAPPENING:

A <u>majority</u> of Coloradans both believe in climate change and want their elected officials at all levels to do more to address the issue. President Trump's climate denial is harmful to Colorado's health, safety, and economy – and is particularly harmful to communities of color.

In 2017, heat-related illnesses <u>resulted in</u> nearly 350 emergency department visits in Colorado, and currently more than 100,000 Coloradans being <u>especially vulnerable</u> to extreme heat.

In 2019, ten Colorado counties<u>received</u> an "F" grade for the number of days of unhealthy ozone levels, and La Plata county also <u>received</u> an F for particle pollution. Denver's air is among the <u>worst polluted</u> in the nation.

Trump's close relationship with the coal industry has resulted in looser rules for dumping toxic coal ash. Coal ash contains chemicals <u>linked</u> to cancer and other health impacts and is stored in sites at risk of spilling into nearby rivers and lakes under flood conditions. Groundwater monitoring at a seven coal power plants in Colorado<u>revealed</u> excess levels of pollutants such as <u>arsenic and selenium</u>.

In addition to health factors, Trump's Climate Denial places the safety of Coloradans at risk. In the past decade, Colorado has <u>experienced</u> wildfires that caused a total of \$33.4 billion in damages and 141 deaths and four drought events that <u>caused</u> a total of \$63 billion in damages and 271 deaths.

Five of Colorado's military bases are expected to be exposed to extreme temperatures by 2050: Buckley Air Force Base is currently at risk for wildfires and potentially could be at risk for future flooding events caused by climate change. Cheyenne Mountain is currently at risk for wildfires and flooding caused by climate change. Greeley Air National Guard Station is currently at risk for flooding caused by climate change. Peterson Air Force Base is currently at risk for wildfires caused by climate change. Schriever Air Force Base is currently at risk for wildfires caused by climate change. Dry conditions related to climate change contributed to a wildfires during a 2018 infantry and helicopter training exercise

Trump's climate change denial harms Colorado's economy. Climate change is estimated to <u>cost</u> Colorado \$1,256,746,333 annually by the year 2100. In the past decade Colorado has <u>experienced</u> 29 climate-related disasters responsible for \$136 billion in damages, and since Trump assumed office, Colorado has <u>experienced</u> nine climate-related disasters responsible for over \$43 billion in damages. Trump's climate policies' harm upon the state's economy can be evidenced with his administration's clean cars rollback , which will <u>cost</u> Coloradans over \$252 million per year.

Trump's Climate Denial is especially harmful to people of color in Colorado. Northeast Denver is home to the most polluted ZIP code in America, where the community battles <u>refineries</u> of Alberta tar sands companies for the right to clean air, while also <u>surviving</u> over two dozen active polluters, two busy interstate highways, diesel train traffic, two Superfund sites, and six brownfield sites. In nearby Weld County, one of the <u>most fracked</u> counties in America, a low-income Latinx community <u>fights against a fracking company</u> that set up 24 fracking wells nearby a middle school, after abandoning a earlier project next to a white high school because of community pushback.

Despite Trump's climate change denial, Colorado has an opportunity to build a strong green economy. Colorado was ranked 19th in the nation for clean energy employment in 2019, with the sector <u>employing</u> 62,420 workers. In 2019, Colorado was home to over 7,174 jobs in the <u>solar industry</u> and 7,001 to 8,000 direct jobs in the <u>wind industry</u>.

RESEARCH:

COLORADANS WANT CLIMATE ACTION

68 Percent Of Coloradans Believe In Climate Change. According to public opinion survey estimates modeled by the Yale Program on Climate Change Communication and the George Mason Center for Climate Change Communication, 68% of Coloradans agree that global warming is happening. [Yale Program on Climate Change Communication, 9/17/2019]

60 Percent Of Coloradans Are Worried About Climate Change. According to public opinion survey estimates modeled by the Yale Program on Climate Change Communication and the George Mason Center for Climate Change Communication, 60% of Coloradans are worried about global warming. [Yale Program on Climate Change Communication, 9/17/2019]

58 Percent Of Coloradans Believe The President Should Do More To Address Climate Change. According to public opinion survey estimates modeled by the Yale Program on Climate Change Communication and the George Mason Center for Climate Change Communication, 58% of Coloradans believe the President should do more to address global warming. [Yale Program on Climate Change Communication, 9/17/2019]

60 Percent Of Coloradans Believe That Congress Should Do More To Address Global Warming. According to public opinion survey estimates modeled by the Yale Program on Climate Change Communication and the George Mason Center for Climate Change Communication, 60% of Coloradans believe that Congress should do more to address global warming. [Yale Program on Climate Change Communication, 9/17/2019]

64 Percent Of Coloradans Believe That Their Governor Should Do More To Address Global Warming. According to public opinion survey estimates modeled by the Yale Program on Climate Change Communication and the George Mason Center for Climate Change Communication, 64% of Coloradans believe that their Governor should do more to address global warming. [Yale Program on Climate Change Communication, 9/17/2019]

55 Percent Of Coloradans Believe That Their Local Officials Should Do More To Address Global Warming. According to public opinion survey estimates modeled by the Yale Program on Climate Change Communication and the George Mason Center for Climate Change Communication, 55% of Coloradans believe that their local officials should do more to address global warming. [Yale Program on Climate Change Communication, 9/17/2019]

TRUMP'S CLIMATE DENIAL IS HARMFUL TO COLORADANS' HEALTH

EXTREME HEAT DAYS

Colorado Currently Experiences An Average Of 10 Extreme Heat Days Per Year. According to States At Risk, Colorado currently experiences an average of 10 extreme heat days per year. [StatesAtRisk.Org, Accessed 4/29/2020]

By 2050, The Number Of Extreme Heat Days Colorado Experiences Annually Is Projected To Jump To 80. According to States At Risk, Colorado is expected to see nearly 50 days of extreme heat per year by 2050, an increase of 40 days from current averages. [StatesAtRisk.Org, Accessed 4/29/2020]

Fort Collins In The 9th Fastest-Warming City In The U.S. According to States At Risk, Fort Collins is the 9th fastest-warming city in the United States. [<u>StatesAtRisk.Org, Accessed</u> 5/1/2020]

By 2050, Summer Drought Severity In Colorado Is Projected To Be Among The Worst In The Country. According to States At Risk, "By 2050, summer drought severity in Colorado is projected to be among the worst in the country." [StatesAtRisk.Org, Accessed 5/1/2020]

HEAT RELATED ILLNESSES

In 2017, There 344 Hospital Emergency Department Visits For Heat-Related Illnesses In Colorado. According to data collected by the Colorado Department of Environmental Public Health Tracking, 344 people visited emergency rooms for heat-related illness in 2017[Colorado Environmental Public Health Tracking, accessed <u>6/12/20</u>]

Vulnerable Populations

Currently, More Than 100,000 Coloradans Are Especially Vulnerable To Extreme Heat. According to States At Risk, there are 100,000 people who are particularly vulnerable to extreme heat – those under 6 years old, above 65 years old, or living in extreme poverty – in Colorado. [StatesAtRisk.Org, Accessed 4/29/2020]

ISSUES WITH ACCESS TO CLEAN AIR

More Than 3.5 Million People Live In 11 Colorado Counties That Experience Unhealthy Air. In an Op-Ed to the Coloradoan, Fort Collins pulmonologist Dr. Jason McCarl wrote: "The need for action is clear. Already more than 3.5 million people live in 11 Colorado counties that experience one or more unhealthy smog days per year. Warming temperatures can exacerbate that effect, leading to more unhealthy days." [Coloradoan, McCall Op-Ed, <u>12/20/2018</u>]

Ozone Levels

Ten Colorado Counties Received "F" Grades for Ozone Pollution In 2019. According to the American Lung Association's annual State of the Air report in 2019, Arapahoe, Boulder, Clear Creek, Denver, Douglas, El Paso, Jefferson, La Plata, Larimer, and Weld counties all received a grade of F grade for having high ozone days. [American Lung Association State of the Air Report Card: Colorado, 2020]

Fort Collins Metropolitan Area Ranked 19th Worst City In America For Ozone Levels In 2019. According to the American Lung Association's 2020 State of the Air report, Fort Collins ranks as the 19th worst metropolitan area in the US for its number of high ozone days each year. [American Lung Association State of the Air Report, <u>2020</u>]

Denver-Aurora Metropolitan Area Ranked 10th Worst City In America For Ozone Levels In 2019. According to the American Lung Association's 2020 State of the Air report, Denver ranks as the 10th worst metropolitan area in the US for its number of high ozone days each year. [American Lung Association State of the Air Report, <u>2020</u>]

Asthma and Allergy Foundation: "Ozone Triggers Asthma." According to the Asthma and Allergy Foundation of America, "Ozone, a gas, is one of the most common air pollutants. Ozone contributes to what we typically experience as "smog" or haze. It is most common in cities where there are more cars. It is also more common in the summer when there is more sunlight and low winds. Ozone triggers asthma because it is very irritating to the lungs and airways. It is well known that ozone concentration is directly related to asthma attacks. It has also caused the need for more doses of asthma drugs and emergency treatment for asthma. Ozone can reduce lung function. Ozone can make it more difficult for you to breathe deeply." [Asthma and Allergy Foundation of America, October 2015]

Particle Pollution

La Plata County Received An "F" Grade For Particle Pollution. According to the American Lung Association's annual State of the Air report in 2019, La Plata county received a grade of F grade for having high particle pollution year-round. [<u>American Lung Association State</u> of the Air Report Card: Colorado, 2020]

ISSUES WITH ACCESS TO CLEAN WATER

Methane From Fracking

Methane Contamination Blamed For Water Well Explosions And Drinking Water That Could Be Set On Fire. In May of 2011, ProPublica reported: "Methane contamination of drinking water wells has been a common complaint among people living in gas drilling areas across the country. A 2009 investigation by ProPublica revealed that methane contamination from drilling was widespread, including in Colorado, Ohio and Pennsylvania. In several cases, homes blew up after gas seeped into their basements or water supplies. In Pennsylvania a 2004 accident killed three people, including a baby. In Dimock, Pa., where part of the Duke study was performed, some residents' water wells exploded, or their water could be lit on fire. In at least a dozen cases in Colorado, ProPublica's investigation found, methane had infiltrated drinking water supplies that residents said were clean until hydraulic fracturing was performed nearby." [ProPublica, 5/9/2011]

Coal Ash

Groundwater Monitoring At A Seven Coal Power Plants In Colorado Revealed Excess Levels Of Pollution. In March of 2019, the Colorado Sun reported: "The EPA requires coalfired power plants to monitor the disposal of byproducts from burning coal and also monitor groundwater for contaminants. But the reports aren't easy to read, and that's why the Environmental Integrity Project set about interpreting the results, said Russ, with the Environmental Integrity Project." The article later reported: "In Colorado, the project found excess levels of some pollutant at all seven power plants that posted reports online. The Nucla Generating Station had lithium exceeding safe groundwater levels by 83 times, and the Xcel Energy Hayden Station had molybdenum at 34 times in excess of levels deemed safe. The Clear Spring Ranch landfill, which is operated by Colorado Springs Utilities and takes coal ash from the Martin Drake plant, and Xcel's Pawnee Station near Brush had lesser degrees of contamination, as did two other Xcel plants, Cherokee Station in Adams County and Valmont in Boulder, where coal-fired generators have been converted to natural gas." [Colorado Sun, 3/19/2019]

Arsenic Was Measured At Three Times The Safe Level For Drinking Water At The Nucla Generating Station On The Western Slope. In March of 2019, the Colorado Sun reported: "The EPA requires coal-fired power plants to monitor the disposal of byproducts from burning coal and also monitor groundwater for contaminants. But the reports aren't easy to read, and that's why the Environmental Integrity Project set about interpreting the results, said Russ, with the Environmental Integrity Project." The article later reported: "The project calculated an average pollution number so consumers could compare how much arsenic was found. At the Nucla Generating Station on the Western Slope, for example, arsenic came in at three times the safe level for drinking water. Russ said the project mostly relied on EPA drinking water standards as a comparison." [Colorado Sun, 3/19/2019]

Arsenic In Drinking Water Can Cause Skin Damage, Circulatory Problems, And An Increased Risk Of Cancer. According to an Environmental Protection Agency fact sheet: "Some people who drink water containing arsenic in excess of EPA's standard over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer. Health effects might include: Thickening and discoloration of the skin, stomach pain, nausea, vomiting, diarrhea, and liver effects; Cardiovascular, pulmonary, immunological, neurological (e.g., numbness and partial paralysis), reproductive, and endocrine (e.g., diabetes) effects; Cancer of the bladder, lungs, skin, kidney, nasal passages, liver, and prostate." [Environmental Protection Agency "Just The Facts For Consumers: Arsenic In Your Drinking Water," March 2007]

Unsafe Levels Of Selenium Found In Groundwater Near The Platte River Power Authority's Rawhide Power Plant. In March of 2019, the Colorado Sun reported: "When Platte River Power Authority checked the groundwater near its Rawhide power plant for coal-ash contamination last year, it found some. Levels of selenium, which can cause human hair loss and deformities in fish and wildlife, were higher than deemed safe by federal groundwater protection standards. The authority, which released the Rawhide report in January, was already working to reduce the potential for contamination at its Larimer County site. But the statistically significant increase was a surprise, said Chris Wood, Platte River's environmental services manager. 'The short answer is Platte River Power Authority sees no immediate harm or risk to human health or the environment,' Wood said. '...We've monitored it in the past, and it was never an issue. It's not a big change, but big enough change statistically that it's pulled us into the regulatory process. The next steps are to continue to monitor and evaluate the different corrective actions.'" [Colorado Sun, 3/19/2019]

In Humans, Selenium Contamination Could Results In Hair Or Fingernail Loss, Numbness In Fingers, Or Toes And Circulatory Problems. In March of 2019, the Colorado Sun reported: "The latest Rawhide report found selenium near the plant was at 0.067 milligrams per liter, or greater than the groundwater standard of 0.05. According to the EPA, potential health effects from long-term exposure of selenium could result in hair or fingernail loss, numbness in fingers or toes and circulatory problems." [Colorado Sun, 3/19/2019]

Selenium Can Cause Severe Deformities In Fish And Wildlife. In March of 2019, the Colorado Sun reported: "For fish and wildlife, the impact of excessive selenium is much worse. In the 1980s, thousands of birds and fish in the Kesterson Reservoir in California were found to have severe deformities that were linked to selenium run-off from area farms, according to reports in the Pacific Standard." [Colorado Sun, 3/19/2019]

TABLE: Heavy Metal Contamination Reported In Groundwater Near Coal Ash Storage Sites In Colorado

State	Site Name	Pollutants Exceeding Safe Levels (and by how much)	No. of Regulated Landfills	No. of Regulated Impoundments
CO	Cherokee Station	Boron (x1), Lithium (x3), Molybdenum (x2), Sulfate (x3)	0	3

CO	Clear Spring Ranch	Boron (x1), Selenium (x4)	1	0
CO	Hayden Station	Boron (x16), Lithium (x16), Molybdenum (x34), Sulfate (x10)	1	0
CO	Nucla Generating Station	Arsenic (x3), Fluoride (x1), Lithium (x83), Molybdenum (x1), Sulfate (x4)	1	0
CO	Pawnee Station	Cobalt (x2), Lithium (x7), Molybdenum (x2), Selenium (x2), Sulfate (x7)	1	1
CO	Valmont Station	Arsenic (x2), Boron (x5), Cobalt (x4), Lithium (x5), Molybdenum (x6), Selenium (x5), Sulfate (x11)	1	2

Source: Environmental Integrity Project, 3/4/2019

TRUMP'S CLIMATE DENIAL PUTS COLORADOANS SAFETY AT RISK

WILDFIRES

Link to Climate Change

Climate Change Is Increasing The Severity, Frequency, And Extent Of Wildfires In Colorado. According to a report from the EPA: "Higher temperatures and drought are likely to increase the severity, frequency, and extent of wildfires in Colorado, which could harm property, livelihoods, and human health. In 2013, the Black Forest Fire burned 14,000 acres and destroyed over 500 homes. Wildfire smoke can reduce air quality and increase medical visits for chest pains, respiratory problems, and heart problems. The size and number of western forest fires have increased substantially since 1985." [Environmental Protection Agency, "What Climate Change Means for Colorado" August 2016]

Climate Change Is Increasing The Severity, Frequency, And Extent Of Wildfires. According to a report from the EPA: "Higher temperatures and drought are likely to increase the severity, frequency, and extent of wildfires in Colorado, which could harm property, livelihoods, and human health. In 2013, the Black Forest Fire burned 14,000 acres and destroyed over 500 homes. Wildfire smoke can reduce air quality and increase medical visits for chest pains, respiratory problems, and heart problems. The size and number of western forest fires have increased substantially since 1985." [Environmental Protection Agency, "What Climate Change Means for Colorado" August 2016]

Acres Burned By Wildfire Doubled In Recent Decades Due To Climate Change. According to the 2018 National Climate Assessment Report: "Wildfire is a natural part of many ecosystems in the Southwest, facilitating germination of new seedlings and killing pests. Although many ecosystems require fire, excessive wildfire can permanently alter ecosystem integrity. Climate change has led to an increase in the area burned by wildfire in the western United States. Analyses estimate that the area burned by wildfire from 1984 to 2015 was twice what would have burned had climate change not occurred. Furthermore, the area burned from 1916 to 2003 was more closely related to climate factors than to fire suppression, local fire management, or other non-climate factors." [National Climate Assessment, Chapter 25, 2018]

Recent Wildfire Seasons

2019 Fire Season

In 2019, 40,392 Acres Of Land Were Burned Due To Wildfire In Colorado. According to the National Interagency Fire Center's 2019 report, 40,392 acres of land were burned in 857

fires across Colorado in 2019. [National Interagency Fire Center, National Report of Wildland Fires and Acres Burned by State, 2019 Report]

2018 Fire Season

In 2018, 475,803 Acres Of Land Were Burned Due To Wildfire In Colorado. According to the National Interagency Fire Center's 2018 report, 475,803 acres of land were burned in 1,328 fires across Arizona in 2018. [National Interagency Fire Center, National Report of Wildland Fires and Acres Burned by State, 2018 Report]

March 2018: Military Exercises In Colorado Led To Wildfires That Caused Evacuation Of 250 Homes And Spread To Over 3,000 Acres. According to the Report on Effects of a Changing Climate to the Department of Defense, "In March 2018 two related wildfires broke out in Colorado during an infantry and helicopter training exercise for an upcoming deployment. Later determined to be due to live fire training, gusty winds and dry conditions allowed the fire to spread, reaching about 3,300 acres in size, destroying three homes, and causing the evacuation of 250 homes." [Department of Defense, <u>1/2019</u>]

Summer – Fall 2018: Western Wildfires And A California Firestorm Caused \$24.7 Billion In Damages And 106 Deaths. According to NOAA's National Centers for Environmental Information, wildfires across the West and a California firestorm, which impacted Colorado in the Summer and Fall of 2018, caused \$24.7 billion in damages and 106 deaths. [ndcd.noaa.gov, Accessed 4/30/2020]

Over 8.7 Million Acres, Well Above The Ten Year Average Of 6.8 Million Acres, Burned Across The U.S. In 2018. According to NOAA's National Centers for Environmental Information, "In 2018, California has experienced its costliest, deadliest and largest wildfires to date, with records back to 1933. The Camp Fire is the costliest and deadliest wildfire - destroying more than 18,500 buildings. California also endured its largest wildfire on record - the Medincino Complex Fire - burning over 450,000 acres. Additionally, California was impacted by other destructive wildfires: the Carr Fire in Northern California and the Woolsey Fire in Southern California. The total 2018 wildfire costs in California (with minor costs in other Western states) approach \$24.0 (\$24.7) billion - a new U.S. record. In total, over 8.7 million acres has burned across the U.S. during 2018, which is well above the 10-year average (2009-2018) of 6.8 million acres. The last 2 years of U.S. wildfire damage has been unprecedented in damage, with losses exceeding \$40.0 (\$41.2) billion." [ndcd.noaa.gov, Accessed 4/30/2020]

2017 Fire Season

In 2017, 111,667 Acres Of Land Were Burned Due To Wildfire In Colorado. According to the National Interagency Fire Center's 2017 report, 111,667 acres of land were burned in 967 fires across Arizona in 2017. [National Interagency Fire Center, National Report of Wildland Fires and Acres Burned by State, 2017 Report]

2015 Fire Season

Summer – Fall 2015: Western And Alaskan Wildfires Caused \$3.4 Billion In Damages And 12 Deaths. According to NOAA's National Centers for Environmental Information, wildfires across the Western U.S. and Alaska, which hit Colorado in the Summer and Fall of 2015, caused \$3.4 billion in damages and 12 deaths. [ndcd.noaa.gov, Accessed 4/30/2020]

 Colorado Experienced Extensive Burned Acreage As A Result Of Wildfires. According to NOAA's National Centers for Environmental Information, "Wildfires burned over 10.1 million acres across the U.S. in 2015, surpassing 2006 for the highest annual total of U.S. acreage burned since record-keeping began in 1960. The most costly wildfires occurred in California where over 2,500 structures were destroyed due to the Valley and Butte wildfires with the insured losses alone exceeding \$1.0 (\$1.1) billion. The most extensive wildfires occurred in Alaska where over 5 million acres burned within the state. There was extensive burnt acreage across other western states, most notably (OR, WA, ID, MT, ND, CO, WY, TX)." [ndcd.noaa.gov, Accessed 4/30/2020]

2012 Fire Season

Summer – Fall 2012: Western Wildfires Caused \$2 Billion In Damages And Eight Deaths. According to NOAA's National Centers for Environmental Information, Western Wildfires, which impacted Colorado in the Summer and Fall of 2012, caused \$2 billion in damages and eight deaths. [ndcd.noaa.gov, Accessed 4/30/2020]

2011 Fire Season

Summer – Fall 2011: Texas, New Mexico And Arizona Wildfires Caused \$2.1 Billion In Damages And Five Deaths. According to NOAA's National Centers for Environmental Information, wildfires across Texas, Arizona and New Mexico in the Summer and Fall of 2011 caused \$2.1 billion in damages and five deaths. [ndcd.noaa.gov, Accessed 4/30/2020]

2009 Fire Season

Summer – Fall 2009: Western Wildfires Caused \$1.2 Billion In Damages And Ten Deaths. According to NOAA's National Centers for Environmental Information, wildfires across the Western U.S., which impacted Colorado in the Summer and Fall of 2009, caused \$1.2 billion in damages and ten deaths. [ndcd.noaa.gov, Accessed 4/30/2020]

DROUGHT

Link to Climate Change

National Climate Assessment: "The Heat And Drought Depleted Water Resources And Contributed To More Than \$10 Billion In Direct Losses To Agriculture Alone." According to the National Climate Assessment, "An example of recent drought occurred in 2011, when many locations in Texas and Oklahoma experienced more than 100 days over 100°F. Both states set new records for the hottest summer since record keeping began in 1895. Rates of water loss, due in part to evaporation, were double the long-term average. The heat and drought depleted water resources and contributed to more than \$10 billion in direct losses to agriculture alone." [National Climate Assessment, Extreme Weather, 2014]

NASA Research Showed Human Activity Has Been Influencing Global Patterns Of Drought, With Increased Drought Occurring In Response To Greenhouse Gas Emissions. According to NASA, "Warming temperatures and changing precipitation patterns can lead to droughts, and NASA research shows that humans have been influencing global patterns of drought for nearly a century. Kate Marvel and Ben Cook, researchers at NASA's Goddard Institute for Space Studies and Columbia University in New York City, investigated humans' influence on 20th-century drought patterns using historical weather data and drought maps calculated from tree rings. They found that a data 'fingerprint' – a drying and wetting pattern predicted to occur in response to greenhouse gas emissions – was visible as far back as the early 1900s." [climate.nasa.gov, 6/13/2019]

Climate Change Is Already Affecting Global Patterns Of Drought, And Such Trends Are Expected To Continue. According to NASA, "Demonstrating that humans influenced global drought patterns in the past is an important part of understanding how we may influence them in the future, said Cook. 'Climate change is not just a future problem,' he said. 'This shows it's already affecting global patterns of drought, hydroclimate, trends, variability it's happening now. And we expect these trends to continue, as long as we keep warming the world.'" [climate.nasa.gov, 6/13/2019]

Colorado Has Been in Drought Since 2000. According to data reported by the National Integrated Drought Information System, Colorado's current period of drought began in 2000. [National Integrated Drought Information System, accessed <u>5/27/20</u>]

Colorado's Drought Affects 1,577,000 People, Or 31% Of Coloradans. According to data reported by the National Integrated Drought Information System, 1,577,000 people, or approximately 31% of Colorado's population, currently live in areas affected by abnormally dry conditions. [National Integrated Drought Information System, accessed <u>5/27/20</u>]

Recent Droughts Affecting Colorado

2018 Drought Impacts

Summer – Fall 2018: Drought Across The Southwest And Southern Plains Caused \$3.1 Billion In Damages. According to NOAA's National Centers for Environmental Information, drought across the Southwest and Southern Plains, which impacted Colorado in the Summer and Fall of 2018, caused \$3.1 billion in damages and zero deaths. [ndcd.noaa.gov, Accessed 4/30/2020]

• Colorado Was One Of Four States Where The Most Extreme Drought Conditions Continued To Persist. According to NOAA's National Centers for Environmental Information, "Drought conditions were present across numerous Southwestern and Plains states (TX, OK, KS, MO, CO, NM, AZ, UT). The most extreme drought conditions continue to persist across the Four Corners region of the Southwest." [ndcd.noaa.gov, Accessed 4/30/2020] • The Agriculture Sector Across Impacted States Saw Damage To Field Crops From Lack Of Rainfall. According to NOAA's National Centers for Environmental Information, "The agriculture sector has been impacted across the affected states including damage to field crops from lack of rainfall. Ranchers have also be forced to sell-off livestock early in some regions due to high feeding costs." [ndcd.noaa.gov, Accessed 4/30/2020]

2013 Drought Impacts

Spring – Fall 2013: Drought And Heatwaves Across The West And Great Plains Caused \$11.7 Billion In Damages And 53 Deaths. According to NOAA's National Centers for Environmental Information, drought and heatwaves across the Western and Great Plains states, which hit Colorado in Spring and Fall of 2013, caused \$11.7 billion in damages and 53 deaths. [ndcd.noaa.gov, Accessed 4/30/2020]

• Colorado Was One Of 22 States That Experienced Moderate To Extreme

Drought. According to NOAA's National Centers for Environmental Information, "The 2013 drought slowly dissipated from the historic levels of the 2012 drought, as conditions improved across many Midwestern and Plains states. However, moderate to extreme drought did remain or expand into western states (AZ, CA, CO, IA, ID, IL, KS, MI, MN, MO, ND, NE, NM, NV, OK, OR, SD, TX, UT, WA, WI, WY). In comparison to 2011 and 2012 drought conditions the US experienced only moderate crop losses across the central agriculture states." [ndcd.noaa.gov, Accessed 4/30/2020]

2012 Drought Impacts

2012: Nationwide Droughts And Heatwaves Caused \$34.2 Billion In Damages And 123 Deaths. According to NOAA's National Centers for Environmental Information, drought and heatwaves across the U.S. in 2012 caused \$34.2 billion in damages and 123 deaths. [ndcd.noaa.gov, Accessed 4/30/2020]

• The 2012 Drought Impacted Over Half Of The U.S., Including Colorado, And Was The Most Extensive Drought In America Since The 1930s. According to NOAA's National Centers for Environmental Information, "The 2012 drought is the most extensive drought to affect the U.S. since the 1930s. Moderate to extreme drought conditions affected more than half the country for a majority of 2012. The following states were affected: CA, NV, ID, MT, WY, UT, CO, AZ, NM, TX, ND, SD, NE, KS, OK, AR, MO, IA, MN, IL, IN, GA. Costly drought impacts occurred across the central agriculture states resulting in widespread harvest failure for corn, sorghum and soybean crops, among others. The associated summer heatwave also caused 123 direct deaths, but an estimate of the excess mortality due to heat stress is still unknown." [ndcd.noaa.gov, Accessed 4/30/2020]

2011 Drought Impacts

Spring – Summer 2011: Southern Plains/Southwest Drought And Heat Wave Caused \$14 Billion In Damages And 95 Deaths. According to NOAA's National Centers for Environmental Information, drought and heat wave conditions across the Southwest and Southern Plains caused \$14 billion in damages and 95 deaths. [ndcd.noaa.gov, Accessed 4/30/2020]

FLOODS

Link To Climate Change:

Scientists Have Linked Increases in Flooding to Climate Change. According to the National Climate Assessment, "Floods are caused or amplified by both weather- and human-related factors. Major weather factors include heavy or prolonged precipitation, snowmelt, thunderstorms, storm surges from hurricanes, and ice or debris jams [...] Increasingly, humanity is also adding to weather-related factors, as human-induced warming increases heavy downpours, causes more extensive storm surges due to sea level rise, and leads to more rapid spring snowmelt [...] The risks from future floods are significant, given expanded development in coastal areas and floodplains, unabated urbanization, land-use changes, and human-induced climate change" [National Climate Assessment, Extreme Weather, 2014]

Heavy Rainstorms Have Become Heavier And More Frequent In The U.S. In The Past Three To Five Decades. According to the National Climate Assessment, "Heavy downpours are increasing nationally, especially over the last three to five decades. The heaviest rainfall events have become heavier and more frequent, and the amount of rain falling on the heaviest rain days has also increased. " [National Climate Assessment, Extreme Weather, 2014]

Scientists Have Linked An Increase in Heavy Downpours To Climate Change. According to the National Climate Assessment, "Global analyses show that the amount of water vapor in the atmosphere has in fact increased due to human-caused warming. This extra moisture is available to storm systems, resulting in heavier rainfalls." [National Climate Assessment, Extreme Weather, <u>2014</u>]

National Climate Assessment: "Heavy Downpours Are Increasing Nationally...The Mechanism Driving These Changes Is Well Understood." According to the 2014 National Climate Assessment: "Heavy downpours are increasing nationally, especially over the last three to five decades. The heaviest rainfall events have become heavier and more frequent, and the amount of rain falling on the heaviest rain days has also increased. Since 1991, the amount of rain falling in very heavy precipitation events has been significantly above average. This increase has been greatest in the Northeast, Midwest, and upper Great Plains – more than 30% above the 1901-1960 average. There has also been an increase in flooding events in the Midwest and Northeast, where the largest increases in heavy rain amounts have occurred. The mechanism driving these changes is well understood. Warmer air can contain more water vapor than cooler air. Global analyses show that the amount of water vapor in the atmosphere has in fact increased due to human-caused warming. This extra moisture is available to storm systems, resulting in heavier rainfalls. Climate change also alters characteristics of the atmosphere that affect weather patterns and storms." [2014 National Climate Assessment: Extreme Weather]

Recent Flooding Events

2015 Flooding Events

May 2015: Texas And Oklahoma Flooding And Severe Weather Caused \$2.8 Billion In Damages And 31 Deaths. According to NOAA's National Centers for Environmental Information, flooding and severe weather across Texas and Oklahoma, which hit Colorado in May 2015, caused \$2.8 billion in damages and 31 deaths. [ndcd.noaa.gov, Accessed 4/30/2020]

• Associated Severe Storms Caused Damage Across Seven Other States, Including Colorado. According to NOAA's National Centers for Environmental Information, "A slow-moving system caused tremendous rainfall and subsequent flooding to occur in Texas and Oklahoma. The Blanco river in Texas swelled from 5 feet to a crest of more than 40 feet over several hours causing considerable property damage and loss of life. The city of Houston also experienced flooding which resulted in hundreds of highwater rescues. The damage in Texas alone exceeded \$1.0 (\$1.1) billion. There was also damage in other states (KS, CO, AR, OH, LA, GA, SC) from associated severe storms." [ndcd.noaa.gov, Accessed 4/30/2020]

2013 Flooding Events

September 2013: Colorado Flooding Caused \$1.7 Billion In Damages And Nine Deaths. According to NOAA's National Centers for Environmental Information, flooding across Colorado in September 2013 caused \$1.7 billion in damages and nine deaths. [ndcd.noaa.gov, Accessed 4/30/2020]

• Colorado Experienced Historic Flooding Across Numerous Cities And Downs, With Widespread Destruction Of Residences, Businesses And Transportation Infrastructure. According to NOAA's National Centers for Environmental Information, "A stalled frontal boundary over Colorado led to record rainfall, as some areas received > 15 inches over several days. This resulted in historic flooding across numerous cities and towns. Destruction of residences, businesses and transportation infrastructure was widespread." [ndcd.noaa.gov, Accessed 4/30/2020]

MILITARY BASES AFFECTED BY CLIMATE CHANGE

Colorado's Buckley Air Force Base (AFB) Is Impacted By Current And Potential Future Wildfires, and Potential Future Floods. According to the Department of Defense, Buckley Air Force Base in Colorado is impacted by current and potential wildfires, and potential floods. [Report on Effects of a Changing Climate to the Department of Defense, January 2019]

Colorado's Cheyenne Mountain Air Force Station (AFS) Is Impacted By Current And Potential Future Flooding, And Current And Potential Future Wildfires. According to the Department of Defense, Cheyenne Mountain Air Force Station (AFS)in Colorado is impacted by current and potential flooding, and Current and Potential future wildfires. [Report on Effects of a Changing Climate to the Department of Defense, January 2019] **Colorado's Greeley Air National Guard Station (ANGS) Is Impacted By Current And Potential Future Flooding.** According to the Department of Defense, Greeley Air National Guard Station (ANGS) in Colorado is impacted by current and potential flooding. [Report on Effects of a Changing Climate to the Department of Defense, January 2019]

Colorado's Peterson Air Force Base (AFB) Is Impacted By Current And Potential Future Wildfires. According to the Department of Defense, Peterson Air Force Base (AFB) in Colorado is impacted by current and potential Wildfires. [Report on Effects of a Changing <u>Climate to the Department of Defense, January 2019</u>]

Colorado's Schriever Air Force Base (AFB) Is Impacted By Current And Potential Future Wildfires. According to the Department of Defense, Schriever Air Force Base (AFB) in Colorado is impacted by current and potential Wildfires. [Report on Effects of a Changing <u>Climate to the Department of Defense, January 2019</u>]

March 2018: Military Exercises In Colorado Led To Wildfires That Caused Evacuation Of 250 Homes And Spread To Over 3,000 Acres. According to the Report on Effects of a Changing Climate to the Department of Defense, "In March 2018 two related wildfires broke out in Colorado during an infantry and helicopter training exercise for an upcoming deployment. Later determined to be due to live fire training, gusty winds and dry conditions allowed the fire to spread, reaching about 3,300 acres in size, destroying three homes, and causing the evacuation of 250 homes." [Department of Defense, <u>1/2019</u>]

TRUMP'S CLIMATE DENIAL HURTS COLORADO'S ECONOMY

GPD IMPACT

Climate Change Will Cost Colorado \$1,256,746,333 A Year By The Year 2100. According to data on the impacts of climate change as part of a study published in Science Magazine, Colorado can expect to lose \$1,256,746,333 from annual GDP by the year 2100 if action isn't taken to immediately curtail carbon emissions. The study used a model that aimed to calculate the future impact on each state's gross domestic product (GDP) from events including hurricanes, storm surges, changes in agricultural yields, changing electricity demands, changes in mortality rates, changes to the labor supply, rising sea levels and rising crime rates. [Hsiang, S., Kopp, R.E., et al, "Estimating economic damage from climate change in the United States" Science Magazine, 6/30/2017, MarketWatch, 4/30/2018]

AGRICULTURAL IMPACTS

Colorado's Agricultural Industry Contributes \$41 Billion Annually To The State's Economy And Employs 115,600. According to data reported by the Colorado Office of Economic Development & International Trade: "Colorado's diverse agriculture and food industry plays an important role in the state's vitality. The state's agriculture industry is a critical driver of Colorado's overall economy, contributing \$41 billion." The average annual employment in Colorado's agricultural industry is 115,600 jobs, with an annual payroll of \$5 billion." [Colorado Office of Economic Development & International Trade "Key Industry Food & Agriculture" 2016]

TOURISM & OUTDOOR RECREATION IMPACTS

Colorado's Tourism Industry Generated \$19.7 Billion In Spending And Supported More Than 165,000 Jobs In 2016. According to data reported by the Colorado Office of Economic Development & International Trade: "Tourism is one of the strongest economic drivers of Colorado, providing a valuable source of revenue and jobs. In 2016, 82.4 million visitors spent a total of \$19.7 billion here, generating \$1.2 billion in state and local taxes an all-time high for the state. With 1.7 percent of the U.S. population, Colorado has 7.7 percent of the nation's tourism jobs. The hospitality industry was Colorado's secondlargest employer in 2016, with travel spending generating more than 165,000 jobs and earnings of \$5.8 billion. And tourism is expected to generate more Colorado jobs (12,100) in 2017 than any other industry, including education/health services and construction." [Colorado Office of Economic Development & International Trade website accessed 6/10/2020] **Outdoor Recreation In Colorado Supports 229,000 Jobs And \$28 Billion In Consumer Spending.** According to data collected by the Outdoor Industry Association, outdoor recreation in Colorado supports 229,000 direct jobs and generates \$9.7 billion in wages and salaries. Outdoor recreation generates \$28 billion in consumer spending for the state, which brings in \$2 billion in state and local tax revenue. [Outdoor Industry Association accessed 6/9/2020]

Climate Change Is Causing Diminished Snowpack, Affecting Winter Tourism And Recreation. According to a report from the EPA: "Changes in temperature and precipitation are affecting snowpack—the amount of snow that accumulates on the ground. In most of the West, snowpack has decreased since the 1950s, due to earlier melting and less precipitation falling as snow. The amount of snowpack measured in April has declined by 20 to 60 percent at most monitoring sites in Colorado. Diminishing snowpack can shorten the season for skiing and other forms of winter tourism and recreation. It also enables subalpine fir and other high-altitude trees to grow at higher elevations. The upward movement of the tree line will shrink the extent of alpine tundra and fragment these ecosystems, possibly causing the loss of some species." [Environmental Protection Agency, "What Climate Change Means for Colorado" August 2016]

As Of 2013, 767,000 Anglers Contributed Over \$612 Million Annually To Colorado's

Outdoor Recreation Economy. "Fishing is a real whopper in Colorado's robust outdoor recreation economy with 767,000 anglers contributing over \$612 million annually to pursue some 35 species of both warm- and cold-water fish," said David Ellenberger, regional outreach coordinator with the National Wildlife Federation. "By the end of this century, native cutthroat trout are expected to lose an additional 58 percent of their current habitat. Across the country, we already have 147 freshwater fish species listed as threatened or endangered. We don't need more. What we need is leadership to confront climate change." [Colorado Wildlife Federation, 9/5/2013]

Trout Habitats In The Interior West Expected To Be Reduced By Half This Century.

According to an article in Scientific American, "Most scientists agree that the effects of global warming are starting to show up all around the world in many forms. Throughout America's Rocky Mountain West, rivers and streams are getting hotter and drier, presenting new challenges for trout already struggling with habitat fragmentation and pollution. A recent report by the Natural Resources Defense Council (NRDC) and Montana Trout Unlimited (MTU) found that global warming is shrinking cold-water fish habitat, threatening the trout and other fish that depend upon it. Scientists believe that the nearly five degree (F) temperature increase forecasted for the Interior West could reduce trout habitat by half in this century, sending trout populations into a tailspin." [Scientific American]

SPENDING ON DISASTERS

In The Past Decade, Colorado Has Experienced 29 Climate-Related Disasters

Responsible For Over 136 Billion Dollars' Worth Of Damages And 471 Deaths. According to NOAA's National Centers for Environmental Information, Colorado experienced 29 climate-related disasters that were responsible for over a billion dollars' worth of damages each, with a combined total of \$136 billion. 471 deaths were attributed to these events. These 29 disasters that occurred between 2009 and 2019 include 18 severe storms, five wildfires, four droughts, and two flooding events. [ndcd.noaa.gov, Accessed 4/30/2020]

Since Trump Assumed The Office Of The Presidency, Colorado Has Experienced Nine Climate-Related Disasters Responsible For Over 43 Billion Dollars' Worth Of Damages And 114 Deaths. According to NOAA's National Centers for Environmental Information, since President Trump assumed office in 2017, Colorado has experienced nine climate-related disasters responsible for over a billion dollars' worth of damages each, with a combined total of \$43.1 billion. 114 deaths were attributed to these events. These nine climate-related disasters include seven severe storms, one wildfire and one drought. [ndcd.noaa.gov, Accessed 4/30/2020]

THE COST OF TRUMP CLIMATE POLICIES

Trump's Clean Cars Rollback Will Cost Coloradoans Over \$252 Million Per Year. In March of 2019, the Center for American Progress analyzed the costs of some of Donald Trump's regulatory changes. For Trump's rollback of clean cars standards, they combined data from M.J. Bradley and Associates' analysis of the net cost for American families of freezing fuel economy targets at model-year 2020 along with data from the Energy Information Agency's oil price forecasts as well as the American Community Survey. The analysis found that Trump's rollback of clean cars standards will cost Coloradoans \$252,300,000 per year. [Center for American Progress, 3/27/2019]

TRUMP'S CLIMATE DENIAL IS ESPECIALLY HARMFUL TO PEOPLE OF COLOR IN COLORADO

ELYRIA-SWANSEA & GLOBEVILLE (NORTHEAST DENVER)

Elyria-Swansea and Globeville In Denver, Colorado Area Is The "Most Polluted" Zip Code In The Country And Its Residents Suffer High Rates Of Chronic Health Issues. A May, 2019 article in Denverite reported: "A study in 2014 by the city showed that Elyria-Swansea and Globeville experience 'a higher incidence' of chronic health issues like asthma and heart disease. The area has been described as the 'most polluted' zip code in the country. Though that superlative is a little problematic, the neighborhoods have plenty to contend with. Two busy interstates looming over the neighborhoods are often thought to be behind it. Industrial facilities like the nearby Suncor tar sands refinery has also concerned community advocates." [Denverite, 5/13/2019]

• A Report Found Globeville And Elyria-Swansea Youth Visited The Emergency Room For Asthma 120 To 140 Percent More Often Than Denver As A Whole. "In Globeville and Elyria-Swansea, which are largely comprised of families with young children who suffer from some of the highest rates of cardiovascular disease and asthma in Denver, residents are especially susceptible to the negative health impacts of particulate pollution. In fact, one report found that emergency room rates for youth asthmarelated events in the neighborhoods of Globeville and Elyria-Swansea were 120 to 140 percent higher when compared to Denver as a whole." [Conservation Colorado, accessed <u>6/13/20</u>]

Globeville And Elyria-Swansea Are, Respectively, 68% And 84% Latinx, While Denver Is 32% Latinx Overall. According to Conservation Colorado, a local environmental group, "Globeville and Elyria-Swansea are some of Denver's oldest—and most polluted neighborhoods. With several nearby industrial factories, two busy interstate highways, diesel train traffic, and soil contamination from historical smelting operations, the communities of Globeville and Elyria-Swansea bear the nation's highest environmental risk. But it is no coincidence that these communities, predominantly Latinx and lowerincome, bear this disproportionate risk. When compared to the overall population of Denver—32 percent Latinx with an average household income of \$73,100—it's evident how Globeville—68 percent Latinx with an average household income of \$44,700—are communities facing environmental injustice and have so for many decades." [Conservation Colorado, accessed <u>6/13/20</u>] As Of 2015, Northeast Denver Had Over Two Dozen Active Polluters, Two Busy Interstate Highways, Diesel Train Traffic, Two Superfund Sites, And Six Brownfield Sites. A 2017 article in the Denver Post reported: "Many of the area's environmental wounds came in the late 1800s, when smelters belched lead, arsenic and heavy metals and produced slag that contaminated the soil. Two Superfund sites and six brownfield sites are legacies of that industrial heritage. A history of past contamination is common among areas across the country that currently rank high for environmental risk, and in many of those places, the generators of contamination are long gone. But that part of northeast Denver still has two dozen active polluters, as defined by the 2015 Toxics Release Inventory. That pushed the risk score over the top, even with a decent air quality score." [Denver Post, 2/16/2017]

Colorado Officials Sent Suncor, A Major Oil Company In Nearby Commerce City, A 50-Page List Of 114 Alleged Violations In The Past Two Years Alone. In January 2020, Westword reported: "there's one industrial behemoth still doing largely the same work as the day it began operations almost a century ago. The Suncor Energy oil refinery, first opened in 1931, supplies the region with more than a third of its gasoline, and Denver International Airport with most of its jet fuel – and in the process, it spews a nasty cocktail of toxic chemicals into the air above some of the city's most vulnerable neighborhoods." They went on to write that "In a "compliance advisory" sent to Suncor in December, regulators with the Colorado Department of Public Health and Environment listed more than fifty pages of alleged violations recorded over the last two years. It's not the first time that CDPHE officials have sent Suncor a compliance advisory, a process that typically leads to a negotiated settlement requiring a polluter to adopt certain monitoring and enforcement mechanisms – but environmental groups hope that it's a turning point," and that "The letter, based on a site inspection and review of refinery records conducted by CDPHE regulators in May 2019, outlines 114 specific alleged violations of state and federal law. The compliance issues identified include faulty and improperly maintained equipment, a failure to conduct leak detection and repair monitoring, inadequate record keeping, and excessive emissions of hydrogen sulfide, sulfur dioxide and carbon monoxide from various refining units." [Westword, 1/21/20; Colorado Department of Public Health & Environment, 12/13/2019

• Suncor's Oil Refinery Regularly Causes Nearby Schools To Go Into Lockdown Because Of Air Quality. In January 2020, Westword reported "North Denver's notoriously poor air quality varies from day to day, but for Molina and many others who live in the shadow of the sprawling Suncor facility, which straddles Brighton Boulevard just south of Interstate 270, the refinery can be a constant, looming presence, never far out of mind. They worry about getting calls and texts like the ones Molina started receiving one morning in December, asking if she'd heard about a reported malfunction at the refinery. I freaked out," she says. "I started getting all these messages from people, like, 'Are your kids okay? There's a lockdown at Adams City Middle School.' My heart just started pounding." The Suncor refinery's "operational upset," as the company later described it in a statement, began just before 11 a.m. on December 11, when too much "torch oil" was added to the facility's fluidized catalytic cracker (FCC) unit. A plume of yellowish material drifted out into the Commerce City neighborhoods north of the plant, where it fell on cars and other outdoor surfaces, alarming residents and causing two nearby schools to be placed on lockout. It was similar to an incident caused by a power outage at the facility in October 2016, when reports described a "yellow-orange smoke plume" that also caused a brief lockout of Adams County 14 schools. The ash that rained down on Commerce City in the most recent incident, Suncor said, was "catalyst," a clay-like aluminosilicate material used to increase fuel yields in the refining process. "This incident does not reflect the level of care and concern that we have for the community around us," Suncor said in an apology for the December 11 incident. "We know that you expect more from us and we want you to know that we expect more from ourselves."" [Westword, 1/21/20]

• Suncor's Main Business Is Mining The Alberta Tarsands, Some Of The Dirtiest Oil On Earth. In January 2020, Westword reported: "Originally founded as a Canadian subsidiary of American oil giant Sunoco in 1919, Calgary-based Suncor Energy gradually grew into a giant in its own right and became fully independent in 1995. Most of its business is concentrated in the Alberta oil sands – one of the largest and most controversial oil-production projects in the world, notorious for the open-pit mining techniques that have wreaked ecological havoc on the region's landscapes. Though Suncor owns three other refineries in Canada, the Commerce City plant, which employs about 500 people, is its only major U.S.-based holding." [Westword, <u>1/21/20</u>]

FRACKING NEAR THE BELLA ROMERO ACADEMY

In 2013, Mineral Resources Was Granted A Permit To Frack A Few Hundred Feet From Frontier Academy, Which Was 77% White. According to 2018 reporting in Mother Jones, "Back in 2013, the company Mineral Resources was granted a permit to drill a few hundred feet from Frontier Academy, a majority white charter school in Greeley, Colorado. But after parents and neighborhood residents strongly resisted, the project was delayed." [Mother Jones, <u>4/17/2018</u>]

Parents And Community Members Resisted, And The Proposed Drilling Site Was Abandoned. According to 2018 reporting in Mother Jones, "after parents and neighborhood residents strongly resisted, the project was delayed. The following year, the Denver-based energy company Extraction Oil and Gas acquired Mineral Resources and abandoned the plans to frack near Frontier Academy. The site, Extraction explained in an internal analysis, was "not preferable "for oil and gas development because of its proximity to the school and its playground. [Mother Jones, <u>4/17/2018</u>]

• Mineral Resources Wrote In An Internal Memo That The Frontier Academy Site Was "Not Preferable" Because Of Its Proximity To A School. [Mother Jones, <u>4/17/2018</u>]

In 2016, Extraction Oil And Gas, Which Had Acquired Mineral Resources, Applied For A Permit To Drill, At 24 Sites, Even Closer To Bella Romero Academy, Which Is More Than 87% Students Of Color. According to 2018 reporting in Mother Jones, "Instead, Extraction began scouting other locations in Greeley, a small city about 50 miles northeast of Denver. In May 2016, Extraction Oil and Gas filed a new application. This time, Extraction selected a site even closer to another school: Bella Romero Academy. The student population at Bella Romero is more than 87 percent Latino or Hispanic, African American, or other people of color. More than 90 percent of students at Bella Romero qualify for free or reduced-price lunch. (At Frontier, 77 percent of students are white, and about 20 percent qualify for free or reduced-price lunch.)" [Mother Jones, <u>4/17/2018</u>]

The Proposed Oil & Gas Wells Sit Within 1,000 Feet Of Bella Romero's Athletic Fields, Allegedly In Violation Of State Regulation. According to 2018 reporting in Mother Jones "We have one of the largest developments proposed in Colorado within 1,000 feet of fields where middle school children play," says Tim Estep, a clinical fellow with the University of Denver's Environmental Law Clinic and a lawyer for the plaintiffs. "It's not that our clients are opposed to oil and gas everywhere. In this case, it's being done so wrong, and to a community that has already been marginalized in so many ways." While there is no legal claim of environmental injustice, "that's really the underlying problem in this particular case," Estep explains. The site meets state regulations, which mandate that fracking operations be at least 500 feet away from homes and 1,000 feet away from schools. But not by much: The 24 wells will be built only 509 feet away from a home and 1,360 feet from Bella Romero. And, according to the lawsuit, Bella Romero's playground and athletic fields sit in between the school and the proposed wells, meaning students will be playing less than 1,000 feet away from oil and gas facilities. (Extraction contended that the site is 1,250 feet from the nearest playground.) [Mother Jones, 4/17/2018]

Drilling Commenced Despite Community Pushback, And A Recent Report Showed Bella Romero's Air Suffered From Unsafe Levels Of Cancer-Causing Benzene 113 Times In Late 2019. According to March 2020 reporting by the Colorado Independent, "A new analysis of state data sheds more light on the benzene spike at Greeley's Bella Romero Academy, indicating the cancer-causing chemical linked to oil and gas activity reached potentially unhealthy levels in the air more than just once. The report, commissioned by the environmental group 350 Colorado and conducted by the Evergreen-based private research firm Barrett Engineering, analyzed state air monitoring data from late last year. It then measured that data against the more rigorous health-based benzene thresholds set by California in 2014. Using that state's 8-hour emission standard – not the EPA's – the analysis finds benzene levels exceeded health-based limits 113 times. The report says those spikes include four full school days: Oct. 16, Nov. 5, and Dec. 4 and 18." They went on to say, "State health officials have not identified the exact source of the benzene. But, according to the report, the timelines for the benzene spikes and recorded wind direction suggests the Extraction Oil and Gas drilling operation near the school is the largest source of the benzene. The 24-well pad is located about 800 feet from the boundary of the school's playground and about 1,200 feet from the school's building. The school requested that the mobile lab be placed nearby after the permit was approved in 2017 and drilling occurred last year." [Colorado Independent, 3/11/20]

Weld County, Home Of Bella Romero Academy, Is One Of The Most Fracked Counties In The U.S., With Over 23,000 Active Oil And Gas Wells in 2018. According to a presentation

released by Weld County, Weld County had 23,753 active oil & gas wells in 2018. [Weld County, <u>2/2018]</u>

The Daily Show covered the story of Bella Romero Academy in 2019. In February 2019, Trevor Noah's The Daily Show covered Bella Romero Academy's story. [YouTube, 2/1/2019]

After Outspending Community Groups Five To One And Pressuring Their Workers To Vote No, Fossil Fuel Companies Defeated A 2018 Local Ballot Measure Introducing Setbacks To Oil & Gas Extraction. According to a February 2018 blog post from the Sierra Club, "Opponents of the EO&G project know they are battling a giant, but they have had some triumphs, depending on how you look at things. In Nelson's opinion, Proposition 112, which would have increased setbacks for oil and gas extraction sites to 2,500 feet, put the oil and gas industry on notice. "We only lost by six percent," Nelson says. "And a lot of people who supported Prop 112 learned how close operations can get to schools, and how far the industry's reach has gotten. I think that activated a lot more people."In addition, the oil and gas industry's efforts to fight Prop 112 may have revealed just how much the industry fears the proverbial small group of thoughtful, committed citizens. As last November's election approached, the oil and gas industry waged an aggressive campaign against the setback measure. "People were being told, 'if you don't vote, this is going to cost you your job.' One woman I spoke to said she was helping out at a voting center and some people in line were saying, 'I'm just here to vote no on 112.' But even though they outspent us five to one in reported money, we only lost by 100,000 votes." [Sierra Club, 2/14/2019]

COLORADO HAS AN OPPORTUNITY TO BUILD A STRONG GREEN ECONOMY

COLORADO'S GREEN ECONOMY

Colorado Was Ranked 18th Among The Top 20 States For Clean Energy Employment In 2019. According to the 2020 Clean Jobs America Report by E2, Colorado was 18th in clean energy employment in 2019, with the clean energy sector providing 62,420 jobs. [Clean Jobs America Report, E2, 2020]

SOLAR

2019: Colorado Was Home To 7,174 Jobs In The Solar Industry. According to The Solar Foundation, in 2019 there were 7,174 solar jobs in Colorado and the state was ranked

eighteenth in the nation for solar jobs. [<u>The Solar Foundation, Solar Jobs Census 2019:</u> <u>Colorado,</u> Accessed 4/29/2020]

2019: There Were 486 Solar Companies In Colorado. According to The Solar Foundation, in 2019 there were 486 total solar companies in Colorado. [<u>The Solar Foundation, Solar</u>] <u>Jobs Census 2019: Colorado,</u> Accessed 4/29/2020]

2019: 227,823 Equivalent Homes Were Powered By Solar In Colorado. According to The Solar Foundation, in 2019 the number of equivalent homes powered by solar in Colorado stood at 227,823. [The Solar Foundation, Solar Jobs Census 2019: Colorado, Accessed 4/29/2020]

WIND

2019: Colorado Was Home To 7,001 To 8,000 Direct Jobs In The Wind Industry. According to American Wind Energy Association, in 2019 the wind industry supplied 7,001 to 8,000 direct jobs in Colorado. [American Wind Energy Association, State Fact Sheet: Wind Energy In Colorado, April 2020]

2019: There Were 18 Wind Energy Manufacturing Facilities In Colorado. According to American Wind Energy Association, in 2019 there were 18 active manufacturing facilities in Colorado. [American Wind Energy Association, State Fact Sheet: Wind Energy In Colorado, April 2020]

2019: There Were 2,275 Wind Turbines In Colorado. According to American Wind Energy Association, in 2019 Colorado was home to 2,275 wind turbines. [American Wind Energy Association, State Fact Sheet: Wind Energy In Colorado, April 2020]

2019: The Equivalent Number Of Homes Powered By Wind In Colorado Was 1,002,400. According to American Wind Energy Association, the equivalent number of homes powered by wind in Colorado in 2019 was 1,002,400. [American Wind Energy Association, State Fact Sheet: Wind Energy In Colorado, April 2020]