

Task 1.1: Identify community assets

Sectors	Assets <i>(examples below; revise list as desired)</i>
Agriculture & Food Systems	Ag production, packing, and distribution
Buildings & Energy	Commercial and Industrial buildings
Cultural Resources & Practices	Sunnyside Museum, Cemetery, Churches
Economic Development	Local retail and service establishments, Port of Sunnyside
Ecosystems	Parks and open space
Emergency Management	Fire and police stations, equipment, etc.
Health & Well-being	Medical practitioners, Sunnyside Community Hospital
Transportation	Roads, sidewalks, pathways, bike lanes, on-street parking, Yakima Valley Highway
Waste Management	Yakima Waste, Port of Sunnyside
Water Resources	Water Reservoir and distribution system, Sunnyside Valley Irrigation District, Roza Irrigation District
Zoning & Development	Single and multi-family residences, apartments, commercial, industrial, Port of Sunnyside

Task 1.2: Explore hazards and changes in the climate

Sector (Use the CMRW webtool and other resources, as needed, to fill out this column.)	Climate Indicator (Use the CMRW webtool and other resources, as needed, to fill out this column.)	Hazard (Use the CMRW webtool and other resources, as needed, to fill out this column.)	Climate Impacts (Use the CMRW webtool's "Understanding the Importance" tab, Figure 5 of the climate element planning guidance, and other information sources to fill out this column.)	Notes (Note the emissions scenario(s) and time periods you explored. You may also wish to identify potential information gaps that might warrant further analysis.)
Agriculture & Food Systems	Precipitation Drought	Drought	More frequent and severe droughts due to low summer precipitation will reduce the amount of water available for livestock and irrigation during the same time that warmer temperatures and longer growing seasons are expected to increase the demand for irrigation water.	Higher Scenario (RCP 8.5). Model Median 2020-2049.
Emergency Management	Precipitation Drought	Drought	More frequent and severe droughts due to low summer precipitation are expected to increase the need for emergency services to plan, prepare, and respond to water shortages.	Higher Scenario (RCP 8.5). Model Median 2020-2049.
Water Resources	Precipitation Drought	Drought	More frequent and severe droughts due to low summer precipitation have the potential to increase voluntary or mandatory conservation requirements and water use restrictions.	Higher Scenario (RCP 8.5). Model Median 2020-2049.
Agriculture & Food Systems	Summer Maximum Temperature	Extreme Heat	Warmer summers are expected to increase the potential for heat stress on some crops and livestock and decrease crop yields. Some agricultural pests are expected to have greater survival rates and population size with warming. Warmer summer temperatures are expected to increase demand for irrigation water.	Higher Scenario (RCP 8.5). Model Median 2020-2049.
Economic Development	Summer Maximum Temperature	Extreme Heat	Warmer summer temperatures could decrease opportunities for warm season recreation activities in some areas and increase them in others.	Higher Scenario (RCP 8.5). Model Median 2020-2049.
Ecosystems	Summer Maximum Temperature	Extreme Heat	Warmer summers are expected to reduce summer soil moisture and increase physiological stress for some plants and animals. Warmer summer temperatures are expected to reduce tree growth and forest productivity in some areas and increase growth and productivity in mild climates. Outbreaks of some forest pests, such as Japanese beetles, are expected to increase.	Higher Scenario (RCP 8.5). Model Median 2020-2049.
Health & Well-being	Summer Maximum Temperature	Extreme Heat	Warmer summers are expected to increase concentrations of air pollutants, such as ozone and some vector-borne illnesses, such as West Nile virus.	Higher Scenario (RCP 8.5). Model Median 2020-2049.
Transportation	Hot Days	Extreme Heat	More very hot days have the potential to damage the surfaces of roads and bridges, leading to greater maintenance and repair costs and more frequent traffic and service disruptions.	Higher Scenario (RCP 8.5). Model Median 2020-2049.
Emergency Management	90°F Max Humidex Days	Extreme Heat	More frequent extreme daytime heat events are expected to increase the demand for emergency services to plan, prepare, and respond to human health impacts. Extreme heat may also impact emergency services due to transportation and travel disruptions such as warped and buckling pavement on roads.	Higher Scenario (RCP 8.5). Model Median 2020-2049.
Health & Well-being	90°F Max Humidex Days	Extreme Heat	An increase in the number of days with a maximum humidex above 90°F is expected to increase heat-related deaths, illness, and hospitalizations.	Higher Scenario (RCP 8.5). Model Median 2020-2049.

Emergency Management	65°F Max Humidex Days	Extreme Heat	More frequent extreme nighttime heat events are expected to increase the demand for emergency services to plan, prepare, and respond to human health impacts.	Higher Scenario (RCP 8.5). Model Median 2020-2049.
Health & Well-being	65°F Max Humidex Days	Extreme Heat	An increase in the number of nights with a minimum humidex above 65°F is expected to increase heat-related deaths, illness, and hospitalizations.	Higher Scenario (RCP 8.5). Model Median 2020-2049.
Buildings & Energy	Cooling Degree Days	Extreme Heat	An increase in cooling degree days is expected to increase energy demand for air conditioning and industrial cooling systems in summer when regional hydropower supply is expected to decrease. Demand for air conditioning and infrastructure with cooling systems is also expected to increase where it does not already exist.	Higher Scenario (RCP 8.5). Model Median 2020-2049.
Agriculture & Food Systems	Heavy Precipitation Magnitude	Extreme Precipitation	Heavier precipitation is expected to intensify flooding and inundation of agricultural lands, which can delay spring planting, affect crop quality and quantity, increase erosion and runoff, and increase susceptibility to root diseases.	Higher Scenario (RCP 8.5). Model Median 2020-2049.
Economic Development	Heavy Precipitation Magnitude	Extreme Precipitation	Heavier precipitation is expected to intensify flooding in low-lying areas and require higher capacity storm water drainage systems.	Higher Scenario (RCP 8.5). Model Median 2020-2049.
Transportation	Heavy Precipitation Magnitude	Extreme Precipitation	Heavier precipitation events are expected to intensify flooding, landslides, and erosion, which can interrupt transportation routes, damage infrastructure, and increase maintenance and repair costs.	Higher Scenario (RCP 8.5). Model Median 2020-2049.
Zoning & Development	Heavy Precipitation Magnitude	Extreme Precipitation	Heavier precipitation events are expected to intensify urban flooding and demands on storm water systems, which can affect zoning restrictions on new buildings, and require revised building codes for development in more frequently flooded areas.	Higher Scenario (RCP 8.5). Model Median 2020-2049.
Agriculture & Food Systems	Extreme Precipitation Magnitude	Extreme Precipitation	Heavier precipitation is expected to increase flooding and inundation of agricultural lands, which can delay spring planting, affect crop quality and quantity, increase erosion and runoff, and increase susceptibility to root diseases.	Higher Scenario (RCP 8.5). Model Median 2020-2049.
Emergency Management	Extreme Precipitation Magnitude	Extreme Precipitation	Heavier precipitation has the potential to increase the demand for emergency response services by intensifying flood events and increasing other emergencies associated with heavy precipitation.	Higher Scenario (RCP 8.5). Model Median 2020-2049.
Transportation	Extreme Precipitation Magnitude	Extreme Precipitation	Heavier precipitation is expected to increase flooding, landslides, and erosion, which can interrupt transportation routes, damage infrastructure, and increase maintenance and repair costs.	Higher Scenario (RCP 8.5). Model Median 2020-2049.
Waste Management	Extreme Precipitation Magnitude	Extreme Precipitation	Heavier precipitation has the potential to increase storm damage to infrastructure and generate more waste and debris. More waste will strain municipal cleanup and refuse capacity.	Higher Scenario (RCP 8.5). Model Median 2020-2049.
Zoning & Development	Extreme Precipitation Magnitude	Extreme Precipitation	Heavier precipitation is expected to increase the extent of flooding in low-lying areas and flood zones. This could reduce the suitability of some areas for certain land uses and require relocation of some development.	Higher Scenario (RCP 8.5). Model Median 2020-2049.
Economic Development	Wildfire Danger	Wildfire	More days with high wildfire danger are expected to affect businesses through more frequent closures of recreation areas and restrictions on outdoor activities during the wildfire season. More high fire danger days will interrupt timber operations and outdoor recreation.	Higher Scenario (RCP 8.5). Model Median 2010-2039.
Emergency Management	Wildfire Danger	Wildfire	More days with high fire danger will increase the need for fire bans and associated enforcement and capacity to respond to wildfires.	Higher Scenario (RCP 8.5). Model Median 2010-2039.

Agriculture & Food Systems	Wildfire Likelihood	Wildfire	More frequent wildfires have the potential to increase damage to crops, livestock, agriculture infrastructure and operations. Wildfire smoke may reduce the quality of some crops and adversely affect farm workers and other outdoor laborers in the industry.	Higher Scenario (RCP 8.5). Model Median 2010-2039.
Buildings & Energy	Wildfire Likelihood	Wildfire	More frequent wildfires have the potential to affect energy transmission by damaging infrastructure and interrupting transmission and distribution. More frequent wildfires are expected to cause property damage and loss. Poor air quality due to wildfire smoke could increase demand for air filtration systems in buildings.	Higher Scenario (RCP 8.5). Model Median 2010-2039.
Cultural Resources & Practices	Wildfire Likelihood	Wildfire	More frequent wildfires have the potential to damage cultural and historical sites, buildings, and cultural resources. More frequent wildfires can also reduce access to culturally important sites and resources for Northwest Tribes.	Higher Scenario (RCP 8.5). Model Median 2010-2039.
Economic Development	Wildfire Likelihood	Wildfire	More frequent wildfires are expected to affect businesses and economic development through more interruptions and closures of businesses and recreation areas due to wildfires and poor air quality. More wildfire could lead to higher insurance premiums or more difficulty insuring properties.	Higher Scenario (RCP 8.5). Model Median 2010-2039.
Ecosystems	Wildfire Likelihood	Wildfire	More frequent wildfires have the potential to reduce timber, non-timber forest products, carbon storage, and forest habitat for some wildlife. Wildfires also increase establishment of invasive species. More frequent wildfires have the potential to increase runoff and sediment to streams, which can reduce aquatic habitat quality.	Higher Scenario (RCP 8.5). Model Median 2010-2039.
Emergency Management	Wildfire Likelihood	Wildfire	More frequent wildfires will require more response from emergency management services, increasing demand on resources and costs.	Higher Scenario (RCP 8.5). Model Median 2010-2039.
Health & Well-being	Wildfire Likelihood	Wildfire	More frequent wildfires are expected to reduce human health through loss of life, injury and reduced mental health associated with displacement. Poor air quality due to more wildfire smoke can cause adverse respiratory health effects.	Higher Scenario (RCP 8.5). Model Median 2010-2039.
Transportation	Wildfire Likelihood	Wildfire	More frequent wildfires, and related smoke, can disrupt travel, increase road closures and delay construction projects. Wildfire smoke has the potential to affect labor in the transportation sector because of health effects on outdoor laborers. More roadside brush fires can create safety hazards and disrupt transportation.	Higher Scenario (RCP 8.5). Model Median 2010-2039.
Waste Management	Wildfire Likelihood	Wildfire	More frequent wildfires have the potential to generate greater amounts of debris and waste. More waste will strain municipal cleanup and refuse capacity.	Higher Scenario (RCP 8.5). Model Median 2010-2039.
Water Resources	Wildfire Likelihood	Wildfire	More frequent wildfires have the potential to damage water distribution infrastructure and reduce water quality in reservoirs due to more runoff, erosion, and turbidity. Changes in water quality could increase the need for water treatment and filtration.	Higher Scenario (RCP 8.5). Model Median 2010-2039.
Zoning & Development	Wildfire Likelihood	Wildfire	More frequent wildfires are expected to increase damage to homes and infrastructure and displace residents.	Higher Scenario (RCP 8.5). Model Median 2010-2039.

Task 1.3: Pair assets and hazards, and describe exposure and consequences

Number	Asset-Hazard Pair <i>(Note applicable sector(s) in parenthesis.)</i>	Climate Indicator <i>(Use the CMRW webtool and other resources, as needed, to fill out this column.)</i>	Climate Impacts <i>(Use the CMRW webtool and other resources, as needed, to fill out this column.)</i>	Exposure <i>(Describe how each asset is exposed to the hazard, utilizing information from the CMRW webtool's "Understanding the Importance" tab, local knowledge, and other resources)</i>	Non-Climate Stressors <i>(Describe non-climate stressors that may exacerbate climate impacts.)</i>	Consequences <i>(Describe the consequences of the climate impacts, factoring in exposure, non-climate stressors, and your knowledge of how this hazard has impacted your community in the past. You may find it useful to divide consequences into past and future.)</i>
1	Ag Production, packing and distribution centers - Extreme Heat <i>(Agriculture and Food Systems)</i>	Summer Maximum Temperature <i>(Warmer summer temperatures)</i>	Higher maximum temperature: Sunnyside could see the average summer temperature increase by 3.7°F which has the potential to increase heat stress on crops and livestock and decrease crop yields.	Agricultural exposure to increased summer temperatures will depend on local land use features that ameliorate or exacerbate high summer temperatures.	Population growth, Conversion of Ag land to non-Ag use	Higher temperatures and a longer growing season have increased the demand for irrigation water required to grow crops and raise livestock. Increased yields require more resources on the production, packing, and distribution end.
2	Ag Production, packing and distribution centers -Drought <i>(Agriculture and Food Systems)</i>	Precipitation Drought <i>(A greater likelihood of below normal summer precipitation indicates a greater likelihood of drought in any year.)</i>	More frequent and severe droughts: Sunnyside is projected to experience a 26% chance of a year with summer precipitation at or below 75% of normal. This will reduce the amount of water available for livestock and irrigation during the same time that warmer temperatures and a longer growing season are expected to increase the demand for irrigation water.	Most of Washington state already receives little summer precipitation; areas that receive more summer precipitation currently will be more exposed to changes in the frequency of precipitation droughts.	Population growth, Conversion of Ag land to non-Ag use	Reduced agricultural yield due to drought lowers the viability of long-term usage. Increased water needs for agriculture could reduce the available water for residential, commercial, and industrial needs within city limits.
3	Ag Production, packing and distribution centers -Extreme Precipitation <i>(Agriculture and Food Systems)</i>	Heavy/Extreme Precipitation Magnitude <i>(Increase in heavy and extreme precipitation days)</i>	More severe storms: Sunnyside is projected to see a 5-16% increase in precipitation during the 2-year storm and a 15-18% increase in precipitation during the 25-year storm.	Agricultural land and infrastructure located in low-lying areas, within or near current floodplains or regulatory flood zones, or adjacent to unstable slopes are expected to be more exposed to an increase in heavy precipitation.	Population growth, Conversion of Ag land to non-Ag use	Heavier precipitation is expected to intensify flooding and inundation of agricultural lands, which can delay spring planting, affect crop quality and quantity, increase erosion and runoff, and increase susceptibility to root diseases.

4	Ag Production, packing and distribution centers -Wildfire <i>(Agriculture and Food Systems)</i>	Wildfire Likelihood <i>(The likelihood of climate and fuel conditions being conducive to wildfire.)</i>	Greater potential to damage infrastructure, interrupt businesses, or affect public health. While Sunnyside is not mapped in the wildfire likelihood area, much of Yakima County is and Sunnyside can still see the affect of wildfire, primarily due to travelling smoke.	Agricultural lands and infrastructure located in the wildland-urban interface and areas with high wildfire risk historically will be most exposed to increases in the likelihood of wildfire.	Population growth, Conversion of Ag land to non-Ag use	More frequent wildfires have the potential to increase damage to crops, livestock, agriculture infrastructure and operations. Wildfire smoke may reduce the quality of some crops and adversely affect farm workers and other outdoor laborers in the industry.
5	Commercial and Industrial Buildings Extreme Heat <i>(Buildings & Energy)</i>	Heating Degree Days <i>(Average number of days below 65°F)</i> and Cooling Degree Days <i>(Average number of days above 65°F)</i>	Lower demand for heating during the winter but a Higher demand for cooling during the summer. Sunnyside is projected to see a decrease of 670 heating days and an increase of 381 cooling degree days.	Minimal exposure to an increase in heating degree days, but exposure to buildings on cooling degree days will be impacted by building location and the proximity to tree cover, open space, and other contributors to urban heat islands.	Lack of trees and open space, increased impervious surfaces	Lower energy demand for heating days will reduce local tax revenue due to lower utility bills. While this will likely be seen as positive to the consumer, a large reduction in revenue can be challenging for local government. A higher demand on resources for cooling degree days will increase the load on the electrical grid and may trigger outages.
6	Commercial and Industrial Buildings Wildfire <i>(Buildings & Energy)</i>	Wildfire Likelihood <i>(The likelihood of climate and fuel conditions being conducive to wildfire.)</i>	Greater potential to damage infrastructure, interrupt businesses, or affect public health. While Sunnyside is not mapped in the wildfire likelihood area, much of Yakima County is and Sunnyside can still see the affect of wildfire, primarily due to travelling smoke.	Buildings and energy infrastructure located in the wildland-urban interface and areas with high wildfire risk historically will be most exposed to increases in the likelihood of wildfire.	Above-ground utility infrastructure, areas within the WUI with decreased buffers	More frequent wildfires have the potential to affect energy transmission by damaging infrastructure and interrupting transmission and distribution. More frequent wildfires are expected to cause property damage and loss. Poor air quality due to wildfire smoke could increase demand for air filtration systems in buildings.
7	Sunnyside Museum, Cemetery, Churches - Wildfire <i>(Cultural Resources)</i>	Wildfire Likelihood <i>(The likelihood of climate and fuel conditions being conducive to wildfire.)</i>	More frequent wildfires have the potential to damage cultural and historical sites, buildings, and cultural resources. More frequent wildfires can also reduce access to culturally important sites and resources for Northwest Tribes.	Cultural and historical sites located in the wildland-urban interface and areas with high wildfire risk historically will be most exposed to increases in the likelihood of wildfire.	Population growth and development pressures adjacent to historic and cultural sites	Loss of historic structures and culturally-significant sites.
8	Local retail and service establishments, Port of Sunnyside - Extreme Heat <i>(Economic Development)</i>	Summer Maximum Temperature <i>(Warmer summer temperatures)</i>	Warmer summer temperatures directly affect the health and well-being of people and stress and water availability for crops and ecosystems.	Exposure of the recreation industry or other outdoor industries will depend on local features that can ameliorate or exacerbate the effects of high summer temperature on residents and visitors.	Population growth, sectors that rely on tourism such as the wine/beer industry	Reduced tourism revenue from the travelling public, limited opportunities for new development.

9	Local retail and service establishments, Port of Sunnyside - Extreme Precipitation (Economic Development)	Heavy/Extreme Precipitation Magnitude (Increase in heavy and extreme precipitation days)	Change in the intensity of heavy/extreme precipitation events are more likely to cause damages to infrastructure and agricultural operations than changes in seasonal and annual precipitation.	Businesses located in low-lying areas, within current floodplains or regulatory flood zones, or adjacent to unstable slopes are expected to be more exposed to an increase in heavy precipitation.	Population growth, and increased development pressures that increase impervious surfaces	Reduced tourism revenue from the travelling public, limited opportunities for new development.
10	Local retail and service establishments, Port of Sunnyside - Wildfire (Economic Development)	Wildfire Likelihood (The likelihood of climate and fuel conditions being conducive to wildfire.)	Greater potential to damage infrastructure, interrupt businesses, or affect public health. While Sunnyside is not mapped in the wildfire likelihood area, much of Yakima County is and Sunnyside can still see the affect of wildfire, primarily due to travelling smoke.	Businesses located in the wildland-urban interface and areas with high wildfire risk historically will be most exposed to increases in the likelihood of wildfire.	Population growth, and increased development pressures that increase impervious surfaces	Reduced tourism revenue from the travelling public, limited opportunities for new development.
11	Parks and Open Space - Extreme Heat (Ecosystems)	Summer Maximum Temperature (Warmer summer temperatures)	Warmer summer temperatures directly affect the health and well-being of people and stress and water availability for crops and ecosystems.	Exposure of ecosystems to extreme heat is expected to be greater in transitional zones between ecosystems and where plant and animal species are already living at temperature margins of suitable habitat. In your county or community, the exposure of ecosystems to increases in summer temperatures will depend on the presence of critical habitats or sensitive species.	Population growth and development in and adjacent to parks, open spaces, and critical areas	Parks and open spaces are important areas for the public to congregate and recreate. Increased wildfire likelihood and the resultant smoke limits the ability of the public to utilize those spaces.
12	Parks and Open Space - Wildfire (Ecosystems)	Wildfire Likelihood (The likelihood of climate and fuel conditions being conducive to wildfire.)	Greater potential to damage infrastructure, interrupt businesses, or affect public health. While Sunnyside is not mapped in the wildfire likelihood area, much of Yakima County is and Sunnyside can still see the affect of wildfire, primarily due to travelling smoke.	Ecosystem exposure to changes in wildfire likelihood will depend on historical wildfire frequency and the presence of critical resources and habitats.	Population growth and development in and adjacent to parks, open spaces, and critical areas	Parks and open spaces are important areas for the public to congregate and recreate. Increased wildfire likelihood and the resultant smoke limits the ability of the public to utilize those spaces.

13	Fire and Police Stations, equipment, etc. - Drought (Emergency Management)	Precipitation Drought (A greater likelihood of below normal summer precipitation indicates a greater likelihood of drought in any year.)	More frequent and severe droughts: Sunnyside is projected to experience a 26% chance of a year with summer precipitation at or below 75% of normal. This will reduce the amount of water available for livestock and irrigation during the same time that warmer temperatures and a longer growing season are expected to increase the demand for irrigation water.	Most of Washington state already receives little summer precipitation; areas that receive more summer precipitation currently will be more exposed to changes in the frequency of precipitation droughts.	System issues or shutdowns due to aging infrastructure, areas without looped systems or sufficient fire flow	Reduced water availability could impact the Fire Department's ability to fight fires.
14	Fire and Police Stations, equipment, etc. - Extreme Heat (Emergency Management)	Heating Degree Days (Average number of days below 65°F) and Cooling Degree Days (Average number of days above 65°F)	Lower demand for heating during the winter but a Higher demand for cooling during the summer. Sunnyside is projected to see a decrease of 670 heating days and an increase of 381 cooling degree days.	Exposure of people to extreme heat will vary locally based on features that exacerbate or ameliorate extreme heat, such as the extent of paved surfaces, tree canopy for shade, or proximity to water bodies.	Ingress/egress difficulty	More frequent extreme daytime and nighttime heat events are expected to increase the demand for emergency services to plan, prepare, and respond to human health impacts. Extreme heat may also impact emergency services due to transportation and travel disruptions such as warped and buckling pavement on roads.
15	Fire and Police Stations, equipment, etc. - Extreme Precipitation (Emergency Management)	Heavy/Extreme Precipitation Magnitude (Increase in heavy and extreme precipitation days)	Change in the intensity of heavy/extreme precipitation events are more likely to cause damages to infrastructure and agricultural operations than changes in seasonal and annual precipitation.	Emergency services that serve people located in low-lying areas, within current floodplains or regulatory flood zones, or adjacent to unstable slopes are expected to be more exposed to the impacts of heavier precipitation events.	Ingress/egress difficulty	Heavier precipitation has the potential to increase the demand for emergency response services by intensifying flood events and increasing other emergencies associated with heavy precipitation
16	Fire and Police Stations, equipment, etc. - Wildfire (Emergency Management)	Wildfire Likelihood (The likelihood of climate and fuel conditions being conducive to wildfire.)	Greater potential to damage infrastructure, interrupt businesses, or affect public health. While Sunnyside is not mapped in the wildfire likelihood area, much of Yakima County is and Sunnyside can still see the affect of wildfire, primarily due to travelling smoke.	People and infrastructure located in the wildland-urban interface and areas of high wildfire risk will be most exposed to increases in likelihood of wildfire.	Ingress/egress difficulty	More frequent wildfires will require more response from emergency management services, increasing demands on resources and costs.

17	Medical Practitioners - Extreme Heat <i>(Health & Well-being)</i>	Summer Maximum Temperature <i>(Warmer summer temperatures)</i> 65°F Min. Humidex Days <i>(indicator of nighttime heat stress);</i> 90°F Max Humidex Days <i>(indicator of daytime heat stress)</i>	Higher maximum temperature: Sunnyside could see the average summer temperature increase by 3.7°F	The exposure of people to warmer summers and associated ozone and vector-borne illnesses will vary locally based on conditions. Areas with existing poor air quality will be more exposed. Exposure to extreme heat stress will vary based on features that exacerbate or ameliorate extreme heat, such as the extent of paved surfaces, tree canopy for shade, or proximity to water bodies.	Increased development, Poor air quality	Warmer summers are expected to increase concentrations of air pollutants, such as ozone and some vector-borne illnesses, such as West Nile Virus. An increase in the number of heat stress days and nights is expected to increase heat-related deaths, illness, and hospitalizations.
18	Medical Practitioners - Wildfire <i>(Health & Well-being)</i>	Wildfire Likelihood <i>(The likelihood of climate and fuel conditions being conducive to wildfire.)</i>	Greater potential to damage infrastructure, interrupt businesses, or affect public health. While Sunnyside is not mapped in the wildfire likelihood area, much of Yakima County is and Sunnyside can still see the affect of wildfire, primarily due to travelling smoke.	People living in the wildland-urban interface and areas with high wildfire risk historically will be most exposed to increases in the likelihood of wildfire.	Increased development, Poor air quality	More frequent wildfires are expected to reduce human health through loss of life, injury and reduced mental health associated with displacement. Poor air quality due to more wildfire smoke can cause adverse respiratory health effects.
19	Transportation Infrastructure - Extreme Heat <i>(Transportation)</i>	Hot Days <i>(Increase in number of days above 100°F)</i>	More hot days: Sunnyside is projected to see an additional 10.5-days per year above 100°F.	Exposure to road surfaces to extreme heat will vary based on features that exacerbate or ameliorate extreme heat such as the extent of urban heat islands and tree canopy covers for shade.	Increased development, loss of tree canopy and open space.	More very hot days have the potential to damage the surfaces of roads and bridges, leading to greater maintenance and repair costs and more frequent traffic and service disruptions.
20	Transportation Infrastructure - Extreme Precipitation <i>(Transportation)</i>	Heavy/Extreme Precipitation Magnitude <i>(Increase in heavy and extreme precipitation days)</i>	More severe storms: Sunnyside is projected to see a 5-16% increase in precipitation during the 2-year storm and a 15-18% increase in precipitation during the 25-year storm.	Transportation routes and infrastructure located in low-lying areas, within current floodplains, or adjacent to unstable slopes are expected to be more exposed to the impacts of increased precipitation events.	Ingress/egress difficulty	Heavier precipitation has the potential to increase flooding, landslides, and erosion, which can interrupt transportation routes, damage infrastructure, and increase maintenance and repair costs.

21	Transportation Infrastructure - Wildfire <i>(Transportation)</i>	Wildfire Likelihood <i>(The likelihood of climate and fuel conditions being conducive to wildfire.)</i>	Greater potential to damage infrastructure, interrupt businesses, or affect public health. While Sunnyside is not mapped in the wildfire likelihood area, much of Yakima County is and Sunnyside can still see the affect of wildfire, primarily due to travelling smoke.	Routes and infrastructure in the wildland-urban interface and areas with high wildfire risk will be most exposed to increases in the likelihood of wildfire.	Wildfires in the vicinity blocking ingress/egress routes	More frequent wildfires, and related smoke, can disrupt travel, increase road closures, and delay construction projects. Wildfire smoke has the potential to affect labor in the transportation sector because of health effects on outdoor laborers. More roadside brush fires can create safety hazards and disrupt transportation.
22	Waste Management - Extreme Precipitation <i>(Waste Management)</i>	Extreme Precipitation Magnitude <i>(Increase in extreme precipitation days)</i>	More severe storms: Sunnyside is projected to see a 15-18% increase in precipitation during the 25-year storm.	Waste management services that serve people in low-lying areas, within current floodplains, or adjacent to unstable slopes are expected to be more exposed to the impacts of heavier precipitation events.	High impervious surface areas with reduced stormwater infrastructure	Heavier precipitation has the potential to increase storm damage to infrastructure and generate more waste and debris. More waste will strain municipal cleanup and refuse capacity. Increases in debris and waste in surrounding areas due to extreme precipitation events could have negative impacts to local traffic.
23	Waste Management - Wildfire <i>(Waste Management)</i>	Wildfire Likelihood <i>(The likelihood of climate and fuel conditions being conducive to wildfire.)</i>	Greater potential to damage infrastructure, interrupt businesses, or affect public health. While Sunnyside is not mapped in the wildfire likelihood area, much of Yakima County is and Sunnyside can still see the affect of wildfire, primarily due to travelling smoke.	Facilities that serve areas in the wildland-urban interface will be more exposed to increases in waste with more wildfire.	Ingress/egress difficulty to the landfill	More frequent wildfires have the potential to generate greater amounts of debris and waste. More waste will strain municipal cleanup and refuse capacity. Increases in debris and waste in surrounding areas due to extreme precipitation events could have negative impacts to local traffic.
24	Water Distribution and Irrigation Canals - Drought <i>(Water Resources)</i>	Precipitation Drought <i>(A greater likelihood of below normal summer precipitation indicates a greater likelihood of drought in any</i>	More frequent and severe droughts: Sunnyside is projected to experience a 26% chance of a year with summer precipitation at or below 75% of normal. This will reduce the amount of water available for livestock and irrigation during the same time that warmer temperatures and a longer growing season are expected to increase the demand for irrigation	Most of Washington state already receives little summer precipitation; areas that receive more summer precipitation currently will be more exposed to changes in the frequency of precipitation droughts.	Lack of redundancy in water sources, high demand, less efficient infrastructure	More frequent and severe droughts due to low summer precipitation are expected to increase the need for emergency services to plan, prepare, and respond to water shortages.
25	Water Distribution and Irrigation Canals - Wildfire <i>(Water Resources)</i>	Wildfire Likelihood <i>(The likelihood of climate and fuel conditions being conducive to wildfire.)</i>	Greater potential to damage infrastructure, interrupt businesses, or affect public health. While Sunnyside is not mapped in the wildfire likelihood area, much of Yakima County is and Sunnyside can still see the affect of wildfire, primarily due to travelling smoke.	Local exposure of water resources to increases in wildfire will depend on the extent of water distribution facilities and water resources located in the wildland-urban interface or wildlands.	Areas of open canals within and flowing into Sunnyside	More frequent wildfires have the potential to damage water distribution infrastructure and reduce water quality in reservoirs due to runoff, erosion, and turbidity. Changes in water quality could increase the need for water treatment and filtration. Decreased resources in the irrigation canals can pose an additional risk to agricultural facilities within and nearby Sunnyside.

26	Residential, Commercial, Industrial Uses - Extreme Precipitation (Zoning and Development)	Heavy/Extreme Precipitation Magnitude (Increase in heavy and extreme precipitation days)	More severe storms: Sunnyside is projected to see a 5-16% increase in precipitation during the 2-year storm and a 15-18% increase in precipitation during the 25-year storm.	Certain land uses and development located in low-lying areas, within current floodplains or regulatory flood zones, or adjacent to unstable slopes are expected to be more exposed to an increase in heavy precipitation.	Increased impervious surfaces, areas with a high water table	More severe storms could impact stormwater design of future development projects
27	Residential, Commercial, Industrial Uses - Wildfire (Zoning and Development)	Wildfire Likelihood (The likelihood of climate and fuel conditions being conducive to wildfire.)	Greater potential to damage infrastructure, interrupt businesses, or affect public health. While Sunnyside is not mapped in the wildfire likelihood area, much of Yakima County is and Sunnyside can still see the affect of wildfire, primarily due to travelling smoke.	The extent of development and the types of land use in the wildland-urban interface will affect local exposure to increases in the likelihood of wildfire.	Substandard building codes, older infrastructure	More frequent wildfires are expected to increase damage to homes and infrastructure and displace residents. Older homes with inefficient filtration systems may be more prone to wildfire smoke.