

Governance

0. Governance

(0.1) Provide details of your jurisdiction in the table below.

Response

Administrative boundary of reporting government^
City/Municipality

Next highest level of government
County / Province

Next lowest level of government

Land area of the jurisdiction boundary (in square km)^
45.1

Percentage range of land area that is green space
11-20%

Current (or most recent) population size^
125944

Population year^
2021

Projected population size
128071

Projected population year
2030

Select the currency used for all financial information reported throughout your response^
USD US Dollar

(0.2) Provide information on your jurisdiction's oversight of climate-related risks and opportunities and how these issues have impacted your jurisdiction's planning.

Response

Select the processes that reflect your jurisdiction's oversight of climate-related issues

Council (or equivalent) is informed by relevant departments, committees and/or subcommittees about climate-related issues
Relevant departments, committees and/or subcommittees are informed by management about climate-related issues
Climate-related issues are considered by government when undertaking plans and/or strategies
Climate-related issues are considered by government when undertaking budgeting and/or major capital expenditures
Climate-related responsibilities are assigned to a committee(s) or a subcommittee(s) in government
Climate-related responsibilities are assigned to management-level positions in government

Provide further details on your jurisdiction's oversight of climate-related issues

Oversight of climate-related issues is primarily focused on the City's management of climate-related stormwater impacts, including planning and budgeting for maintenance and improvement of stormwater facilities and infrastructure, construction and maintenance of green infrastructure and stream rehabilitation in the City's parks, as well as switching to LED lighting at all City-owned facilities. The City is undertaking a Watershed Restoration Strategy to address stream impairments resulting in conceptual and capital planning which support climate action and sustainability goals. Goals are met by first understanding the amount of pollutant loading carried within each watershed, its sources and impacts. Target reductions are calculated through installation of engineered stormwater management facilities to include green infrastructure. The nearest target goal is to conduct and complete analyses on the most impaired waterway (the Little Cedar Creek) by the end of 2022, resulting in a conceptual design for at least five to eight treatment, volume reduction or retrofitted stormwater management facilities. With respect to the City's parks, the City is implementing riparian buffer management in cooperation with the PA Dept of Conservation and Natural Resources under a plan to increase use of native vegetation while concomitantly eliminating invasive vegetation. The impact of this plan is to reduce greenhouse gas emissions and improve water quality. In addition the City is reducing electricity and water consumption at its parks, by developing and implementing a plan to install hand activated motion timers at all City spray parks. Existing spray parks have been retrofitted with the motion timers and a spray park currently under construction and slated for completion in 2022 shall utilize the same technology. The City is also reducing water consumption at its most recent spray park by utilizing a filtration system which recirculates the water, recycling 2,500 gallons of water from a holding tank. The system incorporates a sand filter and water is treated with chlorine similar to management of swimming pools. To create a healthier environment for wildlife and humans, the City has undertaken an initiative to reduce and ultimately eliminate the use of toxic chemicals in city parks and playgrounds. One such initiative began in 2021 with utilization of eco-friendly Foamstream technology which removes unwanted vegetation with application of hot water insulated by a specially formulated biodegradable and organic foam. The City is also trialing a reduction in the use of plastics through the installation of a water bottle refill station in an Allentown park. Premised upon the positive feedback from park users, a second site, currently under construction, includes a similar installation. To address reduction of greenhouse gases, efforts began in 2021 to replace gas-powered hand tools with electric-powered equipment for use in City parks. In addition, a pilot program is currently in process to determine the viability and impact of solar lighting usage as part of trail design.

Describe how climate-related issues have impacted your jurisdiction's master/development planning

Climate-related issues were woven throughout the city's 2030 Master Plan, particularly in its Living Systems section. The plan includes energy efficiency programs and policies including for municipal buildings. The plan recommends review of zoning ordinance to incorporate high-performance building policies and aligning with floodplains. The plan also includes safe and efficient transportation, enabling alternative mobility choices, and developing climate action and resilience plans that integrate with regional plans. In addition, the City's Parks master planning process includes significant measures to address stormwater reduction, enhancement of tree canopies, plantings of native vegetation, while aligning efforts to reduce maintenance requirements as a means to reduce greenhouse gas emissions. Such efforts are exemplified in completion of the City's Percy Ruhe Park Development Plan.

Describe how climate-related issues have impacted your jurisdiction's financial planning

The City's financial planning has been impacted primarily in fleet, facilities, and streets. In anticipation of carbon neutrality requirements in the coming years, the City must look to gradually transition its vehicles and equipment towards lower carbon emitting options. Furthermore, the City must look to modernize its aging facilities with the aim of reducing emissions, while also maintaining a comfortable work environment amidst rising temperatures. Both of the aforementioned are substantial capital acquisition and improvement burdens, which, nevertheless, must be planned for. Additionally, if, as we anticipate, our reliance on liquid fuels excise taxes, which funds streets maintenance and snow removal, is undercut by a transition away from fossil fuels, the City anticipates the need to plan for alternative financial planning to cover these costs. In 2018, the City created an enterprise fund through implementation of a Stormwater Utility fee which established an adequate, sustainable, and dedicated revenue source to fund operating costs and infrastructure capital planning.

Describe the risks to your jurisdiction related to the transition to a low-carbon economy

The primary risk relates to retraining and retooling city employees, implementing new processes and modifying facilities to accommodate low-emissions vehicles and buildings.

(0.3) Report how your jurisdiction assesses the wider environmental, social and economic opportunities and benefits of climate action.

Response

Does the jurisdiction assess the wider opportunities/benefits of climate action?

Intending to assess wider opportunities/benefits of all climate actions in the next 2 years

Outline how your jurisdiction quantifies the impact of these wider opportunities/benefits

<Not Applicable>

Describe the wider opportunities/benefits of climate action the jurisdiction has identified

Outline if and how your jurisdiction ensures the equitable distribution of climate action opportunities/benefits

Yes, the jurisdiction is engaging with frontline communities most impacted by climate change

Yes, the jurisdiction is designing or implementing climate actions that address the needs of frontline communities most impacted by climate change

Please provide evidence and/or more details of how your jurisdiction is ensuring inclusive/equitable climate action

The City has established a stormwater fee and credit program which incentivizes installation of green roofs and reduction of paved areas, further reducing UHI. The City is in the process of developing a Stormwater Community Engagement Program. Allentown residents and businesses will be able to apply for City funding to implement projects that will reduce the pollution of stormwater and ultimately improve the water quality of our streams and rivers. The goal of the program is to provide an incentive for the community to voluntarily implement stormwater stewardship practices that will help the City meet long-term water quality targets. Under the program, the City will pay a portion (and sometimes all) of the cost for a property owner to install approved practices that reduce pollution and flooding. Additionally, this program allows for funding to allow for the development of educational outreach opportunities for the community to include residents and school children. One type of outreach activity, for example, includes rain barrel giveaways. As part of its protocol under the Public Outreach Program, the Stormwater Bureau identifies groups and tracks all outreach activities and the metrics involved with each to include surveys and distributed materials. Additionally, the City actively pursues environmental grants from the PA Department of Environmental Protection which are awarded based upon a project ranking system which promotes projects planned in Environmental Justice Areas. As defined by the state, an Environmental Justice Area is any census tract where 20 percent or more individuals live at or below the federal poverty line, and/or 30 percent or more of the population identifies as a non-white minority, based on data from the U.S. Census Bureau and the federal guidelines for poverty. The City also continues to plant native trees in marginalized communities and aims to ensure that a park or green space is within a 10-minute walk of every community. The National Recreation and Parks Association, Trust for Public Land, the Urban Land Institute in cooperation with the US Conference of Mayors created a "10-Minute Walk" campaign, with a goal to establish a park or green space within a ½-mile (10-minute walk) of every community. Through research and analysis undertaken in 2021, 22 neighborhoods were identified and the City met this challenge with one exception. The goal is to identify greenspace opportunity for that neighborhood. Of paramount significance was that the urban core comprised of majority minority populations had abundant green spaces. In addition, the city's environmental advisory council has established environmental justice as a focus area and has been working with interns at Muhlenberg College and Lehigh University to develop programs addressing the disparate impacts of climate change on marginalized communities. These include studies of tree equity and energy efficiency programs for low-income housing. The Allentown EAC is also working with Promise Neighborhoods Lehigh Valley to establish a civilian climate corps in the City of Allentown to undertake projects focused on workforce development and crime reduction through environmental design <https://www.allentownpa.gov/Portals/0/files/AuthsBdsComms/EnvironActionComm/EAC2022Goals2.pdf>

(0.4) Report on your engagement with higher and/or lower levels of governments regarding your jurisdiction's climate action.

Climate component

Climate risk and vulnerability assessment

Level of governments engaged in the development, implementation and/or monitoring of component

State/Regional-level government

Outline the purpose of this engagement

To collect data and/or feedback from other levels of government to inform its development

To facilitate information sharing across different levels of government

To facilitate capacity building across different levels of government

To facilitate the integration of this component into assessments and policy developed across different levels of government

Comment

The City of Allentown is working with the Lehigh Valley Planning Commission on a regional climate action plan which will include regional climate risks and vulnerability assessments

(0.5) Report your jurisdiction's most significant examples of collaboration with government, business, and/or civil society on climate-related issues.

Primary entity collaborated with

Business	Energy
----------	--------

Mechanisms used to collaborate

Collaborative initiative

Project implementation and management

Areas collaboration focused on

Building and Infrastructure

Description of collaboration

The City has a Cost Share Agreement with UGI that allows the City to achieve complete street upgrades, ADA access to sidewalks, etc. for work done through the UGI gas line replacement program to enhance sustainability at a lower cost.

Other entities collaborated with

Please select

Primary entity collaborated with

Civil society	Residents
---------------	-----------

Mechanisms used to collaborate

Collaborative initiative

Financing (investment)

Areas collaboration focused on

Water

Description of collaboration

The City created a Green Stormwater Infrastructure (GSI) Committee to develop the City's Stormwater Utility Credits and Incentives Policy. Local neighborhood group leaders participated in this process. Through the use of a tiered system, the policy promotes the voluntary installation of bmps which provide more efficient treatment of stormwater above and beyond land development/ Chapter 102 requirements. The credit program is a means for the City to partner with property owners, developers, institutions and industry to meet our pollution reduction goals for impairments due to sediment. The City is in the process of developing a Community Engagement Program. Allentown residents and businesses will be able to apply for City funding to implement projects that will reduce the pollution of stormwater and ultimately improve the water quality of our streams and rivers. The goal of the program is to provide an incentive for the community to voluntarily implement stormwater stewardship practices. The City will pay a portion (and sometimes all) of the cost for a property owner to install approved practices that reduce pollution and flooding. Metrics are tracked as data is calculated for all voluntarily installed BMPs which reduce pollutants as measured in pounds per year. Additionally, this program provides funding to allow for the development of educational outreach opportunities. One type of outreach activity, for example, includes rain barrel giveaways. As part of its protocol under the Public Outreach Program, the Stormwater Bureau identifies groups and tracks all outreach activities and the metrics involved with each to include surveys and distributed materials. The City hired a Stormwater Education Manager who routinely provides outreach at schools, colleges, residential meetings and for anyone who requests a class or field activity through the website.

Other entities collaborated with

Other, please specify (Businesses)

Primary entity collaborated with

Government	Other, please specify (Lehigh County Authority)
------------	---

Mechanisms used to collaborate

Collaborative initiative

Areas collaboration focused on

Building and Infrastructure

Description of collaboration

The City and Lehigh County Authority have an agreement to coordinate the City Streets program with LCA's water pipeline replacement projects, allowing the City to achieve complete street upgrades (e.g. complete repaving from curb to curb, repaired stormwater infrastructure attributes, ADA access to sidewalks, etc.) to enhance sustainability at a lower cost

Other entities collaborated with

Please select

Primary entity collaborated with

Government	Local government within country
------------	---------------------------------

Mechanisms used to collaborate

Collaborative initiative

Areas collaboration focused on

Water

Description of collaboration

The City has actively worked with leaders in neighboring municipalities to address pollution and flooding issues. Our managers participate in quarterly MS4 Roundtable meetings with the Lehigh County Conservation District and a number of communities in Lehigh and Northampton Counties.

Other entities collaborated with

Please select

Primary entity collaborated with

Civil society	NGO and associations
---------------	----------------------

Mechanisms used to collaborate

Collaborative initiative
Knowledge or data sharing

Areas collaboration focused on

Education

Description of collaboration

The City's Parks and Recreation Director works with local environmental organizations such as Wildlands, and Lehigh Gap Nature Center to provide environmental education programs in the City's Summer in the Parks program and other venues.

Other entities collaborated with

Education sector

Assessment

1. Climate Risk and Vulnerability

(1.1) Has a climate risk and vulnerability assessment been undertaken for your jurisdiction? If not, please indicate why.

No, but we are intending to undertake one in the next two years

(1.2) Provide details on the most significant climate hazards faced by your jurisdiction.

Climate-related hazards^

Heavy precipitation

Vulnerable population groups most exposed

Women and girls

Children and youth

Elderly

Marginalized/minority communities

Low-income households

Other, please specify (Potential sewage system overflows due to high water volumes overwhelming the wastewater treatment facilities)

Sectors most exposed^

Sewerage, waste management and remediation activities

Conservation

Transportation and storage

Human health and social work activities

Describe the impacts on vulnerable populations and sectors^

Increasingly severe rainstorms are causing more water runoff problems and floods that damage property, roads and other infrastructure; and degrade water quality.

PaDEP's 2022 Integrated Water Quality Report listed all stream segments of four streams as impaired for sediment. Surface water constitutes 50% of Allentown's drinking water, making it more expensive to treat source water. Additionally, the City's sanitary sewer system is increasingly stressed from high rainfall events.

Proportion of the population exposed to the hazard

90-100%

Did this hazard significantly impact your jurisdiction before this reporting year?

Yes

Current probability of hazard^

High

Current magnitude of impact of hazard^

Medium

Expected future change in hazard intensity^

Increasing

Expected future change in hazard frequency^

Increasing

Timeframe of expected future changes^

Short-term (by 2025)

Climate-related hazards^

Extreme heat

Vulnerable population groups most exposed

Women and girls

Children and youth

Elderly

Marginalized/minority communities

Low-income households

Sectors most exposed^

Human health and social work activities

Describe the impacts on vulnerable populations and sectors^

Increasing temperatures are expected to cause increases in vector-borne illness, increased risk of respiratory disease, heart disease, airborne allergies and death

Proportion of the population exposed to the hazard

70-80%

Did this hazard significantly impact your jurisdiction before this reporting year?

No

Current probability of hazard^

Medium

Current magnitude of impact of hazard^

Medium

Expected future change in hazard intensity^

Increasing

Expected future change in hazard frequency^

Increasing

Timeframe of expected future changes^

Medium-term (2026-2050)

Climate-related hazards^

Snow and ice

Vulnerable population groups most exposed

Women and girls

Children and youth

Elderly

Marginalized/minority communities

Low-income households

Sectors most exposed^

Administrative and support service activities

Transportation and storage

Human health and social work activities

Describe the impacts on vulnerable populations and sectors^

Very heavy snowfalls are disrupting transportation systems, adversely impacting public transportation, the City's delivery of services, as well as businesses and residents in the City that rely on functioning roadways.

Proportion of the population exposed to the hazard

70-80%

Did this hazard significantly impact your jurisdiction before this reporting year?

Yes

Current probability of hazard^

Medium

Current magnitude of impact of hazard^

Medium

Expected future change in hazard intensity^

Increasing

Expected future change in hazard frequency^

Increasing

Timeframe of expected future changes^

Short-term (by 2025)

Climate-related hazards^

Please select

Vulnerable population groups most exposed

<Not Applicable>

Sectors most exposed^

<Not Applicable>

Describe the impacts on vulnerable populations and sectors^

<Not Applicable>

Proportion of the population exposed to the hazard

<Not Applicable>

Did this hazard significantly impact your jurisdiction before this reporting year?

<Not Applicable>

Current probability of hazard^

<Not Applicable>

Current magnitude of impact of hazard^

<Not Applicable>

Expected future change in hazard intensity^

<Not Applicable>

Expected future change in hazard frequency^

<Not Applicable>

Timeframe of expected future changes^

<Not Applicable>

(1.3) Identify and describe the most significant factors impacting on your jurisdiction's ability to adapt to climate change and indicate how those factors either support or challenge this ability.

Factors that affect ability to adapt^	Degree to which this factor challenges/supports the adaptive capacity of your jurisdiction^	Describe how the factor supports or challenges the adaptive capacity of your jurisdiction^
Access to basic services	Challenges Moderately challenges	The City may face difficulties to provide basic trash and recycling collection services during extreme winter weather/storm events.
Access to education	Challenges Moderately challenges	Many Allentown schools have no air conditioning. With increasing temperatures it will become increasingly difficult for students to be in an environment conducive to education.
Budgetary capacity	Challenges Significantly challenges	The increasing costs to address the needed infrastructure improvements to address increased and more severe weather events will be a challenge on the city's budget
Cost of living	Challenges Moderately challenges	Extreme weather events will increase heating and cooling bills and can cause increased property damage and increased insurance premiums for residents
Infrastructure conditions / maintenance	Challenges Significantly challenges	Extreme weather events will increase maintenance costs for the City's parks, roads, water and sewer and other infrastructure.
Please select	Please select	

2. Emissions Inventory

Emissions Inventory Methodology

(2.1) Does your jurisdiction have a community-wide emissions inventory to report?

Yes

(2.1a) Provide an attachment (in spreadsheet format) or a direct link to your community-wide emissions inventory. In addition, select the inventory year and report the jurisdiction's population for that year.

	Community-wide inventory attachment (spreadsheet) and/or link (with unrestricted access)^	Status of community-wide inventory attachment and/or direct link	Inventory year^	Population in inventory year^	Comment
Response	https://www.allentownpa.gov/Portals/0/files/AuthsBdsComms/EnvironActionComm/Greenhouse%20Gas%20Inventory%20Report.pdf?ver=SoXbVh4mww7qxH_Rqa_0Pw%3d%3d	The emissions inventory has been attached	2018	121433	

(2.1b) Provide the following information regarding your latest community-wide GHG emissions inventory.

Boundary of inventory relative to jurisdiction boundary^

Same - covers entire jurisdiction and nothing else

Primary methodology/framework to compile inventory

U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions (ICLEI USA)

Tool used to compile inventory

ClearPath

Gases included in inventory^

CO2

CH4

N2O

Source of Global Warming Potential values

Do not know

Has the inventory been audited/verified?

<Not Applicable>

Overall level of data quality

<Not Applicable>

Has the methodology and/or boundary used for this inventory changed when compared to the previously reported inventory?

<Not Applicable>

Additional documentation and comments

<Not Applicable>

Emissions Inventory Data

(2.1c) Provide a breakdown of your community-wide emissions by scope. If the inventory has been developed using the Global Protocol for Community Greenhouse Gas Emissions Inventories (GPC) you will also be requested to provide a breakdown by sector.

	Emissions (metric tonnes CO2e)	If you have no emissions to report, please select a notation key to explain why	Level of data quality for sector and scope	Comment
Total Scope 1 emissions (excluding generation of grid-supplied energy)	2402569	Please select	Activity data - Medium data quality Emissions factors - High data quality	This includes scope 1 and scope 2 which were not broken out. Transportation emissions were calculated using PennDOT data. EPA emission factors were used for off-road vehicles
Scope 1 emissions from generation of grid-supplied energy		Please select	Please select	
Total Scope 2 emissions		Please select	Please select	
Total Scope 3 emissions		Please select	Please select	Scope 3 emissions were not calculated
Stationary Energy: energy use – Scope 1	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Stationary Energy: energy use – Scope 2	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Stationary Energy: energy use – Scope 3	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transportation – Scope 1	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transportation – Scope 2	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transportation – Scope 3	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Waste: waste generated within the city boundary – Scope 1	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Waste: waste generated within the city boundary – Scope 3	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Waste: waste generated outside the city boundary – Scope 1	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Industrial Processes and Product Use – Scope 1	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Agriculture, Forestry and Land Use – Scope 1	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
TOTAL BASIC emissions	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
TOTAL BASIC+ emissions	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>

(2.1e) Provide a breakdown of your community-wide emissions by sector.

Sector	Sub-sector	Scope	Emissions (metric tonnes CO2e)	Comment
Transportation and other mobile sources	Transportation	Scope 1 and 2	1350888	
Solid waste	Waste	Scope 1 and 2	64254	Scopes 1 and 2 were combined
Built environment	Residential buildings	Scope 1 and 2	388977	Scopes 1 and 2 were combined
Built environment	Industrial buildings	Scope 1 and 2	179079	Scopes 1 and 2 were combined
Built environment	Commercial buildings	Scope 1 and 2	411503	Scopes 1 and 2 were combined
Wastewater and water	Other, please specify (Potable water)	Scope 1 and 2	3312	This is based on electricity useage for supplying potable water and is also counted in the industrial energy use number
Wastewater and water	Wastewater	Scope 1 and 2	4262	This is based on electricity useage for wastewater operations and is also counted in the industrial energy use number
Please select	Please select	Please select		

3. Sector Assessment Data

Energy Data

(3.1) Report the total annual electricity and heating and cooling consumption data (in MWh) and the percentage breakdown of this consumption by energy type for your jurisdiction.

Electricity consumption

Total annual jurisdiction-wide consumption in MWh

3523294

Data source used to provide percentage breakdown of consumption by energy type

Jurisdiction-level data

Percentage of total consumption from coal

0

Percentage of total consumption from gas

31.64

Percentage of total consumption from oil

4.69

Percentage of total consumption from nuclear

0

Percentage of total consumption from hydropower

0

Percentage of total consumption from bioenergy (biomass and biofuels)

0.1

Percentage of total consumption from wind

0

Percentage of total consumption from geothermal

0

Percentage of total consumption from solar (PV and thermal)

0

Percentage of total consumption from waste to energy (excluding biomass component)

0

Percentage of total consumption from other renewable sources

0

Percentage of total consumption from other non-renewable sources

0.29

Year data applies to

2018

Comment

The biofuels percentage is for wood stoves. The other nonrenewable is propane.

Heating and cooling consumption

Total annual jurisdiction-wide consumption in MWh

Data source used to provide percentage breakdown of consumption by energy type

Percentage of total consumption from coal

<Not Applicable>

Percentage of total consumption from gas

<Not Applicable>

Percentage of total consumption from oil

<Not Applicable>

Percentage of total consumption from nuclear

<Not Applicable>

Percentage of total consumption from hydropower

<Not Applicable>

Percentage of total consumption from bioenergy (biomass and biofuels)

<Not Applicable>

Percentage of total consumption from wind

<Not Applicable>

Percentage of total consumption from geothermal

<Not Applicable>

Percentage of total consumption from solar (PV and thermal)

<Not Applicable>

Percentage of total consumption from waste to energy (excluding biomass component)

<Not Applicable>

Percentage of total consumption from other renewable sources

<Not Applicable>

Percentage of total consumption from other non-renewable sources

<Not Applicable>

Year data applies to

<Not Applicable>

Comment

Heating and cooling consumption was not separately calculated.

(3.1a) Report the total jurisdiction-wide annual electricity and heating and cooling consumption for each sector listed and for your government operations.

	Electricity consumption (MWh)	Heating and cooling consumption (MWh)	Year data applies to	Comment
Household/residential sector (Buildings)	767752		2018	Heating and cooling consumption was not separately calculated
Commercial and public services sector	1081696		2018	Heating and cooling consumption was not separately calculated
Industrial sector	142482		2018	Heating and cooling consumption was not separately calculated
Agricultural sector	906		2018	Heating and cooling consumption was not separately calculated
Transport sector			Please select	Transportation sector was assumed to not operate on electricity
Government operations			Please select	Energy for government operations was not separately calculated
Other			Please select	

(3.2) For each type of renewable energy within the jurisdiction boundary, report the installed capacity (MW) and annual generation (MWh).

	Installed capacity (MW)	Annual generation (MWh)	Year data applies to	Comment
Solar PV			Please select	
Solar thermal			Please select	
Hydropower			Please select	
Wind			Please select	
Bioenergy (Biomass and Biofuels)	1.5	4991	2021	Allentown in partnership with PPL installed a 390 kw combined heat and power plant at its sewage treatment plant in 2001
Geothermal			Please select	
Other			Please select	

(3.3) Report the following energy access related information for your jurisdiction.

Indicator and metric used		Indicator value	Year data applies to	Comment
Access to electricity	Percentage of jurisdiction population with access to electricity	100	2021	Everyone within the City has access to electricity
Duration of available or unavailable electricity	Number of hours electricity is available per day (hours/day)	24	2021	Electricity is available 24 hours per day 7 days a week.
Annual energy consumption per capita	MWh per person	29	2018	2018 is the baseline year for the City's greenhouse gas inventory
Please select		<Not Applicable>	<Not Applicable>	

(3.4) How many households within the jurisdiction boundary face energy poverty? Select the threshold used for energy poverty in your jurisdiction.

	Indicator used to quantify energy poverty	Percentage of households or total population within the jurisdiction boundary that face energy poverty	Threshold used for energy poverty	Comment
Response	Energy poverty not quantified	<Not Applicable>	<Not Applicable>	

Transport Data

(3.5) Report your jurisdiction's passenger and/or freight mode share data.

Please complete

Passenger mode share data to report

Jurisdiction does not have passenger mode share data

Passenger mode share: Walking

<Not Applicable>

Passenger mode share: Cycling

<Not Applicable>

Passenger mode share: Micromobility (including e-scooters)

<Not Applicable>

Passenger mode share: Buses (including Bus Rapid Transit)

<Not Applicable>

Passenger mode share: Rail/Metro/Tram

<Not Applicable>

Passenger mode share: Ferries/ River boats

<Not Applicable>

Passenger mode share: Taxis or shared vehicles (e.g. hire vehicles)

<Not Applicable>

Passenger mode share: Private motorized transport

<Not Applicable>

Passenger mode share: Other

<Not Applicable>

Total passenger mode share reported

<Not Applicable>

Freight mode share data to report

Jurisdiction does not have mode share data for freight transport

Freight mode share: Motorcycle / Two wheeler

<Not Applicable>

Freight mode share: Light Goods Vehicles (LGV)

<Not Applicable>

Freight mode share: Medium Goods vehicles (MGV)

<Not Applicable>

Freight mode share: Heavy Goods vehicles (HGV)

<Not Applicable>

Freight mode share: Rail

<Not Applicable>

Freight mode share: Inland water transport

<Not Applicable>

Freight mode share: Other

<Not Applicable>

Total freight mode share reported

<Not Applicable>

Comment

The annual VMT for private motorized transport includes all passenger vehicles, including taxis that we allocated to the City of Allentown based on PennDOT data and the City's population in 2018. The annual VMT for buses includes other heavy trucks. The total VMT on which the percentages are based also includes light-duty trucks and motorcycles. Only emission-producing modes of transport were evaluated, so the percentages do not include walking, biking, etc.

Waste Data

(3.7) Report the following waste-related data for your jurisdiction.

	Data availability	Response (in unit specified)	Comment
Amount of solid waste generated (tonnes/year)	Reporting jurisdiction-level data	40191	This figure is based on curbside collection only and does not include waste generated by commercial and industrial operations that contract for their own waste hauling
Percentage of the solid waste generated that is diverted away from landfill or incineration (%)	Reporting jurisdiction-level data	25	This includes yard waste
Percentage of the diverted solid waste generated that is recycled (%)	Reporting jurisdiction-level data	20	This includes waste that is taken by residents and others to the Allentown Recycling drop-off center
Percentage of the diverted solid waste generated that is utilized for waste to energy (%)	Reporting jurisdiction-level data	0	
Percentage of the diverted solid waste generated that is reused (%)	Reporting jurisdiction-level data	5	This includes yard waste (used for mulch), clothing and textiles
Percentage of waste collected where separation at source is taking place (%)	Reporting jurisdiction-level data	25	
Total annual amount of food waste produced in the jurisdiction (tonnes/year)	This data is not available to report	<Not Applicable>	
Volume of wastewater produced within the jurisdiction boundary (megalitres/year)	Reporting jurisdiction-level data	22466.41	
Percentage of wastewater safely treated to at least secondary level (%)	Reporting jurisdiction-level data	99.99	All flow has secondary treatment except for a bypass due to extreme wet weather

Public Health Data

(3.8) Report on how climate change impacts health outcomes and health services in your jurisdiction.

Health area affected by climate change

Health outcomes

Identify the climate hazard(s) that most significantly impact the selected health area

- Heat stress
- Extreme heat
- Extreme cold
- Urban flooding
- River flooding
- Hurricanes/ cyclones/ typhoons
- Extreme wind
- Storm
- Heavy precipitation
- Infectious disease
- Air pollution

Identify the health issues driven by the selected climate hazard(s)

- Heat-related illnesses
- Cold-related illnesses
- Vector-borne infections and illnesses
- Water-borne infections and illnesses
- Food-borne infections and illnesses
- Exacerbation of non-communicable disease symptoms - respiratory disease
- Exacerbation of non-communicable disease symptoms - cardiovascular disease
- Exacerbation of non-communicable disease symptoms - other
- Mental health impacts
- Direct physical injuries and deaths due to extreme weather events
- Disruption to water, sanitation and wastewater services

Timeframe of impact

Medium-term (2026-2050)

Identify which vulnerable populations are affected by the selected health issue(s)

- Women and girls
- Children and youth
- Elderly
- Marginalized / minority communities
- Vulnerable health groups
- Low-income households
- Outdoor workers
- Frontline workers

What factors affect your jurisdiction's ability to address the selected health issues

Lack of financial capacity and expertise/technical capacity

Comment

The City does not have a sustainability manager and has not yet garnered the needed resources to begin climate action planning of its own, having chosen instead to participate in regional climate action planning led by the Lehigh Valley Planning Commission. The city does intend to begin its own climate action planning this year.

(3.9) Provide information on the current impact of the COVID-19 pandemic on climate action in the jurisdiction.

Response

Impact of COVID-19 on the implementation of climate action policies in your jurisdiction

Decreased emphasis on climate action

Impact of COVID-19 economic response on jurisdiction's budget for financing climate action in your jurisdiction

Other, please specify (The City did have increased costs due to an increase in trash and recycling collections resulting from COVID-19 stay at home orders during 2020 which the City was able to recover through COVID funds)

Climate-related impact of COVID-19 recovery interventions

- Recovery interventions that develop or strengthen universal social protection systems that enhance resilience to shocks, including climate change
- Recovery interventions that develop or strengthen health/health care services in your jurisdiction that enhance resilience to shocks, including climate change
- Recovery interventions that increase investment in Water, Sanitation, and Hygiene (WASH) services, facilities and/or infrastructure
- Recovery interventions that boost public and sustainable transport options
- Recovery interventions that build out broadband and internet services to those with inadequate access
- Recovery interventions which increase the quality and quantity of access to urban green spaces and channel investment into green infrastructure and nature-based solutions for the benefit of all
- Recovery interventions that support the preservation and restoration of natural environments
- Recovery interventions that target marginalised group

Comment

Allentown has received ARPA funding that it intends to spend in ways that would benefit its communities, including marginalized communities, and invest in Allentown's future.

(3.11) Provide details of the household access to water, sanitation services and water consumption in your jurisdiction.

Response

Data availability

- Data is available for the percentage of households with access to safely managed drinking water services
- Data is available for the percentage of households with access to safely managed sanitation services
- Data is available for the average household water consumption in litres per capita per day

Percentage of households with access to safely managed drinking water services

100

Percentage of households with access to safely managed sanitation services

100

Household water consumption (litres/capita/day)

243.95

Comment

This is total potable water sales per capita per day, including the City's residential , commercial and industrial customers

Food data

(3.12) What percentage of your population is food insecure and/or lives in a food desert?

	Data availability	Percentage of population that is food insecure	Percentage of population that lives in a food desert	Comment
Response	No data available for the percentage of population that is food insecure/lives in a food desert	<Not Applicable>	<Not Applicable>	

Targets

4. Adaptation Goals

(4.1) Does your jurisdiction have an adaptation goal(s) in place? If no adaptation goal is in place, please indicate the primary reason why.

Yes, our jurisdiction has an adaptation goal(s)

(4.1a) Report your jurisdiction's main adaptation goals.

Select a reference ID for the goal

Adaptation goal 1

Adaptation goal^

Reduce Sewer System Overflows

Climate hazards that goal addresses^

Heavy precipitation

Base year of goal (or year goal was established if no base year)^

2020

Target year of goal^

2025

Description of metric / indicator used to track goal^

Inspect at least 55,000 linear feet of the sewage collection system annually and implement repairs accordingly, and treat 40,000 - 50,000 linear feet for root intrusion

Comment

Inflow and infiltration (I&I) from significant precipitation, snowmelt, and elevated groundwater levels contribute to extraneous flows. City sewage is conveyed by gravity to its treatment plant. Velocities within most of the gravity collection system are slow for a significant amount of the time and result in the settling of materials. This settling causes blockages. The problem is compounded by customers improperly disposing of materials, principally fats, oils, and grease (FOG), which congeal and promote blockages. Tree roots are also responsible for blockages. SSOs, which are caused by blockages typically, occur within smaller diameter pipes. In order to address the concerns above, the sewer system operator (LCA) developed a Collection System Inspection and Maintenance Plan (CSIMP) in compliance with the Lease to provide a systematic approach for inspecting, televising, cleaning, and flushing the collection system. The CSIMP includes daily, weekly, and monthly preventative maintenance to flush and jet areas where blockages are known or anticipated to occur. Additional collection system areas are added to the preventative maintenance program based on inspections and televising the lines.

Select a reference ID for the goal

Adaptation goal 2

Adaptation goal^

Increase the resilience of the City's stormwater infrastructure to prevent or mitigate the impacts of flooding

Climate hazards that goal addresses^

Urban flooding

River flooding

Heavy precipitation

Base year of goal (or year goal was established if no base year)^

2020

Target year of goal^

2025

Description of metric / indicator used to track goal^

Inspect and repair approximately 200 stormwater inlets per year; clean 1000 inlets per year; inspect 80,000 linear feet and line 5000 linear feet of stormwater pipes per year; inspect and repair 190 public and private stormwater detention and treatment facilities per year.

Comment

Initiatives include implementing a voluntary stream monitoring program, establishing new, and upgrading existing, Best Management Practices (BMPs), prioritizing areas for future stormwater treatment retrofit projects, and involving volunteers and students in our monitoring efforts.

5. Mitigation Targets

(5.1) Does your jurisdiction have an active greenhouse gas emission reduction target(s) in place? If no active GHG emissions reduction target is in place, please indicate the primary reason why.

No, but we are planning to introduce a target in the next two years

6. Sector Targets

(6.1) Provide details of your jurisdiction's energy-related targets active in the reporting year. In addition, you can report other climate-related targets active in the reporting year.

Target type

Energy efficiency targets	Reduction in energy consumption (jurisdiction-wide)
---------------------------	---

Target description

The city has converted 100% of cobra-headed lights to LED as of 2021. All pedestrian style street lights are planned to be converted to LED by 2024.

Boundary of target relative to jurisdiction boundary

Same - covers entire jurisdiction and nothing else

Year target was established

2015

Base year

2015

Metric used to measure target (renewable energy or energy efficiency target)

Please select

Metric used to measure target

Percentage of lights converted

Metric value in base year

Target year

2024

Metric value in target year

100

Metric value in most recent year data is available

Percentage of total energy that is renewable in target year

<Not Applicable>

Is this target publicly available?

Yes, provide link/attachment (https://www.allentownpa.gov/Portals/0/files/PublicWorks/Projects/2015/LEDStreetLightConversion_Fall2015.pdf)

Comment

Planning

7. Planning

Climate Action Planning

(7.1) Does your jurisdiction have a climate action plan or strategy?

No, but we are intending to undertake one in the next two years

Sector Action Planning

(7.2) Report details on the other climate-related plans, policies and/or strategies in your jurisdiction.

Area of plan and/or strategy

Other, please specify (Stormwater management)

Attachment/ link and name of plan

Stormwater Management Program <https://www.allentownpa.gov/Public-Works/Stormwater-Program/Green-Gray-Stormwater-Infrastructure-Projects>

Current status of plan

In implementation

Boundary of plan relative to jurisdiction boundary

Same – covers entire jurisdiction and nothing else

Year of formal approval of plan

2020

End of year plan

2025

Comment

The City's Stormwater Management Program is comprised of many elements to reduce runoff volume, pollution and localized flooding, while promoting public safety and improving the water quality of the streams and the Lehigh River which flow through Allentown. Long-range goals of the program include upgrading or replacing aged infrastructure, understanding and addressing stream impairments, and educating and partnering with the community. A stormwater utility fee has been implemented following extensive public outreach conducted at neighborhood meetings throughout the City with the assistance of local group leaders. A voluntary group of community members and local business leaders formed a Green Stormwater Infrastructure (GSI) committee. The Committee developed the City's Credit and Incentive Program which uses a tiered system to promote the voluntary installation of bmps that provide more efficient treatment of stormwater and go above and beyond land development/ Chapter 102 requirements.

Area of plan and/or strategy

Green infrastructure

Attachment/ link and name of plan

<https://www.allentownpa.gov/Portals/0/files/PublicWorks/Compliance/CreditProgramApplicationInstructions.pdf?ver=2018-06-28-151500-863>

Current status of plan

In implementation

Boundary of plan relative to jurisdiction boundary

Same – covers entire jurisdiction and nothing else

Year of formal approval of plan

2021

End of year plan

2030

Comment

The City has implemented a Green Stormwater Infrastructure Credits and Incentives Program. Through the use of a tiered system, the policy promotes the voluntary installation of bmps which provide more efficient treatment of stormwater above and beyond land development/ Chapter 102 requirements

Finance

(7.4) Describe any planned climate-related projects within your jurisdiction for which you hope to attract financing.

Project area

Please select

Project title

<Not Applicable>

Stage of project development

<Not Applicable>

Status of financing

<Not Applicable>

Identified financing model

<Not Applicable>

Project description and attach project proposal

<Not Applicable>

Total cost of project (in currency specified in 0.1)

<Not Applicable>

Total investment cost needed if relevant (in currency specified in 0.1)

<Not Applicable>

(7.5) Report the factors that support climate-related investment and financial planning in your jurisdiction.

Response

Mechanisms used by jurisdiction to access finance for climate-related projects

- Jurisdiction's own funds and budgetary means
- Jurisdiction borrows from national government
- Jurisdiction accesses finance from national government funds, grants etc.
- Jurisdiction issues municipal bonds
- Jurisdiction accesses finance from public-private partnerships

Comment

In addition the foregoing financing mechanisms, Allentown finances capital projects within its Neighborhood Improvement Zone through NIZ taxes, and funds its stormwater management program (including abatement, water quality testing and awareness) through a stormwater fee.

Credit rating of jurisdiction

Jurisdiction has a domestic credit rating

Comment

Decarbonising jurisdiction's investments

Comment

Actions

8. Adaptation Actions

(8.1) Describe the outcomes of the most significant adaptation actions your jurisdiction is currently undertaking. Note that this can include those in the planning and/or implementation phase.

Action^

Government policies and programs actions	Community-based adaptation
--	----------------------------

Climate hazard(s) that action addresses^

Heavy precipitation

Action description and web link to further information^

The City's Stormwater Management Program is comprised of many elements to reduce runoff volume, pollution and localized flooding, while promoting public safety and improving the water quality of the streams and the Lehigh River which flow through Allentown. Long-range goals of the program include upgrading or replacing aged infrastructure, understanding and addressing stream impairments, and educating and partnering with the community. A stormwater utility fee has been implemented following extensive public outreach conducted at neighborhood meetings throughout the City with the assistance of local group leaders. A voluntary group of community members and local business leaders formed a Green Stormwater Infrastructure (GSI) committee. The Committee developed the City's Credit and Incentive Program which uses a tiered system to promote the voluntary installation of bmps that provide more efficient treatment of stormwater and go above and beyond land development/ Chapter 102 requirements. The City is in the process of developing a Community Engagement Program. Allentown residents and businesses will be able to apply for City funding to implement projects that will reduce the pollution of stormwater and ultimately improve the water quality of our streams and rivers. The goal of the program is to provide an incentive for the community to voluntarily implement stormwater stewardship practices that will help the City meet long-term water quality targets. Under the program, the City will pay a portion (and sometimes all) of the cost for a property owner to install approved practices that reduce pollution and flooding. Metrics are tracked as data is calculated for all voluntarily installed BMPs which reduce pollutants as measured in pounds per year. Additionally, this program allows for funding to allow for the development of educational outreach opportunities for the community to include residents and school children. One type of outreach activity, for example, includes rain barrel giveaways. As part of its protocol under the Public Outreach Program, the Stormwater Bureau identifies groups and tracks all outreach activities and the metrics involved with each to include surveys and distributed materials.

Sectors adaptation action applies to^

Real estate activities

Co-benefits realised^

- Reduced costs
- Reduced natural resource depletion
- Reduced disruption of energy, transport, water or communications networks
- Improved road safety
- Increased security/protection for poor/vulnerable populations
- Improved education and public awareness on climate issues
- Protected/improved biodiversity and ecosystem services
- Other impacts from climate actions, please specify (Improved stream water quality)

Timeframe for which increased resilience is expected to last

Medium-term (2026-2050)

Proportion of the total jurisdiction population with increased resilience due to adaptation action

90-100%

Hectares (ha) of natural systems with increased resilience due to adaptation action

Funding source(s)

Other, please specify source(s) (Stormwater utility fee)

Status of action in the reporting year^

Implementation underway with completion expected in more than one year

Inclusion in climate action plan and/or jurisdiction development/master plan^

Action is included in climate action plan and/or development/master plan

Total cost of action (in currency specified in 0.1)

5800000

Action^

Government policies and programs actions	Development of targeted plan/program to address hazard(s) selected
--	--

Climate hazard(s) that action addresses^

Extreme heat
Snow and ice
Heavy precipitation

Action description and web link to further information^

In 2019 Allentown finalized its next 10-year comprehensive plan, titled "Allentown Vision 2030" which provides a strategic framework for the next decade of growth. The plan was developed with significant stakeholder engagement and input. It describes five Urban Systems as a comprehensive way to understand the City of Allentown, and to encompass many different forces and factors that make up the systems of the city. Under each system is a set of principles and policies, projects, and programs that will enhance these systems. The five Urban Systems are: Economic Development Housing Accessibility and Connectivity Services and Amenities Living Systems Under each Urban System, there is a list of Principles and corresponding actions under the principles. The Principles can be defined as the goals for each System. The actions that accompany each Principle detail how the goals will be accomplished. Climate components are woven into many portions of the plan, especially in the Living Systems section of the plan. These include a wide array of goals and principles to mitigate the City's climate impacts, increase climate resilience and adapt to the currently changing climate. The Plan provides a coordinated and collaborative approach for City Departments and Bureaus, our public, private, nonprofit, and institutional partners to work together on Plan implementation. Implementation of some elements (such as a comprehensive zoning review) has begun, but other elements will take more time. The project cost noted below is the cost of developing the comprehensive plan.

Sectors adaptation action applies to^

Sewerage, wastewater management and remediation activities
Conservation
Transportation and storage
Accommodation and food service activities
Information and communication
Real estate activities
Education
Human health and social work activities

Co-benefits realised^

Improved mobility and access
Increased social inclusion, equality and justice
Reduced GHG emissions

Timeframe for which increased resilience is expected to last

Medium-term (2026-2050)

Proportion of the total jurisdiction population with increased resilience due to adaptation action

90-100%

Hectares (ha) of natural systems with increased resilience due to adaptation action

Funding source(s)

Please select

Status of action in the reporting year^

Pre-feasibility study

Inclusion in climate action plan and/or jurisdiction development/master plan^

Please select

Total cost of action (in currency specified in 0.1)

200000

Action^

Engineered and built environment actions	Storm and wastewater management
--	---------------------------------

Climate hazard(s) that action addresses^

Heavy precipitation

Action description and web link to further information^

The City's Act 167 Stormwater Management Ordinance, Article 1387, was updated in 2007 to include Low Impact Development (LID) practices to include avoiding the introduction of impervious surfaces. In 2021, a policy decision was made to promote green roof installation through automatic removal of impervious surface associated with their footprint, despite storage capacity. Green roof installation is further promoted through the award of credits provided to reduce the utility fee. Additionally, the City promotes the reduction of impervious surface through its appeals process which allows for residents to reduce their stormwater fees by actively managing the impervious surface of their properties. The cost of this program is primarily incurred by the property owners.

Sectors adaptation action applies to^

Real estate activities

Co-benefits realised^

Business/technological innovation
Reduced natural resource depletion
Improved education and public awareness on climate issues

Reduced GHG emissions
Improved water/soil quality
Increased/improved green space
Protected/improved biodiversity and ecosystem services

Timeframe for which increased resilience is expected to last

Medium-term (2026-2050)

Proportion of the total jurisdiction population with increased resilience due to adaptation action

90-100%

Hectares (ha) of natural systems with increased resilience due to adaptation action

Funding source(s)

Other, please specify source(s) (Stormwater utility fee)

Status of action in the reporting year^

Feasibility finalized, and finance fully secured

Inclusion in climate action plan and/or jurisdiction development/master plan^

Please select

Total cost of action (in currency specified in 0.1)

Action^

Engineered and built environment actions	Sewage works
--	--------------

Climate hazard(s) that action addresses^

Heavy precipitation

Action description and web link to further information^

Lehigh County Authority, the operator of the City's Sewer Systems, performs maintenance on the Sewer Collection system, including inspecting, televising, cleaning, and flushing the system, as well as performing necessary repairs and rehabilitation. The program includes weekly, and monthly preventative maintenance to flush and jet areas where blockages are known or anticipated to occur. Additional collection system areas are added to the preventative maintenance program based on inspections and televising the lines. The cost noted below is the approximate cost incurred in 2020 and includes required capital expenditures for sewer line rehabilitation plus normal maintenance in accordance with the City's agreement with the operator.

Sectors adaptation action applies to^

Sewerage, wastewater management and remediation activities

Co-benefits realised^

Reduced disruption of energy, transport, water or communications networks
Protected/improved biodiversity and ecosystem services

Timeframe for which increased resilience is expected to last

Long-term (after 2050)

Proportion of the total jurisdiction population with increased resilience due to adaptation action

90-100%

Hectares (ha) of natural systems with increased resilience due to adaptation action

Funding source(s)

Regional funds and programmes

Status of action in the reporting year^

Implementation underway with completion expected in more than one year

Inclusion in climate action plan and/or jurisdiction development/master plan^

Please select

Total cost of action (in currency specified in 0.1)

850000

9. Mitigation Actions

(9.1) Describe the outcomes of the most significant mitigation actions your jurisdiction is currently undertaking. Note that this can include those in the planning and/or implementation phases.

Primary emissions sector addressed and action type^

Stationary energy	LED / CFL / other luminaire technologies
-------------------	--

Action description and web link to further information^

The city upgraded approximately 75% of cobra-head street lights to LED. City plans to complete 25% of cobra-headed lights to LED by on or before summer of 2024. All pedestrian style street lights are planned to be converted to LED by 2024.

Start year of action

2018

Year for which mitigation is expected to last

2030

Impact indicators measured^

Estimated annual energy savings due to action

Estimated annual emissions reductions (metric tons CO2e/year)^

<Not Applicable>

Estimated annual energy savings (MWh/year)^

Estimated annual renewable energy generation (MWh/year)^

<Not Applicable>

Co-benefits realised^

Reduced costs

Funding source(s)

Jurisdiction's own resources

Status of action in the reporting year^

Implementation underway with completion expected in more than one year

Inclusion in climate action plan and/or jurisdiction development/master plan^

Please select

Total cost of action (in currency specified in 0.1)

Primary emissions sector addressed and action type^

Industrial Processes and Product	Improve energy efficiency of industrial processes
----------------------------------	---

Action description and web link to further information^

New variable drives for high lift pumping system which conveys treated water into the water distribution system. The new variable drives will be more efficient and capable of handling greater volumes of water.

Start year of action

2020

Year for which mitigation is expected to last

2030

Impact indicators measured^

Estimated annual energy savings due to action

Other impact indicator, please specify (Water volume)

Estimated annual emissions reductions (metric tons CO2e/year)^

<Not Applicable>

Estimated annual energy savings (MWh/year)^

Estimated annual renewable energy generation (MWh/year)^

<Not Applicable>

Co-benefits realised^

Enhanced climate change adaptation

Enhanced resilience to shocks and disasters

Funding source(s)

Jurisdiction's own resources

Status of action in the reporting year^

Implementation underway with completion expected in less than one year

Inclusion in climate action plan and/or jurisdiction development/master plan^

Please select

Total cost of action (in currency specified in 0.1)

2000000

Primary emissions sector addressed and action type^

Industrial Processes and Product	Improve energy efficiency of industrial processes
----------------------------------	---

Action description and web link to further information^

The City has negotiated a program with the operator of its water system (Lehigh County Authority) to perform leak detection and repairs on 165 miles of the City's distribution pipes each year, resulting in checking the entire system every three years. This program resulted in savings of 29,485,057 gallons of water in 2021. Based on the results from the leak detection above and other data, LCA creates the water main replacement program. The cost noted below is the replacement of one mile of water main.

Start year of action

2020

Year for which mitigation is expected to last

2050

Impact indicators measured^

Please select

Estimated annual emissions reductions (metric tons CO2e/year)^

<Not Applicable>

Estimated annual energy savings (MWh/year)^

<Not Applicable>

Estimated annual renewable energy generation (MWh/year)^

<Not Applicable>

Co-benefits realised^

Reduced natural resource depletion

Reduced disruption of energy, transport, water and communications networks

Funding source(s)

Please select

Status of action in the reporting year^

Implementation underway with completion expected in less than one year

Inclusion in climate action plan and/or jurisdiction development/master plan^

Please select

Total cost of action (in currency specified in 0.1)

Further Information

(10.1) Use this field to provide any additional information or context that you feel is relevant to your jurisdiction's response. Please note that this field is optional and is not scored/assessed.

Submit your response

What language are you submitting your response in?

English

Please read and accept our Terms and Conditions

I have read and accept the Terms and Conditions

Please confirm how your response should be handled by CDP.

	Public or non-public submission
I am submitting my response	Publicly (recommended)