Rooted in Cheyenne

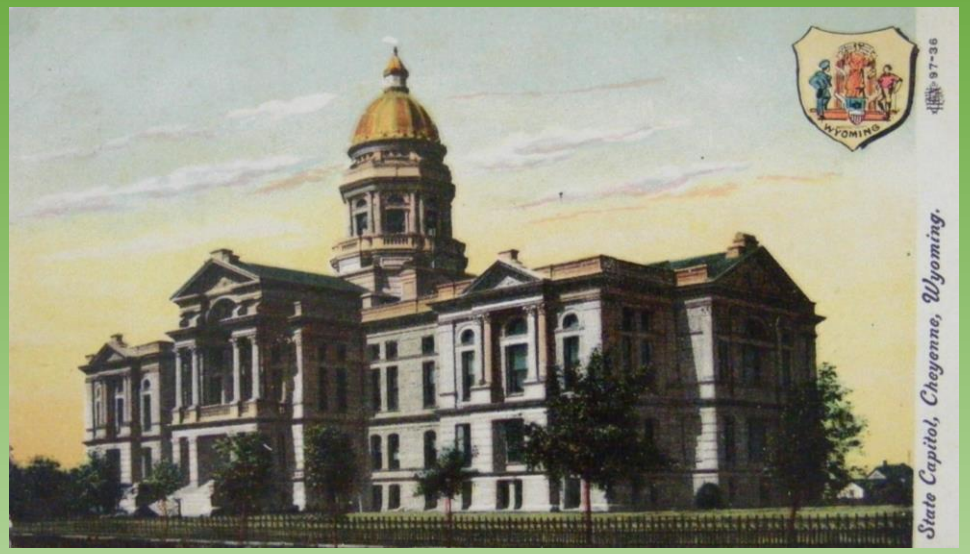
Cheyenne's newest tree planting program

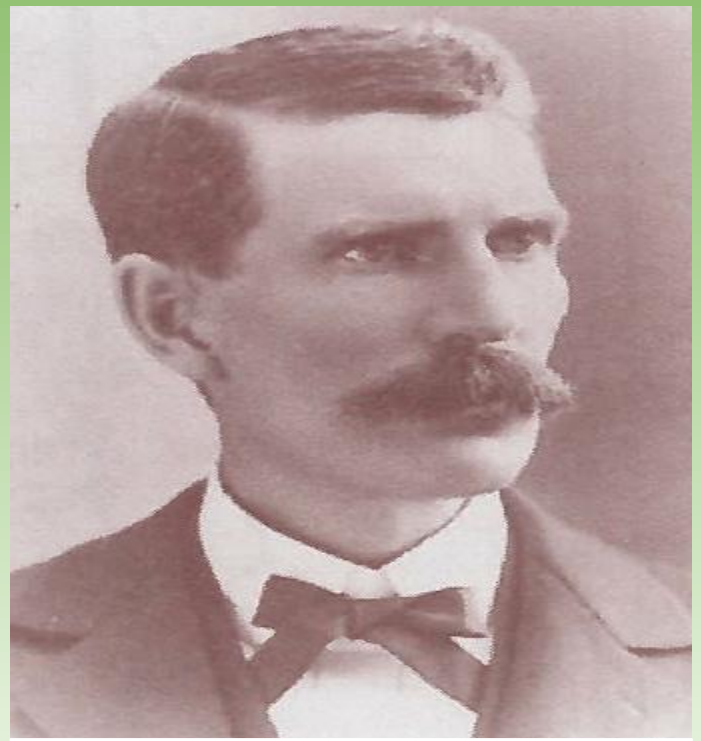
Cheyenne Urban Forestry

520 W. 8th Avenue

Cheyenne WY 82001

The City of Trees





James Floyd Jenkins
1852-1928

Cheyenne's original tree planting program began in 1902 through the City Improvement Association, spearheaded by James F. Jenkins. Mr. Jenkins, a Wisconsin native, moved to Cheyenne and helped to bring thousands of trees to our city. Even back then, he realized the importance of an urban canopy cover as a way to beautify cities and encourage community growth. Unfortunately, Cheyenne is losing much of that canopy for a variety of reasons.

Urban Forest Canopy Loss

Despite the tremendous proven value of urban canopy cover, city budgets for forestry related work have declined by 1/3rd in the last few decades.
Due to this decline, cities are losing tree coverage to impervious cover and transportation infrastructure, i.e. roads, sidewalks, parking lots, etc., at a steady rate.
An estimated 634,400,000 trees are currently missing from metropolitan areas across the United States as the result of urban and suburban development.
Cheyenne attributes much of its canopy loss to several factors such as, overly mature cottonwoods that have had to be removed, weather events like the 2014 freeze that severely damaged our elm populations, and most recently problems with pests such as the Ips Beetle and the Pine Beetle. A new potential pest we could soon see here in Cheyenne is the Emerald Ash Borer. It has become the most concerning pest to our city since it has made its way to Boulder from Eastern states and we could potentially see its devastating effects to the ash trees in our city within the next few years.
Other contributing factors to canopy loss in Cheyenne include neighborhood developments that did not require tree planting or neighborhood tree removals that did not replant.
The combination of all of these have wreaked havoc on our city's tree population and continue to cause canopy loss citywide.

Our Program's Goals:

- Establish a long-term tree planting program, with multiple partners, to create a more diverse and sustainable urban forest canopy.
- Help residents cultivate greener, healthier, more livable communities and become more aware of the benefits trees provide.
- Encourage residents to take an active role in making Cheyenne a better place by creating opportunity to engage volunteers.

What are the benefits?

There are significant benefits to encouraging green infrastructure growth in our cities beyond just economical enrichment. Nevertheless, studies show us that economic prosperity can be driven by environmental transformation and a city wide tree planting program will help to encourage that growth.

There are many examples of cities that are thriving due to advocating for green industry growth.

For instance, Portland invested $8 million in green infrastructure to essentially save themselves $250 million in hard infrastructure costs.

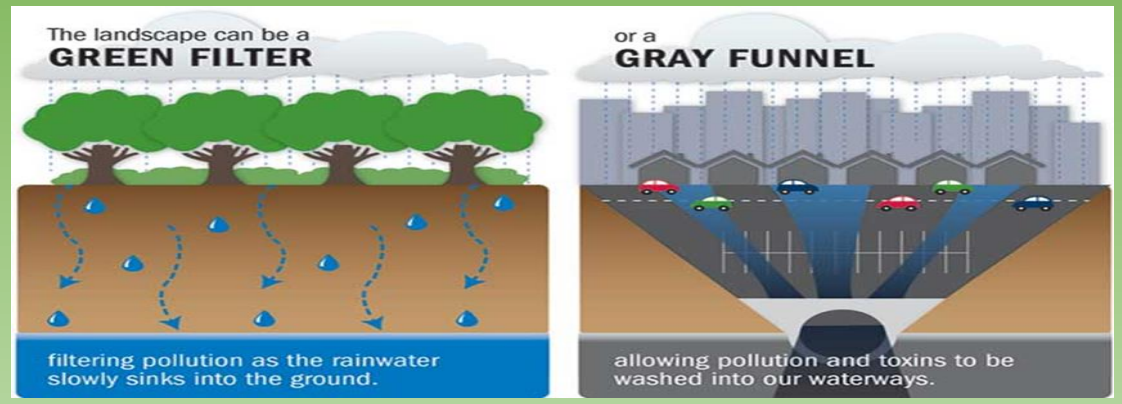
In New York, state parks and open space provide a $2.7 billion annual economic benefit to local governments and taxpayers

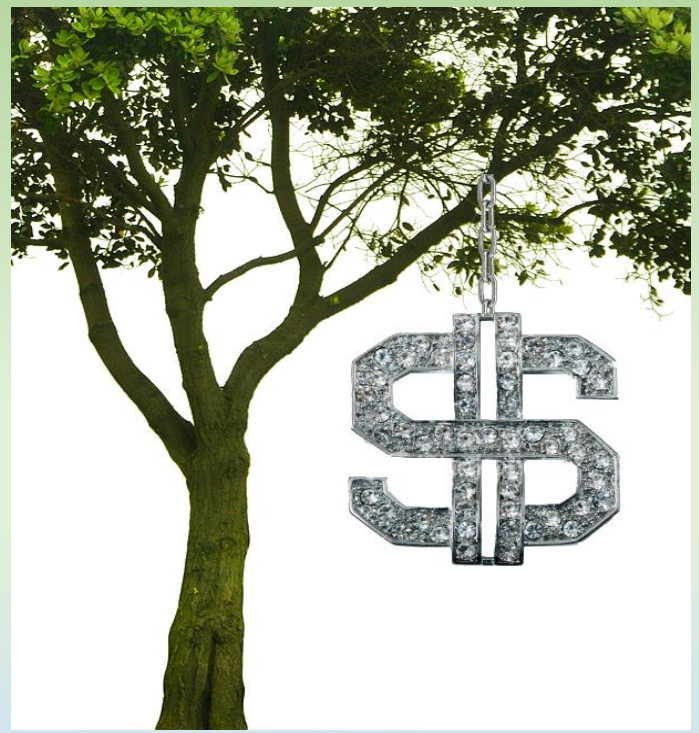
Street trees in Washington, DC, produce annual benefits estimated at $10.7 million.

Studies have also shown that the average annual net benefit of a mature large tree is $85 in a yard and $113 on public property.

Taking this information into consideration, in what ways can a tree planting program help Cheyenne grow?

Economic

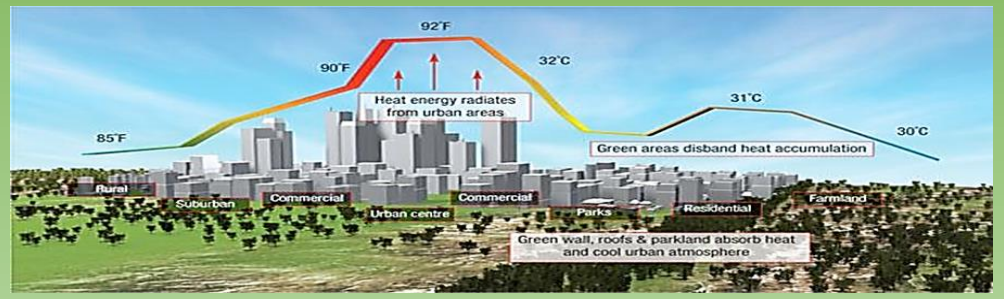




Benefits: Economic

Storm water Run Off and Maintenance
Urban forest can reduce annual storm water runoff by 2–7%, and a mature tree can store up to 50-100 gallons of water during large storms. This natural ground cover, allows more storm water to penetrate the ground.
Urban forests help to create an aesthetic beauty for our city's control of storm water runoff and erosion management.
Roads and Traffic
• Trees help to improve driving safety.
Traffic Calming and Accident Reduction
One study found a 46% decrease in crash rates across urban arterial and highway sites after landscape improvements were installed.
Highway drivers with views of natural roadsides displayed higher frustration tolerance, a known precursor of road rage.
Reducing Road Maintenance Costs
Tree shade has been proven to reduce pavement fatigue, cracking rutting, shoving and other distress, saving on repair costs.
Street trees prolong the life of paved roads. Shaded roadways can save up to 60% of repaving costs for urban areas. That's a lot of savings considering there are four million miles of roadways in the United States and around 430 miles in Cheyenne alone.
Shade provided by trees reduces the need for maintenance and repaving. A study from US Davis found that, 20% shade on a street improves pavement condition by 11%, which is a 60% savings for resurfacing over 30 years
Business
Business Districts: Increased Sales, Desirability and Rented spaces
Shoppers will travel further and longer to visit a district with high quality trees, and spend more time there once they arrive.
People have more favorable perceptions of communities with green roadways.
Visitors to well-treed central business districts will spend 9 to 12 percent more for products and parking.
The green infrastructure industry—including all businesses and government units involved in distributing, installing, and maintaining plants, landscapes, trees, and related equipment—was estimated at $147.8 billion in output in 2002. That estimate includes 1,964,339 jobs, $95.1 billion in value added, and $64.3 billion in labor income.
Property Value
Studies have found general increases of up to 37% in residential property values associated with the presence of trees and vegetation on a property.
Houses with a higher street tree population can have an estimated increase in value of $8,870 each, and a reduced time on the real estate market by almost 2 days. Even just one street tree can add an average of $12,828 combined to the properties within 100 feet.

Environmental



Benefits: Environmental

Reducing the Heat Island Effect
Trees and vegetation lower surface and air temperatures by providing shade and through evapotranspiration. Shaded surfaces may be 20–45°F cooler than the peak temperatures of unshaded materials. Evapotranspiration, can help reduce peak summer temperatures by 2–9°F. A mature tree canopy reduces air temperatures by about 5-10° F.
The indirect cooling effect of evapotranspiration is greater than the direct effect of shading. As the number of trees in an area increase, relative contribution of evapotranspiration to overall cooling goes up, mitigating the urban heat effect.
Trees cool city heat islands by 10 degrees to 20 degrees, thus reducing ozone levels and helping cities meet the air quality standards required for disbursement of federal funds.

Energy Efficiency
Just three strategically placed trees can decrease utility bills by 50%.
The net cooling effect of a healthy tree is equivalent to 10 room-size air conditioners operating 20 hours a day. Properly placed trees can reduce cooling costs by 30 percent. Shading an air conditioning unit can increase its efficiency by 10 percent. A 20-percent tree canopy over a house results in annual cooling savings of 8 to 18% and annual heating savings of 2 to 8%.
In colder climates, a 30% increase in urban tree cover can reduce winter heating bills by 10% in urban areas and by 20% in rural areas by using trees as windbreaks for homes.

Improves Air, Water, & Soil Quality
Trees clean the air by absorbing carbon dioxide, sulphur dioxide, nitrous oxides and other pollutants, and also shade cars and parking lots, reducing ozone emissions from vehicles.
Mature trees absorb 120-240 lbs. of particulate pollution each year.
Urban trees in the US remove 711,000 metric tons of air pollution (O3, PM10, NO2, SO2, CO) annually, at a value of $3.8 billion.
Trees and other plants help remediate soils at landfills and other contaminated sites by absorbing, transforming, and containing a number of contaminants.
Trees divert captured rainwater into the soil, where bacteria and other microorganisms filter out impurities. This reduces urban runoff and the amount of sediment, pollutants, and organic matter that reach streams.

Storing carbon and reduction of carbon emissions
Each year an acre of trees absorbs the amount of carbon produced by driving a car for 26,000 miles.
The urban forest in Casper, Wyoming, is estimated to store about 37,000 tons of carbon and to remove about 50 tons of air pollution per year.
Urban trees sequester more carbon than individual trees in non-urban forests because the more open structure of the urban environmental allows individual trees to intercept more light and grow faster.

Wildlife and Biodiversity
Urban forests help create and enhance animal and plant habitats and can act as “reservoirs” for endangered species. Urban forest wildlife offers enjoyment to city dwellers and can serve as indicators of local environmental health.

Community

Benefits: Community

Less Violence & Crimes
Public housing residents with nearby trees and natural landscapes reported 25% fewer acts of domestic aggression and violence.
There is less graffiti, vandalism, and littering in outdoor spaces with natural landscapes than in places with no green infrastructure.
Apartment buildings with high levels of greenery had 52% fewer crimes than those without any trees.
Results from a Portland crime study, found that street trees fronting a house, as well as an increase of planted trees city wide, helped to reduce crime.

Improves Neighborhood, Connectivity
Older adults who have more exposure to green common spaces report a stronger sense of unity among residents within their local neighborhood, and experience a stronger sense of belonging to the neighborhood.
Researches are finding signs of stronger communities where there are trees. In buildings with trees, people-report significantly better relations with their neighbors. People report a stronger feeling of unity and cohesion with their neighbors; they like where they are living more and they feel safer than residents who have few trees around them.
Surveys show that people feel trees improve communities by making people feel calmer, and improve ones quality of life.

Public Health Benefits

Improving Attention
Studies have shown that children with ADD function better after activities in green settings, and the “greener” a child’s play area, the less severe his or her attention deficit symptoms.
College students with more natural views from their dorm windows scored higher on attention tests.
Trees help girls succeed. On average, the greener a girl’s view from home, the better she concentrates and the better her self-discipline, enabling her to make more thoughtful choices and do better in school.

Decreasing Asthma & Obesity
Trees filter airborne pollutants and reduce the conditions that cause asthma and other respiratory problems.
Researchers from Columbia University found that childhood asthma rates were highest in parts of the city where tree density was lowest. The rate of asthma fell by 25% for every extra 340 trees per square kilometer, a pattern that held true even after taking account of differing sources of pollution, levels of affluence and population density.
Neighborhood parks promote exercise, especially for people living within a mile or less of a park.
Children and youth living in greener neighborhoods have lower body mass index. The presence of parks is associated with higher levels of physical activity among adolescent girls, with the attendant health benefits of exercise.

Please Support *

Rooted in Cheyenne!

(www.cheyennetrees.com)

*If you are interested in supporting our City's tree planting program please visit our website and make a donation or sign up to volunteer.