

Legend

- Healthy Tree Ash Tree
- Hazardous Tree Main Street Area
- **Street Tree Cover**

The map above identifies city owned trees surveyed by the lowa DNR. The map identifies healthy, hazardous, and ash trees. Healthy trees throughout the community include oak, hackberry, apple, and maple. The dashed line encompassing the Main Street Area (MSA) highlights the void of trees located in the urban pedestrian areas.



Roads/Impervious Main Street Area Structures Tree Canopy

Land Cover Map

The Main Street Area contains the largest congregated area of impervious surfaces. Areas with more vegetation experience reduced solar radiation and lower air temperatures, whereas areas of impervious surfaces experience harsh summer temperatures and increased stormwater runoff.



Not to Scale

Intersection Improvements \bullet



Vignette diagrams highlighting the primary benefits of the proposed bump-outs in downtown Corning.



Main Street Area



Enlargement of the Main Street Area showing proposed tree locations based on Board 11a,



Larger turning radius at intersection corners









The plan to the left illustrates the proposed improvements to the Main Street Area, including bump outs and street trees. Bump outs are an extension of the curb which allow sufficient space for tree plantings and other pedestrian amenities. The benefits of trees are numerous and can be quantified. Trees intercept stormwater runoff,

	Potential Street Trees	Average Benefit per Tree* (\$/year)	Potential Tree Benefits* (\$/year)	Storm Water Runoff Interception (gallons/year)	Added Property Value (\$/year)	Energy Conservation (kilowatt/hours)	CO2 Sequestration (Ibs./year)
Davis Ave.	21	\$55	\$1,155	9,716	\$511	249	1,799
Benton Ave.	13	\$55	\$715	6,015	\$316	154	1,114
Totals	34	\$110	\$1,870	15,731	\$827	402	2,913

Tree benefits table displaying the environmental and economic benefit of proposed street trees on Benton and Davis Avenues. *All monetary values have been sourced from The National Tree Benefit Calculator using a diverse array of tree species with a 12" caliper.

Stormwater Management **•**

Corning's Main Street Area has a consistently steep southern slope. During rain events, large amounts of water can be seen streaming down Davis and Benton Ave, making the streets impassible at times. The existing stormwater infrastructure is not able to handle the extreme pressures put on it, often decreasing the life expectancy of the system.



Stormwater BMP Graphic and explanation

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increase property values for adjacent buildings, conserve energy, and sequester carbon. The chart below quantifies the monetary benefit of proposed street trees in the Main Street Area. Having the ability to communicate both the environmental and economic benefits of street trees for the community of Corning can be a powerful means for education.

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The integration of Stormwater Best Management Practices (BMPs) within the proposed bump-outs is a valid means to depressure Corning's existing stormwater system and provide space for trees to grow effectively. BMPs capture and store volumes of intercepted water, as well as, filter and clean water before it reaches the river.

