



## CONCLUSION

### ENERGY, WATER, WASTE AND GREEN INFRASTRUCTURE

The outcomes of the environmental systems recommendations include:

#### ENERGY

- › **Reduces the energy use of all buildings**, including lightly rehabbed buildings by 47% and fully rehabbed buildings and new development by 72% lower than today's building.
- › **Results in a 30% increase in the district's total energy use supplied by renewable energy.** This assumes 15% will be produced within the area and 15% will be purchased from credits. This energy will not create any greenhouse gas emissions and will reduce costs over the long-term.
- › **Results in a 51% reduction in greenhouse gas emissions for the ecodistrict.** This significantly exceeds the federal government's goal to reduce greenhouse gas emissions 28% by 2030. If the cogeneration could adapt to using a renewable fuel source in the future, the area could be zero net energy with no greenhouse gas emissions.
- › **Demonstrates that the cogeneration plant is extremely valuable in reducing the ecodistrict's greenhouse gas emissions.** The proposed development strategy assumes that the plant will provide heating and cooling to all buildings in the ecodistrict resulting in 70% of the area's total energy use being supplied by natural gas instead of coal.

#### WATER

- › **Reduces the overall potable water use by 67% per square foot per year.** This will be accomplished through high efficiency buildings and the capture and reuse of stormwater for non-potable water uses.
- › **Allows for the capture and reuse of all the rainwater in the SW Ecodistrict throughout the year.** Not only will this provide a free water source for non-potable water uses but it will decrease the ecodistrict's greenhouse gas emissions by eliminating the need to pump and treat water miles outside of the district.

#### WASTE

- › **Increases the amount of waste diverted from the landfill from 35% to 80%.** This will be achieved through executing programs to reduce product consumption and encourage recycling and composting.

#### GREEN INFRASTRUCTURE

- › **Improves human health** with views and access to roof gardens, parks, and recreational areas for rest and social interactions.