

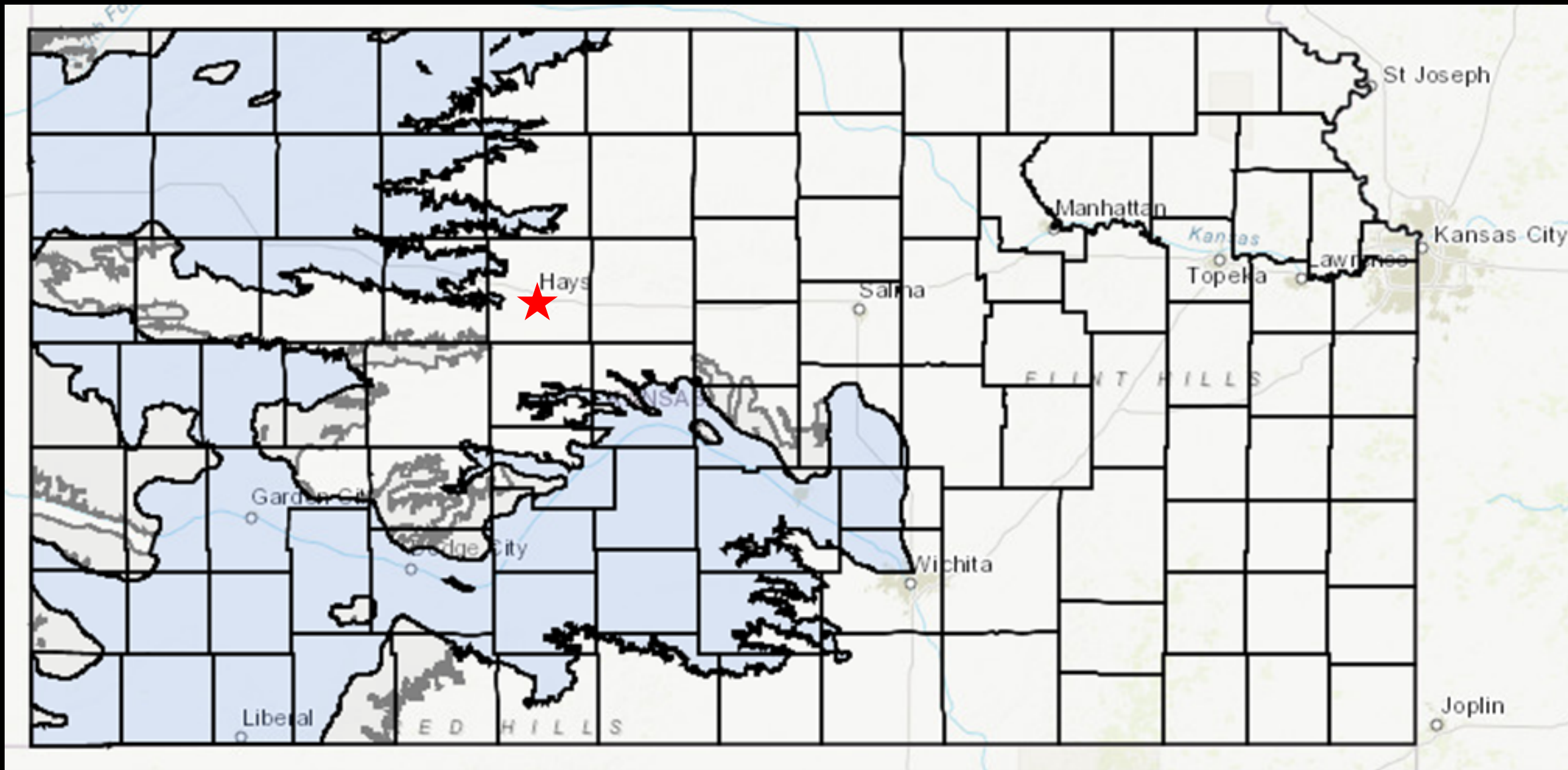


Water Conservation: A Way of Life

In the City of Hays, KS

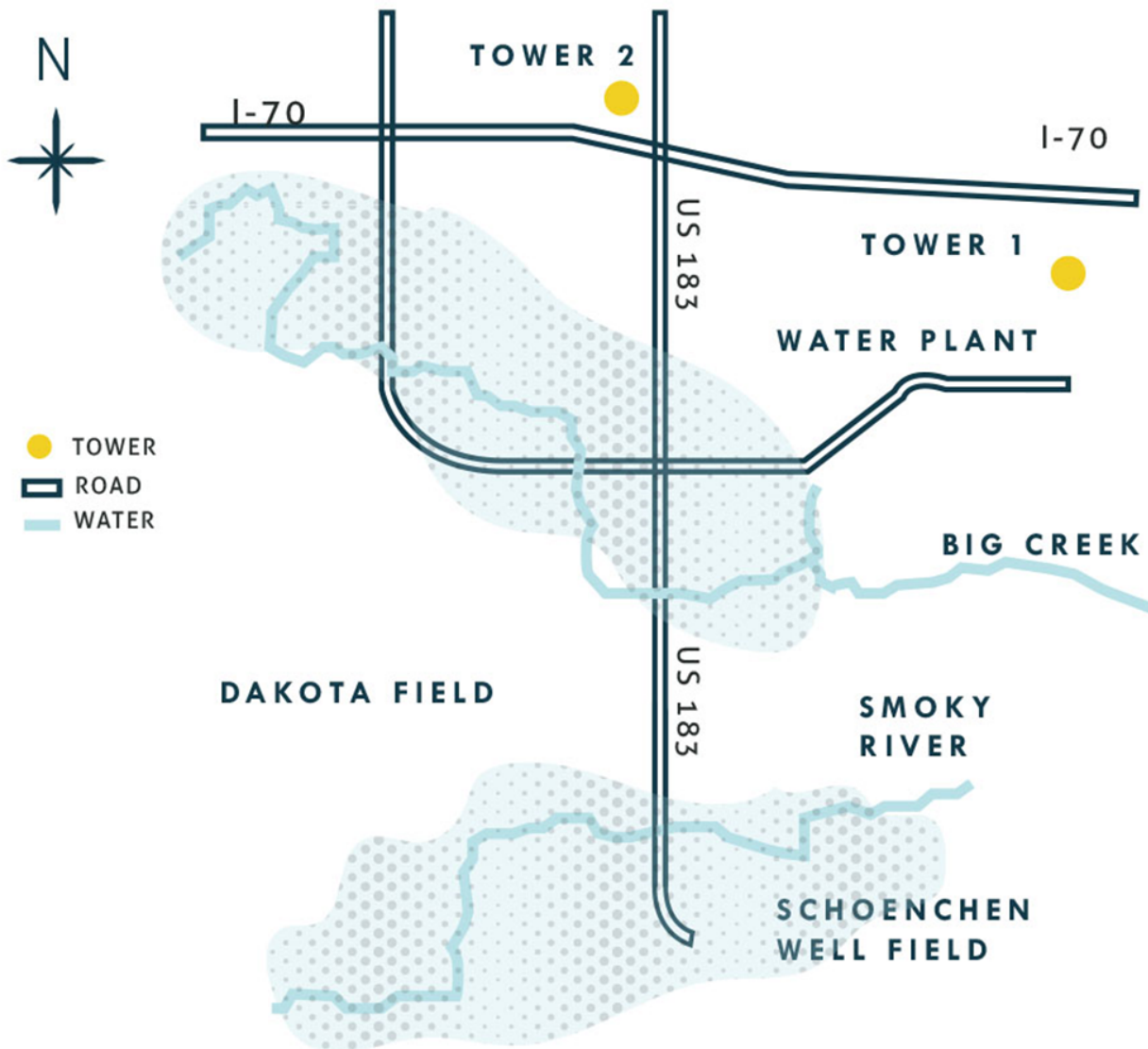
- Hays, KS
 - County Seat of Ellis County
 - Population ~20,500
 - Fort Hays State University
 - Hays Medical Center
 - Average precipitation ~23"/year





Map: Kansas Geological Survey

HAYS



Water
Conservation
has been a
major
priority in
Hays for
decades...

Water restrictions

Water rate structure that encourages conservation

Waste of water is prohibited

Plumbing and landscaping ordinances that promote conservation

Incentives (i.e rebates and showerhead/aerator program)

Education and outreach

The employment of a Water Conservation Specialist...

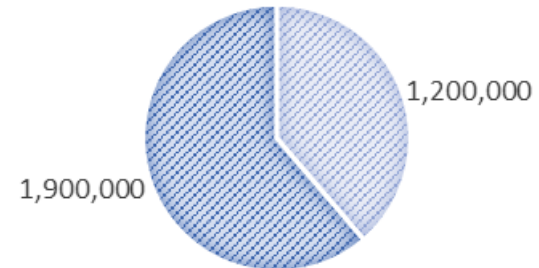
Water Usage in the City of Hays:



- The lowest in the State!
- Average 90 gallons/person/day

AVG. GALLONS USED/DAY WINTER VS. SUMMER

■ January, February, March ■ June, July, August



Water Restrictions



No outdoor water use permitted:

June 1st to September 30th
between noon and 7:00 PM*

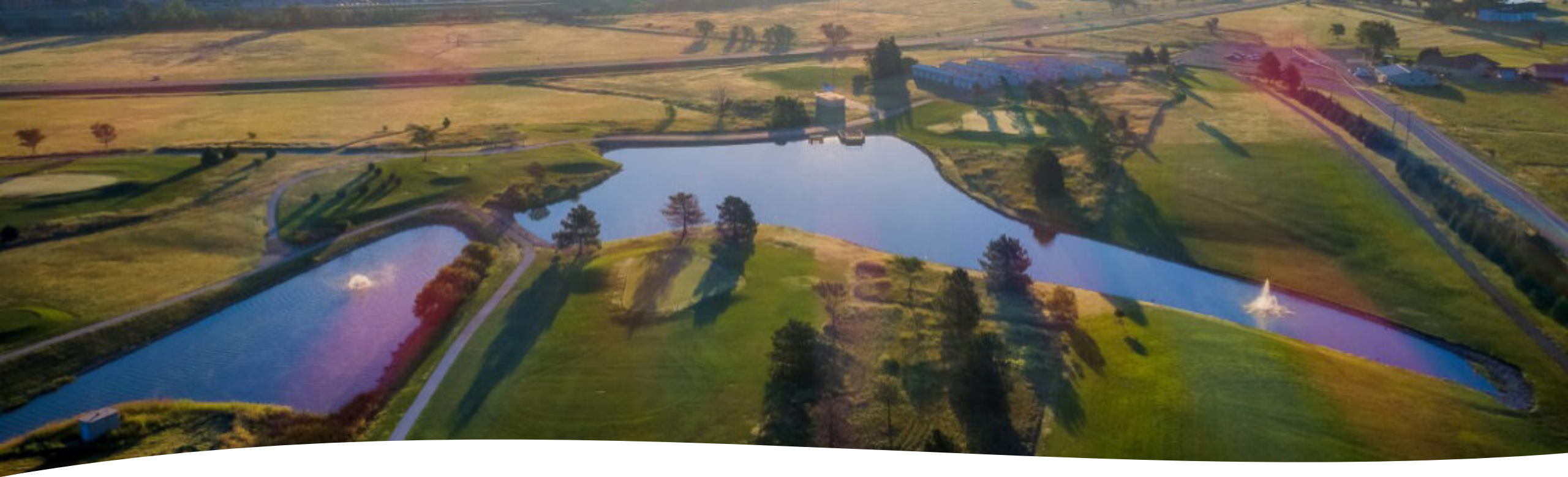
*Subject to change (tighten) based on drought/well field status

Wasting Water is Prohibited



- First offense – warning
- 2nd, 3rd, 4th violations – fines levied
- Enforced by the Hays PD





Use of Effluent Water

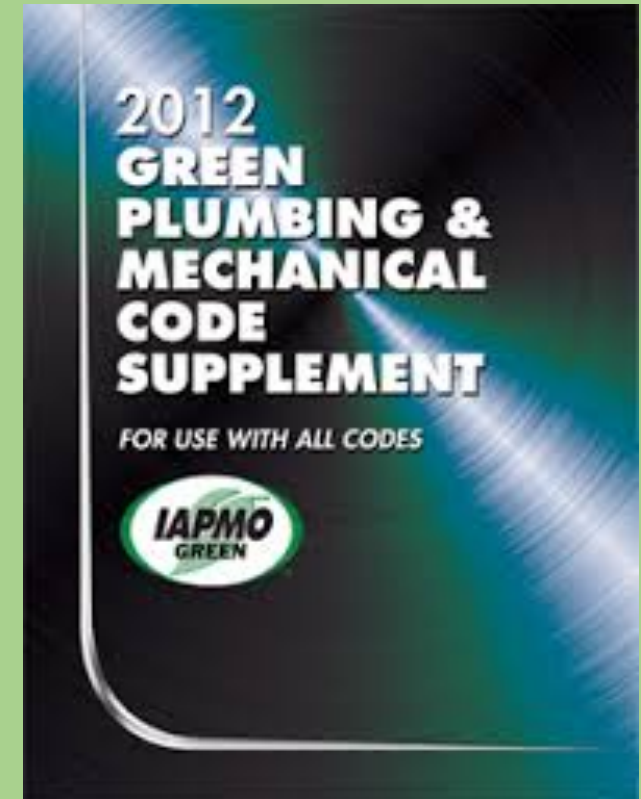
(for irrigation and City projects)

- Fort Hays Municipal Golf Course
- Bickle/Schmidt Sports Complex
- City Parks/Planters/Trees

Green Plumbing Code

- International Association of Plumbing & Mechanical Officials (IAPMO)
- Supplement to Universal Plumbing Code
 - Not replacement
- Examples of systems affected?
 - Irrigation (e.g. precipitation rate of sprinkler heads)
 - Hot Water Distribution
 - Fixtures (more efficient than EPA standard)

<https://www.iapmo.org/green-plumbing-and-mechanical-code-supplement/>



Landscape Irrigation Ordinance (#3882)

- Prior irrigation regulations: None
- Highlights—
 - Plan submittal/review required
 - Limits total irrigated area
 - Buffer zones
 - Xeriscaping required in commercial developments
 - Changes the way Hays looks as future properties are developed



Currently...
For residential
properties of
four units or
fewer:

- Max area irrigated not to exceed 10,000 sq. ft.
 - Of that 10,000 sq. ft., no more than 5,000 sq. ft. may be comprised of turf.
 - Of that 5,000 sq. ft. no more than 2,000 sq. ft. may be comprised of cool season turf (unless the area is NOT permanently irrigated).

Currently...
For all other
properties:

- Max area irrigated not to exceed 10,000 sq. ft.
 - Of that 10,000 sq. ft., no more than 5,000 sq. ft. may be comprised of turf.
 - Of that 5,000 sq. ft. no more than 30% of the property area (less impervious surface area) or 2,000 sq. ft. per zoning lot, whichever is less, may be comprised of cool season turf. A minimum of 30% of the landscaped area must be xeriscaped.



To add to this...

- Irrigation systems shall be designed and operated to avoid watering impervious surfaces and streets and shall comply with all applicable codes.
- Overhead irrigation methods shall not be used within 5ft. of driveways, sidewalks or other hard surfaces.





Incentives





Faucet Aerators & Shower heads

City Hall distributes:

- Faucet aerators
 - Free!
- Shower heads (with exchange of old shower head)
 - Free or small fee depending on model chosen



Washing Machine Rebates

\$100 rebate for washing machine
with Integrated Water Factor (IWF)
of 3.7 to 3.3

\$250 rebate for washing machine
with Integrated Water Factor (IWF)
of 3.2 or lower



Toilet Rebates

- \$50 rebate for 1.1 to 1.3 gpf model
- \$100 rebate for 1.0 gpf model
- \$150 rebate for 0.8 gpf model
(essentially the cost of the toilet!)



Turf Conversion Rebate (aka: Cash for Grass)

\$1.00/sq. ft. rebate* to replace irrigated cool-season turf (i.e. tall fescue or Kentucky bluegrass) with:

- Warm-season turf
 - i.e. Buffalo or Bermudagrass
- Mulched planting beds
- Artificial turf

*Up to \$3,000.00 max







Buffalograss Seed Rebate

\$10.00/lb. seed rebate

- Geared towards new plantings
- Or lawns that don't qualify for turf conversion

City Facility Retrofits

- “Practice what you preach...”
- Case Study: Hays Public Library
 - Fixtures replaced in 2015
 - 2010-2014 – 375,000 gallons consumed (avg.)
 - 2016 – 77,800 gallons consumed
 - 80% reduction in consumption



Notable Projects

Local hotel:

Changed out 98 toilets in Jan. 2018 to 1.28gpf models

2017 Avg. water use/month: 7,890 cu. ft.

2018 Avg. water use/month: 2,704 cu. ft.

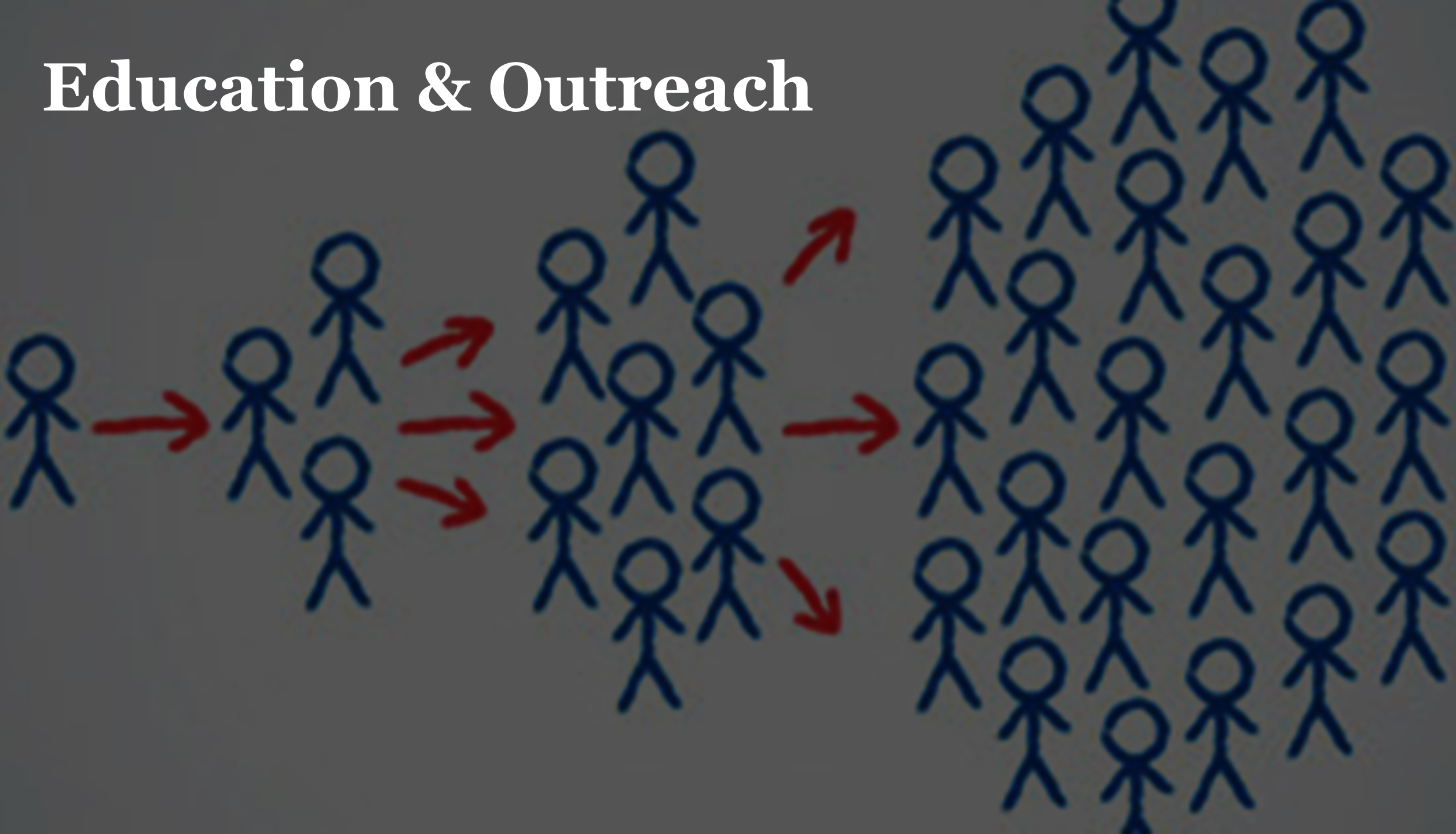
Convenience store:

Changed out water cooled ice machine for air cooled model in August of 2018

2017 Avg. water use/month (Aug.-Dec.): 2,400 cu. ft.

2018 Avg. water use/month (Aug.-Dec.): 620 cu. ft.

Education & Outreach



Education and Outreach = Communication

- Brochures/Flyers
- Press briefings/News releases
- Letters to contractors
- Radio/T.V.
- Social media
- Informational booths at events
- School programs
- Water festivals
- Water poster contest
- Website
- Water Conservation Mascot
- Parade participation
- Local committee involvement
- Speaking engagements
- World Water Day Fun Fest
- Demonstration plots
- WaterSmart Landscape Awards
- Logo



Why Mulch?

Soil Erosion	Soil Degradation	Soil Temperature	Soil Moisture
Prevents soil erosion	Prevents soil compaction	Prevents soil from becoming too hot or too cold	Prevents soil from becoming too dry or too wet
Prevents soil from being washed away	Prevents soil from becoming too hard	Prevents soil from becoming too dry or too wet	Prevents soil from becoming too dry or too wet

Organic Mulches

Material	Benefits	Drawbacks
Grass Clippings	Low cost, readily available	Can mat, can contain herbicides
Shredded Bark	Long-lasting, aesthetically pleasing	Can be expensive
Compost	Improves soil structure, adds nutrients	Can be smelly, can contain weeds
Straw	Low cost, readily available	Can mat, can contain weeds
Wood Chips	Long-lasting, aesthetically pleasing	Can be expensive, can contain herbicides
Leaf Litter	Low cost, readily available	Can mat, can contain weeds
Manure	Improves soil structure, adds nutrients	Can be smelly, can contain weeds
Gravel	Long-lasting, aesthetically pleasing	Can be expensive, can contain weeds
Recycled Rubber	Long-lasting, aesthetically pleasing	Can be expensive, can contain heavy metals
Pine Shavings	Low cost, readily available	Can mat, can contain herbicides

City of Hays

www.watersmarthays.com

Seven Steps To WATER SMART LANDSCAPE

PLANNING AND DESIGN
 Planning is essential in creating a sustainable landscape. Consider site characteristics that affect water exposures, micro-climates and then design the things in mind.

SOIL PREPARATION
 A healthy soil will result in healthier root system create a more drought tolerant landscape. Amend beds with organic matter such as compost can help clay soils allowing moisture and nutrients to infiltrate the roots vs. running off.

EFFICIENT IRRIGATION
 Water deeply and infrequently to encourage deep, tolerant roots. Irrigate early in the morning to lessen losses. Only water when absolutely necessary - be sure! Water plants to appropriate depths. Measure with a probe (i.e. long screwdriver, piece of rebar, etc) when you hit resistance, you have likely hit dry soil, a depth to which the moisture has reached.

MULCH
 The need for supplemental irrigation is reduced when mulches are properly applied around plants. Examples mulches include wood chips, cedar mulch, straw, leaf hulls, etc. Organic mulches limit evaporation from the soil, soil temperatures, discourage weed growth, and break time helping to improve the condition of the soil.

RIGHT PLANT, RIGHT PLACE
 Choose plants that are adapted and suitable for your local climate. Plants vary in the amount of moisture they require critical to know what those requirements are. Group or zone with similar water requirements together. Select low water drought tolerant, or native plants if possible.

PRACTICAL TURF AREAS
 Limit cool-season turf areas (i.e. Tall Fescue, Kentucky Bluegrass). Consider using mulches, groundcovers, ornamental or native grasses, shrub beds, decks or patios instead. Avoid odd shaped narrow strips of turfgrass as these can be difficult to irrigate and result in wasted water. Consider warm-season turfgrass such as Buffalo and Bermudagrass as an alternative to cool-season turf.

PROPER MAINTENANCE
 While water smart landscapes can be low maintenance, they will require some degree of care throughout the year. At appropriate times, proper pruning, mowing, weeding, fertilizing, watering, and insect/disease control are important to maintain the health of your landscape.

City of Hays

www.watersmarthays.com

- [Rebates & Programs](#) ▶
- [Our Conservation Efforts](#)
- [Ways to Save Water](#) ▶
- [WaterSmart Landscaping](#) ▶
- [Water Rules/Restrictions](#)
- [Educational Resources](#) ▶
- [Water Poster Contest](#)

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WATER CONSERVATION

A Way of Life!

The City of Hays is the only municipality in Kansas with a population greater than 15,000 that is NOT located near a sustainable source of water. Current water supplies fluctuate based on precipitation received throughout the year. As a result, water conservation has become a "way of life" for citizens of Hays. From tiered [water rates](#) to water conservation [ordinances](#), [programs](#) and [incentives](#), the City of Hays has worked diligently to ensure that our most precious natural resource - WATER- is not taken for granted!



Follow us!



2021 Water Poster Contest

Preschool to Adult Divisions!



Contact Us



www.watersmarthays.com

Rebates & Programs

Toilets, clothes washers, turfgrass, showerheads, and aerators - learn more!

Our Conservation Efforts

Find out what the City has been doing to conserve water.

Ways to Save Water

Water Conservation Specialist

[Email Holly Dickman](#)

[More Information](#)

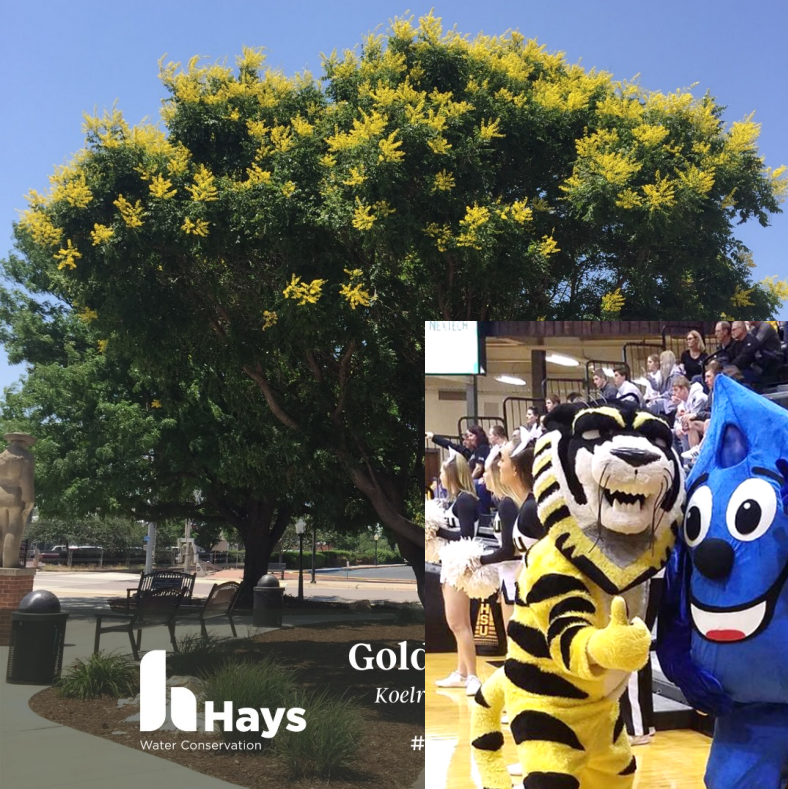
Water Conservation

Physical Address

Education and Outreach via Social Media



@WaterSmartHays



Hays
Water Conservation

Gold
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#



CITY OF Hays

WaterSmart Landscape Awards

www.watersmarthays.com



K-STATE Research and Extension
Master Gardener
Cottonwood District
Ellis County

WaterSmart Perennial Demonstration Garden

Hays
Water Conservation



ONLY FLUSH THE 3 Ps

PEE POO PAPER

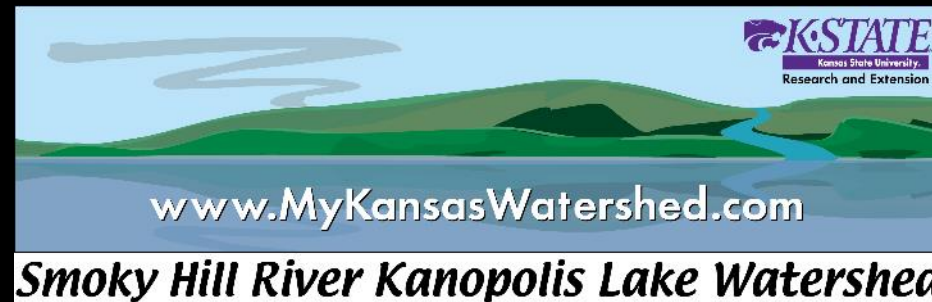


Thankful for
RAIN!!!

Hays
Water Resources Department

Things that make the job easier:

- Partnerships and Community support!





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WaterSmart Landscape!