

The background is a light blue gradient with several realistic water droplets of various sizes scattered across it. The droplets have highlights and shadows, giving them a three-dimensional appearance. The text is centered in the middle of the slide.

OKLAHOMA DEQ STORMWATER PROGRAM

KAREN STEELE

SEPTEMBER 17, 2019

GWPC ANNUAL FORUM

TWO SIDES OF STORMWATER

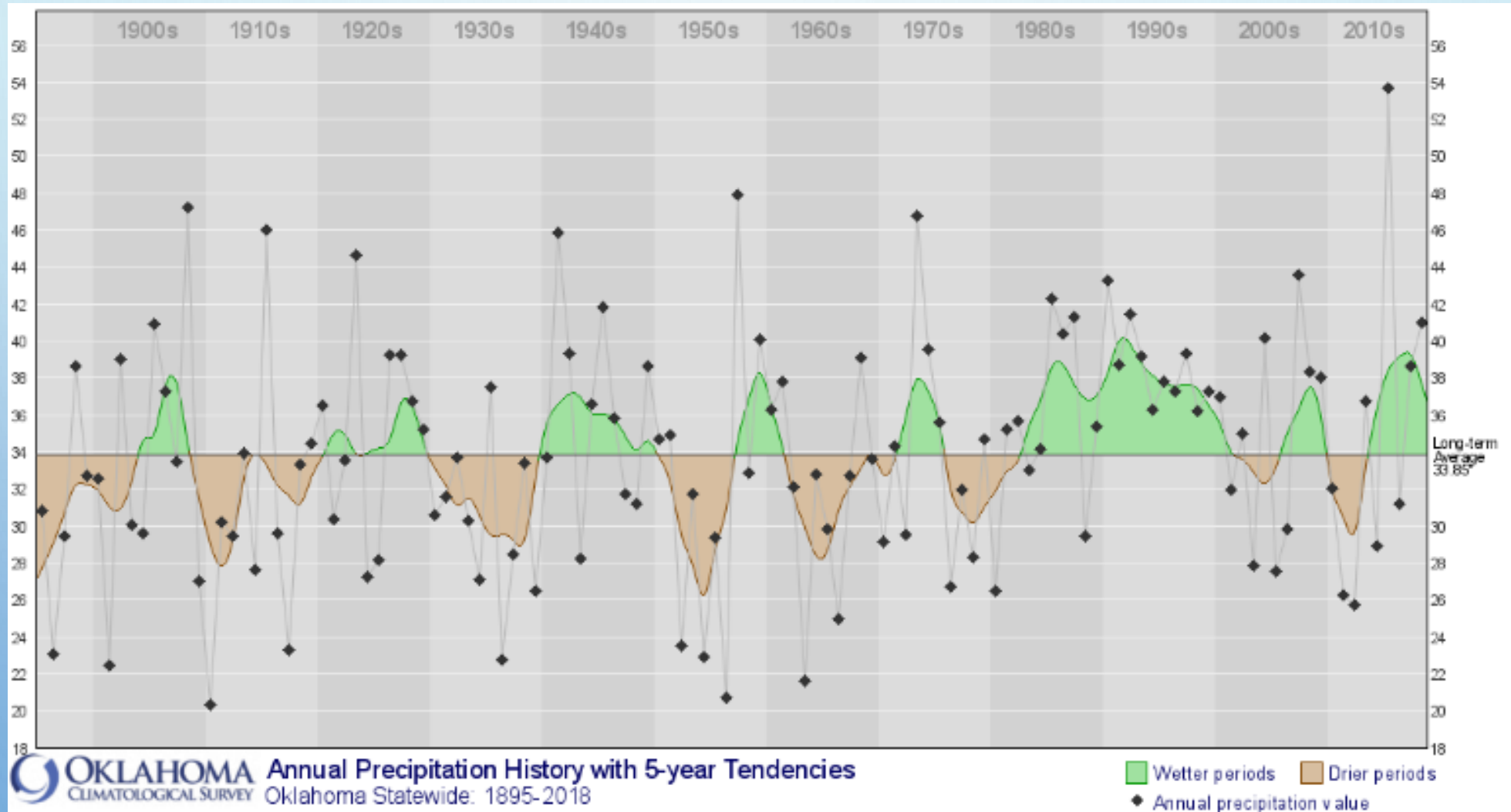


Quality



Quantity

HISTORICAL PRECIPITATION IN OKLAHOMA



DROUGHT IN OKLAHOMA



D0 - Abnormally Dry

- Short-term dryness slowing planting, growth of crops
- Some lingering water deficits
- Pastures or crops not fully recovered



D1 - Moderate Drought

- Some damage to crops, pastures
- Some water shortages developing
- Voluntary water-use restrictions requested



D2 - Severe Drought

- Crop or pasture loss likely
- Water shortages common
- Water restrictions imposed



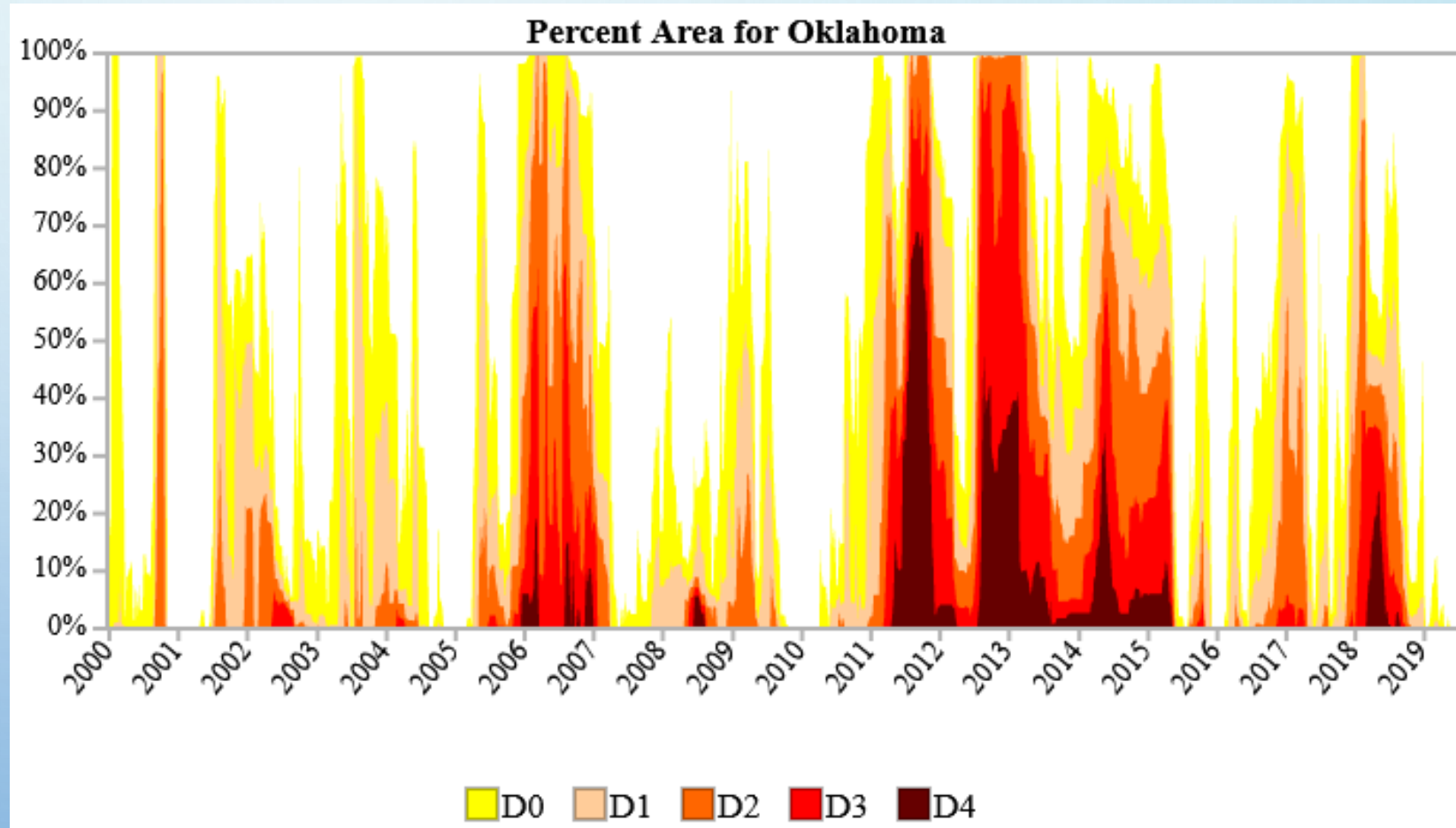
D3 - Extreme Drought

- Major crop/pasture losses
- Widespread water shortages or restrictions



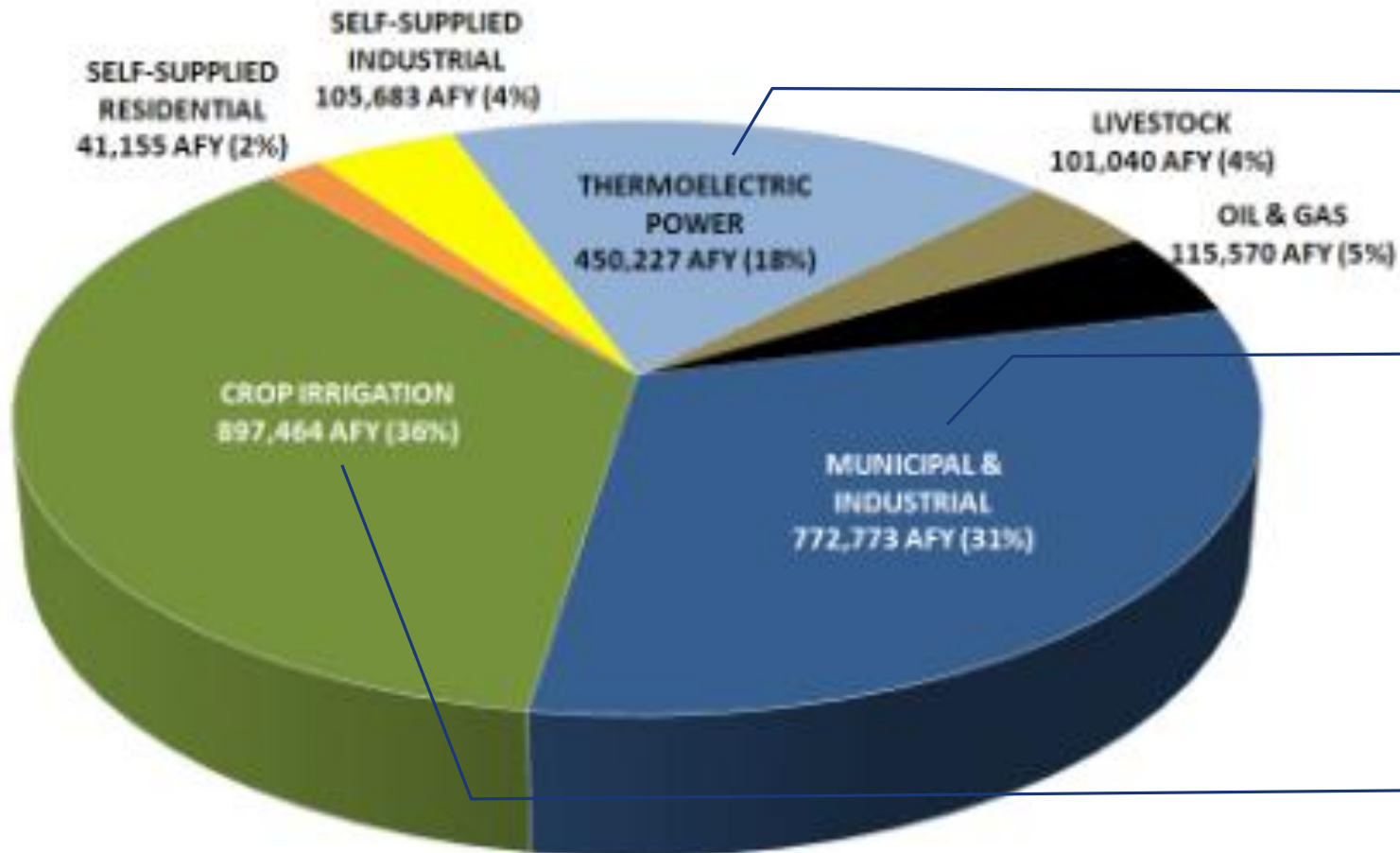
D4 - Exceptional Drought

- Exceptional and widespread crop/pasture losses
- Shortages of water creating water emergencies



WATER USE IN OKLAHOMA

2060 Projected Water Use by Sector



TOTAL PROJECTED WATER DEMAND = 2,483,912 Acre-Feet/Year

Thermoelectric
Power

Municipal &
Industrial

Crop Irrigation

THREE STORMWATER AREAS



CONSTRUCTION STORMWATER



Primary Goal:

Minimize Erosion &
Reduce
Sedimentation

Tool:

General Permit
OKR10
Construction
Activities

Components:

Stormwater
Pollution Prevention
Plan (SWP3)
Notice of Intent
(NOI)

INDUSTRIAL STORMWATER



Primary Goal:
Control and reduce
pollutants in
stormwater runoff

Tool:
General Permit
OKR05
Industrial Activities
Sector Specific

Components:
SWP3
NOI
Annual Compliance
Report (ACSCER)

MUNICIPAL STORMWATER



Primary Goal:

Control and reduce pollutants in urban stormwater runoff in Municipal Separate Storm Sewer Systems (MS4s)

Tools:

Individual Stormwater Permits
General Permit OKR04 for Small MS4 discharges

Components:

NOI
Stormwater Management Plan (SWMP)
Annual Report

STORMWATER GENERAL PERMIT RENEWALS

OKR10

Effective
10/18/2017

Expires
10/17/2022

OKR05

Effective
7/5/2017

Expires
7/4/2022

OKR04

Effective
11/1/2015

Expires
10/31/2020

WHAT'S NEXT FOR STORMWATER?



Integrated
Planning?



Green
Infrastructure?



Low Impact
Development?



Capture and
Use
("Reuse")?



QUESTIONS?

KAREN STEELE, PE

MUNICIPAL WASTEWATER AND STORMWATER PERMITTING MANAGER, DEQ

KAREN.STEELE@DEQ.OK.GOV