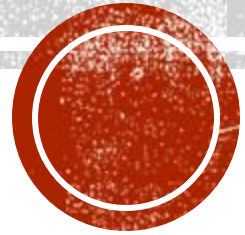
WHERE'S MY WATER

Rattlesnake Creek: A Case Study



KANSAS WATER LAW

- Kansas Water Appropriation Act
  - Kansas water law uses the prior appropriation doctrine
  - Kansas owns water, individual can divert water with permits
  - Chief engineer administers permitting and compliance
  - Surface & Groundwater use same law

- Groundwater Management District Act
  - Establishment of right of local water users to "determine their destiny with respect to the use of the groundwater…"
  - Incorporates powerful tools for the management of the local water resource
    - Intensive Groundwater Use Control Areas (K.S.A. 82a-1036-1038)
    - Local Enhanced Management Areas (K.S.A. 82a-1041)

WHERE'S MY WATER

Kansas Water Law

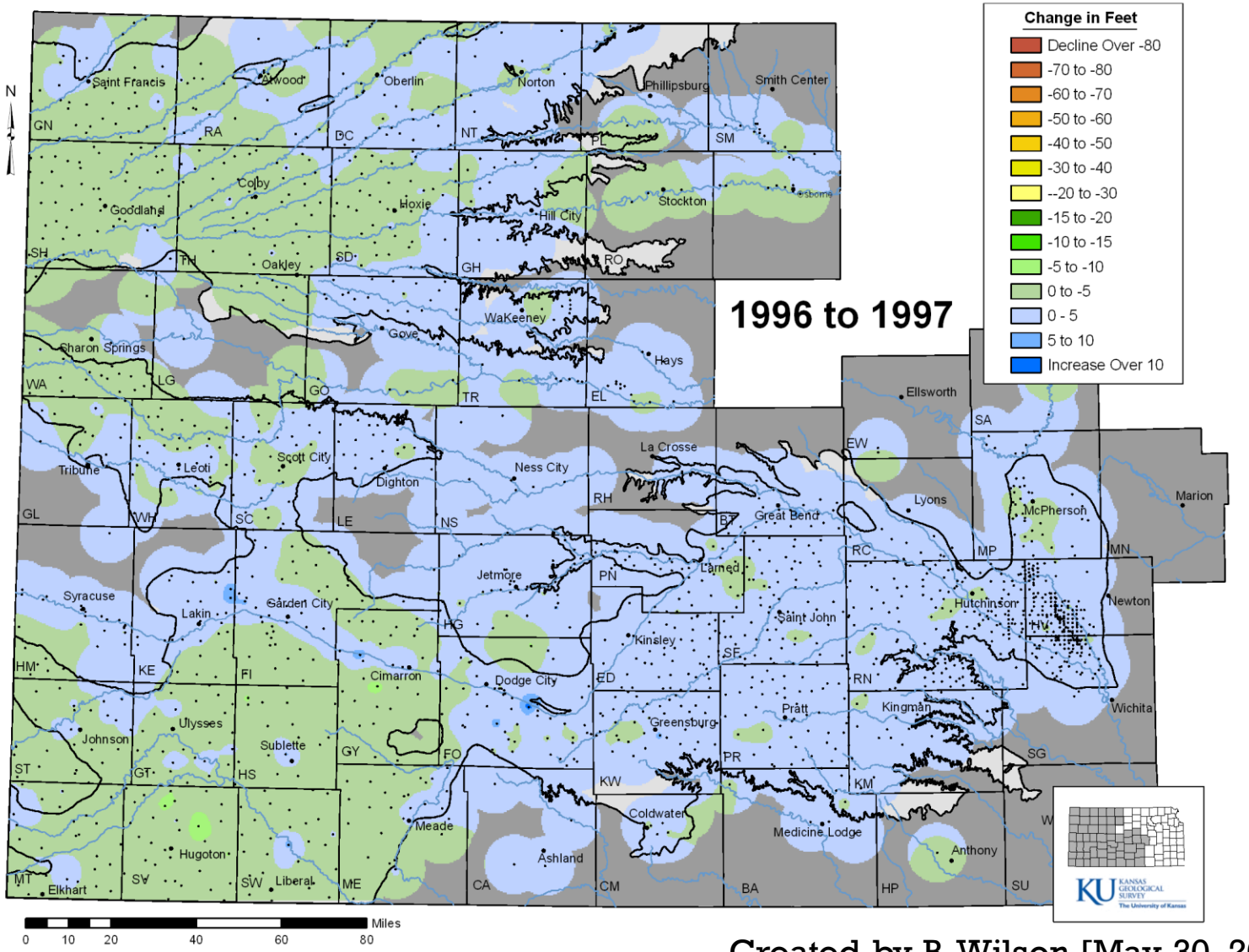
Hydrology

Background

Issue

Current Status

HYDROLOGY



Created by B. Wilson [May 30, 2019]

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BACKGROUND

- Quivira National Wildlife Refuge
  - Purchased by USFWS (1955)
  - Kansas Water Appropriation Right (1957)
  - RAMSAR wetland of international importance (2002)
  - Surface water right for diversion, storage, evaporation
  - 14,632 acre-feet annually

- Rattlesnake Creek subbasin impact area
  - Primarily irrigated agriculture
  - 665,000 acres
  - 156,000 irrigated acres
  - 242,000 acre-feet (authorized)
  - 178,000 acre-feet (2003-2012 use)
  - 96 % Junior to Quivira NWR

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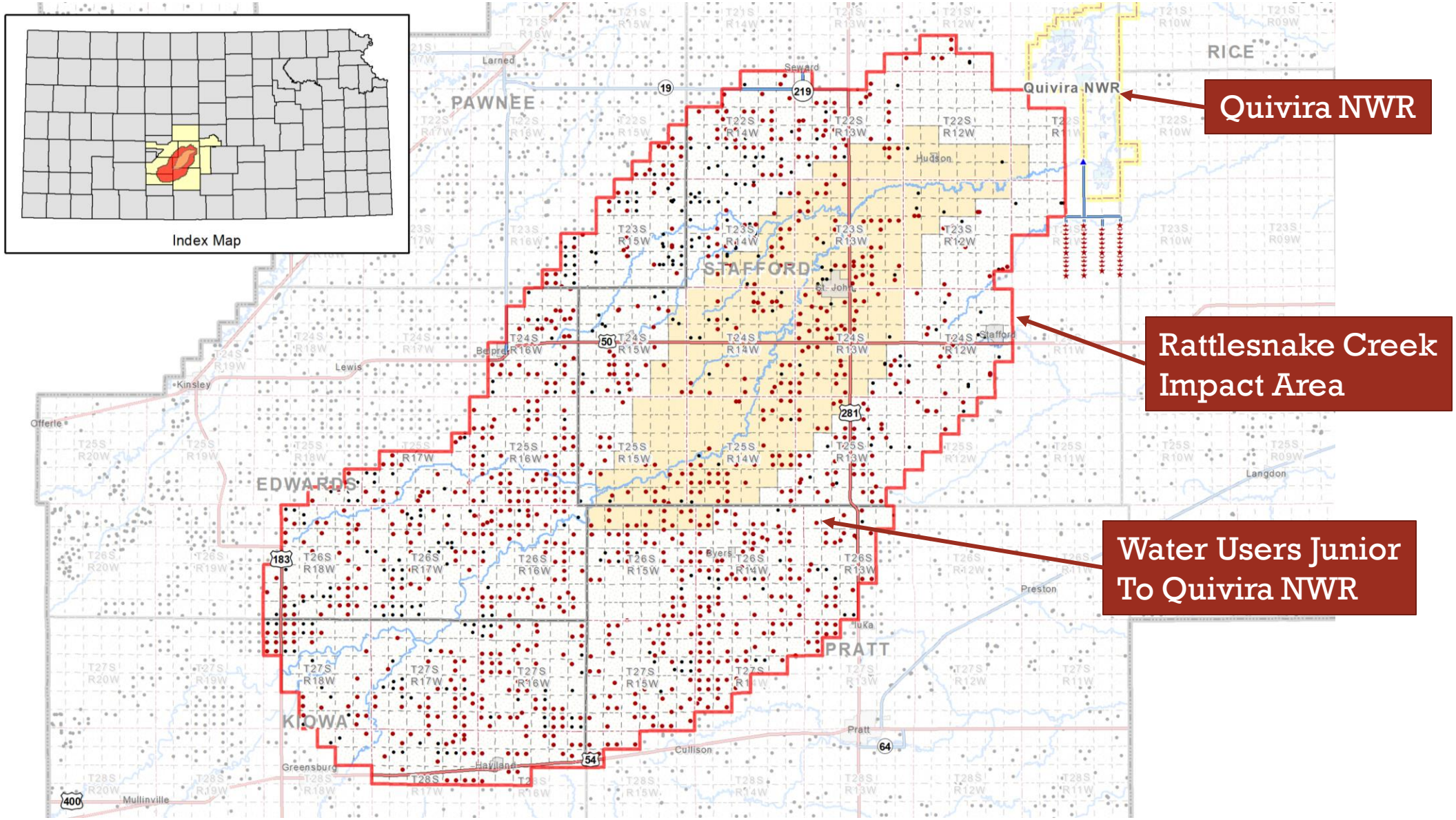
Index Map
Quivira NWR
Rattlesnake Creek Impact Area
Water Users Junior To Quivira NWR
PAWNEE
RICE
STAFFORD
EDWARDS
KIOWA
PRATT
Larned
Seward
Hudson
St. John
Stafford
Belpre
Lewis
Kinsley
Offerle
Langdon
Byers
Preston
Iuka
Pratt
Cullison
Haviland
Greensburg
Mullinville

BACKGROUND

- In 1990's, Quivira NWR identified concerns with water availability on Rattlesnake Creek
- In 2000, Rattlesnake Creek Partnership formed to address concerns through voluntary incentive-based tools
  - Federal, State, Local, and Private groups represented
  - Mixed success for the program objectives but heightened issue for data collection and analysis
- In 2010, Big Bend GMD5 completed comprehensive, high-resolution, multi-layer hydrologic modeling of the region
- In 2013, USFWS formally alleged impairment of water right by Junior water users with KDA–DWR
- In 2016, KDA–DWR issued final impairment report following investigation and modeling analysis

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ISSUE

- KDA–DWR Impairment report findings:
  - Impaired 3000-5000 AF over 12-year period
  - Real-time administration will not work
  - Groundwater reductions and/or Augmentation needed
- In 2016, Big Bend GMD5 submitted a strategic streamflow augmentation proposal to the USFWS for review
  - Declined
- In 2017, Big Bend GMD5 submitted a 2nd streamflow augmentation proposal to the USFWS for review
  - Declined
- In 2017, KDA–DWR presents a strict administrative option as a remedy to the impairment
  - Average 55 % reduction from authorized appropriation
  - Potentially devastating to economy, with minimal gain to availability of water for USFWS

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ISSUE

- In 2017, Big Bend GMD5 committed to pursue a different approach
  - Utilize streamflow augmentation as the primary resolution to the impairment
  - Enhance long-term stability to the area
    - Required removal of end guns from all center pivot systems within the impact area
    - Facilitate permanent transfer or retirement of water out of sensitive areas
- For 2 years, Big Bend GMD5 worked with KDA–DWR to craft a LEMA plan that would be a satisfactory impairment remedy for the Quivira NWR impairment claim
- February 21, 2019 – Big Bend GMD5 formally submitted the Quivira NWR LEMA plan to KDA–DWR for approval and implementation following public hearings

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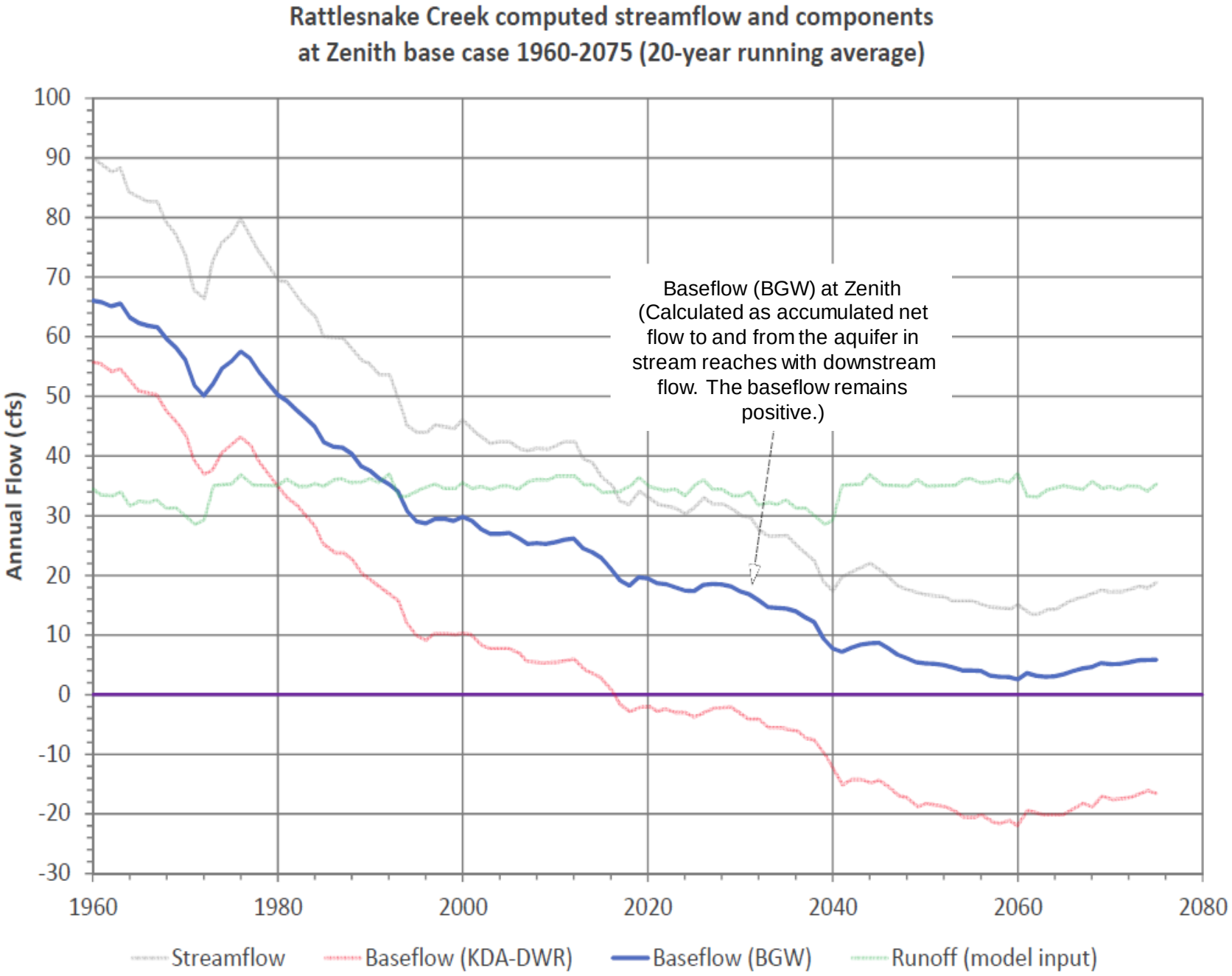
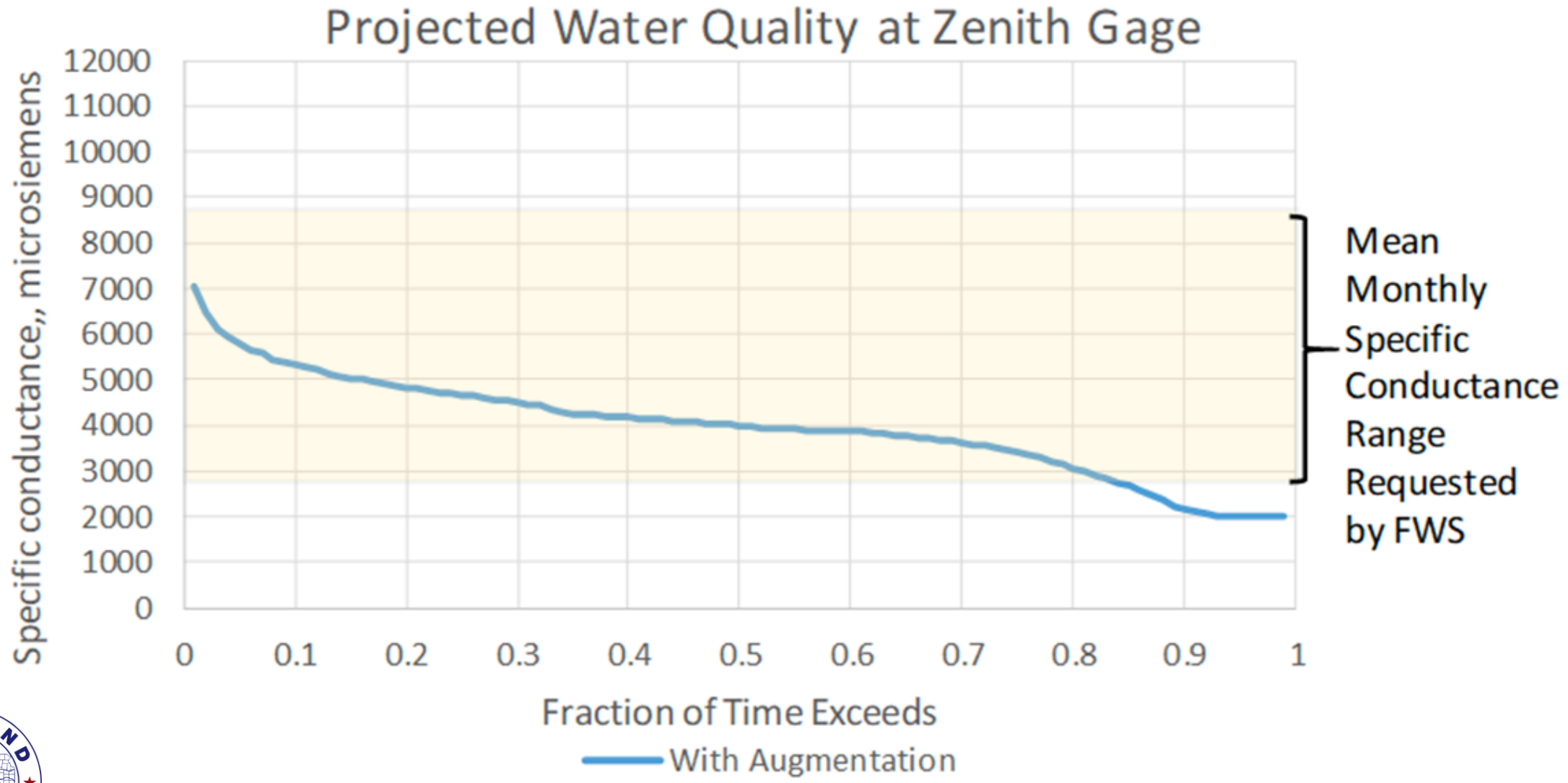
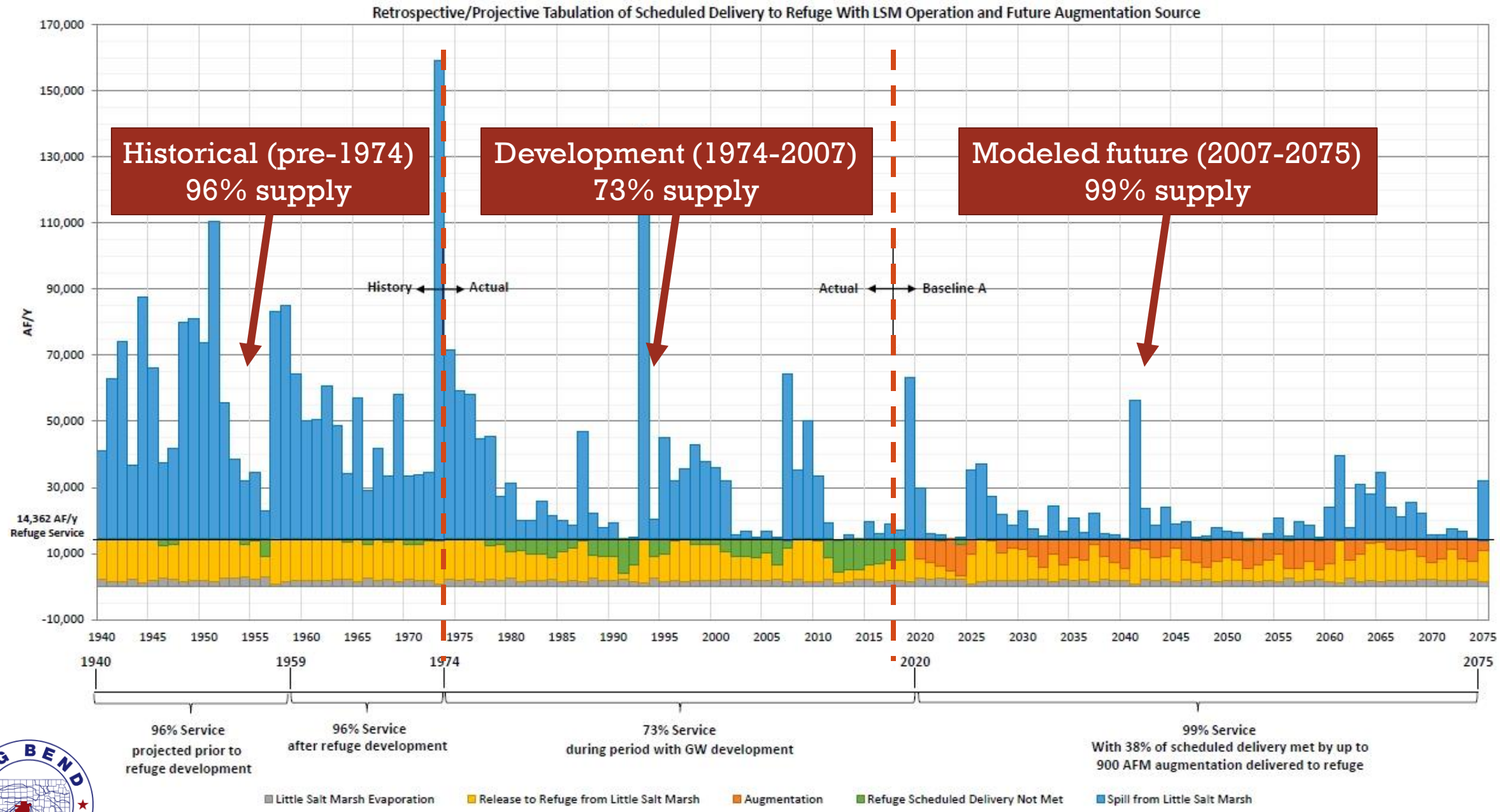


Modeled by Balleau GW [February 14, 2019]



Modeled by Balleau GW [January 4, 2018]



G.M.D.#5

Modeled by Balleau GW [January 24, 2019]

CURRENT STATUS

- July 2019, the LEMA plan was rejected by KDA–DWR in favor of direct administration of the region
- August 2019, the Chief Engineer's decision is appealed to KDA Secretary
- September 2019, the Chief Engineer threatens direct administration pending the Service request to secure water
  - Administer nearly 1400 water rights
  - Phased in over the course of 2020, 2021 & 2022
  - Administrative reductions ranged from 20 to 50 % of the authorized quantity depending on the water right, based on priority
  - Not just irrigated agriculture impacted
  - Economic impact not part of the consideration

"Not to restore any water to the streamflow"

- C. Beightel [October 21, 2019]

CURRENT STATUS

- October 2019, USFWS announced there will not be a request to secure water for fiscal year 2020 in favor of working with local stakeholders to find a voluntary solution
- Big Bend GMD5 is in discussions with USFWS to develop a sustainable and viable plan to bring security to this region for generations to come
  - Science based
  - Economically sustainable
  - Water quality secure
  - Water quantity secure
  - Enhanced relationship with USFWS and local stakeholders

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CURRENT STATUS

- If technically this plan works, what's the problem?
  - Initial KDA–DWR modeling indicated that the proposed plan would be insufficient to be a remedy
  - Peer review of the technical work identified issues with KDA–DWR's initial modeling
  - Big Bend GMD5 pushed for KDA–DWR's technical team to meet directly with the model author (Big Bend GMD5's consultant) - Started but not completed
  - Technical review document by KDA–DWR
    - Agree on modeling and analysis but disagree on interpretation
- What's the risk in waiting for the plan to be implemented?
  - KDA–DWR is statutorily required to provide a remedy in a timely manner
    - Economically devastating
  - USFWS, or representative, could file for judicial relief
    - Economically devastating

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CURRENT STATUS

- If technically streamflow augmentation works, what's the problem?
  - It's EXPENSIVE!
  - There's no guarantee that KDA-DWR will consider streamflow augmentation, as proposed, to be an impairment remedy
    - Threat of double jeopardy for the area water users that would be paying for the augmentation
    - There's precedent that KDA-DWR doesn't accept streamflow augmentation as remedies to streamflow shortages

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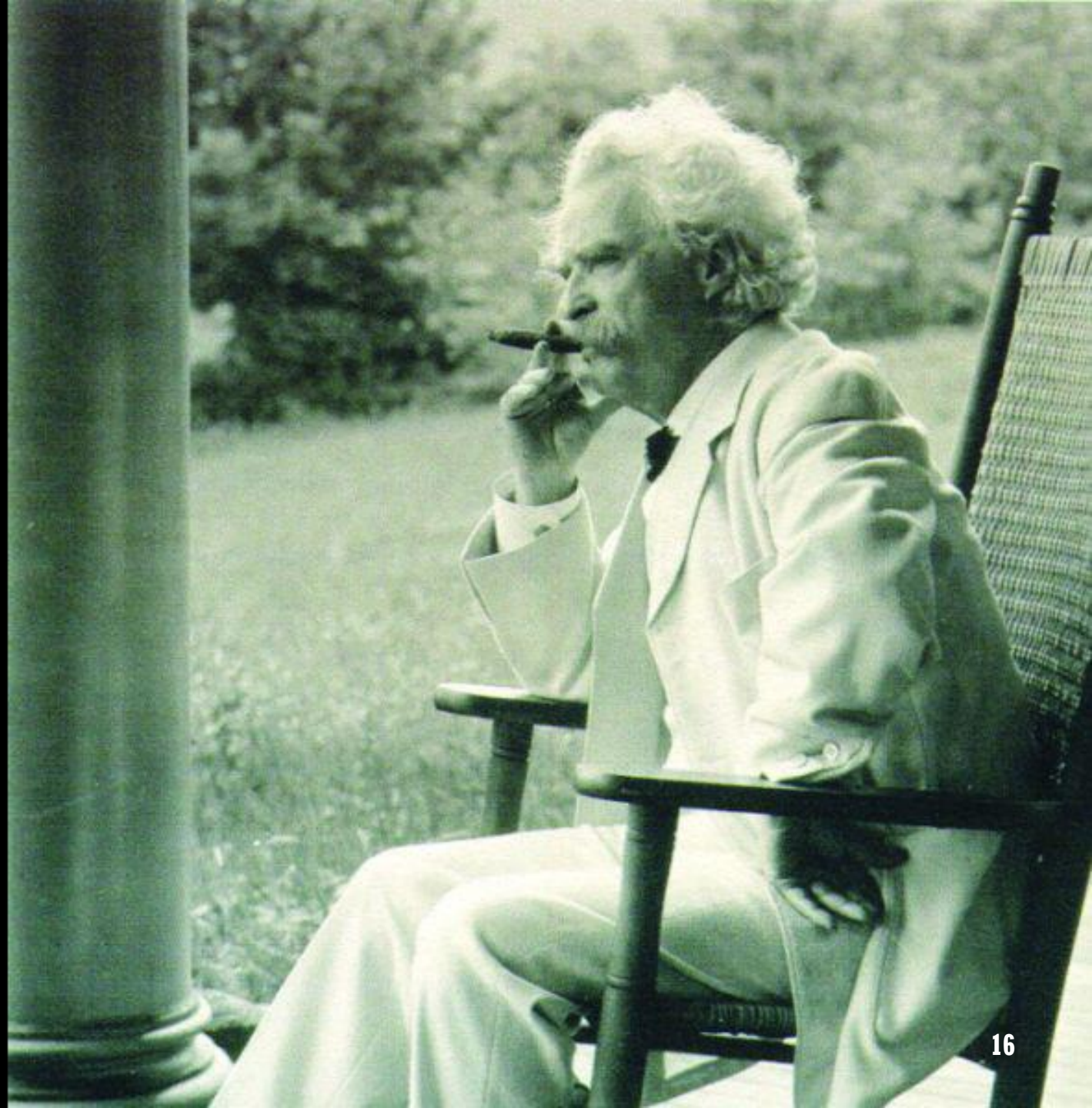
"Whiskey is for Drinking & Water is for Fighting"

- Mark Twain



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Big Bend GMD5

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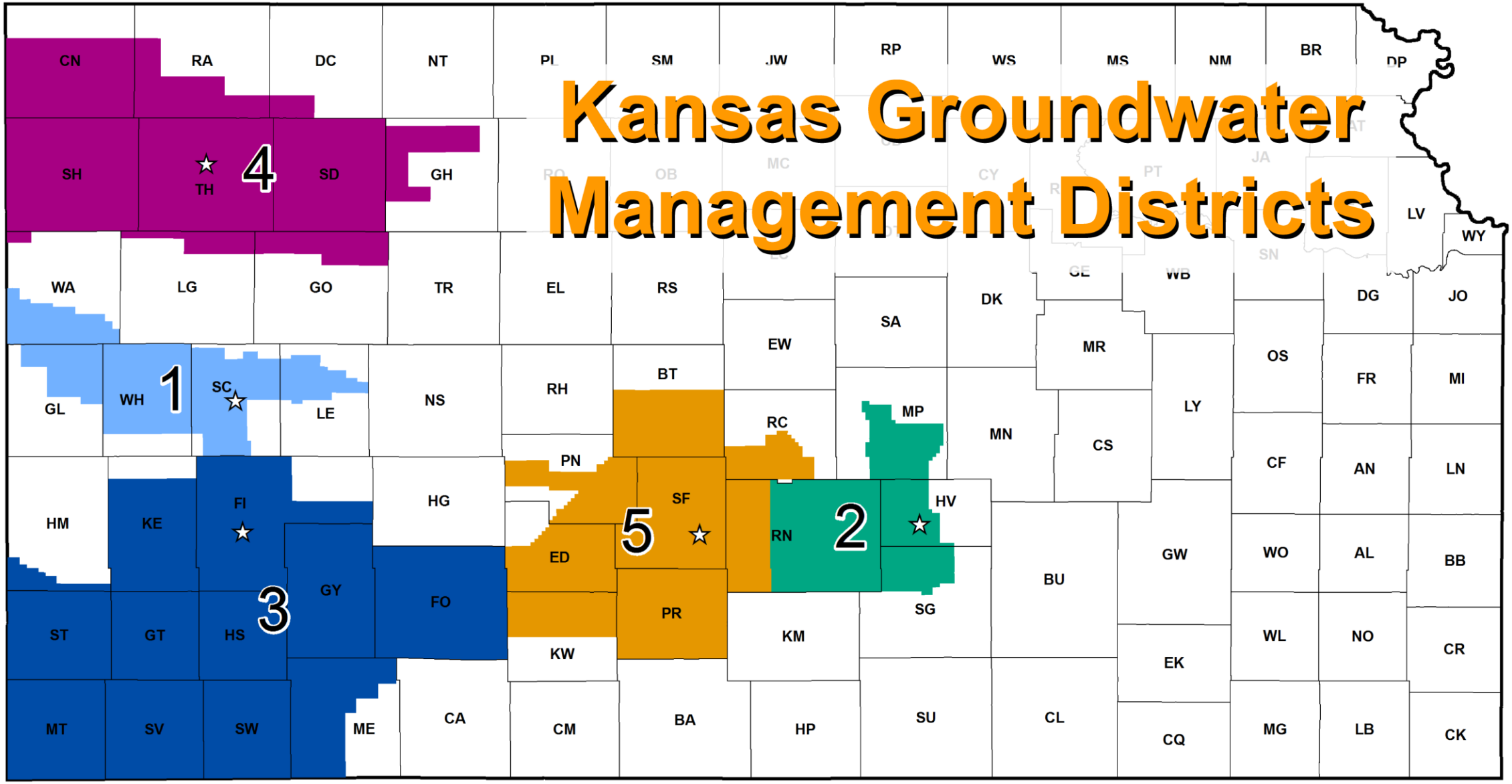
https://gmd5.org/proposed-rsc-lema

Kansas Groundwater Management Districts