CAST Issue Paper 63

Aquifer Depletion and Potential Impacts on Long-term Irrigated Agricultural Productivity

Chair: John Tracy, Texas A&M University; 10-member task force

Release/Rollout

On February 25, 2019, Dr. John Tracy, the task force chair, conducted a briefing for House staffers at a noon lunch seminar, and in the afternoon of February 26, he did the same for Senate staffers. Later in the day on February 26, a panel, presentation, and reception were held at the American Farm Bureau Federation. We had 112 RSVPs to attend these three briefings. The AFBF event was streamed through Facebook Live.

In-kind Contributions: 260 volunteer hours; $19,240 monetary value

Press Release (results two weeks after release)

- Press release went to 8,348 e-contacts (1,686 media) resulting in 3,523 opens/interactions.
- The press release through PRWeb resulted in 1,964 views and reached 985 targeted influencers (journalists).
- A sampling of sites where the release was picked up: Latest Water News, National Grain and Feed Association, Oklahoma Farm Report, RFD-TV, Seed Daily, Southern Crop Production Association, Texas Water Journal, Water Online, Water Wired, and multiple news channel affiliates.

Follow-On Activities

- Video of Dr. Tracy’s presentation and slides posted on CAST website and YouTube. Click here to view. (293 Facebook views and 315 YouTube views as of February 25, 2021)

Dr. John Tracy presents highlights from our newly released issue paper, followed by a panel discussion with water resource experts. **DOWNLOAD...**

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469 People Reached 108 Engagements

This report last updated 2/25/2021.
USDA-NIFA AFRI CAP project focused on sustaining agricultural production in the Ogallala Aquifer region requested permission to use portions of the CAST issue paper in a shortened/summarized version for the Nebraska Water Current magazine published by the Nebraska Water Resources Research Center that is focusing on Ogallala Water issues. January 2020

**Paper Distribution**

- Paper distribution (print and CAST online)—5,300

**Indirect Paper Distribution**

ACSESS Digital Library
https://dl.sciencesocieties.org/issue-papers

Ogallalawater.org
https://www.ogallalawater.org/people/john-tracy/

**Articles and Web Mentions**

*AgFax*, March 26, 2019
*Aquifers, Groundwater: Impact on Long-Term Irrigated Ag Productivity*

*AgriLife Today*, March 22, 2019
*New publication examines consequences of groundwater depletion to agriculture*
https://today.agrilife.org/2019/03/22/new-publication-examines-consequences-of-groundwater-depletion-to-agriculture-2/?fbclid=IwAR1jbCdplYHk6ex42QdwgV50ADZDp3ycHq_SFUbI326JcWUKhZFRF5YURPU
This article also picked up by Cornerstone Ranching Solutions, Hill Country Alliance, *North Texas E-News*, *Phys.org*, *Texas A&M Agrilife Extension*, *Texas Water Resources Institute*

*AgriPulse*, February 27, 2019
Hannah Pagel, *CAST report looks at challenges of aquifer depletion*

*ATTRA – Sustainable Agriculture Program*, March 27, 2019
Tracy Mumma, *Issue Paper Examines Impacts of Groundwater Depletion on Agriculture*

*Gold-Eaggle Cooperative, Morning Commentary*, March 27, 2019
https://www.goldeaglecoop.com/news/morning-commentary-190/

*Mississippi Soybean Promotion Board*, March 11, 2019
Larry Heatherly, *Irrigation and Aquifer Depletion*
https://www.mssoy.org/article/irrigation-and-aquifer-depletion

*Panhandle Perspectives, University of Nebraska-Lincoln*, April 10, 2019
Dave Ostdiek, *National paper on aquifer depletion relies on western Nebraska expertise, experiences*
https://extension.unl.edu/statewide/panhandle/panhandle-perspectives-april-10-2019/

*Texas A&M – Engineering*, March 20, 2019
Robert (Chris) Scoggins, *Texas A&M faculty address groundwater depletion effects on agriculture in publication*

This report last updated 2/25/2021.
The Water Network, March 26, 2019
CAST Paper Explores Long-term Impacts of Aquifer Depletion on U.S. Agriculture
https://thewaternetwork.com/_/sustainable-agriculture/article-FfV/cast-paper-explores-long-term-impacts-of-aquifer-depletion-on-u-s-agriculture-uGuK6RbdCMa7mAWaFTtHCg?fbclid=IwAR1-84wfl_Sn3gCdBDt8d98-IbKMnF5b_tYztY3vZDK7ke_P-BIqYLc3ojl

Water Quality Products Magazine, March 27, 2019
Study Explores Impact of Groundwater Depletion

Water and Wastes Digest, March 26, 2019
CAST Paper Explores Long-term Impacts of Aquifer Depletion on U.S. Agriculture
https://www.wwdmc.com/groundwater/study-examines-consequences-groundwater-depletion

Citations
A Green New Deal for Public Farmland, Kendall Dix, February 19, 2021
https://kendalldix.medium.com/a-green-new-deal-for-public-farmland-1af29f113650

American Society of Agricultural and Biological Engineers, 2019, Isabella Possignolo, Xin Qiao, Wei-zhen Liang, Utilizing Infrared Radiometry Thermometer and Two Source Energy Balance Model for Irrigation Scheduling of Dry Edible Beans in Western Nebraska: Part 1. Experiment

https://doi.org/10.1093/oxrep/grz033

https://link.springer.com/chapter/10.1007/978-3-030-48110-0_3

Social Media

Twitter—
@WaterWired, February 11, 2019
https://twitter.com/WaterWired/status/1094982804474015750

@CASTagScience, February 14, 2019
https://twitter.com/CASTagScience/status/1096099250352447488

@CASTagScience, February 19, 2019
https://twitter.com/CASTagScience/status/1097863525106675713

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@CASTagScience, February 20, 2019  
https://twitter.com/CASTagScience/status/1098345389663621120

@chostetler1967, February 20, 2019  
https://twitter.com/chostetler1967/status/1098390951012323328

@CASTagScience, February 22, 2019  
https://twitter.com/CASTagScience/status/1098996864270155777

@TxWRI, February 22, 2019  
https://twitter.com/TxWRI/status/1098944504894238721

@Ron_on_RON, February 25, 2019  
https://twitter.com/Ron_on_RON/status/1100147562529476608

@CASTagScience, February 25, 2019  
https://twitter.com/CASTagScience/status/1100036443001413637

@CASTagScience, February 25, 2019  
https://twitter.com/CASTagScience/status/1100091342863171585

@CASTagScience, February 25, 2019  
https://twitter.com/CASTagScience/status/1100202537125203968

@TxWRI, February 25, 2019  
https://twitter.com/TxWRI/status/1100031665441857538

@WaterWired, February 25, 2019  
https://twitter.com/WaterWired/status/1100060909781671941

@CASTagScience, February 26, 2019  
https://twitter.com/CASTagScience/status/1100470558414667776

@CASTagScience, February 26, 2019  
https://twitter.com/CASTagScience/status/1100500753024774144

@CASTagScience, February 26, 2019  
https://twitter.com/CASTagScience/status/1100511189073838080

@ucanrwater, February 26, 2019  
https://twitter.com/ucanrwater/status/1100524758565834753

@TxWRI, February 26, 2019  
https://twitter.com/TxWRI/status/1100408492223913984

@WaterOnline, February 26, 2019

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@TxWRI, February 26, 2019
https://twitter.com/TxWRI/status/1100512806070300672

@agripulse, February 27, 2019
https://twitter.com/agripulse/status/1100829166616735744

@MidAmericaCrop, March 1, 2019
https://twitter.com/MidAmericaCrop/status/1101527657299218433

@CASTagScience, March 3, 2019
https://twitter.com/CASTagScience/status/1102328295075602433

@WaterWired, March 6, 2019
https://twitter.com/WaterWired/status/110390713633398788

@TxWRI, March 7, 2019
https://twitter.com/TxWRI/status/1103655552515796992

@WaterWired, March 7, 2019
https://twitter.com/WaterWired/status/11036900768766714

@WaterWired, March 9, 2019
https://twitter.com/WaterWired/status/110443109901914112

@TxWRI, March 12, 2019
https://twitter.com/TxWRI/status/1105609922698534914

@NorthPlainsGCD, March 18, 2019
https://twitter.com/NorthPlainsGCD/status/1107648004746608646

@CASTagScience, March 25, 2019
https://twitter.com/CASTagScience/status/1110187464377929729

@iWWDnews, March 26, 2019
https://twitter.com/iWWDnews/status/11105339601521868

@TxWRI, March 29, 2019
https://twitter.com/TxWRI/status/1111738807139946497

@northcentralh2o, April 8, 2019
https://twitter.com/northcentralh2o/status/1115313751476056065

@stuartismyth66, April 15, 2019
https://twitter.com/stuartismyth66/status/1117800573871509504

This report last updated 2/25/2021.
@CASTagScience, May 29, 2019
https://twitter.com/CASTagScience/status/1133726156883156992

@CASTagScience, July 7, 2019
https://twitter.com/CASTagScience/status/1147983125739397122

@CASTagScience, August 13, 2019
https://twitter.com/CASTagScience/status/1161316985583439873

@CASTagScience, August 7, 2020
https://twitter.com/CASTagScience/status/1291738382809411584
1 retweet, 2 likes

Facebook—
MidAmerica CropLife Association, February 8, 2019
https://www.facebook.com/MACroplifeA/posts/2428329937241660

@CASTagScience, February 14, 2019
https://www.facebook.com/CASTagScience/posts/2127925600635558

@CASTagScience, February 19, 2019
https://www.facebook.com/CASTagScience/posts/2137025966392188

@CASTagScience, February 20, 2019
https://www.facebook.com/CASTagScience/posts/523773841362419

@CASTagScience, February 20, 2019
https://www.facebook.com/CASTagScience/posts/2139096599518458

@txwri, February 21, 2019
https://www.facebook.com/txwri/posts/2230303090543361

@txwri, February 24, 2019
https://www.facebook.com/txwri/posts/2232258877014449

@CASTagScience, February 25, 2019
https://www.facebook.com/CASTagScience/posts/2139098626184922

@txwri, February 25, 2019
https://www.facebook.com/txwri/photos/a.1386061634967515/2232832216957115/?type=3

@Jeanette.lombardo, February 25, 2019
https://www.facebook.com/jeanette.lombardo.5/posts/2608854132463223

@CASTagScience, February 26, 2019

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@TexasWaterJournal, March 29, 2019
https://www.facebook.com/TexasWaterJournal/posts/211489472239145

@CASTagScience, March 29, 2019
https://www.facebook.com/CASTagScience/posts/2191587670936017

@txwri, April 4, 2019
https://www.facebook.com/txwri/posts/2254791251427878

MidAmerica CropLife Association, June 7, 2019
https://www.facebook.com/MACroplifeA/posts/2692565237484794

@CASTagScience, July 2, 2019
https://www.facebook.com/CASTagScience/posts/2344950915599691

@CASTagScience, July 7, 2019
https://www.facebook.com/CASTagScience/posts/2348287305266052

@CASTagScience, August 13, 2019
https://www.facebook.com/CASTagScience/posts/2421909501237165

@txwri, August 13, 2019
https://www.facebook.com/txwri/posts/2343409849232684

@CASTagScience, August 7, 2020
5 likes, 1 comment

LinkedIn—
CAST, February 14, 2019

CAST, February 21, 2019

CAST, February 25, 2019

CAST, February 26, 2019

Michael Campana, February 2019
https://www.linkedin.com/posts/michael-campana-2232ba7a_video-publication-and-more-from-cast-aquifer-activity-6509157323225862144-I5iF

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CAST, February 28, 2019

William (Bill) Kemp, March 25, 2019

CAST, July 7, 2019

CAST, August 13, 2019

Blogger—
CAST, February 21, 2019

CAST, July 1, 2019

Friday Notes

January 4, 2019
February 1, 2019
February 8, 2019
February 15, 2019
February 22, 2019
March1, 2019
April 5, 2019
April 26, 2019
May 10, 2019
June 7, 2019
June 28, 2019
August 9, 2019

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