



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)



Council for Agricultural Science and Technology (CAST)

was live.

about 6 months ago · 🌐



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

**DOWNLOAD:...

[See More](#)

469
People Reached

106
Engagements

[Boost Post](#)

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

<https://agfax.com/2019/03/26/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_SFUbl326JcWUKhZFRF5YURPU

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*

<https://www.agri-pulse.com/articles/11932-cast-report-looks-at-aquifer-depletion-and-ag-production-impact>

ATTRA – Sustainable Agriculture Program, March 27, 2019

Tracy Mumma, *Issue Paper Examines Impacts of Groundwater Depletion on Agriculture*

<https://attra.ncat.org/issue-paper-examines-impacts-of-groundwater-depletion-on-agriculture/>

Gold-Eagle 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.

<https://engineering.tamu.edu/news/2019/03/Texas-AM-faculty-address-groundwater-depletion-effects-on-agriculture-in-publication.html?fbclid=IwAR3T77Yc5PNHhPWmm1t-8SeRY5ytjvD2Dvom9-BOKODGJYv1YiVXrbuDlxA>

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-lbKMnF5b_tYztY3vZDK7ke_P-BIqYLc3ojl

Water Quality Products Magazine, March 27, 2019

Study Explores Impact of Groundwater Depletion

<https://www.wqpmag.com/groundwater-treatment/study-explores-impact-groundwater-depletion>

Water and Wastes Digest, March 26, 2019

CAST Paper Explores Long-term Impacts of Aquifer Depletion on U.S. Agriculture

<https://www.wwdmag.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://elibrary.asabe.org/abstract.asp?aid=50595>

Oxford Review of Economic Policy, Volume 36, Issue 1, Spring 2020, Pages 154–170, William Blomquist,

Published: 06 January 2020, *Beneath the surface: complexities and groundwater policy-making*

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

Water Resilience, *The Sustainable Groundwater Management Act (SGMA): California's Prescription for Common Challenges of Groundwater Governance*, pp 41-63, Michael Roberts, Anita Milman, William Blomquist, September 22, 2020

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>

This report last updated 2/25/2021.

@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_ROM, February, 25, 2019

https://twitter.com/Ron_on_ROM/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

This report last updated 2/25/2021.

<https://twitter.com/WaterOnline/status/1100469334416211969>

@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/1103390713633398788>

@TxWRI, March 7, 2019

<https://twitter.com/TxWRI/status/1103655552515796992>

@WaterWired, March 7, 2019

<https://twitter.com/WaterWired/status/1103669007687667714>

@WaterWired, March 9, 2019

<https://twitter.com/WaterWired/status/1104443109901914112>

@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/1110553396015218688>

@TxWRI, March 29, 2019

<https://twitter.com/TxWRI/status/1111738807139946497>

@northcentralh2o, April 8, 2019

<https://twitter.com/northcentralh2o/status/1115313751476056065>

@stuartsmyth66, April 15, 2019

<https://twitter.com/stuartsmyth66/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*

This report last updated 2/25/2021.

<https://www.facebook.com/CASTagScience/videos/vl.2102501013149807/2301145310117029/?type=1>

@Growerspoint.com, February 26, 2019

https://www.facebook.com/permalink.php?story_fbid=2390197187717288&id=1799331240137222

Texas Water Resources Institute, February 26, 2019

<https://www.facebook.com/txwri/posts/2233176920255978>

@TexasWaterJournal, February 26, 2019

<https://www.facebook.com/TexasWaterJournal/posts/2070247136363379>

@Green-Country-Guardians, February 26, 2019

https://www.facebook.com/permalink.php?story_fbid=303893386989946&id=249280959117856

@AgriPulseDC, February 27, 2019

<https://www.facebook.com/AgriPulseDC/posts/2339339762743349>

@CASTagScience, February 28, 2019

https://www.facebook.com/pg/CASTagScience/photos/?tab=album&album_id=2151316658296452

MidAmerica CropLife Association, March 1, 2019

<https://www.facebook.com/MACroplifeA/posts/2474669715941015>

@CASTagScience, March 2, 2019

<https://www.facebook.com/CASTagScience/posts/2152364118191706>

Bill Kemp, March 25, 2019

<https://www.facebook.com/groups/DigitalHabitatsCommunity/permalink/1265560333607371/>

@scitech2018, March 25, 2019

<https://www.facebook.com/scitech2018/posts/2358030754247948>

@Sustainable.Food.Systems.UF.IFAS, March 25, 2019

<https://www.facebook.com/Sustainable.Food.Systems.UF.IFAS/posts/2170128489747473>

@4biddenKnowledge, March 25, 2019

<https://www.facebook.com/4biddenKnowledge/posts/905415802966749>

@thewaternetwork, March 26, 2019

<https://www.facebook.com/thewaternetwork/posts/2725793697447031>

International Association of Hydrogeologists, March 26, 2019

<https://www.facebook.com/iah.org/posts/2309841422406916>

This report last updated 2/25/2021.

@TexasWaterJournal, March 29, 2019

<https://www.facebook.com/TexasWaterJournal/posts/2111489472239145>

@CASTagScience, March 29, 2019

<https://www.facebook.com/CASTagScience/posts/2191587670936017>

@txwri, April 4, 2019

<https://www.facebook.com/txwri/posts/2254791251427878>

MidAmerica CroLife 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

<https://www.facebook.com/CASTagScience/photos/a.477568575671277/3229415027153271>

5 likes, 1 comment

LinkedIn—

CAST, February 14, 2019

<https://www.linkedin.com/feed/update/urn:li:activity:6501850041756585984>

CAST, February 21, 2019

<https://www.linkedin.com/feed/update/urn:li:activity:6504386701979381760/>

CAST, February 25, 2019

<https://www.linkedin.com/feed/update/urn:li:activity:6505802256355508224>

CAST, February 26, 2019

<https://www.linkedin.com/feed/update/urn:li:activity:6506221602412253184>

Michael Campana, February 2019

https://www.linkedin.com/posts/michael-campana-2232ba7a_video-publication-and-more-from-cast-aquifer-activity-6509157323225862144-l5iF

This report last updated 2/25/2021.

CAST, February 28, 2019

<https://www.linkedin.com/feed/update/urn:li:activity:6506963573607067648>

William (Bill) Kemp, March 25, 2019

<https://www.linkedin.com/feed/update/urn:li:activity:6515944869708464128/>

CAST, July 7, 2019

<https://www.linkedin.com/feed/update/urn:li:activity:6551500807026589697>

CAST, August 13, 2019

<https://www.linkedin.com/feed/update/urn:li:activity:6567073439000076288>

Blogger—

CAST, February 21, 2019

<http://cast-science.blogspot.com/2019/02/groundwater-concerns-span-across-us.html>

CAST, July 1, 2019

<http://cast-science.blogspot.com/2019/07/infographic-agricultural-practices-and.html>

Friday Notes

[January 4, 2019](#)

[February 1, 2019](#)

[February 8, 2019](#)

[February 15, 2019](#)

[February 22, 2019](#)

[March 1, 2019](#)

[April 5, 2019](#)

[April 26, 2019](#)

[May 10, 2019](#)

[June 7, 2019](#)

[June 28, 2019](#)

[August 9, 2019](#)

This report last updated 2/25/2021.

[August 16, 2019](#)

[February 21, 2020](#)

This report last updated 2/25/2021.