

# GRACE-FO Earth Science Senior Review 2026

## CITATIONS



- Abdelmohsen, K., J. S. Famiglietti, Y. Z. Ao, B. Mohajer, and H. A. Chandanpurkar, 2025: Declining freshwater availability in the Colorado River basin threatens sustainability of its critical groundwater supplies. *Geophys. Res. Lett.*, **52** (11), e2025GL115593, <https://doi.org/10.1029/2025GL115593>.
- Blank, B., S. M. Bhere, M. J. Reddy, A. Sun, A. Rateb, B. R. Scanlon, and Y. Pokhrel, 2025: Global terrestrial water storage capacity and flood potential using GRACE. *Water Resour. Res.*, **61** (12), e2024WR037564, <https://doi.org/10.1029/2024WR037564>.
- Boeing, F., T. Wagener, A. Marx, O. Rakovec, R. Kumar, L. Samaniego, and S. Attinger, 2024: Increasing influence of evapotranspiration on prolonged water storage recovery in Germany. *Environ. Res. Lett.*, **19** (3), 034021, <https://doi.org/10.1088/1748-9326/ad24ce>.
- Chandanpurkar, H. A., J. S. Famiglietti, K. Gopalan, D. N. Wiese, Y. Wada, K. Kakinuma, J. T. Reager, and F. Zhang, 2025: Unprecedented continental drying, shrinking freshwater availability, and increasing land contributions to sea level rise. *Sci. Adv.*, **11** (30), eadx0298, <https://doi.org/10.1126/sciadv.adx0298>.
- Famiglietti, J. S., M. Lo, S. L. Ho, J. Bethune, K. J. Anderson, T. H. Syed, S. C. Swenson, C. R. de Linage, and M. Rodell, 2011: Satellites measure recent rates of groundwater depletion in California's Central Valley. *Geophys. Res. Lett.*, **38** (3), L03403, <https://doi.org/10.1029/2010GL046442>.
- Forootan, E., N. Mehrnegar, M. Schumacher, L. A. Retegui Schiettekatte, T. Jaghuber, S. Farzaneh, A. I. J. M. van Dijk, M. Shamsudduha, and C. K. Shum, 2023: Global groundwater droughts are more severe than they appear in hydrological models: An investigation through a Bayesian merging of GRACE and GRACE-FO data with a water balance model. *Sci. Total Environ.*, 912, 169476, <https://doi.org/10.1016/j.scitotenv.2023.169476>.
- Gouranton, C. G., I. Panet, M. Greff-Lefftz, M. Manda, and S. Rosat, 2025: GRACE detection of transient mass redistributions during a mineral phase transition in the deep mantle. *Geophys. Res. Lett.*, **52** (17), e2025GL116408, <https://doi.org/10.1029/2025GL116408>.
- Kvas, A., E. Boergens, H. Dobslaw, A. Eicker, T. Mayer-Guerr, and A. Güntner, 2024: Evaluating long-term water storage trends in small catchments and aquifers from a joint inversion of 20 years of GRACE/GRACE-FO mission data. *Geophys. J. Int.*, **236** (2), 1002–1012, <https://doi.org/10.1093/gji/ggad468>.
- Ludwigsen, C. B., O. B. Anderson, B. Marzeion, J. H. Malles, H. M. Schmied, P. Döll, C. Watson, and M. A. King, 2024: Global and regional ocean mass budget closure since 2003. *Nat. Commun.*, **15** (1), 1435, <https://doi.org/10.1038/s41467-024-45726-w>.
- Li, B., M. Rodell, S. Kumar, H. K. Beaudoin, A. Getirana, B. F. Zaitchik, and Coauthors, 2019: Global GRACE data assimilation for groundwater and drought monitoring: Advances and challenges. *Water Resour. Res.*, **55** (9), 7564–7586, <https://doi.org/10.1029/2018WR024618>.

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O'Neill, M. E., and M. Rodell, 2026: Recent increases in the frequency and intensity of global terrestrial wet and dry extremes. *J. Climate*, **39**, 1245–1262, <https://doi.org/10.1175/JCLI-D-25-0482.1>.

Rodell, M., I. Velicogna, and J. S. Famiglietti, 2009: Satellite-based estimates of groundwater depletion in India. *Nature*, **460**, 999–1002, <https://doi.org/10.1038/nature08238>.

Scanlon, B. R., Pool, D. R., Rateb, A., Conway, B., Sorensen, K., Udall, B., & Reedy, R. C. (2025), Multidecadal drought impacts on the Lower Colorado Basin with implications for future management, *Communications Earth & Environment*, 6(1), 13. [10.1038/s43247-025-02149-9](https://doi.org/10.1038/s43247-025-02149-9).

Sweet, W. V., B. D. Hamlington, R. E. Kopp, C. P. Weaver, P. L. Barnard, D. Bekaert, W. Brooks, M. Craghan, G. Dusek, T. Frederikse, G. Garner, A. S. Genz, J. P. Krasting, E. Larour, D. Marcy, J. J. Marra, J. Obeysekera, M. Osler, M. Pendleton, D. Roman, L. Schmied, W. Veatch, K. D. White, and C. Zuzak, 2022: Global and Regional Sea Level Rise Scenarios for the United States: Updated Mean Projections and Extreme Water Level Probabilities Along U.S. Coastlines. NOAA Tech. Rep. NOS 01, 111 pp., <https://doi.org/10.25923/6msr-9f22>.

U.S. Drought Monitor, 2025: Current Map. National Drought Mitigation Center, accessed 12 March 2026, <https://droughtmonitor.unl.edu/CurrentMap.aspx>.

Velicogna, I., and T. Sutterley, 2025: Update on ice sheet mass balance from GRACE-FO. *Proc. GRACE/GRACE-FO Science Team Meeting (GFO-STM)*, Potsdam, Germany.

Zhao, M., E. L. McCormick, G. A. A. G. Konings, and B. Li, 2025: Substantial root-zone water storage capacity observed by GRACE and GRACE/FO. *Hydrol. Earth Syst. Sci.*, **29** (10), 2293–2307, <https://doi.org/10.5194/hess-29-2293-2025>.

Zhao, Y., L. E. B. Hoeltgebaum, M. S. Kukal, and M. Zhao, 2025: Leading satellite-based evapotranspiration products insufficiently capture interannual variability: Evidence from GRACE/FO and in situ observations. *Geophys. Res. Lett.*, **52**(4), e2025GL116784, <https://doi.org/10.1029/2025GL116784>.

Zilberman, N. V., W. Llovel, J. Steinberg, B. Meyssignac, M. Ablain, and R. Fraudeau, 2025: Regional ocean mass change from GRACE/GRACE-FO and satellite altimetry. *Geophys. Res. Lett.*, **52** (2), e2024GL114158, <https://doi.org/10.1029/2024GL114158>.