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Nitrogen Newsletter is a summary of recent publications, news and reports related to the cycling, effects and management of nitrogen. Prepared by Mary O'Brien, contractor with ASRC Federal Primus, and Jana Compton. Contact Jana Compton with any questions (Compton.jana@epa.gov)

Please note: Most of these links are available to EPA staff through library access – not all links will be available to folks outside EPA, depending on your access to specific journals and websites.

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Special Issues

Curtis CJ, Battarbee RW, Monteith DT, Shilland EM, editors. 2014 Feb. **Threats to upland waters**. Ecological Indicators 37, Part B: 267-430. Available from: <http://www.sciencedirect.com/science/journal/1470160X/37>

Ferretti M, Schaub M, editors. 2014 Jan 1. **Monitoring European forests: detecting and understanding changes**. Forest Ecology and Management 311: Pages 1-70. Available from: <http://www.sciencedirect.com/science/journal/03781127/311>

Lancelot C, Gypens N, editors. 2013 Dec. **Tracing and integrating modelling of natural and anthropogenic effects on hydrosystems**. Journal of Marine Systems 128: 1-242. Available from: <http://www.sciencedirect.com/science/journal/09247963/128>

Articles

Abalos D, De Deyn GB, Kuyper TW, van Groenigen JW. 2014. **Plant species identity surpasses species richness as a key driver of N2O emissions from grassland**. Global Change Biol 20(1): 265-275. Available from: <http://dx.doi.org/10.1111/gcb.12350>

Babaee S, Nagpure AS, DeCarolis JF. 2014. **How much do electric drive vehicles matter to future U.S. emissions?** Environ Sci Technol Article ASAP. Available from: <http://dx.doi.org/10.1021/es4045677>

Baral BR, Kuyper TW, Van Groenigen JW. 2014. **Liebig's law of the minimum applied to a greenhouse gas: alleviation of P-limitation reduces soil N₂O emission.** Plant Soil 374(1-2): 539-548. Available from: <http://dx.doi.org/10.1007/s11104-013-1913-8>

Barlow JRB, Kroger R. 2014. **Nitrogen transport within an agricultural landscape: insights on how hydrology, biogeochemistry, and the landscape intersect to control the fate and transport of nitrogen in the Mississippi Delta.** J Soil Water Conserv 69(1): 11A-16A. Available from: <http://dx.doi.org/10.2489/jswc.69.1.11A>

Bergstrom AK, Faithfull C, Karlsson D, Karlsson J. 2013. **Nitrogen deposition and warming - effects on phytoplankton nutrient limitation in subarctic lakes.** Global Change Biol 19(8): 2557-2568. Available from: <http://dx.doi.org/10.1111/gcb.12234>

Bourbonnais A, Lehmann MF, Hamme RC, Manning CC, Juniper SK. 2013. **Nitrate elimination and regeneration as evidenced by dissolved inorganic nitrogen isotopes in Saanich Inlet, a seasonally anoxic fjord.** Mar Chem 157: 194-207. Available from: <http://dx.doi.org/10.1016/j.marchem.2013.09.006>

Bowatte S, Newton PCD, Theobald P, Brock S, Hunt C, Lieffering M, Sevier S, Gebbie S, Luo DW. 2014. **Emissions of nitrous oxide from the leaves of grasses.** Plant Soil 374(1-2): 275-283. Available from: <http://dx.doi.org/10.1007/s11104-013-1879-6>

Castro-Diez P, Godoy O, Alonso A, Gallardo A, Saldana A. 2014. **What explains variation in the impacts of exotic plant invasions on the nitrogen cycle? A meta-analysis.** Ecol Lett 17(1): 1-12. Available from: <http://dx.doi.org/10.1111/ele.12197>

Chiwa M, Enoki T, Higashi N, Kumagai T, Otsuki K. 2013. **The increased contribution of atmospheric nitrogen deposition to nitrogen cycling in a rural forested area of Kyushu, Japan.** Water Air Soil Poll 224(11): 1763. Available from: <http://dx.doi.org/10.1007/s11270-013-1763-2>

Coble AA, Hart SC. 2013. **The significance of atmospheric nutrient inputs and canopy interception of precipitation during ecosystem development in pinon-juniper woodlands of the southwestern USA.** J Arid Environ 98: 79-87. Available from: <http://dx.doi.org/10.1016/j.jaridenv.2013.08.002>

Coombs JS, Melack JM. 2013. **Initial impacts of a wildfire on hydrology and suspended sediment and nutrient export in California chaparral watersheds.** Hydrol Process 27(26): 3842-3851. Available from: <http://dx.doi.org/10.1002/hyp.9508>

Cowles TR, McNeil BE, Eshleman KN, Deel LN, Townsend PA. 2014. **Does the spatial arrangement of disturbance within forested watersheds affect loadings of nitrogen to stream waters? A test using Landsat and synoptic stream water data.** Int J Appl Earth Obs 26: 80-87. Available from: <http://dx.doi.org/10.1016/j.jag.2013.05.012>

Cui ZL, Yue SC, Wang GL, Meng QF, Wu L, Yang ZP, Zhang Q, Li SQ, Zhang FS, Chen XP. 2013. **Closing the yield gap could reduce projected greenhouse gas emissions: a case study of maize production in China.** *Global Change Biol* 19(8): 2467-2477. Available from: <http://dx.doi.org/10.1111/gcb.12213>

De Gouw JA, Parrish DD, Frost GJ, Trainer M. 2013. **Reduced emissions of CO₂, NO_x and SO₂ from U.S. power plants due to the switch from coal to natural gas with combined cycle technology.** *Earth's Future* 2013 Jan 8. Available from: <http://onlinelibrary.wiley.com/doi/10.1002/2014EF000196/pdf>

Delin S, Stenberg M. 2014. **Effect of nitrogen fertilization on nitrate leaching in relation to grain yield response on loamy sand in Sweden.** *Eur J Agron* 52: 291-296. Available from: <http://dx.doi.org/10.1016/j.eja.2013.08.007>

Deng J, Zhou ZX, Zheng XH, Li CS. 2013. **Modeling impacts of fertilization alternatives on nitrous oxide and nitric oxide emissions from conventional vegetable fields in southeastern China.** *Atmos Environ* 81: 642-650. Available from: <http://dx.doi.org/10.1016/j.atmosenv.2013.09.046>

Denver JM, Ator SW, Lang MW, Fisher TR, Gustafson AB, Fox R, Clune JW, McCarty GW. 2014. **Nitrate fate and transport through current and former depressional wetlands in an agricultural landscape, Choptank Watershed, Maryland, United States.** *J Soil Water Conserv* 69(1): 1-16. Available from: <http://dx.doi.org/10.2489/jswc.69.1.1>

Dickson TL, Gross KL. 2013. **Plant community responses to long-term fertilization: changes in functional group abundance drive changes in species richness.** *Oecologia* 173(4): 1513-1520. Available from: <http://dx.doi.org/10.1007/s00442-013-2722-8>

Duncan BN, Yoshida Y, de Foy B, Lamsal LN, Streets DG, Lu ZF, Pickering KE, Krotkov NA. 2013. **The observed response of Ozone Monitoring Instrument (OMI) NO₂ columns to NO_x emission controls on power plants in the United States: 2005-2011.** *Atmos Environ* 81: 102-111. Available from: <http://dx.doi.org/10.1016/j.atmosenv.2013.08.068>

Freymond CV, Wenk CB, Frame CH, Lehmann MF. 2013. **Year-round N₂O production by benthic NO_x reduction in a monomictic south-alpine lake.** *Biogeosciences* 10(12): 8373-8383. Available from: <http://dx.doi.org/10.5194/bg-10-8373-2013>

Gill RA. 2014. **The influence of 3-years of warming and N-deposition on ecosystem dynamics is small compared to past land use in subalpine meadows.** *Plant Soil* 374(1-2): 197-210. Available from: <http://dx.doi.org/10.1007/s11104-013-1868-9>

Gorman HS. 2013. **Learning from 100 years of ammonia synthesis establishing human-defined limits through adaptive systems of governance.** *Gaia* 22(4): 263-270. Available from: <http://www.ingentaconnect.com/content/oekom/gaia/2013/00000022/00000004/art00011>

Griepentrog M, Bode S, Boeckx P, Hagedorn F, Heim A, Schmidt MWI. 2014. **Nitrogen deposition promotes the production of new fungal residues but retards the decomposition of old residues in forest soil fractions.** *Global Change Biol* 20(1): 327-340. Available from: <http://dx.doi.org/10.1111/gcb.12374>

Gu BJ, Ge Y, Chang SX, Luo WD, Chang J. 2013. **Nitrate in groundwater of China: Sources and driving forces.** *Global Environ Chang* 23(5, SI): 1112-1121. Available from: <http://dx.doi.org/10.1016/j.gloenvcha.2013.05.004>

Gundale MJ, From F, Bach LH, Nordin A. 2014. **Anthropogenic nitrogen deposition in boreal forests has a minor impact on the global carbon cycle.** *Global Change Biol* 20(1): 276-286. Available from: <http://dx.doi.org/10.1111/gcb.12422>

Halliday SJ, Skeffington RA, Wade A, Neal C, Reynolds B, Norris D, Kirchner JW. 2013. **Upland streamwater nitrate dynamics across decadal to sub-daily timescales: a case study of Plynlimon, Wales.** *Biogeosciences* 10(12): 8013-8038. Available from: <http://dx.doi.org/10.5194/bg-10-8013-2013>

Harvey JW, Bohlke JK, Voytek MA, Scott D, Tobias CR. 2013. **Hyporheic zone denitrification: controls on effective reaction depth and contribution to whole-stream mass balance.** *Water Resour Res* 49(10): 6298-6316. Available from: <http://dx.doi.org/10.1002/wrcr.20492>

Hines J, Hammrich A, Steiner D, Gessner MO. 2013. **A field facility to simulate climate warming and increased nutrient supply in shallow aquatic ecosystems.** *Oecologia* 173(4): 1169-1178. Available from: <http://dx.doi.org/10.1007/s00442-013-2720-x>

Hirzel J, Rodriguez F. 2013. **Increasing nitrogen rates in rice and its effect on plant nutrient composition and nitrogen apparent recovery.** *Chil J Agr Res* 73(4): 385-390. Available from: <http://dx.doi.org/10.4067/S0718-58392013000400009>

Im U, Christodoulaki S, Violaki K, Zampas P, Kocak M, Daskalakis N, Mihalopoulos N, Kanakidou M. 2013. **Atmospheric deposition of nitrogen and sulfur over southern Europe with focus on the Mediterranean and the Black Sea.** *Atmos Environ* 81: 660-670. Available from: <http://dx.doi.org/10.1016/j.atmosenv.2013.09.048>

Jantsch MC, Fischer A, Fischer HS, Winter S. 2013. **Shift in plant species composition reveals environmental changes during the last decades: a long-term study in beech (*Fagus sylvatica*) forests in Bavaria, Germany.** *Folia Geobot* 48(4): 467-491. Available from: <http://dx.doi.org/10.1007/s12224-012-9148-7>

Lin J, Pan D, Davis SJ, Zhang Q, He K, Wang C, Streets DG, Wuebbles DJ, Guan D. 2013. **China's international trade and air pollution in the United States.** *PNAS Early Edition*. Available from: <http://dx.doi.org/10.1073/pnas.1312860111>

Mijling B, van der A RJ, Zhang Q. 2013. **Regional nitrogen oxides emission trends in East Asia observed from space.** Atmos Chem Phys 13(23): 12003-12012. Available from: <http://dx.doi.org/10.5194/acp-13-12003-2013>

Nicolini G, Castaldi S, Fratini G, Valentini R. 2013. **A literature overview of micrometeorological CH₄ and N₂O flux measurements in terrestrial ecosystems.** Atmos Environ 81: 311-319. Available from: <http://dx.doi.org/10.1016/j.atmosenv.2013.09.030>

Nyaga JM, Cramer MD, Neff JC. 2013. **Atmospheric nutrient deposition to the west coast of South Africa.** Atmos Environ 81: 625-632. Available from: <http://dx.doi.org/10.1016/j.atmosenv.2013.09.021>

Ochoa-Hueso R, Rocha I, Stevens CJ, Manrique E, Lucianez MJ. 2014. **Simulated nitrogen deposition affects soil fauna from a semiarid Mediterranean ecosystem in central Spain.** Biol Fert Soils 50(1): 191-196. Available from: <http://dx.doi.org/10.1007/s00374-013-0838-y>

Perakis SS, Sinkhorn ER, Catricala CE, Bullen TD, Fitzpatrick JA, Hynicka JD, Cromack K. 2013. **Forest calcium depletion and biotic retention along a soil nitrogen gradient.** Ecol Appl 23(8): 1947-1961. Available from: <http://dx.doi.org/10.1890/12-2204.1>

Rousk K, Jones DL, DeLuca TH. 2014. **Exposure to nitrogen does not eliminate N₂ fixation in the feather moss *Pleurozium schreberi* (Brid.) Mitt.** Plant Soil 374(1-2): 513-521. Available from: <http://dx.doi.org/10.1007/s1104-013-1908-5>

Sanchez A, Ortiz-Hernandez MC, Talavera-Saenz A, Aguiniga-Garcia S. 2013. **Stable nitrogen isotopes in the turtle grass *Thalassia testudinum* from the Mexican Caribbean: implications of anthropogenic development.** Estuar Coast Shelf S 135: 86-93. Available from: <http://dx.doi.org/10.1016/j.ecss.2013.01.021>

Savage KE, Parton WJ, Davidson EA, Trumbore SE, Frey SD. 2013. **Long-term changes in forest carbon under temperature and nitrogen amendments in a temperate northern hardwood forest.** Global Change Biol 19(8): 2389-2400. Available from: <http://dx.doi.org/10.1111/gcb.12224>

Schroder W, Pesch R, Schonrock S, Harmens H, Mills G, Fagerli H. 2014. **Mapping correlations between nitrogen concentrations in atmospheric deposition and mosses for natural landscapes in Europe.** Ecol Indic 36: 563-571. Available from: <http://dx.doi.org/10.1016/j.ecolind.2013.09.013>

Stief P. 2013. **Stimulation of microbial nitrogen cycling in aquatic ecosystems by benthic macrofauna: mechanisms and environmental implications.** Biogeosciences 10(12): 7829-7846. Available from: <http://dx.doi.org/10.5194/bg-10-7829-2013>

van Puijenbroek PJTM, Cleij P, Visser H. 2014. **Aggregated indices for trends in eutrophication of different types of fresh water in the Netherlands.** Ecol Indic 36: 456-462. Available from: <http://dx.doi.org/10.1016/j.ecolind.2013.08.022>

Vicars WC, Morin S, Savarino J, Wagner NL, Erbland J, Vince E, Martins JMF, Lerner BM, Quinn PK, Coffman DJ, Williams EJ, Brown SS. 2013. **Spatial and diurnal variability in reactive nitrogen oxide chemistry as reflected in the isotopic composition of atmospheric nitrate: results from the CalNex 2010 field study.** J Geophys Res-Atmos 118(18): 10567-10588. Available from: <http://dx.doi.org/10.1002/jgrd.50680>

White MJ, Santhi C, Kannan N, Arnold JG, Harmel D, Norfleet L, Allen P, DiLuzio M, Wang X, Atwood J, Haney E, Johnson MV. 2014. **Nutrient delivery from the Mississippi River to the Gulf of Mexico and effects of cropland conservation.** J Soil Water Conserv 69(1): 26-40. Available from: <http://dx.doi.org/10.2489/jswc.69.1.26>

Wild-Allen K, Skerratt J, Whitehead J, Rizwi F, Parslow J. 2013. **Mechanisms driving estuarine water quality: A 3D biogeochemical model for informed management.** Estuar Coast Shelf S 135: 33-45. Available from: <http://dx.doi.org/10.1016/j.ecss.2013.04.009>

Xia YQ, She DL, Li YF, Yan XY. 2014. **Impact of sampling time on chamber-based measurements of riverine nitrous oxide emissions using relative difference analysis.** Geoderma 214: 197-203. Available from: <http://dx.doi.org/10.1016/j.geoderma.2013.09.011>

Yao XH, Zhang L. 2013. **Analysis of passive-sampler monitored atmospheric ammonia at 74 sites across southern Ontario, Canada.** Biogeosciences 10(12): 7913-7925. Available from: <http://dx.doi.org/10.5194/bg-10-7913-2013>

Yasuor H, Ben-Gal A, Yermiyahu U, Beit-Yannai E, Cohen S. 2013. **Nitrogen management of greenhouse pepper production: agronomic, nutritional, and environmental implications.** HortScience 48(10): 1241-1249. Available from: <http://hortsci.ashspublications.org/content/48/10/1241.full>

Zaady E, Groffman PM, Standing D, Shachak M. 2013. **High N₂O emissions in dry ecosystems.** Eur J Soil Biol 59: 1-7. Available from: <http://dx.doi.org/10.1016/j.ejsobi.2013.08.004>

News

Arnason R. **Cut nitrogen by 50 lb. zero-till farmers told.** The Western Producer 2014 Jan 24. Available from: <http://www.producer.com/2014/01/cut-nitrogen-by-50-lb-zero-till-farmers-told/>

Buntjer J. **Ag drainage and environmental concerns.** Agweek 2014 Jan 16. Available from: <http://www.agweek.com/event/article/id/22460/>

Perez M. **A new strategy to improve water quality—one targeted watershed at a time.** World Resources Institute 2014 Jan 7. Available from: <http://www.wri.org/blog/new-strategy-improve-water-quality%E2%80%94one-targeted-watershed-time>

Bollinger J. **Shore farms adopt promising runoff system.** The Star Democrat (Easton, MD) 2014 Jan 7. Available from: http://www.stardem.com/news/local_news/article_cd32f5fd-210b-52b2-9d64-499809b170dc.html

Nutrient reduction strategy set to enter next phase. The Gazette [Iowa City], 2013 Dec 30. Available from: <http://thegazette.com/2013/12/30/nutrient-reduction-strategy-set-to-enter-next-phase/>

For Bloomberg BNA subscribers (including EPA staff):

Day J. **Chesapeake Bay: draft EPA-state partnership agreement outlines framework for bay restoration.** Daily Environ Rep 2014 Jan 30. Available from: http://esweb.bna.com/eslw/1245/split_display.adp?fedfid=40638191&vname=dennotallissues&wsn=495637500&searchid=21975519&doctypeid=2&type=date&mode=doc&split=0&scm=1245&pg=0

Coomes J. **Air pollution: U.S. among governments urging IMO to reconsider delay of nitrogen limits.** Daily Environ Rep 2014 Jan 28. Available from: http://esweb.bna.com/eslw/1245/split_display.adp?fedfid=40497084&vname=dennotallissues&wsn=495700500&searchid=21975519&doctypeid=2&type=date&mode=doc&split=0&scm=1245&pg=0

Coomes J. **Air pollution: EPA to propose rule by October to curb ozone pollution crossing state lines.** Daily Environ Rep 2014 Jan 27. Available from: http://esweb.bna.com/eslw/1245/split_display.adp?fedfid=40266464&vname=dennotallissues&wsn=495732500&searchid=21975519&doctypeid=2&type=date&mode=doc&split=0&scm=1245&pg=0

Coomes J. **Air pollution: White House begins interagency review of Tier 3 vehicle and gasoline final rule.** Daily Environ Rep 2014 Jan 27. Available from: http://esweb.bna.com/eslw/1245/split_display.adp?fedfid=40266466&vname=dennotallissues&wsn=495733500&searchid=21975519&doctypeid=2&type=date&mode=doc&split=0&scm=1245&pg=0

Khan N. **Air pollution: China exports pollution to U.S. along with manufactured goods, scientific study finds.** Daily Environ Rep 2014 Jan 23. Available from: http://esweb.bna.com/eslw/1245/split_display.adp?fedfid=40179532&vname=dennotallissues&wsn=495802000&searchid=21975519&doctypeid=2&type=date&mode=doc&split=0&scm=1245&pg=1

Day J. **Chesapeake Bay: study says stormwater runoff from cities, suburbs a growing threat but remedies exist.** Daily Environ Rep 2014 Jan 23. Available from: http://esweb.bna.com/eslw/1245/split_display.adp?fedfid=40179542&vname=dennotallissues&wsn=495805000&searchid=21975519&doctypeid=2&type=date&mode=doc&split=0&scm=1245&pg=1

Saiyid AH. **Water pollution: water quality trading network will seek to promote consistency among programs.** Daily Environ Rep 2014 Jan 21. Available from:
http://esweb.bna.com/eslw/1245/split_display.adp?fedfid=39980777&vname=dennotallissues&wsn=495883500&searchid=21975519&doctypeid=2&type=date&mode=doc&split=0&scm=1245&pg=1

Thomason R. **Water resources: more data from environmental monitoring now supports environmental policy, rules.** Daily Environ Rep 2014 Jan 17. Available from:
http://esweb.bna.com/eslw/1245/split_display.adp?fedfid=39956926&vname=dennotallissues&wsn=496675500&searchid=21975519&doctypeid=2&type=date&mode=doc&split=0&scm=1245&pg=1

Stam JH, Kunkleman. **Major courts: cases addressing cross-state regulation, greenhouse gas rule before Supreme Court.** Daily Environ Rep 2014 Jan 16. Available from:
http://esweb.bna.com/eslw/1245/split_display.adp?fedfid=39944464&vname=dennotallissues&wsn=496719000&searchid=21975519&doctypeid=2&type=date&mode=doc&split=0&scm=1245&pg=1

Qassim A. **International Maritime Organization: IMO priorities include global consensus on monitoring, reporting shipping emissions.** Daily Environ Rep 2014 Jan 16. Available from:
http://esweb.bna.com/eslw/1245/split_display.adp?fedfid=39944469&vname=dennotallissues&wsn=496718500&searchid=21975519&doctypeid=2&type=date&mode=doc&split=0&scm=1245&pg=1

Standaert M. **Energy: Chinese catalogs promote industrial technologies that save energy, pollute less.** Daily Environ Rep 2014 Jan 15. Available from:
http://esweb.bna.com/eslw/1245/split_display.adp?fedfid=39904766&vname=dennotallissues&wsn=496749500&searchid=21975519&doctypeid=2&type=date&mode=doc&split=0&scm=1245&pg=1

Saiyad AH. **Chesapeake Bay: New York, Maryland, Delaware increase nitrogen discharges into Chesapeake Bay.** Daily Environ Rep 2014 Jan 14. Available from:
http://esweb.bna.com/eslw/1245/split_display.adp?fedfid=39883967&vname=dennotallissues&wsn=496789500&searchid=21975519&doctypeid=2&type=date&mode=doc&split=0&scm=1245&pg=1

Baltz T. **Climate change: natural gas responsible for reductions in power plant emissions, study finds.** Daily Environ Rep 2014 Jan 13. Available from:
http://esweb.bna.com/eslw/1245/split_display.adp?fedfid=39803805&vname=dennotallissues&wsn=496081500&searchid=21975519&doctypeid=2&type=date&mode=doc&split=0&scm=1245&pg=1

Saiyad AH. **Water pollution: group gives Mississippi River Basin initiative high marks for targeting nutrient runoff.** Daily Environ Rep 2014 Jan 9. Available from:
http://esweb.bna.com/eslw/1245/split_display.adp?fedfid=39746198&vname=dennotallissues&wsn=496081500&searchid=21975519&doctypeid=2&type=date&mode=doc&split=0&scm=1245&pg=1

[wsn=496162000&searchid=21975519&doctypeid=2&type=date&mode=doc&split=0&scm=1245&pg=1](http://www.esweb.bna.com/eslw/1245/split_display.adp?fedfid=39485689&vname=dennotallissues&wsn=496162000&searchid=21975519&doctypeid=2&type=date&mode=doc&split=0&scm=1245&pg=1)

Day J. Chesapeake Bay: intense storms, hotter summers may require additional bay protection efforts. Daily Environ Rep 2014 Jan 6. Available from: http://esweb.bna.com/eslw/1245/split_display.adp?fedfid=39485689&vname=dennotallissues&wsn=496249500&searchid=21975519&doctypeid=2&type=date&mode=doc&split=0&scm=1245&pg=1

Thomason R. Chesapeake Bay: federal efforts to clean Chesapeake Bay fall short in key areas, foundation says. Daily Environ Rep 2014 Jan 6. Available from: http://esweb.bna.com/eslw/1245/split_display.adp?fedfid=39485688&vname=dennotallissues&wsn=496249000&searchid=21975519&doctypeid=2&type=date&mode=doc&split=0&scm=1245&pg=1

For Greenwire subscribers (including EPA staff):

Snider A. Water pollution: EPA updates stormwater calculator, awards grants. Greenwire 2014 Jan 31. Available from: <http://www.eenews.net/greenwire/stories/1059993840/>

Massey N. States: for Calif., more wildfires mean more pollution and long-lasting health problems – study. ClimateWire 2014 Jan 30. Available from: <http://www.eenews.net/climatewire/stories/1059993702/>

Ling K. Electric vehicles: even major increase in EVs would not significantly reduce emissions – study. Greenwire 2014 Jan 22. Available from: <http://www.eenews.net/greenwire/stories/1059993293/>

Liu C. Nations: scientists find U.S. footprint in China's climate-related emissions. ClimateWire 2014 Jan 21. Available from: <http://www.eenews.net/climatewire/stories/1059993201/>

China: nation considers new pollution permit trading system. ClimateWire 2014 Jan 13. Available from: <http://www.eenews.net/climatewire/stories/1059992757/>

Stecker T. Emissions: natural gas plants emit 56% less CO2 than coal plants – study. ClimateWire 2014 Jan 10. Available from: <http://www.eenews.net/climatewire/stories/1059992706/>

Peterka A. Chesapeake Bay: illegal discharges hamper cleanup efforts – report. Greenwire 2014 Jan 9. Available from: <http://www.eenews.net/greenwire/stories/1059992646/>

Estepa J. Marine mammals: group links record manatee die-off to Fla. regulatory policies. Greenwire 2014 Jan 9. Available from: <http://www.eenews.net/greenwire/stories/1059992653/>

Reports

Chesapeake Bay watershed agreement, final draft, January 29, 2014. Annapolis, Md.: Chesapeake Bay Program, 2014. 12 p. Available from: http://www.chesapeakebay.net/documents/Draft_Watershed_Agreement_Public_Format_1-28-14_FINAL.pdf

International Maritime Organization Marine Environment Protection Committee.
Consideration and adoption of amendments to mandatory instruments: comments to the approval at MEPC 65 of amendments to the effective date of the NO_x Tier III standards, submitted by Canada, Germany, Japan and the United States. MEPC 66/6/6. London: IMO, 2013 Dec 24. 21 p. Available from: <http://www.epa.gov/otaq/documents/oceanvessels/mepc-66-6-6-comments-mepc-65-amend-nox-tier-3.pdf>

Polluted runoff: how investing in runoff pollution control systems improves the Chesapeake Bay region's ecology, economy, and health. Annapolis, Md.: Chesapeake Bay Foundation, 2014 Jan. 36 p. Available from: <http://op.bna.com/env.nsf/r?Open=sbra-9flnrk>

Electric Power Research Institute. **Case studies of water quality trading being used for compliance with national pollutant discharge elimination system permit limits.** 3002001454. Final Report, December 2013. Palo Alto, CA: EPRI, 2013. 80 p. Available from: <http://op.bna.com/env.nsf/r?Open=rln-9ffsex>

National Network on Water Quality Trading: National Network overview, last updated January 10, 2014. Washington, D.C.: World Resources Institute; Portland, OR: Willamette Partnership, 2014. 3 p. Available from: <http://op.bna.com/env.nsf/r?Open=rln-9fftr3>

Strengthening science and decision support for ecosystem management in the Chesapeake Bay and its watershed: a revised report fulfilling Section 202f of Executive Order 13508. Washington, D.C.: U.S. Department of Interior and Department of Commerce, 2009 Nov 23. 58 p. Available from: <http://executiveorder.chesapeakebay.net/file.axd?file=2009%2F11%2F202f+Scientific+Support+Report.pdf>

The Clean Water Act and the Chesapeake: enforcement's critical role in restoring the bay – update. Washington, D.C.: Environmental Integrity Project, 2014. 46 p. Available from: http://www.environmentalintegrity.org/news_reports/documents/2012_Update_The_Clean_Water_Act_and_the_Chesapeake_FINAL.pdf

Perez M, Walker S. **Improving water quality: a review of the Mississippi River Basin Healthy Watersheds Initiative (MRBI) to target U.S. farm conservation funds. Working paper.** Washington, D.C.: World Resources Institute, 2014. 36 p. Available from: <http://www.wri.org/sites/default/files/mrbi.pdf>

Restore clean water actions [The draft 2014-2015 federal milestone goals for Executive Order 13508]. 5 p. Available from:

http://executiveorder.chesapeakebay.net/file.axd?file=2013%2f11%2fEPA+2yr+WQ+milestones_112013_Public+Comment+Version.pdf

[Chesapeake Bay Foundation comments on the draft federal milestones for 2014-2015]. Annapolis, Md.: Chesapeake Bay Foundation, 2013 Dec 20. 3 p. Available from: <http://executiveorder.chesapeakebay.net/file.axd?file=2013%2f12%2fFedmilestonesDec20.pdf>

Settlement agreement [between the United States Environmental Protection Agency and the Chesapeake Bay Foundation]. Washington, D.C.: United States Department of Justice Environment and Natural Resources Division, 2010. 27 p. Available from: <http://www.cbf.org/Document.Doc?id=512>

Web Pages

Chesapeake Bay Interpretive Buoy System [Internet]. Washington, D.C.: National Oceanic and Atmospheric Administration, 2014. Available from: <http://buoybay.noaa.gov/about/about-buoy-technology>

International Maritime Organization [Internet]. London: IMO, 2014. Available from: <http://www.imo.org/Pages/home.aspx>

U.S. Drought Monitor [Internet]. Lincoln, NE: The National Drought Mitigation Center, 2014. Available from: <http://droughtmonitor.unl.edu/>