

US EPA ARCHIVE DOCUMENT

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.

Table of Contents

Special Issues	1
Articles	1
News	9
Reports	11
Web Pages.....	11

Special Issues

Special issue: Nutrient status, yields and water quality in Norway and the Heilongjiang province in China. 2014. Acta Agr Scand B-S P 63(Supplement 2). Available from: <http://www.tandfonline.com/toc/sagb20/63/sup2>

Ometto JP, Bun R, editors. 2014. **Special issue: Third International Workshop on Uncertainty in Greenhouse Gas Inventories.** Climatic Change 124(3). Available from: <http://link.springer.com/journal/10584/124/3/>

Franzluebbers AJ, Lemaire G, de Faccio Carvalho PC, Sulc RM, Dedieu B, editors. 2014. **Integrated crop-livestock.** Eur J Agron 57. Available from: <http://www.sciencedirect.com/science/journal/11610301/57>

Blunden J, Arndt DS, Eds. 2014. **State of the climate in 2013.** B Am Meteorol Soc 95(7): S1-S257. Available from: http://www2.ametsoc.org/ams/index.cfm/publications/bulletin-of-the-american-meteorological-society-bams/bams-state-of-the-climate-2013/?utm_source=pr&utm_medium=pcon&&utm_campaign=stateofclimate2013

Articles

Andersen CB, Lewis GP, Hart M, Pugh J. 2014. **The impact of wastewater treatment effluent on the biogeochemistry of the Enoree River, South Carolina, during drought conditions.** Water Air Soil Poll 225(5): 1955. Available from: <http://dx.doi.org/10.1007/s11270-014-1955-4>

Anderson TR, Goodale CL, Groffman PM, Walter MT. 2014. **Assessing denitrification from seasonally saturated soils in an agricultural landscape: a farm-scale mass-balance approach.** *Agr Ecosyst Environ* 189: 60-69. 2014. Available from: <http://dx.doi.org/10.1016/j.agee.2014.03.026>

Bender SF, Plantenga F, Neftel A, Jocher M, Oberholzer HR, Kohl L, Giles M, Daniell TJ, van der Heijden, MGA. 2014. **Symbiotic relationships between soil fungi and plants reduce N₂O emissions from soil.** *ISME J* 8(6): 1336-1345. Available from: <http://dx.doi.org/10.1038/ismej.2013.224>

Berhane K, Zhang Y, Salam MT, Eckel SP, Linn WS, Rappaport EB, Bastain TM, Lurmann F, Gilliland FD. 2014. **Longitudinal effects of air pollution on exhaled nitric oxide: the Children's Health Study.** *Occup Environ Med* 71(7): 507-513. Available from: <http://dx.doi.org/10.1136/oemed-2013-101874>

Berlin M, Kumar GS, Nambi IM. 2014. **Numerical modeling on the effect of dissolved oxygen on nitrogen transformation and transport in unsaturated porous system.** *Environ Model Assess* 19(4): 283-299. Available from: <http://dx.doi.org/10.1007/s10666-014-9399-1>

Blagodatskaya E, Zheng X, Blagodatsky S, Wiegand R, Dannenmann M, Butterbach-Bahl K. 2014. **Oxygen and substrate availability interactively control the temperature sensitivity of CO₂ and N₂O emission from soil.** *Biol Fert Soils* 50(5): 775-783. Available from: <http://dx.doi.org/10.1007/s00374-014-0899-6>

Boltersdorf SH, Werner W. 2014. **Lichens as a useful mapping tool?-an approach to assess atmospheric N loads in Germany by total N content and stable isotope signature.** *Environ Monit Assess* 186(8): 4767-4778. Available from: <http://dx.doi.org/10.1007/s10661-014-3736-3>

Buckingham S, Anthony S, Bellamy PH, Cardenas LM, Higgins S, McGeough K, Topp CFE. 2014. **Review and analysis of global agricultural N₂O emissions relevant to the UK.** *Sci Total Environ* 487: 164-172. Available from: <http://dx.doi.org/10.1016/j.scitotenv.2014.02.122>

Chapiot V. 2014. **Impact of spatial input data resolution on hydrological and erosion modeling: recommendations from a global assessment.** *Phys Chem Earth* 67-69: 35. Available from: <http://dx.doi.org/10.1016/j.pce.2013.09.020>

Chen X, Day D, Schichtel B, Malm W, Matzoll AK, Mojica J, McDade CE, Hardison ED, Hardison DL, Walters S, De Water MV, Collett JL. 2014. **Seasonal ambient ammonia and ammonium concentrations in a pilot IMPROVE NH_x monitoring network in the western United States.** *Atmos Environ* 91: 118-126. Available from: <http://dx.doi.org/10.1016/j.atmosenv.2014.03.058>

Christiaen B, Bernard R, Mortazavi B, Cebrian J, Ortmann AC. 2014. **The degree of urbanization across the globe is not reflected in the delta N-15 of seagrass leaves.** *Mar Pollut Bull* 83(2): 440-445. Available from: <http://dx.doi.org/10.1016/j.marpolbul.2013.06.024>

Clark LP, Millet DB, Marshall JD. 2014. **National patterns in environmental injustice and inequality: outdoor NO₂ air pollution in the United States.** PLoS One 9(4): e94431. Available from: <http://dx.doi.org/10.1371/journal.pone.0094431>

Fang HJ, Cheng SL, Yu GR, Xu MJ, Wang YS, Li LS, Dang XS, Wang L, Li YN. 2014. **Experimental nitrogen deposition alters the quantity and quality of soil dissolved organic carbon in an alpine meadow on the Qinghai-Tibetan Plateau.** Appl Soil Ecol 81: 1-11. Available from: <http://dx.doi.org/10.1016/j.apsoil.2014.04.007>

Fitton N, Datta A, Smith K, Williams JR, Hastings A, Kuhnert M, Topp CFE, Smith P. 2014. **Assessing the sensitivity of modelled estimates of N₂O emissions and yield to input uncertainty at a UK cropland experimental site using the DailyDayCent model.** Nutr Cycl Agroecosys 99(1-3): 119-133. Available from: <http://dx.doi.org/10.1007/s10705-014-9622-0>

Gabriel M, Knightes C, Cooter E, Dennis R. 2014. **The impacts of different meteorology data sets on nitrogen fate and transport in the SWAT watershed model.** Environ Model Assess 19(4): 301-314. Available from: <http://dx.doi.org/10.1007/s10666-014-9400-z>

Garcia-Gomez H, Garrido JL, Vivanco MG, Lassaletta L, Rabago I, Avila A, Tsyro S, Sanchez G, Ortiz AG, Gonzalez-Fernandez I, Alonso R. 2014. **Nitrogen deposition in Spain: modeled patterns and threatened habitats within the Natura 2000 network.** Sci Total Environ 485: 450-460. Available from: <http://dx.doi.org/10.1016/j.scitotenv.2014.03.112>.

Giordani P, Matteucci E, Redana M, Ferrarese A, Isocrono D. 2014. **Unsustainable cattle load in alpine pastures alters the diversity and the composition of lichen functional groups for nitrogen requirement.** Fungal Ecol 9: 69-72. Available from: <http://dx.doi.org/10.1016/j.funeco.2014.02.003>

Grimvall A, von Bromssen C, Lindstrom G. 2014. **Using process-based models to filter out natural variability in observed concentrations of nitrogen and phosphorus in river water.** Environ Monit Assess 186(8): 5135-5152. Available from: <http://dx.doi.org/10.1007/s10661-014-3765-y>

Hilasvuori E, Hari P, Aakala T, Pulliainen E, Grace J. 2014. **Changes in nitrogen content and isotopic composition in subarctic Empetrum nigrum seeds in the period 1976-2010.** Boreal Environ Res 19(3): 209-221. Available from: <http://www.borenv.net/BER/pdfs/ber19/ber19-209.pdf>

Josephson DC, Robinson JM, Chiotti J, Jirka KJ, Kraft CE. 2014. **Chemical and biological recovery from acid deposition within the Honnedaga Lake watershed, New York, USA.** Environ Monit Assess 186(7): 4391-4409. Available from: <http://dx.doi.org/10.1007/s10661-014-3706-9>

Kamble PN, Baath E. 2014. **Induced N-limitation of bacterial growth in soil: Effect of carbon loading and N status in soil.** Soil Biol Biochem 74: 11-20. Available from: <http://dx.doi.org/10.1016/j.soilbio.2014.02.015>

Katterer T, Borjesson G, Kirchmann H. 2014. **Changes in organic carbon in topsoil and subsoil and microbial community composition caused by repeated additions of organic amendments and N fertilisation in a long-term field experiment in Sweden.** Agr Ecosyst Environ 189: 110-118. Available from: <http://dx.doi.org/10.1016/j.agee.2014.03.025>

Khodayari A, Olsen SC, Wuebbles DJ. 2014. **Evaluation of aviation NO_x-induced radiative forcings for 2005 and 2050.** Atmos Environ 91: 95-103. Available from: <http://dx.doi.org/10.1016/j.atmosenv.2014.03.044>

Kiel BA, Cardenas MB. 2014. **Lateral hyporheic exchange throughout the Mississippi River network.** Nat Geosci 7(6): 413-417. Available from: <http://dx.doi.org/10.1038/NGEO2157>

Kim H. 2014. **Factors controlling sediment denitrification rates in grassland and forest streams.** Terr Atmos Ocean Sci 25(3): 463-470. Available from: [http://dx.doi.org/10.3319/TAO.2014.01.09.01\(Hy\)](http://dx.doi.org/10.3319/TAO.2014.01.09.01(Hy))

Kim TW, Lee K, Duce R, Liss P. 2014. **Impact of atmospheric nitrogen deposition on phytoplankton productivity in the South China Sea.** Geophys Res Lett 41(9): 3156-3162. Available from: <http://dx.doi.org/10.1002/2014GL059665>

Koch JC, Gurney K, Wipfli MS. 2014. **Morphology-dependent water budgets and nutrient fluxes in arctic thaw ponds.** Permafrost Periglac 25(2): 79-93. Available from: <http://dx.doi.org/10.1002/ppp.1804>

Lindenmaier R, Dubey MK, Henderson BG, Butterfield ZT, Herman JR, Rahn T, Lee SH. 2014. **Multiscale observations of CO₂, (CO₂)-C-13, and pollutants at Four Corners for emission verification and attribution.** P Natl Acad Sci USA 111(23): 8386-8391. Available from: <http://dx.doi.org/10.1073/pnas.1321883111>

Maynard DG, Pare D, Thiffault E, Lafleur B, Hogg KE, Kishchuk B. 2014. **How do natural disturbances and human activities affect soils and tree nutrition and growth in the Canadian boreal forest?** Environ Rev 22(2): 161-178. Available from: <http://dx.doi.org/10.1139/er-2013-0057>

McMillan AMS, Harvey MJ, Martin RJ, Bromley AM, Evans MJ, Mukherjee S, Laubach J. 2014. **The detectability of nitrous oxide mitigation efficacy in intensively grazed pastures using a multiple-plot micrometeorological technique.** Atmos Meas Tech 7(5): 1169-1184. Available from: <http://dx.doi.org/10.5194/amt-7-1169-2014>

Min KE, Pusede SE, Browne EC, LaFranchi BW, Wooldridge PJ, Cohen RC. 2014. **Eddy covariance fluxes and vertical concentration gradient measurements of NO and NO₂ over a ponderosa pine ecosystem: observational evidence for within-canopy chemical removal of**

NO_x. Atmos Chem Phys 14(11): 5495-5512. Available from: <http://dx.doi.org/10.5194/acp-14-5495-2014>

Monteiro M, Seneca J, Magalhaes C. 2014. **The history of aerobic ammonia oxidizers: from the first discoveries to today**. J Microbiol 52(7): 537-547. Available from: <http://dx.doi.org/10.1007/s12275-014-4114-0>

Nascimbene J, Fontana V, Spitale D. 2014. **A multi-taxon approach reveals the effect of management intensity on biodiversity in Alpine larch grasslands**. Sci Total Environ 487: 110-116. Available from: <http://dx.doi.org/10.1016/j.scitotenv.2014.04.013>

Nowak DJ, Hirabayashi S, Bodine A, Greenfield E. 2014. **Tree and forest effects on air quality and human health in the United States**. Environ Pollut 193: 119-129. Available from: <http://dx.doi.org/10.1016/j.envpol.2014.05.028>

Papaspyrou S, Smith CJ, Dong LF, Whitby C, Dumbrell AJ, Nedwell DB. 2014. **Nitrate reduction functional genes and nitrate reduction potentials persist in deeper estuarine sediments. Why?** PLoS One 9(4): e94111. Available from: <http://dx.doi.org/10.1371/journal.pone.0094111>

Perez-Ramirez Y, Santoni PA, Darabiha N. 2014. **Modelling the NO emissions from wildfires at the source level**. Nat Hazard Earth Sys 14(5): 1169-1183. Available from: <http://dx.doi.org/10.5194/nhess-14-1169-2014>

Perrin A, Basset-Mens C, Gabrielle B. 2014. **Life cycle assessment of vegetable products: a review focusing on cropping systems diversity and the estimation of field emissions**. Int J Life Cycle Ass 19(6): 1247-1263. Available from: <http://dx.doi.org/10.1007/s11367-014-0724-3>

Petraglia A, Tomaselli M, Mondoni A, Brancaloni L, Carbognani M. 2014. **Effects of nitrogen and phosphorus supply on growth and flowering phenology of the snowbed forb *Gnaphalium supinum* L.** Flora 209(5-6): 271-278. Available from: <http://dx.doi.org/10.1016/j.flora.2014.03.005>

Plaza-Bonilla D, Alvaro-Fuentes J, Arrue JL, Cantero-Martinez C. 2014. **Tillage and nitrogen fertilization effects on nitrous oxide yield-scaled emissions in a rainfed Mediterranean area**. Agr Ecosyst Environ 189: 43-52. Available from: <http://dx.doi.org/10.1016/j.agee.2014.03.023>

Qiao MF, Xiao J, Yin HJ, Pu XZ, Yue BS, Liu Q. 2014. **Analysis of the phenolic compounds in root exudates produced by a subalpine coniferous species as responses to experimental warming and nitrogen fertilization**. Chem Ecol 30(6): 555-565. Available from: <http://dx.doi.org/10.1080/02757540.2013.868891>

Qin HL, Quan Z, Yuan HZ, Liu XL, Zhu YJ, Chen CL, Guo JH, Wu JS, Wei WX. 2014. **Response of ammonium-oxidizing (amoA) and nitrate-reducing (narG) gene abundances in groundwater to land use change**. Water Air Soil Poll 225(5): 1908. Available from: <http://dx.doi.org/10.1007/s11270-014-1908-y>

Rafique R, Kumar S, Luo YQ, Xu XL, Li DJ, Zhang W, Asam ZU. 2014. **Estimation of greenhouse gases (N₂O, CH₄ and CO₂) from no-till cropland under increased temperature and altered precipitation regime: a DAYCENT model approach.** Global Planet Change 118: 106-114. Available from: <http://dx.doi.org/10.1016/j.gloplacha.2014.05.001>

Ragettli MS, Tsai MY, Braun-Fahrlander C, de Nazelle A, Schindler C, Ineichen A, Ducret-Stich RE, Perez L, Probst-Hensch N, Kunzli N, Phuleria HC. 2014. **Simulation of population-based commuter exposure to NO₂ using different air pollution models.** Int J Env Res Pub He 11(5): 5049-5068. Available from: <http://dx.doi.org/10.3390/ijerph110505049>

Ray AM, Mebane CA, Raben F, Irvine KM, Marcarelli AM. 2014. **Evaluation of a combined macrophyte-epiphyte bioassay for assessing nutrient enrichment in the Portneuf River, Idaho, USA.** Environ Monit Assess 186(7): 4081-4096. Available from: <http://dx.doi.org/10.1007/s10661-014-3682-0>

Reef R, Feller IC, Lovelock CE. 2014. **Mammalian herbivores in Australia transport nutrients from terrestrial to marine ecosystems via mangroves.** J Trop Ecol 30: 179-188. Available from: <http://dx.doi.org/10.1017/S0266467414000054>

Roder M, Thornley P, Campbell G, Bows-Larkin A. 2014. **Emissions associated with meeting the future global wheat demand: A case study of UK production under climate change constraints.** Environ Sci Policy 39: 13-24. Available from: <http://dx.doi.org/10.1016/j.envsci.2014.02.002>

Savage K, Phillips R, Davidson E. 2014. **High temporal frequency measurements of greenhouse gas emissions from soils.** Biogeosciences 11(10): 2709-2720. Available from: <http://dx.doi.org/10.5194/bg-11-2709-2014>

Schroeder H. 2014. **Governing access and allocation in the Anthropocene.** Global Environ Chang 26: A1-A3. Available from: <http://dx.doi.org/10.1016/j.gloenvcha.2014.04.017>

Scott DT, Keim RF, Edwards BL, Jones CN, Kroes DE. 2014. **Floodplain biogeochemical processing of floodwaters in the Atchafalaya River Basin during the Mississippi River flood of 2011.** J Geophys Res-Bioge 119(4): 537-546. Available from: <http://dx.doi.org/10.1002/2013JG002477>

Shang JG, Liao QJH, Zhang L, Fan CX. 2014. **The influence of different benthic fauna on inorganic nitrogen flux and denitrification in a large shallow hyper-eutrophic lake.** Fund Appl Limnol 184(2): 101-108. Available from: <http://dx.doi.org/10.1127/1863-9135/2014/0431>

Small K, Kopf RK, Watts RJ, Howitt J. 2014. **Hypoxia, blackwater and fish kills: experimental lethal oxygen thresholds in juvenile predatory lowland river fishes.** PLoS One 9(4): e94524. Available from: <http://dx.doi.org/10.1371/journal.pone.0094524>

Smith NJ, McDonald GW, Patterson MG. 2014. **Is there overshoot of planetary limits? New indicators of human appropriation of the global biogeochemical cycles relative to their regenerative capacity based on 'ecotime' analysis.** *Ecol Econ* 104: 80-92. Available from: <http://dx.doi.org/10.1016/j.ecolecon.2014.04.023>

Sofen ED, Alexander B, Steig EJ, Thiemens MH, Kunasek SA, Amos HM, Schauer AJ, Hastings MG, Bautista J, Jackson TL, et al. 2014. **WAIS Divide ice core suggests sustained changes in the atmospheric formation pathways of sulfate and nitrate since the 19th century in the extratropical Southern Hemisphere.** *Atmos Chem Phys* 14(11): 5749-5769. Available from: <http://dx.doi.org/10.5194/acp-14-5749-2014>

Steinauer K, Zytynska S, Weisser WW, Eisenhauer N. 2014. **Changes in plant community structure and soil biota along soil nitrate gradients in two deciduous forests.** *Pedobiologia* 57(3): 139-145. Available from: <http://dx.doi.org/10.1016/j.pedobi.2014.01.007>

Stets EG, Kelly VJ, Crawford CG. 2014. **Long-term trends in alkalinity in large rivers of the conterminous US in relation to acidification, agriculture, and hydrologic modification.** *Sci Total Environ* 488-489: 280-289. Available from: <http://dx.doi.org/10.1016/j.scitotenv.2014.04.054>

Stevens CJ, Gowing DJG. 2014. **Effect of nitrogen addition, form and clipping on competitive interactions between grassland species.** *J Plant Ecol* 7(3): 222-230. Available from: <http://dx.doi.org/10.1093/jpe/rtt039>

Strayer DL. 2014. **Understanding how nutrient cycles and freshwater mussels (Unionoida) affect one another.** *Hydrobiologia* 735(1): 277-292. Available from: <http://dx.doi.org/10.1007/s10750-013-1461-5>

Sun LY, Li L, Chen ZZ, Wang JY, Xiong ZQ. 2014. **Combined effects of nitrogen deposition and biochar application on emissions of N₂O, CO₂ and NH₃ from agricultural and forest soils.** *Soil Sci Plant Nutr* 60(2): 254-265. Available from: <http://dx.doi.org/10.1080/00380768.2014.885386>

Syswerda SP, Robertson GP. 2014. **Ecosystem services along a management gradient in Michigan (USA) cropping systems.** *Agr Ecosyst Environ* 189: 28-35. Available from: <http://dx.doi.org/10.1016/j.agee.2014.03.006>

Tay HW, Bryan KR, Pilditch CA. 2013. **Dissolved inorganic nitrogen concentrations in an estuarine tidal flat.** *J Coastal Res* SI 65: 135-140. Available from: <http://dx.doi.org/10.2112/SI65-024.1>

Tripathi SN, Raghubanshi AS. 2014. **Seedling growth of five tropical dry forest tree species in relation to light and nitrogen gradients.** *J Plant Ecol* 7(3): 250-263. Available from: <http://dx.doi.org/10.1093/jpe/rtt026>

Urakawa R, Shibata H, Kuroiwa M, Inagaki Y, Tateno R, Hishi T, Fukuzawa K, Hirai K, Toda H, Oyanagi N, et al. 2014. **Effects of freeze-thaw cycles resulting from winter climate change on soil nitrogen cycling in ten temperate forest ecosystems throughout the Japanese archipelago.** Soil Biol Biochem 74: 82-94. Available from: <http://dx.doi.org/10.1016/j.soilbio.2014.02.022>

Vaclavkova S, Jorgensen CJ, Jacobsen OS, Aamand J, Elberling B. 2014. **The importance of microbial iron sulfide oxidation for nitrate depletion in anoxic Danish sediments.** Aquat Geochem 20(4): 419-435. Available from: <http://dx.doi.org/10.1007/s10498-014-9227-x>

Verhoeven JTA, Laanbroek HJ, Rains MC, Whigham DF. 2014. **Effects of increased summer flooding on nitrogen dynamics in impounded mangroves.** J Environ Manage 139: 217-226. Available from: <http://dx.doi.org/10.1016/j.jenvman.2014.02.035>

Vitale M, Proietti C, Cionni I, Fischer R, De Marco A. 2014. **Random forests analysis: a useful tool for defining the relative importance of environmental conditions on crown defoliation.** Water Air Soil Poll 225(6): 1992. Available from: <http://dx.doi.org/10.1007/s11270-014-1992-z>

Weber T, Deutsch C. 2014. **Local versus basin-scale limitation of marine nitrogen fixation.** P Natl Acad Sci USA 111(24): 8741-8746. Available from: <http://dx.doi.org/10.1073/pnas.1317193111>

Weintraub SR, Russell AE, Townsend AR. 2014. **Native tree species regulate nitrous oxide fluxes in tropical plantations.** Ecol Appl 24(4): 750-758. Available from: <http://dx.doi.org/10.1890/13-1783.1>

West PC, Gerber JS, Engstrom PM, Mueller ND, Brauman KA, Carlson KM, Emily S. Cassidy ES, Johnston M, MacDonald GK, Ray DK, Siebert S. 2014. **Leverage points for improving global food security and the environment.** Science 345(6194): 325-328. Available from: <http://dx.doi.org/10.1126/science.1246067>

Wigand C, Roman CT, Davey E, Stolt M, Johnson R, Hanson A, Watson EB, Moran SB, Cahoon DR, Lynch JC, Rafferty P. 2014. **Below the disappearing marshes of an urban estuary: historic nitrogen trends and soil structure.** Ecol Appl 24(4): 633-649. Available from: <http://dx.doi.org/10.1890/13-0594.1>

Yamazaki T, Hozuki T, Arai K, Toyoda S, Koba K, Fujiwara T, Yoshida N. 2014. **Isotopomeric characterization of nitrous oxide produced by reaction of enzymes extracted from nitrifying and denitrifying bacteria.** Biogeosciences 11(10): 2679-2689. Available from: <http://dx.doi.org/10.5194/bg-11-2679-2014>

Yan F, Winijkul E, Streets DG, Lu Z, Bond TC, Zhang Y. 2014. **Global emission projections for the transportation sector using dynamic technology modeling.** Atmos Chem Phys 14(11): 5709-5733. Available from: <http://dx.doi.org/10.5194/acp-14-5709-2014>

Zhang ZL, Niu KC, Liu XD, Jia P, Du GZ. 2014. **Linking flowering and reproductive allocation in response to nitrogen addition in an alpine meadow.** J Plant Ecol 7(3): 231-239. Available from: <http://dx.doi.org/10.1093/jpe/rtt030>

Zhu K, Christel W, Bruun S, Jensen LS. 2014. **The different effects of applying fresh, composted or charred manure on soil N₂O emissions.** Soil Biol Biochem 74: 61-69. Available from: <http://dx.doi.org/10.1016/j.soilbio.2014.02.020>

News

Dietrich T. **Report: farm runoff might be sabotaging bay's 'pollution diet'.** Daily Press [Hampton Roads, Virginia], 2014 Jul 27. Available from: <http://www.dailypress.com/news/science/dp-nws-bay-reports-phosphorus-nitrogen-20140727,0,6493910.story>

Iowa Dept of Agriculture. **Tremendous response to Iowa's new nutrient reduction program.** PorkNetwork 2014 Jul 25. Available from: <http://www.porknetwork.com/pork-news/latest/Tremendous-response-to-Iowas-new-nutrient-reduction-program-268641362.html>

For Bloomberg BNA subscribers (including EPA staff):

Fewell B, Smith B. **BNA Insights: water quality trading to help accelerate restoration of U.S. impaired waters.** Daily Environ Rep 2014 Jul28. Available from: http://esweb.bna.com/eslw/1245/split_display.adp?fedfid=50571343&vname=dennotallissues&wsn=499627000&searchid=23235537&doctypeid=2&type=date&mode=doc&split=0&scm=1245&pg=0

Leven R. Mining: **OSM requests comment on petition to limit coal mines' blasting emissions.** Daily Environ Rep 2014 Jul25. Available from: http://esweb.bna.com/eslw/1245/split_display.adp?fedfid=50494299&vname=dennotallissues&wsn=499650500&searchid=23236173&doctypeid=2&type=date&mode=doc&split=0&scm=1245&pg=0

Vittorio A. **Climate science: earth's 'vital signs' show continued warming trend in 2013, NOAA says.** Daily Environ Rep 2014 Jul 18. Available from: http://esweb.bna.com/eslw/1245/split_display.adp?fedfid=50017775&vname=dennotallissues&wsn=499800000&searchid=23235537&doctypeid=2&type=date&mode=doc&split=0&scm=1245&pg=1

Wolski M. **Water pollution: study group calls on Iowa to take bigger steps to cut nutrient pollution.** Daily Environ Rep 2014 Jul 18. Available from: http://esweb.bna.com/eslw/1245/split_display.adp?fedfid=50017780&vname=dennotallissues&wsn=499800000&searchid=23235537&doctypeid=2&type=date&mode=doc&split=0&scm=1245&pg=1

[wsn=499808000&searchid=23236173&doctypeid=2&type=date&mode=doc&split=0&scm=1245&pg=1](http://www.esweb.bna.com/eslw/1245/split_display.adp?fedfid=48880501&vname=dennotallissues&wsn=500666000&searchid=23236173&doctypeid=2&type=date&mode=doc&split=0&scm=1245&pg=1)

Kovski A. **Water pollution: Obama signs bipartisan bill to enhance efforts to control algae blooms, hypoxia.** Daily Environ Rep 2014 Jul 1. Available from: http://esweb.bna.com/eslw/1245/split_display.adp?fedfid=48880501&vname=dennotallissues&wsn=500666000&searchid=23235537&doctypeid=2&type=date&mode=doc&split=0&scm=1245&pg=1

Gardner S. **Air pollution: pollutants contributing to EU acid rain continue to decline, report to UN says.** Daily Environ Rep 2014 Jul 1. Available from: http://esweb.bna.com/eslw/1245/split_display.adp?fedfid=48880481&vname=dennotallissues&wsn=500632000&searchid=23235537&doctypeid=2&type=date&mode=doc&split=0&scm=1245&pg=1

For Greenwire subscribers (including EPA staff):

Peterka A. **Air pollution: tighter ozone limit would shutter a third of U.S. coal plants -- NAM study.** Greenwire 2014 Jul 31. Available from: <http://www.eenews.net/greenwire/stories/1060003888/>

Peterka A. **Air pollution: trees soak up pollutants, provide \$7B in U.S. health benefits a year -- study.** Greenwire 2014 Jul 30. Available from: <http://www.eenews.net/greenwire/stories/1060003790/>

Peterka A. **Air pollution: EPA releases final plan to curb Navajo plant haze.** E&ENews PM 2014 Jul 28. Available from: <http://www.eenews.net/eenewspm/stories/1060003639/>

Quiñones M. **Coal: Feds mull new mine blasting regulations.** Greenwire 2014 Jul 25. Available from: <http://www.eenews.net/greenwire/stories/1060003521/>

Learn J. **Agriculture: focus on key areas to ease resource impacts, boost food security -- study.** Greenwire 2014 Jul 18. Available from: <http://www.eenews.net/greenwire/stories/1060003131/>

Huizen J. **Science: fern that may have saved the planet finds new fame and maybe fortune.** ClimateWire 2014 Jul 15. Available from: <http://www.eenews.net/climatewire/stories/1060002833/>

Huizen J. **Science: how researchers unearthed the saga of a tiny fern that may have saved the planet.** ClimateWire 2014 Jul 14. Available from: <http://www.eenews.net/climatewire/stories/1060002785/>

Stecker T. **Chesapeake Bay: EPA's 'pollution diet' hasn't improved water quality -- report.** Greenwire 2014 Jul 14. Available from: <http://www.eenews.net/greenwire/stories/1060002815/>

Streater S. **Water pollution: tighter controls have helped lower acidity levels in rivers – study.** Greenwire 2014 Jul 7. Available from: <http://www.eenews.net/greenwire/stories/1060002422/>

Reports

NERA Economic Consulting. 2014. **Assessing economic impacts of a stricter national ambient air quality standard for ozone.** Prepared for: National Association of Manufacturers. Boston: NERA Economic Consulting. 142 p. Available from: <http://www.nam.org/~media/BC86674093194F13A5D401D7A3306B94.ashx>

Osterberg D, Kline A. 2014. **A threat unmet: why Iowa's nutrient strategy falls short against water pollution.** Iowa City: The Iowa Policy Project. 27 p. Available from: <http://www.iowapolicyproject.org/2014docs/140717-nutrient.pdf>

Office of Surface Mining Reclamation and Enforcement (OSMRE). 2014. **Petition to initiate rulemaking; use of explosives on surface coal mining operations: a proposed rule by the Surface Mining Reclamation and Enforcement Office on 07/25/2014.** 79 FR 43326. 2 p. Available from: <https://www.federalregister.gov/articles/2014/07/25/2014-17592/petition-to-initiate-rulemaking-use-of-explosives-on-surface-coal-mining-operations>

Environmental Integrity Project. 2014. **Murky waters: more accountability needed for agricultural pollution in the Chesapeake Bay.** Washington, DC: Environmental Integrity Project. 84 p. Available from: <http://environmentalintegrity.org/wp-content/uploads/Murky-Waters.pdf>

S. 1254--113th Congress: **Harmful Algal Bloom and Hypoxia Research and Control Amendments Act of 2014.** 2013. Available from: <http://www.gpo.gov/fdsys/pkg/BILLS-113s1254enr/pdf/BILLS-113s1254enr.pdf>

European Environment Agency. 2014. **European Union emission inventory report 1990–2012 under the UNECE Convention on Long-range Transboundary Air Pollution (LRTAP).** EEA technical report no 12/2014. Copenhagen: European Environment Agency. 132 p. Available from: <http://www.eea.europa.eu/publications/lrtap-2014>

European Environment Agency. 2014. **Effects of air pollution on European ecosystems: past and future exposure of European freshwater and terrestrial habitats to acidifying and eutrophying air pollutants.** EEA technical report No 11/2014. Copenhagen: European Environment Agency. 42 p. Available from: <http://www.eea.europa.eu/publications/effects-of-air-pollution-on>

Web Pages

U.S. Environmental Protection Agency. Pacific Southwest, Region 9. **Air Actions, Navajo Nation** [Internet] [Last updated on Monday, July 28, 2014]. Available from: <http://www.epa.gov/region9/air/navajo/#station>

National Association of Manufacturers. **Ozone Regulations** [Internet]. Available from: <http://www.nam.org/ozone>

The Iowa Policy Project [Internet]. Available from: <http://www.iowapolicyproject.org>