APPENDIX J

Staff Recommendations for Agricultural Order

REFERENCES

CENTRAL COAST REGIONAL WATER QUALITY CONTROL BOARD

March 2011





Edmund G. Brown, Governor State of California

Linda S. Adams, Secretary California Environmental Protection Agency

State Water Resources Control Board

http://www.waterboards.ca.gov/

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California Regional Water Quality Control Board Central Coast Region

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Jeffrey S. Young, Chair Russell M. Jeffries, Vice Chair Monica S. Hunter, Board Member David T. Hodgin, Board Member John H. Hayashi, Board Member Jean-Pierre Wolff, Board Member

Roger Briggs, Executive Officer Michael Thomas, Assistant Executive Officer

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REFERENCES

- Achilea, O. (2003). Salinity-Induced Stress in Greenhouse Crops is Alleviated by Potassium Nitrate Enhanced Nutrition. Acta Hort. (ISHS) 609:341-347.
- Agrawal O., V.K. Gupta. 1999. Sub-Parts-per-Million Spectrophotometric Determination of Phenol and Related Pesticides Using Diazotized p-Aminoacetophenone. Microchemical Journal, Volume 62, Issue 1, May 1999, Pages 147-15.
- Agriculture Management Measures: http://www.coastal.ca.gov/nps/npsmmr/cammprag.pdf
- Ahel, M., J. McEvoy, and W. Giger. (1993). Bioaccumulation of the lipophilic metabolites of nonionic surfactants in freshwater organisms. Environ. Pollut. 79:243-248.
- Ali, A.M.S. (2004). Technological Change in Agriculture and Land Degradation in Bangladesh: A Case Study, Land Degradation and Development, 15:283-298.
- Alley, W.M., (1993). Regional Ground-Water Quality. Van Nostrand Reinhold, New York NY
- An Introduction to Nutrient Management. http://www.conservationinformation.org/Publications/NutrientMgmtPrimer.pdf
- Anderson, B.S., B.M. Phillips, J.W. Hunt, B. Largay, R. Shihadeh, and M. Beretti. (2008). Pesticide and toxicity reduction using vegetated treatment systems and Landguard OP-A. Data Summary and Final Report. Central Coast Regional Water Quality Control Board, San Luis Obispo, CA. 70 pp.
- Anderson, B.S., B.M. Phillips, J.W. Hunt, K. Siegler, J. Voorhees, K. Smalling, and K. Kuivila. (2010). Watershed-Scale Evaluation of Agricultural BMP Effectiveness in Protecting Critical Coastal Habitats: Final Report on the Status of Three Central California Estuaries. University of California, Marine Pollution Studies Laboratory and U.S. Geological Survey report. April 10, 2010. Central Coast Water Quality Control Board Grant Agreement No. 06-352-553-0.
- Anderson, B.S., B.M. Phillips, J.W. Hunt, N. Richard, V. Connor, K.R. Worcester, M.S. Adams, and R.S. Tjeerdema. (2006b). Evidence of pesticide impacts in the Santa Maria River Watershed (California, USA). Environ. Toxicol. Chem. 25(3):1160 1170. http://www.ccamp.org/ccamp/documents/santamariaETC2006.pdf

- Anderson, B.S., B.M. Phillips, J.W. Hunt, V. Connor, N. Richard, and R.S. Tjeerdema. (2006a). Identifying primary stressors impacting macroinvertebrates in the Salinas River (California, USA): Relative effects of pesticides and suspended particles Environ. Poll. 141(3):402-408. http://www.sciencedirect.com/science/journal/02697491
- Anderson, B.S., J.W. Hunt, B.M. Phillips, P.A. Nicely, K.D. Gilbert, V. De Vlaming, V. Connor, N. Richard, and R.S. Tjeerdema. (2003). Ecotoxicologic Impacts of Agricultural Drain Water in the Salinas River, CA, USA. Environ. Toxicol. Chem. 22(10):2375-2384. SETAC. Oct. 2003.
- Anderson, B.S., J.W. Hunt, B.M. Phillips, P.A. Nicely, V. De Vlaming, V. Connor, N. Richard, and R.S. Tjeerdema. (2003). Integrated assessment of the impacts of agricultural drainwater in the Salinas River (California, USA). Environ. Poll. 124:523 532. http://www.ccamp.org/ccamp/documents/AndersonSalinasStudy.pdf
- Anderson, T., F. Watson, W. Newman, J. Hager, D. Kozlowski, J. Casagrande, and J. Larson. (2003). Nutrients in surface waters of southern Monterey Bay watersheds. CCoWs Publication No. WI-2003-11 29th May 2003. The Watershed Institute.
- Andraski, T. W. and L.G. Bundy. (2002). Using the presidedress soil nitrate test and organic nitrogen crediting to improve corn nitrogen recommendations. Agron. J. 94:1411-1418.
- ANR, Agriculture and Natural Resources. (2002). Publication 8071 Sediment Management Goals and Management Practices for Strawberries. D. Mountjoy, author. University of California. http://ucanr.org/freepubs/docs/8071.pdf
- ANR, Agriculture and Natural Resources. (2003). Publication 8085 Groundwater Sampling and Monitoring. T. Harter, author. University of California http://anrcatalog.ucdavis.edu/pdf/8085.pdf
- ANR, Agriculture and Natural Resources. (2004). Publication 8124 Sediment Management Goals and Management Practices for Nursery and Floriculture. D. Haver, author. University of California. http://anrcatalog.ucdavis.edu/pdf/8124.pdf
- ANR, Agriculture and Natural Resources. (2006). Publication 8195 Vegetative Filter Strips for Nonpoint Source Pollution Control in Agriculture. M. Grismer, author. University of California. http://ucanr.org/freepubs/docs/8195.pdf

- ANR, Agriculture and Natural Resources. (2007). Publication 8240 Riparian Vegetation. S. Koscher. author. University of California. http://ucanr.org/freepubs/docs/8240.pdf
- Arriaga, L. and R. Smith. (2010). Careful Nitrogen Management in Second Crop Lettuce.

 Article submitted by: Richard Smith.
- ATTRA National Sustainable Agriculture Information Service http://attra.ncat.org/
- Ayars J. E., I. Richard, W. Soppe, E. W. Christen. (2003) Managing Salinity for Sustainability of Irrigation in Areas with Shallow Saline Ground Water Paper No 062. Presented at the 9th International Drainage Workshop, September 10 13, 2003, Utrecht, The Netherlands.
- Ayars, J.E., E.W. Christen, and J.W. Hornbuckle. (2006). Controlled drainage for improved water management in arid regions irrigated agriculture. Agricultural Water Management 86. 20060 128-139.
- Ayers R S. and Westcot D W. (1994). Series title: FAO Irrigation and Drainage Papers 29. Water quality for agriculture. http://www.fao.org/docrep/003/t0234e/T0234E00.HTM
- Babikera I. S., A. A. Mohamed, H. Mohameda, Teraob, K. Katoa, and K. Ohtaa. (2004). Assessment of groundwater contamination by nitrate leaching from intensive vegetable cultivation using geographical information system. Environment International. Volume 29, Issue 8, February 2004, Pages 1009-1017.
- Balough, Steven J., Michael L. Meyer and D. Kent Johnson. (1998). Transport of Mercury in Three Contrasting River Basins, Environmental Science Technology, 32:456-462.
- Bar Y.; A. Apelbaum; U. Kafkafi; R. Goren. (1997). Relationship between chloride and nitrate and its effect on growth and mineral composition of avocado and citrus plants. Journal of Plant Nutrition, ISSN 0190-4167. 1997, vol. 20, no6, pp. 715-731 (2 p.1/4).
- Bay Protection and Toxic Hot Spot Cleanup Program, (BPTCP). (1998). Central Coast Regional Toxic Hot Spot Cleanup Plan. 93 pp.
- Better Soil, Better Yields. http://www.conservationinformation.org/Publications/BetterSoilBetterYields.pdf

- Blackmer, A.M., R.D. Voss, and A.P. Mallarino. (1997). Nitrogen fertilizer recommendations for com in Iowa, Iowa State Univ., Univ. Ext., Ames, IA. Pm-1714.
- Braatne, J.H., Rood, S.B., and Heilman, P.E. (1996). Life History, Ecology and Conservation of Riparian Cottonwoods in North America. Chapter for Biology of Populus. Edited by Stettler, Bradshaw, Heilman and Hinckley.
- Breschini S.J. and T.K. Hartz .(2002) Presidedress Soil Nitrate Testing Reduces Nitrogen Fertilizer Use and Nitrate Leaching Hazard in Lettuce Production Hortscience 37(7):1061–1064.
- Breschini S.J. and T.K. Hartz. (2002). Drip irrigation management affects celery yield and quality. Hortscience 37 (6):894-897.
- Brinsfield, R.B., and K.W. Staver. (1990). Addressing groundwater quality in the 1990 farm bill: Nitrate contamination in the Atlantic Coastal Plain, Journal of Soil and Water Conservation, March 1990, vol 45., no. 2, 285-286.
- Brown A. (2003). Factors Affecting Groundwater Contamination. Pesticide Information Leaflet No. 8.
- Brown, R. H. (1964). Hydrologic Factors Pertinent to Ground-Water Contamination. Ground Water, 2: 5–12.
- Bundy, L.G. (2000). Nitrogen recommendations and optimum nitrogen rates: How do they compare? pp. 5-13. In Proc. North Central Ext. Industry Soil Fertil. Conf, St. Louis, MO, Vol. 16. Potash and Phosphate Inst., Brookings, SD.
- Burge, S. and R. Halden. (1999). Nitrate and perchlorate removal from groundwater by ion exchange pilot testing and cost analysis. Lawrence Livermore National Laboratory, University of California, Livermore, California, September 8, 1999.
- Burt, C. M. et. al. (1995). Fertigation. ITRC San Luis Obispo.
- Burt, C.M. and S. W. Styles S. W. (1999). Drip and micro irrigation for trees, vines, and row crops. ITRC San Luis Obispo. 1999.
- California Department of Fish and Game, (CDFG). (2003). California Salmonid Stream Habitat Restoration Manual; Part XI Riparian Habitat Restoration.

- California Department of Food and Agriculture, (CDFG). (1998). Environmental Protocol to Examine Potential Sources of Carbofuran Residues in the Colusa Basin Drain
- California Department of Health Services (CDPH). (2000). Drinking Water Source Assessment and Protection (DWSAP) Program.
- California Management Measures for Polluted Runoff (CCAMMPR) (State NPS MPs). January 2000. Volume 2: http://www.coastal.ca.gov/nps/npsmmr/cammprtc.pdf
- Cambardella, C.A., T.B. Moorman, D.B. Jaynes, T.B. Parkin, and D.L. Karlen. (1999). Water quality in Walnut Creek watershed: Nitrate nitrogen in soils, subsurface drainage water and shallow groundwater. J. Environ. Qual. 28:25-34.
- Carle, S.F., B.K. Esser, J.E. Moran. (2006). High-Resolution Simulation of Basin-Scale Nitrate Transport Considering Aquifer System Heterogeneity, Geosphere, June 2006, v.2, no. 4, pg. 195-209.
- Central Coast Ambient Monitoring Program, (CCAMP). (2010a). Web data summaries of CCAMP and CCWQP data. http://www.ccamp.info/ 2010/view data 01.php
- Central Coast Ambient Monitoring Program, (CCAMP.) (2010b.) Central Coast Agricultural Surface Water Assessment Summary. http://www.ccamp.net/ag/index.php/
- Central Coast Long-term Environmental Assessment Network, (CCLEAN). (2007).

 Program Overview, 2001 2006. January 31, 2007. P.O Box 8346, Santa Cruz, CA 95061.
- Central Coast Vineyard Team. (2005). Final Report Central Coast Vineyard Team Non Point Source Project, Central Coast, California.
- Central Coast Vineyard Team. (2011). Sustainability in Practice (SIP) Vineyard Certification Program Standards.
- Central Coast Water Quality Control Board, (CCWQCB). (1994). Water Quality Control Plan for the Central Coastal Region (Basin Plan). Adopted September 8, 1994 with subsequent amendments.
- Central Coast Water Quality Control Board, (CCWQCB). (2009). Staff Report for Regular Meeting of October 23, 2009. http://www.waterboards.ca.gov/centralcoast/board_info/agendas/2009/oct/item_1 2/stfrpt_12.pdf

- Central Coast Water Quality Control Board, (CCWQCB). (2009a). Fact Sheets Documenting 303(d) Listing Decisions.

 http://www.waterboards.ca.gov/centralcoast/water-issues/
 programs/tmdl/303d/appendix-shtml
- Central Coast Water Quality Control Board, (CCWQCB). (2009b). Interpreting Narrative Objectives for Biostimulatory Substances Using the Technical Approach for Developing California Nutrient Numeric Endpoints. Central Coast Ambient Monitoring Program Technical Report. April 2, 2009. Prepared by K.R. Worcester, D.M. Paradies, and M. Adams.

 http://www.waterboards.ca.gov/water-issues/programs/swamp/docs/reglrpts/rb3-biostimulation.pdf.
- Central Coast Water Quality Preservation Inc,. (CCWQP). (2009a). Preliminary Cooperative Monitoring Trend Analysis Brief, October 19, 2009. http://www.ccamp.org/ccamp/documents/TrendAnalysisBrief_v2.pdf
- Central Coast Water Quality Preservation Inc. (CCWQP). (2008a). Phase 1 Follow-up Water Quality Monitoring: Organophosphate Pesticide Sampling Final Data Report. May 19, 2008
- Central Coast Water Quality Preservation Inc. (CCWQP). (2008b). Follow-up Monitoring Report: Water Quality Results from Upstream Monitoring, 2008. Revised September 2010.
- Central Coast Water Quality Preservation Inc. (CCWQP). (2009). Supplemental Water Quality Monitoring for Organophosphate Pesticides and Aquatic Toxicity. May 28, 2009.
- Central Coast Water Quality Preservation Inc. (CCWQP). (2010a). Central Coast Region Conditional Waiver Cooperative Monitoring Program Follow-up Monitoring Report: Organophosphate Monitoring at Phase II Sites 2009. April 6, 2010.
- Central Coast Water Quality Preservation Inc. (CCWQP). (2010b). Central Coast Cooperative Monitoring Program, 2005 2008 Water Quality Report. Prepared by Larry Walker and Assoc.
- Central Coast Water Quality Preservation Inc. (CCWQP). (2010c). Cooperative Monitoring Program 5-Year Evaluation Report: Monitoring Program Effectiveness and Efficiency. December 23, 2010.

- Central Coast Water Quality Preservation Inc. (CCWQP). (2010d draft). Central Coast Region Conditional Waiver Cooperative Monitoring Program Follow-up Monitoring Report: Pesticides and Toxicity to Hyalella azteca in Sediments, 2010. In Draft.
- Central Coast Water Quality Preservation Inc., (CCWQP). (2009b). Central Coast Cooperative Monitoring Program: 2005 Bioassessment Monitoring. Pacific Ecorisk, Fairfield, CA. Revised April 2010.
- Central Coast Water Quality Preservation Inc., (CCWQP). (2009c). Central Coast Cooperative Monitoring Program: 2006 Bioassessment Monitoring. Pacific Ecorisk, Fairfield, CA. Revised April 2010.
- Central Coast Water Quality Preservation Inc., (CCWQP). (2009d). Central Coast Cooperative Monitoring Program: 2007 Bioassessment Monitoring. Pacific Ecorisk, Fairfield, CA. Revised April 2010.
- Central Coast Water Quality Preservation Inc., (CCWQP). (2009e). Central Coast Cooperative Monitoring Program: 2008 Bioassessment Monitoring. Pacific Ecorisk, Fairfield, CA. Revised April 2010.
- Central Coast Water Quality Preservation Inc., (CCWQP). (2009f). Final Follow-up Water Quality Monitoring Report: Continuous Monitoring of Flows. August 14, 2009. Revised September, 2010.
- Central Valley Regional Water Quality Control Board. (2010). *Draft Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program.* Prepared by: Megan Smith, ICF International; with assistance from: Mark Roberson, Ph.D., Stephen Hatchett, Ph.D., CH2MHill, and Thomas Wegge, TCW Economics.
- Chang, A.C., A. Page, and N.J. Krage. (2004) Role of Fertilizer and Micronutrient Applications on Arsenic, Cadmium, and Lead Accumulation in California Cropland Soils. Report submitted to California Department of Food and Agriculture.
- Chang, A.C., A. Page, and N.J. Krage. (2004) Role of Fertilizer and Micronutrient Applications on Arsenic, Cadmium, and Lead Accumulation in California Cropland Soils. Report submitted to California Department of Food and Agriculture.
- City of Morro Bay. (2006). City of Morro Bay 2005 Urban Water Management Plan. September 2006.

- City of Santa Maria. (2008). Annual Water Quality Report [http://www.ci.santa-maria.ca.us/3112-AnnualWaterQualityReport.pdf]
- Cleath and Associates. (2007). Morro Basin Nitrate Study, December 2007.
- Collins, J.N., M. Sutula, E.D. Stein, M. Odaya, E. Zhang, K. Larned. (2006). Comparison of Methods to Map California Riparian Areas. Final Report Prepared for the California Riparian Habitat Joint Venture. 85pp.
- Comer, P., K. Goodin, A. Tomaino, G. Hammerson, G. Kittel, S. Menard, C. Nordman, M. Pyne, M. Reid, L. Sneddon, and K. Snow. (2005). Biodiversity Values of Geographically Isolated Wetlands in the United States. NatureServe, Arlington, VA. 2005. http://www.natureserve.org/library/isolated_wetlands_05/isolated_wetlands.pdf
- Cone, Marla and Envrionmental Health News. (2009). Scientific American. http://www.scientificamerican.com/article.cfm?id=rural-well-water-insecticides-parkinsons-disease-california
- Conservation Technology Information Center. Core4 Conservation For agriculture's future. http://www.conservationinformation.org/?action=learningcenter_core4. Address: 3495 Kent Avenue, Suite J100, West Lafayette, IN 47906 USA. Tel: 765-494-9555. Fax: 765-463-4106. ctic@ctic.org
- County of Santa Barbara. (2003). Project Clean Water Rain Year 2002/2003 Water Quality Analysis Report. December 2003.
- Crespin, M.A, M. Gallego, M. Valcarcel, J.L. Gonzalez. 2001. Study of the degradation of the herbicides 2,4-D and MCPA at different depths in contaminated agricultural soil. Environmental Science and Technology. 35(21):4265 4270.
- Cserháti, T. (1995). Alkyl ethoxylated and alkylphenol ethoxylated nonionic surfactants: Interaction with bioactive compounds and biological effects. Environ. Health Persp. 103:358-364.
- CTIC Publications An Agricultural Community Water Quality Trading Guide.

 http://www.conservationinformation.org/?action=learningcenter-publications wat ergualitytrading.

- Dall, D.C., Elliot, and D. Peters. (1997). A System for Mapping Riparian Areas in the Western United States. U.S. Fish and Wildlife Service, National Wetlands Inventory. 15 pp.
- Delgado J.A., M. Shaffer, C. Hu, R. Lavado, J. Cueto-Wong, P. Joosse, D. Sotomayor, W. Colon, R. Follett, S. DelGrosso, X. Lic, H. Rimski-Korsakov. (2008). An index approach to assess nitrogen losses to the Environment. Ecological engineering 32 (2008) 108–120.
- Department of Water Resources, (DWR). (2003). California's Groundwater Update, Central Coast Hydrologic Region
- DeSimone, L.A. (2009). Quality of water from domestic wells in principal aquifers of the United States, 1991–2004: U.S. Geological Survey Scientific Investigations Report 2008–5227, 139 p., available online at http://pubs.usgs.gov/sir/2008/5227
- Diehl, J., S. E. Johnson, K. Xia, S. J. Teh, A.West, and L.Tomanek. In Preparation. The ubiquitous distribution of 4-nonylphenol in marine organisms in North American Pacific Coast Estuaries. California Polytechnic State University.
- Dillaha, T.A., R.B.Renau, S. Mostaghimi, and D. Lee. 1989. Vegetative filter strips for agricultural nonpoint source pollution control. Transactions of ASAE, 32(2) 513-519.
- Domagalski, J.L. et al. (2008). Comparative Study of Transport Processes of Nitrogen, Phosphorus, and Herbicides to Streams in Five Agricultural Basins, USA, Journal of Environmental Quality 37:1158-1169.
- DPR, Department of Pesticide Regulation. (2010). Pesticide registration and evaluation committee. Meeting minutes January 14, 2010. Item 2, Potential impacts of pesticide use injunctions on pesticide use and the protection of endangered species. http://www.cdpr.ca.gov/docs/endspec/index.htm
- Draft Diazinon report.
- Draft DPR proposed regulations to protect surface water quality.
- Drury, C.F., C.S. Tan, J.D. Gaynor, T.O. Oloya, and T.W. Welacky. (1996). Influence of controlled drainage-subirrigation on surface and tile drainage nitrate loss. J. Environ. Qual. 25:317-324.

- Dugan, J.E., G. Ichikawa, M. Stephenson, D. Crane, J. McCall, K. Regalado. (2005). Monitoring of Coastal Contaminants using Sand Crabs. Prepared for the Central Coast Regional Water Quality Control Board.
- DWR, (California Department of Water Resources). (2003). California's Groundwater Update 2003. Bulletin 118. www.groundwater.water.ca.gov/bulletin118/.
- eFOTG (Electronic field office technical guide)
 http://efotg.nrcs.usda.gov/treemenuFS.aspx
- Ekelund, R. et al. (1990). Bioaccumulation of 4-nonylphenol in marine animals—A reevaluation. Environ. Pollut. 64:107-120.
- Elnagheeb A. H., J. L. Jordan and V. Humphrey. (1993). The Structure of Farmers' Perceptions of Ground Water Pollution. J. Agr and Applied Emn, 27 (I), July, 1995.224-237.
- Falkenmark M. (2008). Water and Sustainability: A Reappraisal. Environment Science and Policy for Sustainable Development Magazine. March/April 2008. International Water Resources Association Statement. This article draws heavily on almost 40 years of articles authored or co-authored by Falkenmark and to recent discussions with a colleague from IWRA's Committee on Water Strategies for the 21st Century, Professor Luis da Cunha, Lisbon, Portugal. http://www.environmentmagazine.org/Archives/Back%20Issues/March-April%202008/Falkenmark-full.html
- Fawcett R.S. (2005). A Review of BMPs for Managing Crop Nutrients and Conservation Tillage to Improve Water Quality. Edited by Tim Smith (2005). Conservation Technology Information Centre (CTIC), West Lafayette, I N, USA. http://www.conservationinformation.org/?action=learningcenter_publications
- Fawcett, R.S. (2001). Nutrient nightmare. Farm J. 125(10):8.
- Fawcett, R.S. and S. Caruana. (2002). Better soil better yields: a guidebook to improving soil organic matter and infiltration with continuous no-till. CTIC, West Lafayette, IN. 17 pp.
- Fischer, R. A. and J. C. Fischenich. (2000). Design recommendations for riparian corridors and vegetated buffer strips. EMRRP Technical Notes Collection (ERDC TN-EMRRP-SR-31). U.S. Army Engineer Research and Development Center, Vicksburg, MS.
- Fishel, Frederick M. (2008). Pesticide Toxicity Profile: Copper-based Pesticides. University of Florida IFAS Extension PI-66.

- Fisher, A.T. (2011). Personal communication
- Fisher, J., and M.C. Acreman. (2004). Wetland nutrient removal: a review of the evidence. *Hydrology and Earth System Sciences* 8(4): 673–685.
- Flores P.; M. A. Botella; V. Martínez; A. Cerdá. (2002). Response to Salinity of Tomato Seedlings with a Split-Root System: Nitrate Uptake and Reduction. Journal of Plant Nutrition, 1532-4087, Volume 25, Issue 1, 2002, Pages 177 187.
- Flosi, G., Downie, S., Hopelain, J., Bird, M., Coey, R. and B. Collins. (1998). California Salmonid Stream Habitat Restoration Manual, Part XI Riparian Habitat Restoration. Third Edition January 1998. State of California. the Resources Agency California Department of Fish and Game, Inland Fisheries Division.
- Follet, R.F.; D.R. Keeney, R.M Cruse. (1991). Managing nitrogen for groundwater quality and farm profitability, Proceedings of a Symposium at the ASA, SSSA, and CSSA, Anaheim. Soil Science Society of America (SSSA), Madison. FERT 122 report. ISN 10691.
- Francis D. D. and J. S. Schepers. (1994). Nitrogen uptake efficiency in maize production using irrigation water high in nitrate. Fertilizer Research Volume 39, Number 3, 239-244. 1994.
- Fraters D. and R. Grant. (2003). National Institute for Public Health and the Environment. Summary of the Monitoring effectiveness of EU Nitrates Directive Action Programs. National Environmental Research Institute, University of Aarthus, Denmark.
- Freeman, Mary C., Catherine M. Pringle, and C. Rhett Jackson. (2007). Hydrologic Connectivity and the Contribution of Stream Headwaters to Ecological Integrity at Regional Scales. Journal of the American Water Resources Association (JAWRA) 43(1):5-14.
- Gaskell, M., M.P. Bolda, J. Muramoto, and O. Daugovish. (2009). Strawberry Nitrogen Fertilization from Organic Nutrient Sources. Acta Hort. (ISHS) 842:385-388.
- Gehl, R.J., J.P. Schmidt, L.D. Maddux, and W.B. Gordon. (2005). Corn Yield Response to Nitrogen Rate and Timing in Sandy Irrigated Soils. Published in Agron. J. 97:1230–1238 (2005) American Society of Agronomy.

- Getting Paid for Stewardship: An Agricultural Community Water Quality Trading Guide. http://www.conservationinformation.org/?action=learningcenter_publications_waterqualitytrading
- Ghio, H. V. Gudelj, G. Espoturno, M. Boll, J. Bencardini, and F. García. (2010). Long-term On-farm Demonstrations in the Central Pampas of Argentina: A Case Study Better Crops/Vol. 94 (2010, No. 1).
- Goos, R.J. and L. Prunty. (1990). Yield variability and the yield goal decision, pp. 187-189. In J.L. Havlin (ed.) Proc. of the Great Plain Soil Fertility Conf., Denver, CO. 6-7 March 1990. Kansas State Univ., Manhattan.
- Guillard, K., T.F. Morris, and K.L. Kopp. (1999). The pre-sidedress soil nitrate test and nitrate leaching from corn. J. Environ. Qual. 28:1845-1852.
- Harter T., Y.S. Onsoy, K.Heeren, M. Denton, G. Weissmann, J.W. Hopmans, and W.R. Horwath. (2005). Deep vadose zone hydrology demonstrates fate of nitrate in eastern San Joaquin Valley. California Agriculture 59(2):124.
- Harter, T., (2009). Agricultural impacts on groundwater nitrate. Southwest Hydrology 8(4):21-23 (Jul/Aug 2009).
- Hartz T.K. (2007). Development of Practical Fertility Monitoring Tools for Drip-Irrigated Vegetable Production. FREP on-going projects. http://www.cdfa.ca.gov/is/fflders/ongoing_projects.html
- Hartz T.K., R. Smith, and E. Williams. (2007). Reevaluating tissue analysis as a management tool for lettuce and cauliflower. FREP completed projects. http://www.cdfa.ca.gov/is/fflders/completed projects.html
- Hartz T.K., R. Smith, and M. Cahn (2009). Reducing Nutrient Loading from Vegetable Production.
- Hartz, T. (2000). Drip Irrigation and Fertigation Management of Celery. Vegetable Research and Information Center Celery Grower Guidelines 2000.
- Hartz, T. K., M. Cahn, and M. Swain. (2003). Efficient use of phosphorus fertilizer in California vegetable production. Western Nutrient Management Conference Proceedings, pages 119-124. Salt Lake City, UT.

- Hartz, T.K., W.E. Bendixen, and L. Wierdsma. (2000). The value of pre-sidedress soil nitrate testing as a nitrogen management tool in irrigated vegetable production. HortScience 35(4):651-656.
- Hauck, R.D. (1973). Nitrogen tracers in nitrogen cycle studies-past use and future needs. J.Environ. Qual. 2: 317-327.
- Hicks, M. (2000). Preliminary Review Draft Discussion Paper Evaluating Standards for Protecting Aquatic Life In Washington's Surface Water Quality Standards Temperature Criteria. Washington State Department of Ecology, Water Quality Program, Watershed Management Section. Olympia, Washington.
- Hitt, K.J., and Nolan, B.T. (2005). Nitrate in Ground Water: Using a Model to Simulate the Probability of Nitrate Contamination of Shallow Ground Water in the Conterminous United States. USGS Scientific Investigations Map 2881.
- Holmes, R.W., B.S. Anderson, B.M. Phillips, J.W. Hunt, D.B. Crane, A. Mekebri, and V. Connor. 2008. Statewide Investigation of the Role of Pyrethroid Pesticides in Sediment Toxicity in California's Urban Waterways. <u>Environmental Science and Technology</u>. 42(18). 7003-7009.
- Holmgren, G.G.S., et al. (1993). Cadmium, Lead Zinc, Copper, and Nickel in Agricultural Soils of the United States of America, Journal of Environmental Quality 22: 335-348.
- Hornbuckle, J.W., Christen, E.W., Ayars, J.E. and Faulkner, R.D. (2005b). Controlled water table management as a strategy for reducing salt loads from subsurface drainage under perennial agriculture in semi-arid Australia. Irrigation and Drainage Systems, 19(2):145-159.
- Howarth RW, Billen, G, Swaney D, Townsend A, Jaworski N, Lajtha K, Downing JA, Elmgren R, Caraco N, Jordan T, Berendse F, Freney J, Kudeyarov V, Murdoch P & Zhu Zhao-liang. (1996). Regional nitrogen budgets and riverine N & P fluxes for the drainages to the North Atlantic Ocean: Natural and human influences. Biogeochemistry 35: 75-139.
- http://www.groundwater.water.ca.gov/bulletin118/.
- http://soils.usda.gov/sgi/assessment/assessment.html

http://www.environmentmagazine.org/Archives/Back%20Issues/March-April%202008/Falkenmark-full.html

http://www.nrcs.usda.gov/technical/efotg/

http://www.nrcs.usda.gov/technical/standards/

http://www.swrcb.ca.gov/rwqcb4/water issues/programs/tmdl/waivers/index.shtml

http://www.swrcb.ca.gov/rwqcb4/water_issues/programs/tmdl/waivers/05_1220/appendix%209.pdf

http://www.waterboards.ca.gov/centralcoast/board_info/agendas/2009/oct/item_12/index .sht

http://www2.ctic.purdue.edu/Core4/SoilQuality.html

http://www2.ctic.purdue.edu/Core4/WhatsC4.html

- Hunt J. W., Anderson BS, Phillips BM, Tjeerdema RS, Largay B, Hanson E, Beretti M, Bern A. (2008). Use of toxicity identification evaluations in determining the pesticide mitigation effectiveness of on-farm vegetated treatment systems. Environ Poll. 156: 348-358. http://www.envtox.ucdavis.edu/GraniteCanyon/JH%202008%20EP%20PRISM.pd f
- Hunt J. W.; Brian S. Anderson, Bryn M. Phillips, Ron S. Tjeerdema, H. Max Puckett, Victor deVlaming. (1999). Patterns of aquatic toxicity in an agriculturally dominated coastal watershed in California. Agriculture, Ecosystems & Environment. Volume 75, Issues 1-2, August 1999, Pages 75-91. http://www.sciencedirect.com/science/journal/01678809
- Hunt J.W., B.S. Anderson, B.M. Phillips, B. Largay, F. Watson, K. Harris, E. Hanson, M. Beretti, R. Schafer, K. Brown, and A.L. Bern. (2007). Effectiveness of agricultural management practices in reducing concentrations of pesticides associated with toxicity to aquatic organisms. Data Summary and Final Report. Central Coast Regional Water Quality Control Board, San Luis Obispo, CA.

- Hunt, J. W., B.S. Anderson, B.M. Phillips, P.N. Nicely, R.S. Tjeerdema, H.M. Puckett, M. Stephenson, K. Worcester, and V. De Vlaming. (2003). Ambient Toxicity due to Chlorpyrifos and Diazinon in a Central California Coastal Watershed. Environmental Monitoring and Assessment 82: 83 112, 2003. http://www.ccamp.org/ccamp/documents/HuntSalinasStudy.pdf
- Hunt, J., and D. Markiewicz. Summary of Toxicity in California Waters: 2001 2009. Prepared for the Surface Water Ambient Monitoring Program, State Water Resouces Control Board. November 2010.
- IPM information from EPA website. http://www.epa.gov/pesticides/
- Irshad M.; S. Yamamoto; A. E. Eneji; T. Endo; and T. Honna. (2002). Urea and Manure Effect on Growth and Mineral Contents of Maize Under Saline Conditions. Journal of Plant Nutrition, 1532-4087, Volume 25, Issue 1, 2002, Pages 189 200.
- Jackson et. al. (1993). In lettuce production, winter cover crops can decrease soil nitrate, leaching potential. California Agriculture 47(5):12-15. September-October 1993.
- Jackson L.E. (2000). Fates and Losses of Nitrogen from a Nitrogen-15-Labeled Cover Crop in an Intensively Managed Vegetable System. Published in Soil Sci. Soc. Am. J. 64:1404-1412. 2000.
- Jaynes D. B., Tom C. Kaspar, Tom B. Moorman, and Tim B. Parkin. (2008). In Situ Bioreactors and Deep Drain-Pipe Installation to Reduce Nitrate Losses in Artificially Drained Fields. USDA-ARS. Published in J. Environ. Qual. 37:429–436 (2008)
- Jaynes, D.B., Kaspar, T.C., Moorman, T.B., Parkin, T.B. 2006. In-Field Bioreactor for Removing Nitrate from Tile Drainage [CD-ROM]. In: ASA-CSSA-SSSA Annual Meeting Abstracts, Nov. 12-16, 2006, Indianapolis, IN.
- Jekinek, C. F., and G. L. Braude. "Management of Sludge Use on Land." Journal of Food Protection. 41(197 8):476-480.
- Jessup, D.A., M.A. Miller, J.P. Ryan, H.M. Nevins, H.A. Kerkering, A. Mekebri, D.B. Crane, T.A. Johnson, and R.M. Kudela. (2009). Mass Stranding of Marine Birds Caused by a Surfactant-Producing Red Tide, PLoS ONE 4(2):e4550.

- Kafkafi U.; N. Valoras; J. Letey . (1982). Chloride interaction with nitrate and phosphate nutrition in tomato (Lycopersicon esculentum L.) Journal of Plant Nutrition, 1532-4087, Volume 5, Issue 12, 1982, Pages 1369 1385.
- Kanwar, R.S., D.L. Karlen, C.A. Cambardella, T.S. Colvin, and C. Pederson. (1996). Impact of manure and N-management systems on water quality. p. 65-77. In Proc. Annu. Integrated Crop Manage. Conf., 8th, Ames, IA. 19-20 Nov. 1996. Iowa State Univ. Ext., Ames.
- Kelley K and Starner K. Memorandum to Kean S. Goh. (2004). Preliminary Results for Study 219: Monitoring Surface Waters and Sediments of the Salinas and San Joaquin River Basins for Organophosphate and Pyrethroid Pesticides. 9 Dec 2004.
- Kennedy/Jenks Consultants, September 2008. Public Review Draft Hollister Area 2008. Urban Water Management Plan.
- Kerr R.S. (1987). DRASTIC: A Standardized System for Evaluating Ground Water Pollution Potential Using Hydrologic settings. Environmental Research Laboratory, June 1987. Agency Ada OK 74820. EPA/600/2-87/035.
- Kinouchi, T., H. Yagi and M. Miyamoto. (2007). Increase in Stream Temperature Related to Anthropogenic Heat Input from Urban Wastewater, Journal of Hydrology, 335:78-88.
- Kitchen N. R., K. W. T. Goulding, and J.F. Shanahan. (2008). Proven Practices and Innovative Technologies for On-Farm Crop Nitrogen Management. Published in Nitrogen in the Environment: Sources, Problems, and Management, Second edition, ed. J. L. Hatfield & R. F. Follett (Amsterdam, Boston, et al.: Academic Press/Elsevier, 2008).
- Kozlowski D., F. Watson, M. Angelo, and J. Larson. (2004). Monitoring Chlorpyrifos and Diazinon in Impaired Surface Waters of the Lower Salinas Region. Watershed Institute, Earth Systems Science and Policy California State University Monterey Bay Report WI-2004-03. 31 March 2004. http://www.cdpr.ca.gov/docs/emon/surfwtr/contracts/ccows_frpt.pdf
- Kulongoski, J.T., and K. Belitz. (2007). Ground-Water Quality Data in the Monterey Bay and Salinas Valley Basins, California, 2005- Results from the California GAMA Program. Data Series 258, USGS.

- Lane, J.Q., D.M. Paradies, K.R. Worcester, and R.M. Kudela. (*In review*). Assessment of river discharge as a source of nitrate-nitrogen to Monterey Bay, California. Journal of Limnology and Oceanography.
- Lane, J.Q., D.M. Paradies, K.R. Worcester, and R.M. Kudela. (2009). Description of freshwater eutrophic sources to Monterey Bay, California, with categorization according to nutrient ratio characteristics. Poster presentation at Coastal and Estuarine Research Federation (CERF) Conference, Portland, OR, Nov 2 – 5, 2009.
- Largay B.G., M. Los Huertos, R. Shihadeh, P. Robins, M. Beretti, B.S. Anderson, B.M. Phillips, J.W. Hunt. (2008). Vegetated Treatment Systems at the Edge of Working Farms: A Tool to Reduce the Yield of Nutrients, Pesticides and Sediment, Monterey County, California. Central Coast Regional Water Quality Control Board, San Luis Obispo, CA.
- Lawrence Livermore National Laboratory. (2005). Prepared in cooperation with the California State Water Resources Control Board. California GAMA Program: Sources and transport of nitrate in shallow groundwater in the Llagas Basin of Santa Clara County, California UCRL-TR-213705. July, 2005. Lawrence Livermore National Laboratory under contract No. W-7405-ENG-48.
- Lech, J.J., S.K. Lewis, and L. Ren. 1996. In Vivo Estrogenic Activity of Nonylphenol in Rainbow Trout Fundamental and Applied Toxicology. 30:229-232. http://toxsci.oxfordjournals.org/content/30/2/229.full.pdf
- Legg J.O. and J.J. Meisinger. (1982). Soil nitrogen budgets. In: Stevenson FJ (ed) Nitrogen in Agricultural Soils, pp 503–566. ASA-CSSASSA, Madison, WI.
- Lewan, L. (1994). Effects of a catch crop on leaching of nitrogen from a sandy soil simulations and measurements. Plant Soil 166:137-152.
- Lewandowski, A.M., B.R. Montgomery, C.J. Rosen, and J.F. Moncrief. (2008).

 Groundwater nitrate contamination costs: A survey of private well owners, Journal of Soil and Water Conservation, May 2008, vol. 63, no. 3, 153-161.
- Logan, T.J. et al. (1999). An Assessment of Health and Environmental Risks of Trace Elements and Toxic Organics in Land-Applied Municipal Solid Waste Compost, Compost Science and Utilization, Vol. 7, No.3, 38-53.
- Lory, J. A. and P.E. Scharf. (2003). Yield goal versus delta yield for predicting fertilizer nitrogen need in corn. Agron. J. 95: 994-999.

- Los Angeles Water Quality Control Board, Region 4 Agricultural waiver documents Appendix 9 Best Management Plan Resources http://www.swrcb.ca.gov/rwqcb4/water issues/programs/tmdl/waivers/index.shtml .

 http://www.swrcb.ca.gov/rwqcb4/water issues/programs/tmdl/waivers/05 1220/a ppendix%209.pdf
- Los Huertos M, Gentry LE, Shennan C. (2001). Land use and stream nitrogen concentrations in agricultural watersheds along the central coast of California. Scientific World Journal. 2001 Nov 22;1 Suppl 2:615-22.
- Los Huertos M. (2003). Land Use and Water Quality on California's Central Coast:
 Nutrient Levels in Coastal Waterways. The Center for Agroecology and
 Sustainable Food Systems. University of California, Santa Cruz. Research brief
 #2, Winter 2003.
- Luhdorff and Scalmanini Consulting Engineers. (2009). 2008 Annual Report of Hydrogeologic Conditions Water Requirements, Supplies, and Disposition. April 2009.
- MACTEC Engineering and Consulting, Inc. (2006). Llagas Subbasin Cleanup Feasibility Study Revised Olin/Standard Fusee Site, 425 Tennant Avenue, Morgan Hill, California, December 6, 2006
- Maqsood, S.A. (1974). Determination of Algae Growth Potential in Natural Environment, Texas Tech University.
- Martinez, J. and G. Guiraud. (1990). A lysimeter study of the effects of a rye grass catch crop during wheat/maize rotation on leaching and on the following crop. J. Soil Sci. 41:5-16.
- Mathany, T.M. et al., (2010). Groundwater-Quality Data in the South Coast Range-Coastal Study Unit, 2008: Results from the California GAMA Program. Data Series 504, USGS.
- Mayer, T.D. (2005). Water-quality impacts of wetland management in the lower Klamath national wildlife refuge, Oregon and California, USA. *Wetlands* 25(3): 697–712.

- Meals D. W., John D. Sutton, Ray H. Griggs. (1994). Assessment of Progress of USDS Water Quality Project. Nonpoint Source Program News. Carolina State University College of Agricultural and Life Sciences. NWQEP Notes. The NCSU Water Quality Group Newsletter Number 64- March 1994. ISSN 1062-9149.
- Meisinger, J.J. and G.W. Randall. (1991). Estimating nitrogen budgets for soil-crop systems. In R.F. Follett, D.R. Keeney and R.M. Cruse (eds.) Managing nitrogen for groundwater quality and farm profitability. SSSA, Madison, WI.
- Meisinger, J.J. and J.A. Delgado. (2002). Principles for managing nitrogen leaching. J. Soil Water Conserv. 57(6):485-498.
- Meisinger, J.J., W.L. Hargrove, R.L. Mikkelsen, J.R. Williams, and V.W. Benson. (1991). Effects of cover crops on groundwater quality. p. 57-68. In W.L. Hargrove (ed.) cover crop for clean water. Soil and Water Conservation Soc., Ankeny, IA.
- Mengel K. and E.A. Kirkby. (1987). Principles of plant nutrition. 4th ed. IPI, Bern. 687 pp.
- Micheli, E.R., J.W. Kirchner, and E.W. Larsen. (2004). Quantifying the effect of riparian forest versus agricultural vegetation on river meander migration rates, central Sacramento River, California, USA. *River Research and Applications* 20: 536–548.
- Miller, M., E. Dodd, M. Ziccardi, D. Jessup, D. Crane, C. Dominik, R. Spies, D. Hardin. (2007). Persistent Organic Pollutant Concentrations in Southern Sea Otters (Enhydra lutris nereis) Patterns with Respect to Environmental Risk Factors and Major Causes of Mortality. California Department of Fish and Game (CDFG)-Office of Spill Prevention and Response, Wildlife Health Center, University of California, Davis. Applied Marine Sciences. June 30, 2007.
- Monterey County Flood Control and Water Conservation District. (1988). Nitrates in Groundwater, Salinas Valley, California. Snow, Mills, and Zidar. June 1988.
- Monterey County Flood Control and Water Conservation District. (1990). Report of the Ad Hoc Salinas Valley Nitrate Advisory Committee. Zidar, Snow, and Mills. November 1990.
- Monterey County Water Resources Agency, (MCWRA). (1995). Nitrate in Ground Water; 1987-1993 Salinas Valley, California. Zidar and Thomasberg. August 1995.

- Monterey County Water Resources Agency, (MCWRA). (2008). 2007 Groundwater Summary Report. August 2008.
- Moran, J. E. et al., 2005. California GAMA Program: Sources and Transport of Nitrate in Shallow Groundwater in the Llagas Basin of Santa Clara County, California. July 2005.
- Moyle, P.B. (1976). Inland Fishes of California. University of California Press, Berkeley, Los Angeles, London
- Mulvaney, R.L., S.A. Khan, and T.R Ellsworth. (2005). Need for a soil-based approach in managing nitrogen fertilizers for profitable corn production. Soil Sci. Soc. Am. J. 70: 172-182.
- Muramoto, J., Gliessman, S. R., Schmida, D., Shennan, C., and Swezey, S. (2004).

 Nitrogen Dynamics in an Organic Strawberry Production System. Proceedings of California Organic Production and Farming in the New Millennium: A Research Symposium. The International House, University of California, Berkeley, pp.131-134. http://www.sarep.ucdavis.edu/organic/CCBCposters.pdf
- Nafziger, E.D., J.E. Sawyer, and RG. Hoeft. (2004). Formulating N recommendations for corn in the corn belt using recent data. In Proc. N. C. Ext. - Ind. Soil Fertility Conf., Des Moines, IA. 17-18 November 2004. Potash and Phosphate Inst., Brookings, SD.
- Naiman, R. J. (1992). Watershed Management: Balancing Sustainability with Environmental Change. Springer-Verlag, New York.
- Nakamura K., T. Harter, Y. Hirono, H. Horino, and T. Mitsuno. (2004). Assessment of Root Zone Nitrogen Leaching as Affected by Irrigation and Nutrient Management Practices. Published in Vadose Zone Journal 3:1353–1366 (2004).© Soil Science Society of America 677 S. Segoe Rd., Madison, WI 53711 USA
- Napier T.L. and D. E. Brown. (1993). Factors affecting attitudes toward groundwater pollution among Ohio farmers. Journal of Soil and Water Conservation 1993 48(5):432-439.
- National Oceanic Atmospheric Administration, National Marine Fisheries Service's (NMFS) Biological Opinion. (2008). November 2008

- National Research Council (NRC). (2002). Committee on Riparian Zone Functioning and Strategies for Management, Water Science and Technology Board, National Research Council. Riparian Areas: Functions and Strategies for Management. The National Academies Press. 444 pages, 2002.
- National Research Council of Canada. Associate Committee on Scientific Criteria for Environmental Quality. Subcommittee on Pesticides and Industrial Organic Chemicals. (1982). Aminocarb: The effects of its use on the forest and the human environment. Ottawa, Canada.
- Natural Resources Conservation Service. (2006). Conservation Practice Standard. Riparian Forest Buffer. Code 391. August 2006.
- Nesheim, O.N. 2002. Toxicity of pesticides. UF/IFAS EDIS Document PI-13. http://edis.ifas.ufl.edu/PI008.
- Newman J. (2009) Greenhouse and Nursery Management Practices to Protect Water Quality. Publication Number: 3508. ISBN-13: 9781601075710
- Ng, C. M., D. P. Weston, J. You, M.J. Lydy. (2008). Patterns of Pyrethroid Contamination and Toxicity in Agricultural and Urban Stream Segments. Published in: Synthetic Pyrethroids: Occurrence and Behavior in Aquatic Environments. Gan, J., Spurlock, F., Hendley, P. and Weston, D. (eds). American Chemical Society Symposium Series 991, American Chemical Society, Washington, D.C. pp. 355-369.
- No Tillage: The relationship between no tillage, crop residues, plants and soil nutrition. http://www.conservationinformation.org/?action=learningcenter-publications-crovetto
- NPS MPs document: Proposed Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters. EPA Number: 841B91109. Date of Publication: May, 1991 http://www.epa.gov/owow/NPS/MMGI/Chapter2/
- NRCS Conservation Practice Standard Nutrient Management Code 590 http://efotg.nrcs.usda.gov/references/public/WI/590.pdf
- NRCS Soil Quality Improving how your soil works. http://soils.usda.gov/sqi/assessment/assessment.html
- NRCS Technical standards http://www.nrcs.usda.gov/technical/standards/. http://www.nrcs.usda.gov/technical/efotg/

- NRCS website of technical standards. http://www.nrcs.usda.gov/technical/standards/
- Oberle, S.L., and D.R. Keeney. (1990). Factors influencing corn fertilizer N requirements in the Northern U.S. Corn belt. J. Prod. Agric. 3:527-534.
- Onsoy, Y.S., T. Harter, T. Ginn, and W. Horwath. (2005). Spatial Variability and Transport of Nitrate in a Deep Alluvial Vadose Zone. Vadose Zone Journal 4:41-54.
- Page, A.L., A.C. Chang, and M. El-Amamy. (1987). *Chapter 10 Cadmium Levels in Soils and Crops in the United States* in Lead, Mercury, Cadmium, and Arsenic in the Environment.
- Pajaro Valley Water Management Agency, (PVWMA). (2002). Basin Management Plan,.
- Palone, R.S., and A.H. Todd, eds. (1998). Chesapeake Bay riparian handbook: A guide for establishing and maintaining riparian forest buffers, revised. *NA-TP-02-97*. USDA Forest Service, Radnor, PA.
- PDRHW (Pierce's Disease/Riparian Habitat Workgroup). (2000). Information Manual Riparian Vegetation Management for Pierce's Disease in North Coast California Vineyards. 9/1/2000. http://www.cnr.berkeley.edu/xylella/control/PDNorthCoast/manual_section_iv.pdf
- Pelley, J. (2003). Nitrate Eyed as Endocrine Disruptor. Environmental Science and Technology 37(9):162A. May 2003.
- Pepple, Mark. (2009). DPR Memorandum. Procedure for Identifying Pesticides in Draft Section 6960 for Surface Water Protection. March 11, 2009
- Pettygrove G. S., S. R. Grattan, B. R. Hanson, T. K. Hartz, L. E. Jackson, T. R. Lockhart, K. F. Schulbach, and R. Smith. (1998) Production guide: Nitrogen and water management for coastal cool-season vegetables. Oakland: University of California Division of Agriculture and Natural Resources. Publication 21581.
- Pettygrove S., T. Hartz, B. Hanson, L. Jackson, R. Smith, T. Lockhart, and S. Grattan. (2003). Nutrient management in Cool-Season vegetables. UC California ANR Publication 8098. FWQP Reference Sheet 9.9.

- Phillips B. M., B. S. Anderson, J. W. Hunt, P. A. Nicely, R. A. Kosaka, R. S. Tjeerdema, V. de Vlaming, and N. Richard. (2004). In Situ Water and Sediment Toxicity in an Agricultural Watershed. Environ. Toxicol.Chem. 23(2):435–442
- Phillips, B.M., B.S. Anderson, J.W. Hunt, S. Huntley, R.S. Tjeerdema, N. Kapellas, and K.R. Worcester. (2006). <u>Solid-phase sediment toxicity identification evaluation in an agricultural stream.</u> Environ. Toxicol. Chem. 25(6):1671- 1676. http://www.ccamp.org/ccamp/documents/OrcuttTIE_ETC2006.pdf
- Pierce, F. J. and C.W. Rice et al. (1988). Crop rotation and its impact on efficiency of water and nitrogen use In W.L. Hargrove (ed.) Cropping strategies for efficient use of water and nitrogen, ASA, CSSA, and SSSA, Madison, WI. ASA Special Publ. 51, pp. 21-42.
- Pierce's Disease/Riparian Habitat Workgroup, (PDRHW). (2000). Information Manual Riparian Vegetation Management for Pierce's Disease in North Coast California Vineyards.9/1/2000. http://www.cnr.berkeley.edu/xylella/control/PDNorthCoast/manual_section_iv.pdf
- Pimentel, D. et al. (1997). Water Resources: Agriculture, the Environment, and Society. Bioscience 42(2):97-106.
- Power, J.F., and J.S. Schepers. (1989). Nitrate contamination of groundwater in North America. Agric. Ecosyst. Environ. 26:165-187.
- Racz, A., A. T. Fisher, C. M. Schmidt, B. S. Lockwood, M. Los Huertos. *In Review*. Quantifying the Spatial and Temporal Dynamics of Infiltration during Managed Aquifer Recharge using Mass Balance and Thermal Methods. Submitted to Environ. Sci. Technol. October 2010.
- Randall, G.W., and D.J. Mula. (2001). Nitrate nitrogen in surface waters as influenced by climatic conditions and agricultural practices. J. Environ. Qual. 30:337-344.
- RCDMC, Resource Conservation District of Monterey County. (2007). A Grower Survey: Reconciling Food Safety and Environmental Protection. August 2007.
- RCDMC, Resource Conservation District of Monterey County. (2009). Handbook of Agricultural Conservation Practices, Photos and Descriptions with Food Safety Considerations. 2nd Edition.

- RCDMC, Resource Conservation District of Monterey County. (2009). Challenges to Co-Management of Food Safety and Environmental Protection: A Grower Survey. July 2009.
- Reigart, J.R. and J.R. Roberts. 1999. Recognition and management of pesticide poisonings, 5th ed. United States Environmental Protection Agency Publication EPA-735-R-98-003.
- Resource Conservation District, Monterey County, (RCDMC). (2006). Reconciling Food Safety and Environmental Protection: A Literature Review. October, 2006.
- Resource Conservation District, Monterey County, (RCDMC). (2007). A Grower Survey: Reconciling Food Safety and Environmental Protection. Resource Conservation District of Monterey County, August 2007.
- Resource Conservation District, Monterey County, (RCDMC). (2009). Challenges to Co-Management of Food Safety and Environmental Protection: A Grower Survey. Resource Conservation District of Monterey County, July, 2009.
- Rice, C.W. and J.L. Havlin et al. (1994). Integrating mineralizable nitrogen indices into fertilizer nitrogen recommendations, pp. 1-13. In J.L. Havlin (ed.) Soil testing: Prospects for improving nutrient recommendations, SSSA, Madison, WI. SSSA Spec. Publ. 40.
- Riparian Habitat Joint Venture. (2004). Version 2.0. The riparian bird conservation plan: a strategy for reversing the decline of riparian associated birds in California. California Partners in Flight. http://www.prbo.org/calpif/pdfs/riparian.v-2.pdf.
- Ryan, J. (2009). Video news from Monterey Bay Aquarium Research Institute. http://www.mbari.org/news/homepage/2009/ryan-blooms/ryan-blooms.html.
- San Benito County Water District. (2007). Annual Groundwater Report for Water Year 2007. Prepared by Todd Engineers for San Benito County Water District. December 2007
- Santa Clara Valley Water District, (SCVWD). (2001). SCVWD Groundwater Management Plan. July 2001.
- Sax, N. I. and R. J. Lewix, Sr. (1987). Hawley's Condensed Chemical Dictionary. Van Nostrand Reinhold Company, New York.

- Schepers, J. S. and A.R. Mosier et al. (1991). Accounting for nitrogen in nonequilibrium soil-crop systems, pp. 125-138. In R.F. Follett (eds) Managing nitrogen for groundwater quality and farm profitability, SSA, Madison, WI.
- Schepers, J.S., M.G. Moravek, R. Bishop, and S. Johnson. (1993). Impact of nitrogen management on ground water quality. p. 267-278. In Ground water protection alternatives and strategies in the USA. Water Eng. Div., Am. Soc. Civil Eng.
- Schmidt, C. M., A. T. Fisher, A. Racz, C.G. Wheat, M. Los Huertos, and B. Lockwood. *In Review.* Rapid nutrient load reduction during infiltration as part of managed aquifer recharge in an agricultural groundwater basin. Submitted to Hydrological Processes October 2010.
- SCPO. (2003). County of Santa Clara Riparian Corridor Study: A Background Document for the Development of a Riparian Protection Ordinance for the County of Santa Clara, Dated June 5, 2003. Prepared by the Planning Office Environmental Resources Agency, County of Santa Clara.
- Sigler, J.W., T.C. Bjournn, and F.H. Everest. (1984). *Effects of Chronic Turbidity on Density and Growth of Steelheads and Coho Salmon*. Transactions of the American Fisheries Society 113: 142-150.
- Sipmann, S. and B. Finlayson. (2000). Water Quality Criteria for Diazinon and Chlorpyrifos. California Department of Fish and Game Pesticide Investigations Unit. Rancho Cordova, Ca.
- Slater, D. (2009). Leaf and Let Die The price of bagged spinach. March/April 2009. Sierra. p. 27.
- Sogbedji, J.M., H.M. vanEs, C.L. Young, L.D. Geohring, and F.R. Magdoff. (2000). Nitrate leaching and nitrogen budget as affected by maize nitrogen rate and soil type. J. Environ. Qual. 29:1813-1820.
- Sohn, Emily. (2009). Nitrites in Meats Fingered in Rise of Disease. Discovery News, July 15, 2009.
- Sparling, D.W. and G. Fellers. (2007). Comparative toxicity of chlorpyrifos, diazinon, malathion and their oxon derivatives to larval *Rana boylii*. Environmental Pollution 147(3):535-539. June 2007.
- Stanford, G. and J.O. Legg. (1984). Nitrogen and yield potential, pp. 263-272. In RD. Hauck (ed.) Nitrogen in crop production, AS A, CSSA, and SSSA, Madison, WI.

- Starner K and Kelley K. (2004). Pyrethroid Concentration in Surface Water and Bed Sediment in High Agricultural Use Region of California. California Department of Pesticide Regulation. Sacramento, CA 95812.
- Starner, K., J. White, F. Spurlock and K. Kelley. (2006). Pyrethroid Insecticides in California Surface Waters and Bed Sediments: Concentrations and Estimated Toxicities. California Department of Pesticide Regulation. Sacramento, CA 95812.
- Starrett, Steve. (2009) Proceedings of World Environmental and Water Resources Congress 2009, May 17-21, 2009, Kansas City, Missouri; Reston, VA: ASCE, 978-0-7844-1036-3, 2009, NA pp.
- State of California, Office of the Governor. (1993). Executive Order W-59-93. http://www.swrcb.ca.gov/water_issues/programs/cwa401/docs/wrapp2008/execut ive order w59 93.pdf
- State Water Resources Control Board, (SWRCB). (2005). California GAMA Program: Sources and Transport of nitrate in shallow groundwater in the Llagas Basin of Santa Clara County, California.
- State Water Resources Control Board, (SWRCB). (2008). Project Discussion Paper:
 Policy to Protect Wetlands and Riparian Areas, July 18, 2008.
 http://www.swrcb.ca.gov/water_issues/programs/cwa401/docs/wrapp2008/ceqa_scoping_discussion_0808jc2.pdf
- Sutton J. D. and D. W. Meals. (1994). North Carolina Cooperative Extension Service.

 North Carolina State University College of Agricultural & Life Sciences. Nonpoint Source Program News. Interim Evaluation of USDA Water Quality Projects.

 NWQEP Notes: The NCSU Water Quality Group Newsletter Number 64 March 1994. ISSN 1062-9149.
- Tan C.S., T.Q. Zhang, C.F. Drury, T.W. Welacky, and W.D. Reynolds. (2009). Impacts of Liquid and Solid Manures under Controlled Drainage with Sub-irrigation Recycling Systems on Water Quality and Crop Production. Published by the American Society of Agricultural and Biological Engineers. Reno, Nevada, June 21 June 24, 2009
- Tan, C.S., C.F. Drury, M. Soultani, J.D. Gaynor, T.W. Welacky, H.Y.F. Ng, and I.J. van Wesenbeeck. (1997). Effect of Controlled Drainage/Subirrigation on Tomato Yield and Water Quality. Acta Hort. (ISHS) 449:327-334. http://www.actahort.org/books/449/449 46.htm

- Tarakcioglu C., A. Inal. (2002). Changes Induced by Salinity, Demarcating Specific Ion Ratio (Na/CI) and Osmolality in Ion and Proline Accumulation, Nitrate Reductase Activity, and Growth Performance of Lettuce. Journal of Plant Nutrition 25(1): 1532-4087, Volume 25, Issue 1, 2002, Pages 27 41.
- TAT, Technical Advisory Team. (2009). *Technical Memorandum no. 2: Wetland Definition*, Final, Dated June 25, 2009. Produced by the San Francisco Estuary Institute for the Technical Advisory Team for the California Wetland and Riparian Area Protection Policy, California State Water Resources Control Board, Sacramento, CA
- Tate, K.W., E.R., J.W. Bartolome, and G. Nader. (2006). Significant Escheriechia coli attenuation by vegetative buffers on annual grasslands. *Journal of Environmental Quality* 35: 795-805.
- Tjaden, R.L. and G.M. Weber. (1997). Riparian Buffer Management. Riparian Forest Buffer Design, Establishment, and Maintenance. Fact Sheet #725. University of Maryland, Maryland Cooperative Extension.
- United States Department of the Interior, Fish and Wildlife Service. (2007). Letter from Steve Henry of the Fish and Wildlife Service to Katie McNeill of the Central Coast Water Board, April 5, 2007. Subject: Comments Regarding Total Maximum Daily Loads (TMDLs) for Nitrate and Ammonia in the Santa Maria River and Oso Flaco Creek Watersheds, Santa Barbara County, California.
- United States Department of the Interior, Fish and Wildlife Service. (2010). Letter from Chris Dellith of the Fish and Wildlife Service to Angela Schroeter of the Central Coast Water Board, March 31, 2010. Subject: Comments Regarding the Preliminary Staff Recommendations for an Agricultural Order to Control Discharges from Irrigated Lands, Central Coast Region, California.
- United States Environmental Protection Agency (USEPA) and United States Geological Survey (USGS). (2009). NHDPlus User Guide. January 20, 2009.
- United States Environmental Protection Agency, (USEPA). (1978). Cadmium Additions to Agricultural Lands via Commercial Phosphate Fertilizers. EPA SW-718.
- United States Environmental Protection Agency, (USEPA). (1991). NPS MPs document: Proposed Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters . EPA Number: 841B91109. Date of Publication: May, 1991. http://www.epa.gov/owow/NPS/MMGI/Chapter2/

- United States Environmental Protection Agency, (USEPA). (1999). Update of Ambient Water Quality Criteria for Ammonia. EPA #822R99014.
- United States Environmental Protection Agency, (USEPA). (2000). Profile of the Agricultural Crop Production Industry (EPA 310-R-00-001). Office of Compliance Sector Notebook Project (2221-A).

 http://www.epa.gov/compliance/resources/publications/assistance/sectors/notebooks/crop.html
- United States Environmental Protection Agency, (USEPA). (2003). Polluted Runoff (Nonpoint Source Pollution). National Management Measures to Control Nonpoint Source Pollution from Agriculture EPA 841-B-03-004, July 2003. http://www.epa.gov/owow/nps/agmm/
- United States Environmental Protection Agency, (USEPA). (2009). Watershed Academy Web Wetland Functions and Values http://www.epa.gov/watertrain/wetlands/text.html Last updated January 14, 2009.
- United Water Conservation District, (UWCD). (2007). Modifying Agricultural Practices, Nutrients and Pesticides, Calleguas Creek and Santa Clara River US EPA. California Natural Resources Agency. http://www.ice.ucdavis.edu/nrpi/project.asp?ProjectPK=10047
- University of Illinois Extension. College of Agricultural, Consumer and Environmental Sciences. 50 Ways farmers can protect their groundwater and 60 ways farmers can protect surface water. http://www.thisland.illinois.edu/60ways/60ways.html
- Vanotti, M.B. and L.G. Bundy. (1994a). An alternative rationale for com nitrogen fertilizer recommendations. J. Prod. Agric. 7: 243-249.
- Vanotti, M.B. and L.G. Bundy. (1994b). Com nitrogen recommendations based on yield response data. J. Prod. Agric. 7: 249-256.
- Ward, M.H., Mark S.D., Cantor K.P., et al., (1996). Drinking Water Nitrate and the Risk of Non-Hodgkin's Lymphoma, Journal of Epidemiology and Community Health, 1996, Vol. 7, pgs 465-471.
- Washington State Department of Health. (2005). Guidance Document Nitrate Treatment Alternatives for Small Water Systems. Divisions of Environmental Health, Office of Drinking Water, June 2005.

- Waters, T.F. (1995). Sediment in streams; sources, biological effects, and control. American Fisheries Society monograph. 0362-1715 (7). 251 p.
- Watson, C.A and D. Atkinson. (1999). Using nitrogen budgets to indicate nitrogen use efficiency and losses from whole farm systems: A comparison of three methodological approaches. Nutr. Cycling Agroecosyst. 53: 259-267.
- Welsch, D.J. (1991). Riparian Forest Buffers. U.S. Department of Agriculture, Forest Service. Publication Number NA-PR-07-91. Radner, PA.
- Wetlands: A component of an Integrated Farming Operation. Conservation Technology Information Center.

 http://www.conservationinformation.org/pdf/CTIC wetlands.pdf
- Wetlands: A More Profitable Alternative?

 http://www.conservationinformation.org/?action=learningcenter-publications-wetlands
- Weyer, P., et.al. (2001). Nitrate in Drinking Water and Human Health. http://www.agsafetyandhealthnet.org/Nitrate.PDF
- William R., Raun, and G. V. Johnson. (1999). Improving Nitrogen Use Efficiency for Cereal Production. Agronomy Journal. Volume 91 May–June 1999 Number 3.
- WPHA. (2002). Western Fertilizer handbook. Ninth Edition.
- Wu, L., J. Letey, C. French, Y. Wood, and D. Birkle. (2005). Nitrate leaching hazard index developed for irrigated agriculture. Journal of Soil and Water Conservation 60(4):90A-95A
- Xiaoxin L., H. Chunsheng, J.A. Delgado, Y. Zhang, and Z. Ouyang. (2007). Increased nitrogen use efficiencies as a key mitigation alternative to reduce nitrate leaching in north china plain. Agricultural Water Management Volume 89, Issues 1-2, 16 April 2007, Pages 137-147
- Zhang M., S. Geng, and K. S Smallwood. (1998). Assessing groundwater nitrate contamination for resource and landscape management. Ambio. J. 27(3):170-174.