

T. TAYLOR EIGHMY

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ACADEMIC & ADMINISTRATIVE APPOINTMENTS

Vice President for Research	Office of the Vice President for Research Texas Tech University	2009-
Professor	Department of Civil Engineering Texas Tech University	2009-
Interim Vice- President for Research	Office of the Vice President for Research University of New Hampshire	2007- 2009
Assistant Vice President for Research	Office of the Vice President for Research University of New Hampshire	2006-2009
Director	Office of Strategic Initiatives Office of the Vice President for Research University of New Hampshire	2006-2009
Faculty Fellow	Office of the Vice President for Research University of New Hampshire	2004-2006
Director	Recycled Materials Resource Center University of New Hampshire	1998-2004

Director	Environmental Research Group Department of Civil Engineering University of New Hampshire	1987-2004
Director	NOAA-UNH Coastal Response Research Center University of New Hampshire	2003-2004
Interim Director	Water Resources Research Center University of New Hampshire	1991-1992
Research Professor	Department of Civil Engineering University of New Hampshire	1999-2009
Visiting Professor	Swedish Geotechnical Institute	1999
Research Associate Professor	Department of Civil Engineering University of New Hampshire	1992-1999
Research Assistant Professor	Department of Civil Engineering University of New Hampshire	1986-1992

EDUCATION

Ph.D. (1986)	Engineering (Civil)	University of New Hampshire
M.S. (1983)	Civil Engineering	University of New Hampshire
B.S. (1980)	Biology	Tufts University

PRINCIPAL ADMINISTRATOR RESPONSIBILITIES

Vice President for Research- Interim (2007 to present):

Promoting the Research Enterprise:

- *President's Cabinet* ('08-09): Advocating for the research enterprise; working principally with the Provost and Executive Vice President, the Vice President for Finance and Administration, the Vice President for Communications and Marketing, and the President of the UNH Foundation to advance research opportunities and research support in a declining budget situation; current focus on stimulus opportunities with the American Recovery and Reinvestment Act of 2009.
- *Office of Research Fiduciary Management* ('08-09): Managing a budget of \$12M (as a responsibility center) with total personnel of over 130. Budget determined by general fund, general assessment, hold harmless, PAU, F&A return, and endowment support

and general assessment and space use taxes. Implemented structural budget changes (\$ 2.0M over '08 and '09) in response to responsibility center management formula changes around revenue and taxation allocations in a declining revenue situation. Overseeing budget preparation ('08, '09, '10). Led hold harmless review ('07 through '09). Led general assessment review ('07 through '09). Leading central services performance evaluations ('09).

- *Central Budget Fiduciary Management* ('08-09): Assisting the university budget situation and centralized budget mitigation efforts around centralized support, energy savings, and royalty and licensing enhancements.
- *Strategic Planning* ('08-09): Led the initiation of the Office of Research strategic planning effort (initiated in '08, then delayed until the university completes its strategic plan). Participating in the university strategic plan ('09) and co-chairing Strategic Partnerships and Alliances Work Group, the computing and information systems strategic plan ('08-09), and in various institute and center strategic plans (e.g., Carsey Institute, Center for the Humanities).
- *Research Performance* ('08-09): Established and leading a research metrics working group; developing methods to predict F&A generation; formulating benchmarks around F&A generation and research, scholarship and creative activity outcomes.
- *Graduate Program Growth* ('08-09): In conjunction with deans and institute director, co-initiated NSF IGERT focus to advance interdisciplinary graduate program development.
- *Federal Rate Negotiations* ('08-09): Leading a committee on the current F&A negotiation preparation; assisted with Federal fringe rate negotiation.
- *Supporting the President* ('08-09): Established and funded President's Excellence in Scholarship Fund to support the creative arts, humanities and social sciences (within a declining budget situation); helped mitigate (with subventions from my budget) the Institute for the Study of Earth, Oceans and Space budget crisis created by changes in the Responsibility Center Management financial model; chairing a working group exploring a merger with the Pierce Law Center.
- *Supporting the Provost and Deans* ('07-09): Member of the Academic Leadership Council; working with deans and Provost and Executive Vice President on start up packages, cost sharing, and faculty support.
- *Diversity* ('04-09): Working with and supporting the Associate Vice President for Research and Outreach Engagement, Provost's staff, and the Leitzel Center on substantive partnerships with minority serving institutions; especially with proposals to the Department of Education, NOAA, NASA, and NSF.
- *Enabling Faculty Development* ('04-09): Established and leading young faculty mentoring program around research, scholarship and creative activity; established and leading NSF CAREER mentoring network; leading Beckman Scholars proposal to the Beckman Foundation; leading on large corporate engagement strategies with pharmaceutical companies and defense contractors; co-managing with the Dean of the Graduate School the interdisciplinary graduate program funding competition.
- *Internal Engagement* ('08-09): Renewed/expanded Research Advisory Board ('08); renewed Center/Institute forum of 70 plus organizations ('08); supporting Research Faculty Council formation ('08-'09).
- *External Engagement* ('08-09): Co-initiated the President's Distinguished Speaker's Series, formulating President's Advisory Board; actively participating in New England

Council, NH BIA, NH High Technology Council programs.

- *Research Celebration* ('07-09): Led effort to develop UNH Office of Research Annual Report which was published in '07 (<http://www.unh.edu/research/pdf/researchreport2006.pdf>). Developing new means of promoting the research enterprise; these are under development in conjunction with the Vice President for Communications and Marketing.
- *Research Policies* ('08-09): Established Financial Conflict of Interest standing committee; established Responsible Conduct of Research Standing Committee; co-leading efforts to revamp Misconduct in Scholarly Activity policy; and co-initiating new policy revision on gifts and contracts. Led efforts to establish export control, classified research policies ('05-06).
- *Research Risk Management* ('08 and 09): Co-leading effort to implement new time and effort certifications ('09).
- *NEASC Accreditation* ('08 and 09): Worked with senior management on 5th year report to NEASC on decennial accreditation; this followed original plan submitted in 2003 where my involvement was as a center director.
- *External Partnerships* ('08-09): Developing U.S. Army Corp of Engineers partnership, Chinese university partnership, Japanese university partnership.
- *USNH Board of Trustee Engagement* ('08-09): In concert with the President and other cabinet members, coordinating and giving presentations to the Board and its various subcommittees. Engaging with individual trustees on various capital projects and research and external relations activities, tech transfer, budget stabilization for specific UNH programs in the State budget.
- *Chairmanships* (08-09): UNH Energy Task Force (standing), UNH Environmental Health and Safety Committee (standing), Corporate Engagement Team (standing), UNH Strategic Planning External Engagement Committee (co-chair), Institute for the Study of Earth, Oceans and Space Director Search Committee (co-chair).
- *Member of Internal University Committees* (08-09): UNH Strategic Planning Steering Committee, Parsons Hall Renovation Project, Academic Leadership Council (standing), UNH Central Budget Committee (standing), Space Allocation and Resource Committee (standing), Radiation Safety Committee (standing), Steering Committee for Information Technology (standing).
- *Member of External Committees* (08-09): New Hampshire EPSCoR State-wide Committee (standing), New Hampshire Innovation Research Center Advisory Board (standing).
- *Member*, New England Land Grant University Vice President/Vice Chancellor for Research Working Group.

Directing the Office:

- *Investigations/Inquiries* ('08-09): In conjunction with legal counsel, successfully resolved or resolving eleven matters.
- *Research Compliance and Risk Management* (08-09): Ensuring preemptive response to DOD investigations at peer institutions; export control rulings; Institutional Research Board compliance with Department of Education decision; biosafety level three facility management; animal use and care facilities management; and Office of Environmental Health and Safety compliance with U.S. EPA, Department of Homeland Security, and New Hampshire Department of Environmental Services compliance matters.

- *University Policies* ('08-09): Revising of the Misconduct in Scholarly Activity policy in concert with legal counsel, AAUP officers, and the UNH Faculty Senate; revising of the policy on gifts and contracts with legal counsel, the UNH Foundation and the Office of Sponsored Research in advance of the next capital campaign.
- *NH Science and Technology R&D Plan* ('08-09): As part of EPSCoR RII roll out and in preparation for the next very large (\$20M) grant submittal, engaging the new Hampshire Department of Resources and Economic Development and the Governor's Office on new funds for cost sharing (direct appropriation or bonding).
- *Office of Sponsored Research Reinvention* (08-09): Co-leading efforts to improve customer service, staff hiring & staff retention; new policies on time and effort; and new approaches to risk management compliance.
- *Marine Program Oversight* ('08-09): In concert with many colleagues, completing of the \$15M NOAA pier project and *R/V Hassler* deployment; managing negotiations with Cornell University on the Shoals Marine Laboratory partnership and covenant; managing of formal discussions regarding the establishment of a School of Marine Science and Ocean Engineering.
- *Office of Research Partnerships and Commercialization Oversight* ('08-09): Enabling new licensing manager position, new positions relative to NSF EPSCoR award, enabled expanded IP growth, spin-outs (two), licensing agreements (two); participating in the NHIRC Advisory Board; EPSCoR State-wide Committee; co-leading efforts around a New Hampshire Science & Technology R&D Plan.
- *Office of Environmental Health and Safety Reinvention* (08-09): Instituting a ten point plan for management and staff relations, benchmarking, external reviews, new annual performance evaluations, strategic planning process, new staff management approaches, new facilities, additional budget support for strategic planning, benchmarking, and external reviews.
- *Undergraduate Research Conference/Outreach Scholarship Oversight* ('08-09): General and specific support to the Associate Vice President for Research and Outreach Scholarship; including sponsorship of a special study about the UNH conference and its impact.
- *Facilities Enhancement* ('97-'08): New facilities and facilities expansion; including Gregg Hall (\$14M, 60,000 sf), Chase Hall expansion (\$6M, 15,000 sf), Pier Support Building (\$3M, 20,000 sf), Coastal Marine Laboratory retrofit (\$2M, 2000 sf), and new marine pier (\$12M).
- *Media Relations* ('08-09): Point of contact for media matters relative to the research enterprise; interviews, hosting reporter visits, press availabilities, and opinion pieces.
- *The Advisory Board Company* ('08-09): Point of contact on research matters at UNH with senior consultants at the company on specific academic, facilities and research case studies for UNH and in their work on Best Practices Reports.

Specific Large Efforts:

- *Corporate Fund Raising* ('08-09): Leading specific initiatives to promote philanthropy (gift, current use) and cooperative research support with targeted large corporations.
- *Individual Fund Raising* ('08-09): Leading specific initiatives to promote philanthropy (gift, current use, endowment) with potential benefactors.

- *Value of UNH Enterprise to State of NH* ('08-09): Working with the President's Office, UNH economists and the Corporate Engagement Team to conduct studies and surveys to assess economic impact of UNH on the New Hampshire economy.
- *NHIRC and Corporate Participation* ('08-09): Actively recruiting of small high technology firms to participate in the New Hampshire Innovation Research Center grant cycle.
- *UNH Manchester Expansion* ('08-09): Working closely with the Dean of UNH Manchester on expansion plans, earmarks supporting expansion, and corporate engagement in support of the expansion.
- *NSF IGERT Promotion* ('08-09): Working closely with deans to promote IGERT applications and full proposal submittal with coordinated institutional support.
- *Carbon Solutions New England* ('08-09): In partnership with the UNH Foundation, assisting the UNH Office of Sustainability around a new initiative; particularly with family foundations and U.S. EPA Region 1.
- *Beckman Scholars Proposal* ('06-08): Co-leading efforts to secure UNH's first Beckman Scholars Award from the Beckman Foundation; this is being done in close coordination with the UNH Foundation, deans and associate deans, and the Associate Vice-President for Research and Outreach Engagement.
- *NSF Computing Research Infrastructure Proposal* ('09): Encouraging 20 faculty on an interdisciplinary effort to bring the next generation of super computer to UNH to assist space science, plasma physics, and genomics high performance computing needs. IBM R&D will establish a research alliance with UNH around this facility.
- *Office of Research Web Site Reinvention* ('09): Leading effort to reinvent the web site.

Direct Reports Include:

- Director, Office of Sponsored Research
- Director, Office of Research Partnerships and Commercialization
- Director, Office of Environmental Health and Safety
- Director, UNH Marine Program/UNH Sea Grant
- Associate Vice President for Research and Outreach Scholarship (20%)
- Director, Office of Research Finance and Administration

Assistant Vice President for Research and Director of Strategic Initiatives (2004 to present):

Directing the Office:

- *Strategic Initiatives* ('04-09): Established position and office in conjunction with the Vice President for Research, with focus on congressional relations, federal relations, corporate and foundation relations, large infrastructure projects, and special projects. Initiated change in office structure and function in '08.
- *NIH Initiative* ('04-09): Leading NIH INBRE \$12.5M state proposal (co-lead with Dartmouth Medical School); lead efforts on NIH proposal activity increase through partnerships with Dartmouth Medical School (ten new R01, R25s submitted). Leading efforts to promote interactions between faculty with large pharmaceutical companies for technology licensing and collaborative research partnering to augment NIH support. Assisted the Glycomics Center with NIH INBRE proposal. Assisted with the merger of

the Glycomics and Genomic Center to better facilitate proposal opportunities, then supported addition of Proteomics Center and Bioinformatics component.

- *Reinvention of the Research Computing Center (05-08)*: Enabling new director, new business model, reduced central support, new fee structure, and commercialization of products for revenue enhancement.
- *Reinvention of the UNH Interoperability Laboratory ('05-'09)*: Enabling new director, new executive board structure, new F&A rate, new consortia development, new R&D strategy for engaging corporate partners, new alumni engagement program, and 20th year celebration.
- *Reinvention of the University Instrumentation Center ('05-09)*: Enabling new interim manager, employee progressive discipline, new strategic hire, new instrumentation acquisition, budget reductions, and new focus on external engagement.
- *Supporting the Cooperative Institute for Coastal and Estuarine Environmental Technology ('05-09)*: Fostering partnership with NOAA, senior agency level engagement around support and mission, adoption of the cooperative institute model, earmark support, strategic planning, program re-focus, and program integration into the UNH academic fabric.
- *Supporting the Atlantic Marine Aquaculture Center ('05-09)*: Developing new opportunities with the Canadian Government, earmark support, coordination with NOAA, and competitive proposal development.
- *National Academies/Other Council and Board Nominations ('05-09)*: Working with deans and center directors to nominate UNH faculty to boards and councils; successful nomination to the Arctic Research Council; two nomination efforts underway with the National Academies.
- *Entrepreneurial Campus ('98-02)*: Assisted with strategic planning around campus concept. Helped develop the earmark to fund the building and its first programs. Developed the proposal to NOAA to construct first building (\$15M) and support the first program and then worked closely with NOAA around formal establishment of first large NOAA-UNH cooperative institute as an anchor tenant in the building. Co-managed with UNH Facilities and the Campus Architect, the programming, design, construction and occupancy of the Environmental Technology Building (now Gregg Hall).

Congressional Relations:

- *Strategic Earmarking Opportunities and Program Development ('98 to '09)*: Helped establish centralized, strategic effort resulting in over \$400M coming to UNH for annual programmatic earmark support. From this, significant improvements to capital infrastructure (\$50M), new instrumentation (\$20M), and new strategic hires (5) or new research faculty lines (about 40); with significant additional support to the institution leveraged by faculty involved in these programs and projects (about \$100M). Direct role in a large portion of these since '98. Directly responsible for the process since '06. Presently further reinventing process to engage deans and to allow for strategic use of smaller, finite earmark opportunities in concert with other central support investments in faculty.
- *COGR/NASULGC Coordination ('08-09)*: Coordinating with COGR and NASULGC Congressional Affairs staff on various legislative matters.

- *Faculty Hill visit coordination* ('05-09): Working with UNH faculty around successful visits to delegation staff in DC, testimony preparation, and field visits by staff to UNH.
- *Congressional Delegation Coordination* ('05 to '09): Participated in or leading visits to DC offices around earmark preparation or legislative matters.
- *Congressional Staff Visits to UNH* ('05 to '09): Co-hosted or hosted numerous annual staff visits to campus to meet faculty and see programs.
- *Congressional Legislation* ('05 to '09): Working with delegation staff on legislative matters; including crafting of language for many authorizing or appropriations bills, special legislative matters, colloquies, etc.
- *Congressional Member Visits and Events* ('98 to '09): Helped host or hosting many events for members around programs and projects, including field hearings and facilities dedications; working closely with Presidential Events and Programs, Media Relations to ensure press coverage.
- *Blue Book Preparation* ('98-09): Developing and preparing annual earmark submittal packages to Congress; delivery of packages.
- *Staff Cultivation* ('98-09): Ongoing coordination with in-state and DC staff at all levels.

Federal Relations:

- *NOAA Engagement* ('98-09): NOAA staff assignments to UNH, NOAA-UNH Staff assignment MOUs, cooperative institute MOUs, NOAA staff integration, NOAA facilities development, co-hosting or hosting numerous NOAA senior staff visits to campus.
- *U.S. DOE* (08-09): In conjunction with faculty and deans, helping to develop a new initiative on a center for large project management.
- *USEPA* ('98-09): Coordination with a small water treatment technology assistance center, annual support for proposals, and legislative coordination. This is ongoing.
- *USDOJ* ('07-09): Coordination with a technology center, appropriations funding, and fund sourcing. This is ongoing.

New Hampshire General Court Relations:

- *Legislative Committee Assignments* ('04-09): Worked with President's staff, deans and the USNH Associate Vice Chancellor for Governmental Relations on faculty and staff appointments to legislative committees, testimony on bills, legislator visits to campus; helping host legislator participation in many UNH events.

New Hampshire Governor's Office Relations:

- *Various Initiatives* ('04-09): Worked with Governor's staff on events and special matters.

Corporate Engagement:

- *Corporate Engagement Team* ('05-09): Helped establish a small working group from the UNH Foundation, the University Advising and Career Center and the Office of Research to engage specific target corporations through a holistic university-wide corporate relations strategy.
- *Corporate Engagement Web Site and Document* ('04-08): Led effort to prepare a comprehensive corporate engagement resource document

(<http://www.unh.edu/corporateresources/corporateresources.pdf>) and web site (<http://www.unh.edu/corporateresources/>).

- *Corporate Engagement Strategic Plan* ('08-09): Led Corporate Engagement Team in developing engagement strategic plan.
- *Specific Large Corporation Strategic Engagement Efforts* ('04-09): In concert with the Corporate Engagement Team, we selected and targeted a number of major corporations for philanthropic, cooperative research, and work force engagement. There are now nine ongoing relationships.
- *Specific Small Corporation Strategic Engagement Efforts* ('04-09): Selected and targeted a number of small corporations for cooperative research partnerships, SBIR/STTR collaborations, New Hampshire Innovation Research Center funding opportunities, and work force engagement. This is ongoing.

Foundations/Potential Donors:

- *Specific Large Foundation Strategic Engagement Efforts* ('04-09): In coordination with the UNH Foundation, deans and faculty, selected and targeted a number of major foundations for programmatic support of various interdisciplinary research programs. This is ongoing.
- *Specific Family Foundation Strategic Engagement Efforts* ('04-09): In coordination with deans, center directors, the UNH Foundation and the Provost and Executive Vice President, working with a number of family foundations for programmatic support.

Helping Nurture Faculty:

- *NSF CAREER Mentoring Program* ('05-09): Established and leading an NSF CAREER Mentoring program to encourage successful submittals based on peers who are NSF CAREER recipients mentoring new applicants. Now in its fourth year, the total number of annual submittals (or re-submittals) has increased three-fold and the entire recipient number has increased from five to 14. All former recipients are now active mentors.
- *NSF IGERTS* ('09): In concert with the deans, leading an effort for faculty to submit pre-proposals to the NSF IGERT program. This year, two pre-proposals have been invited to submit full proposals. Coordinating with senior administrators to ensure appropriate institutional support.
- *Junior Faculty Mentoring* ('08-09): Initiated and leading program to mentor junior faculty about research, scholarship and creative activity using successful peer panels. Done in coordination with deans and associate deans.
- *General Faculty Support* ('04-09): Assisting with program officer visits, proposal development, and project development for various NSF, U.S. DOE, CDC, NIH, NSA, and NOAA proposals.

Large/ Special Projects:

- *Merger of Glycomics and Genomics Center* ('05-07): In concert with deans and the Provost and Executive Vice President, worked on the merger of two large, but challenged research centers from two colleges to promote synergy, opportunity and cost

savings. Also, to facilitate large NIH proposals (COBRE and INBRE) and partnerships with pharmaceutical companies. The Centers were successfully merged and have further expanded and are at the core of the NIH INBRE proposal.

- *UNH Transit System Support* ('08-09): In concert with the Associate Vice President for Facilities, Campus Planning, and UNH Transportation, exploring ways to finance the current UNH bus system and establish a transit system between the Durham and Manchester campuses; this involves coordination with the Congressional delegation, the New Hampshire Department of Transportation, and the Governor's Office.
- *Incubators* ('06-08): Worked with the Pease Development Authority and the New Hampshire Department of Resources and Economic Development around establishing an incubator at the former Pease Air Force Base in Newington. A decision was made to postpone development.

Direct Reports Include:

- Special Assistant to the Vice President for Strategic Initiatives
- Director, UNH Interoperability Laboratory
- Director, Research Computing Center
- Interim Manager, University Instrumentation Center
- Director, Atlantic Marine Aquaculture Center
- Director, NOAA/UNH Cooperative Institute for Coastal and Estuarine Environmental Technology

SELECTED PROFESSIONAL AND SCHOLARLY ACTIVITIES

Journal Reviews, Editorships

Reviewer, <i>Atmospheric Environment</i>	1994-2004
Reviewer, <i>Environmental Engineering Science</i>	1998-2004
Reviewer, <i>Environmental Science and Technology</i>	1993-present
Reviewer, <i>Environmental Technology</i>	1989-1994
Reviewer, <i>Journal of Materials Cycles and Waste Management</i>	1998-2004
Reviewer, <i>Journal of Environmental Engineering</i>	1994-2004
Reviewer, <i>Journal of Hazardous Materials</i>	1994-2004
Reviewer, <i>Journal of Industrial Ecology</i>	2004
Reviewer, <i>Journal of the Air and Waste Management Assoc.</i>	1994-2004
Reviewer, <i>Resources, Conservation & Recycling</i>	1992-2004
Reviewer, <i>Surface Science Spectra</i>	1999-2004
Reviewer, <i>Waste Management</i>	1996-2004
Reviewer, <i>Waste Management and Research</i>	1991-2004
Reviewer, <i>Water Environment Research</i>	2000-2004
International Editor, <i>Journal of Materials Cycles and Waste Management</i>	1999-2004
Guest Editor, <i>Waste Management</i>	1996
Guest Editor, <i>Resources, Conservation & Recycling</i>	2003

Program and Proposal Reviews

Reviewer, N.Y. State Combustion Research Institute Grant Program	1988-1992
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Reviewer, NY State Solid Waste Combustion Institute	1988-1994
Reviewer, U.S. Conference of Mayors CORRE Program	1989-1991
Reviewer, National Science Foundation	1989-2004
Reviewer, Office of Technology Assessment	1989-1990
Reviewer, Resources for the Future Ash Document	1989
Reviewer, U.S. EPA/CORRE Studies	1989-1993
Reviewer, Katholieke University (Leuven, Belgium) Research Program	1990, 1994
Reviewer, Science Council of British Columbia Research Program	1992
Reviewer, DOE Proposals	1993
Reviewer, CICEET (national and internal) Pre-proposals	1998
Reviewer, U.S. DOE Ash Utilization Program Summary Document	1998
Reviewer, N.J. Department of Environmental Protection Bottom Ash Paving Program Document on Asphalt Batch Plant Air Testing	1998
Reviewer, U.S. DOE CBRC Program	1999-2004
Reviewer, N.J. Sea Grant	1999
Reviewer, U.S. DOT SBIR Program	2000

SERVICE AS A FACULTY MEMBER

Department

ABET Accreditation	1987-2004
Department Safety Officer	1988-2004
Environmental Engineering Faculty Search Committee	1987-1988
ETB Move Committee	2000-2002

College

CEPS Business Service Center Committee	1995-1997
Entrepreneurial Campus Committee	1995-present
Entrepreneurial Campus Subcommittee on Public-Private Relationships	1995-present
Environmental Technology Building Steering Committee	1997-present
Liaison to Environmental Technology Building Design Process	1997-present
CEPS Dean's Search Committee	1999-2000
CEPS Responsibility Center Management Oversight Committee	2000-present

University

Hunt Tire Pile Feasibility Study (for Rockingham Superior Court)	1987-1988
UNH PRIDE Day Activities	1988
UNH Legislator's Day	1989-1997
UNH Environmental Exposition (Co-Director)	1990
Center Directors Roundtable (Executive Committee)	1990-2004
Committee on Energy, Conservation & Environment (Chair)	1990-1991
Advisory Board for UNH Environmental Network	1991-1994

VP for Research Committee on Economic Development	1991-1992
President's Outreach Program	1992-1993
EOS Review Committee	1992-1993
Center for Advanced Science & Technology Feasibility Committee	1993-1994
Budget Task Force on Research and Related PAUs	1994-1996
OSR Faculty Advisory committee	1996-2004
Entrepreneurial Campus Committee	1996-1999
Environmental Technology Building Steering Committee	1997-2002
CICEET Co-Director's Advisory Board	1997-2004
UNH Research Advisory Board	1998-2004
Responsibility Center Management Subcommittee on Indirect Costs	1998-2000
Research Information Services Steering Committee	1998-2004
CICEET Co-Director Search Committee	1998
NEASC Self Study Report for Decennial Accreditation	2001-2003
ORPC Director Search Committee	2001
Presidential Search Committee	2001-2002
Institutional Biosafety Committee	2002-2004
International Programs Advisory Board	2003-2004
VP Finance Search Committee	2005

State

Senate, House Testimony on Various Bills	1988-1993
Member, N.H. Waste Management Council	1988-1995
Member, Advisory Committee to the N.H. Departments of Agriculture and Environmental Services on Compost Regulations	1990-1991
Member, N.H. Department Environmental Services Council on Barriers to Adoption of Innovative Technologies	1995-1997
Member, N.H. Office of State Planning New Hampshire Estuaries Project Advisory Board	1997-2004

National

Congressional Testimony (H.R. 2162, Luken Bill)	1989
Congressional Testimony (TEA-21 Reauthorization)	2002
Member, EPA Advisory Committee on MWC Ash Solidification/Stabilization Program	1988-1993
Member, EPA Advisory Committee (to ORD) on Municipal Solid Waste Technology	1988-1989
Member, American Water Works Association Research Foundation Project Advisory Committee	1989-1992
Participant, American Water Works Association Research Foundation Biotreatment Workshop	1990
Advisory Board Member, HAZTECH Conferences	1990-1992
Program Reviewer, U.S. DOE MSW R&D Needs Program	1991
Associate Member, ASME Committee on Industrial & Municipal Waste	1990-1991
Associate Member, ASME Subcommittee on Ash Research	1990-1991
Member, AWMA Committee on Waste Utilization and Minimization	1990-1992

Member, FHWA Advisory Board on Waste Utilization in Highway Construction	1994-1996
Member, U.S. DOE CBRC Advisory Committee	2000-2004
Member, U.S. EPA Science Advisory Board (Environmental Engineering Committee)	2003-present
Member, U.S. EPA Chartered Science Advisory Board	2008-present

International

Member, International Energy Agency International Ash Working Group (IAWG)	1989-1997
Chair, Working Group B, ISCOWA	1993-1996
Representative for U.S. DOE International Energy Agency's Task XI (Ash Residue from Combustion Technology)	1993-1997

AWARDS

Michael Berger Outstanding Faculty Advisor Award	2002
2002 WERC International Design Competition	
UNH Excellence in Research Award	1997
UNH Doctoral Dissertation Fellowship	1986-1987
Sigma Xi	1987
Woods Hole Oceanographic Institution Guest Student Fellowship	1980

COURSES TAUGHT

CiE 644 - Water and Wastewater Engineering (S87)
CiE 682 - Senior Project Design (S90, S93, team taught)
CiE 742 - Hazardous Waste Management (F86)
CiE 746 - Wastewater Treatment Plant Design (S87)
CiE 747 - Marine Pollution (F86)
CiE 788 - Senior Project Design (S93, team taught)
CiE 795 - Introduction to Hazardous Waste Management (S87, team taught to NHDES employees)
CiE 795 - Independent Study (F87)
CiE 796 - Independent Study (S88, S89, S91, S94)
CiE 895 - Independent Study (F87, F90, F93)
CiE 896 - Independent Study (S88, S90, S94, S98)
CiE 995 - Civil Engineering Problems (F89, F91)
EnE 681- Project Planning and Design – The WERC Project(S01, S02)
EnE 688- Project Planning and Design- the WERC Project (F03, S04)

UNDERGRADUATE, GRADUATE AND POST-DOCTORAL STUDENT ADVISING

<u>Name</u>	<u>Activity</u>	<u>Final Year</u>	<u>Advising Role</u>
Stergios Spanos	M.S., UNH	1989	Academic, thesis advisor
Susan Willowby	M.S., UNH	1990	Academic, thesis advisor
Shelley Bobowski	M.S., UNH	1990	Academic, thesis advisor
Louise de Rome	Post-doc, UNH	1990	Fellowship advisor
Marcel Guay	M.S., UNH	1990	Academic, thesis advisor
James Arwa	Grad. student, UNH	1991	Academic advisor
Jennifer Royce	M.S., UNH	1992	Academic, thesis advisor
Dominique Stampfli	Post-doc, UNH	1992	Fellowship advisor
Ingrid Whitehead	M.S., UNH	1992	Academic, thesis advisor
Kelly Killeen	B.S., Bates College	1993	Honors thesis reader, examiner
David Domingo	M.S., UNH	1994	Academic, thesis advisor
Chris Koehler	M.S., UNH	1994	Academic, thesis advisor
Shawne Deary	M.S., UNH	1994	Academic, thesis advisor
Chris Zevenbergen	Ph.D., Utrecht Uni.	1994	Reader, external examiner
Beth Holland	B.S., Bates College	1994	Honors thesis reader, examiner
Shamim Hasan	M.S., UNH	1995	Academic, thesis advisor
Warner King	M.S., UNH	1995	Academic, thesis advisor
Doug Crimi	M.S., UNH	1995	Academic, thesis advisor
Ken Hockert	B.S., Bates College	1995	Honors thesis reader, examiner
Eline Van der Hoek	Ph.D., Utrecht Uni.	1996	Reader, external examiner
Laurie Gallagher	B.S., Bates College	1996	Honors thesis reader, examiner
Jeannette Meima	Ph.D., Utrecht Uni.	1997	Reader, external examiner
Jeannie Spear	M.S., UNH	1999	Academic, thesis advisor
Jean-Louis Save	M.S., ECN	2003	Thesis paper advisor
Jean LeBrun	M.S., ECN	2004	Thesis paper advisor
Defne Apul	Ph.D., UNH	2004	Academic, dissertation co-advisor
Brad Crannell	Grad. student, UNH	2004	Academic advisor
Carolina Gonzalez	M.S., UNH	2005	Academic, thesis co-advisor

Dr. Eighmy has also served on over 40 Master's thesis committees and over 20 dissertation committees at UNH.

CURRENT PROFESSIONAL ORGANIZATIONS

American Chemical Society	2002-Present
Association of Environmental Science & Engineering Professors	1987-Present

PATENTS

1. "Phosphate Mineral-Based Reactive Barrier Containment System", U.S. Patent 6,290,637, issued September 18, 2001

FUNDED RESEARCH AND CONTRACTS (* Denotes Competitively Awarded)

1. "EPSCoR RII" (NSF, \$6,500,000, 2007-2009, recently serving as co-PI)*.
2. "Coastal Response Research Center" (NOAA, \$1,978,000, 2004-2005, as acting co-director).
3. "Year 7 Support for the Recycled Materials Resource Center" (FHWA, \$1,325,000, 2004-2005, with Kevin Gardner).
4. "Dissemination and Commercialization of the Phosphate Reactive Barrier Technology" (NOAA/CICEET, \$205,198, 2004-2006, Dr. Melton is the PI)*.
5. "Use of Apatite-Based Permeable Reactive Barriers in Recycled Materials Applications in Highways" (RMRC/FHWA, \$55,331, 2003-2005).
6. "Field Lysimeter Leaching of WES-PHix-Amended CASR" (Wheelabrator Environmental Systems, \$22,782, 2003-2006).
7. "Materials for Pavements" (European Commission, \$110,000, 2002-2004, cost sharing proposal, with Dr. Gardner)*.
8. "Anacostia River Field Demonstration of Reactive Barrier Technology" (U.S. EPA via Louisiana State University, \$83,327, 2002-2004, Dr. Melton is the PI)*.
9. "Fracture Surfaces (Part of the BBC Project)" (U.S. EPA, \$69,776, 2001-2003, Dr. Kinner is the PI with many participating PIs).
10. "Recycled Materials Conference" (National Science Foundation, \$19,960, 2001-2002).
11. "Support for International Conference on the Beneficial Use of Recycled Materials in Transportation Applications" (U.S. Department of Energy, \$10,000, 2001-2002).
12. "Pilot-Scale Reactive Barrier Technologies for Containment of Metal-Contaminated Sediments and Dredged Materials" (NOAA/CICEET, \$378,899, 2001-2003, with Dr. Eighmy, Dr. Butler, Dr. Cartledge, Dr. Willson, Dr. Reible as co-PIs)*.
13. "Long Term Field Monitoring Systems" (Wheelabrator Environmental Systems, \$23,200, 2000-2003).
14. "Recycled Materials Resource Center" (FHWA, \$8,100,000, 1998-2004, with Dr. Eighmy, Dr. Gress as co-PIs).
15. "Phosphate-Based Heavy Metal Stabilization Technologies for Contaminated Sediments and Dredge Material" (NOAA/CICEET, \$394,640, 1998-2001, with Dr. Eighmy, Dr. Butler, Dr. Cartledge as co-PIs)*.

16. "Consensus Framework for Waste Utilization" (FHWA, \$199,691, 1997-1999).
17. "A Predictive Approach for Long-Term Performance of Recycled Materials Using Accelerated Aging" (FHWA, \$1,124,764, 1997-2000, with Dr. Eighmy, Dr. Cook , Dr. Gress as Co-PIs).
18. "Aging Reactions in Residues" (Swedish Waste Research Agency, \$130,000, 1997-1998, with Dr. Fällman , Dr. Eighmy, Dr. Salanek as co-PIs)*.
19. "Total Organic Carbon Analyzer" (National Science Foundation, \$20,000, 1996, with Dr. Malley, Dr. Collins, Dr. Kinner, Dr. Eighmy as co-PIs)*.
20. "Fundamental Research on the Mechanisms of the WES-PHix Process in Eight Waster Materials" (Wheelabrator Environmental Systems and Kurita Water Industries Ltd., \$531,665, 1994-1998, with Dr. Eighmy, Dr. Eusden, Dr. Krzanowski as co-PIs).
21. "Molecular Diffusion of Bottom Ash Constituents in Paving Material" (Rutgers University/U.S. EPA, \$53,000, 1993-1995, with Dr. Eighmy, Dr. Gress as co-PIs)*.
22. "Utilization of Ash From Municipal Solid Waste Combustion" (U.S. DOE/Midwest Research Institute/National Renewable Energy Laboratory, \$100,079, 1993-1995, with Dr. Eighmy, Dr. Gress as co-PIs)*.
23. "WASTE Program Speciation Study" (Environment Canada/U.S. EPA, \$160,000, 1993-1994, with Dr. Eighmy, Dr. Eusden, Dr. Krzanowski as co-PIs)*.
24. "Laconia Paving Project" (Concord Regional Solid Waste Resource Recovery Cooperative/Wheelabrator Environmental Systems, \$191,400, 1993-1994, with Dr. Eighmy, Dr. Gress as co-PIs).
25. "Development of New Antifouling Coatings" (Office of Naval Research, \$316,013, 1991-1994, with Dr. Eighmy, Dr. Sundberg, Dr. Weisman as co-PIs)*.
26. "The Nature of Lead, Cadmium, and Other Elements in Incineration Residues and Their Stabilized Products" (U.S.EPA/Chemical Waste Management, Inc./Environment Canada, \$279,898, 1991-1993, with Dr. Eighmy, Dr. Krzanowski, Dr. Collins as co-PIs)*.
27. "Bottom Ash Utilization" (Concord Regional Solid Waste Resource Recovery Cooperative/Wheelabrator Environmental Systems, \$236,683, 1990-1992, with Dr. Eighmy, Dr. Gress as co-PIs).
28. "Development of New Anti-Fouling Coatings Utilizing Controlled Release Technology" (NOAA-UNH/UMe Sea Grant, \$ 93,971, 1989-1991, with Dr. Weisman, Dr. Sundberg, Dr. Eighmy as co-PIs)*.
29. "Mechanisms of Controlled Release for Biofouling Control" (Office of Naval Research,\$100,000, 1989-1990, with Dr. Eighmy, Dr. Sundberg, Dr. Weisman as co-

PIs)*.

30. "Geotechnical Properties of Ash/Sludge Mixtures" (Lamprey Regional Solid Waste Cooperative, \$ 31,614, 1989, with Dr. Benoit, Dr. Eighmy as co-PIs).
31. "Development of New Biofouling Inhibitor Delivery Systems" (NOAA-UNH/UMe Sea Grant, \$ 91,173, 1989-1991, with Dr. Sundberg, Dr. Morrison, Dr. Weisman, Dr. Eighmy as co-PIs)*.
32. "Biologically Enhanced Slow Sand Filtration for Aquatic Organic Matter Removal" (American Water Works Association Research Foundation, \$203,740, 1988-1991, with Dr. Eighmy, Dr. Collins, Dr. Malley as co-PIs)*.
33. "State-of-the-art GC/LC/MS for Biotechnology, Chemical Detection, Biofouling and Other Research" (Defense University Research Instrumentation Program - Department of Defense, \$55,000, 1988, with Dr. Chesbro, Dr. Ballesterro, Dr. Eighmy, Dr. Kinner, Dr. Johnson, Dr. Tomellini, Dr. Weber as co-PIs)*.
34. "Innovative Utilization of MSW Incinerator Residues" (N.H. Governor's Energy Office, \$25,000. 1988, with Dr. Collins, Dr. Eighmy as co-PIs)*.
35. "Sampling Quality Assurance Plans" (Lamprey Regional Solid Waste Cooperative, \$ 3,713, 1988).
36. "The Use of Specific Biofilm Inhibitors to Prevent Marine Biofouling" (Office of Naval Research, \$125,000, 1988-1991, with Dr. Eighmy, Dr. Sundberg, Dr. Gress, Dr. Morrison as co-PIs)*.
37. "Acquisition of a State-of- art GC/LC/MS" (Elliot Fund, \$75,000, 1988, with Dr. Eighmy, Dr. Ballesterro, Dr. Chesbro, Dr. Kinner, Dr. Johnson, Dr. Tomellini, Dr. Weber as co-PIs)*.
38. "Development of a QA/QC Residue Sampling Plan" (Wheelabrator Technologies, \$10,400, 1988).
39. "Investigations Into Leachate Characteristics from Amended and Unamended Combined Incinerator Ashes" (Concord Cooperative/NH-VT Project/Wheelabrator Environmental Systems, \$131,933, 1988-1989, with Dr. Eighmy, Dr. Ballesterro, Dr. Collins as co-PIs).
40. "Protocol Development for Incinerator Residue/Ash Management" (N.H. Department of Environmental Services, \$153,000, 1987-1990, with Dr. Collins, Dr. Gress, Dr. Eighmy as co-PIs).
41. "Hydrogeology, Aquatic Chemistry, and Hazardous Waste Sampling Courses" (N.H. Department of Environmental Services, \$7,000, 1987-1988).

42. "Biofouling Control" (Hubbard Fund, \$ 2,100, 1987).
43. "Investigations Regarding a Failed Treatment System" (Kimball-Chase Company, \$1,400, 1987).
44. "Characterization of Leachate from Bottom Ash and Bottom Ash/Sludge Mixtures" (Lamprey Regional Solid Waste Cooperative, \$ 39,000, 1987, with Dr. Eighmy, Dr. Kinner, Dr. Ballesterio as co-PIs).
45. "Hazardous Waste Management Course" (N.H. Department of Environmental Services, \$ 7,000, 1987).
46. "Modifications to the Slow Sand Filtration Process for THM Precursor Removal" (American Water Works Association Research Foundation, \$110,000, 1986-1987, with Dr. Collins & Dr. Eighmy as co-PIs)*.

CONSULTING EXPERIENCE

1. "Phosphate Stabilization Chemistry", Wheelabrator Environmental Systems/ Kurita Water Industries (1994-1995)
2. "Hydrogeological Investigation of the Craig Supply Site, Durham, N.H.", University of New Hampshire (1993-1995)
3. "Wastewater Sludge Ash Beneficial Use", Malcolm-Pirnie, Inc., (1991)
4. "MSW Compost", CMA Engineers, Inc., (1990)
5. "Ash Landfills", CMA Engineers, Inc., (1990)
6. "Review of a Generic Solid Waste Plan for the State of New Hampshire", CMA Engineers, Inc. (1989)
7. "Landfill Closure Studies (Pittsfield, ME and Searsport, ME) for the State of Maine" CMA Engineers, Inc., (1989-1991)
8. "Remediation of the Hunt Tire Pile", State of New Hampshire, (1988-89)
9. "Failed Treatment System", R.P. Millette & Assoc., (1987)
10. "Failed Treatment System", WASTE, Inc., (1986-1987)
11. "Organic Overloading Problem", Tambrands, Inc. (for Anderson- Nichols Co.) , with Dr. Kinner (1985-1986)
12. "Biofouling Problem in a Wastewater Treatment System", Carroll County, NH Complex (for Anderson- Nichols Co.), with Dr. Kinner (1985-1986)

RESEARCH INTERESTS

Recycled materials characterization and beneficial use, element speciation, environmental chemistry of leaching behavior, spectroscopic surface analysis, applied geochemistry, reactive barriers, environmental microbiology, biofouling, and biofilms.

Books

1. Chandler, A.G., T.T. Eighmy, J. Hartlén, O. Hjelm, D. Kosson, S. Sawell, H.A. van der Sloot, & J. Vehlow (1994) *An International Perspective on Characterisation and Management of Residues From Municipal Waste Combustion- A Summary Report*. ECN, Petten, the Netherlands, 78 pp.
2. Chandler, A.G., T.T. Eighmy, J. Hartlén, O. Hjelm, D. Kosson, S. Sawell, H.A. van der Sloot, & J. Vehlow (1997) *Municipal Solid Waste Incinerator Residues*. Elsevier Science B.V., Amsterdam, 974 pp.
3. Eighmy, T.T. (2003) *Beneficial Use of Recycled Materials in Transportation Applications*, Air & Waste Management Association, Sewickley, Pennsylvania, 1051 pp.

U.S. EPA SCIENCE ADVISORY BOARD REPORTS

1. McFarland, M.J., J.C. Crittenden, H.B. Dellinger, D. Dzombak, T.T. Eighmy, J.B. Hughes, B. Kim, C. Koshland, R. Lifset, S.E. Powers, M. Rood, B. Shaw, J.H. Smith, T. Thompson, J.R. Clark, K. White (2005) "U.S.EPA Science Advisory Board Advisory on the Office of Research and Development's Contaminated Sites and RCRA Multi-Year Plans". *EPA-SAB-05-009*.
2. Singer, P., T. Eighmy, G. Sayler, M.J. McFarland, J. Griffiths, and R. Madellena (2005) "Water Quality Study of Bays in Coastal Mississippi Affected by Hurricane Katrina, Quality Assurance Project Plan." *EPA-SAB-ADV-05-009*.
3. McFarland, M.J., V. Aneja, D. Dzombak, T.T. Eighmy, C. Koshland, R. Lifset, M. Rood, J.H. Smith, A. Alberini, B. Mitsch, D. Rejeski, T.L. Theis, V. Thomas, K. White (2007) "Science Advisory Board (SAB) Advisory on the Office of Research and Development's (ORD) Sustainability Research Strategy and the Science and Technology for Sustainability Multi-year Plan." *EPA-SAB-07-007*.

RESEARCH PUBLICATIONS (Book Chapters or Articles)

1. Eighmy, T.T., L.S. Jahnke, & P.L. Bishop (1987) Productivity and photosynthetic characteristics of *Elodea nuttallii* grown in aquatic treatment systems, pp. 427-431. In:

- (R.K. Reddy & W. Stevens, eds). *Aquatic Plants for Water Treatment and Resource Recovery*, Butterworth Publ., Fla.
2. Eighmy, T.T., L.S. Jahnke, & W.R. Fagerberg (1987) Evidence for bicarbonate active transport in *Elodea nuttallii*, pp. 353-356. In: (G. Biggins, ed.) *Progress in Photosynthesis Research*. Vol. IV. Martinus Nijhoff Publ., Dordrecht, the Netherlands.
 3. Collins, M.R., & T.T. Eighmy (1988) Modification to the slow rate filtration process for improved trihalomethane precursor removals, pp. 281-304. In: (N.J.D. Graham, ed.) *Slow Sand Filtration: Recent Developments in Water Treatment Technology*. Ellis Horwood Limited, Chichester, U.K.
 4. Chandler, A.J., T. Eighmy, J. Hartlen, O. Hjelmar, D. Kosson, S. Sawell, H.A. van der Sloot, & J. Vehlow (1990) Treatise on municipal solid waste incinerator residues, pp. 1309-1310. In: (F. Arendt, M. Hinsevald, & W.J. van den Brink, eds.) *Contaminated Soils '90*, Kluwer Academic Publishers, Amsterdam.
 5. Benoit, J., & T.T. Eighmy (1991) Field and laboratory densities of municipal solid waste incinerator ash/wastewater sludge mixtures in a codisposal above-ground landfill, pp. 627-629. In: (J.J.J.M. Goumons, H.A. van der Sloot, & Th. G. Aalbers eds.) *Environmental Implications of Construction with Waste Materials*, Elsevier Science Publ. B.V., Amsterdam.
 6. Gress, D.L., X. Zhang, S. Tarr, I. Paziienza, & T.T. Eighmy (1991) Municipal solid waste combustion ash as an aggregate substitute in asphaltic concrete, pp. 161-175. In: (J.J.J.M. Goumons, H.A. van der Sloot, & Th. G. Aalbers eds.) *Environmental Implications of Construction with Waste Materials*, Elsevier Science Publ. B.V., Amsterdam.
 7. Chandler, A.J., T.T. Eighmy, J. Hartlen, O. Hjelmar, D. Kosson, S.E. Sawell, H.A. van der Sloot, & J. Vehlow (1993) An international perspective on residues from municipal waste incinerators, pp. 347-356. In: (M. Faulstich, ed.) *Rückstände aus der Mullverbrennung*, EF-Verlag für Energie und Umwelttechnik GmbH, Berlin.
 8. van der Sloot, H.A., R.N.J. Comans, T.T. Eighmy, & D.S. Kosson (1993) Interpretation of municipal solid waste incinerator residue leaching data in relation to utilization and disposal, pp. 331-346. In: (M. Faulstich, ed.) *Rückstände aus der Mullverbrennung*, EF-Verlag für Energie und Umwelttechnik GmbH, Berlin.
 9. Collins, M.R., T.T. Eighmy, J.M. Fenstermacher, S.K. Spanos, J.P. Malley, D.F. Morgan, & J. Royce (1994) Removal of natural organic matter by slow sand filtration (Section 5.2), pp. 190-218. In: (M.R. Collins & N.J.D. Graham, eds.) *Slow Sand Filtration: An International Compilation of Recent Scientific and Operational Developments*, AWWA, Denver, CO.
 10. Eighmy, T.T., S.K. Spanos, J. Royce, M.R. Collins, & J.P. Malley, Jr. (1994) Microbial activity in slow sand filters (Section 5.3, pp. 218-240). In: (M.R. Collins & N.J.D. Graham, eds.) *Slow Sand Filtration: An International Compilation of Recent Scientific and Operational Developments*, AWWA, Denver, CO.

11. Malley, J.P., Jr., M.R. Collins, & T.T. Eighmy (1994) The effects of preozonation on slow sand filtration (Section 4.2, pp.146-176). In: (M.R. Collins & N.J.D. Graham, eds.) *Slow Sand Filtration: An International Compilation of Recent Scientific and Operational Developments*, AWWA, Denver, CO.
12. Eighmy, T.T., J.D. Eusden, Jr., K. Marsella, J. Hogan, D. Domingo, J.E. Krzanowski, & D. Stämpfli (1994) Particle petrogenesis and speciation of elements in MSW incineration bottom ashes, pp. 111-136. In: (J.J.J.M. Goumons, H.A. van der Slood, Th.G. Albers, eds.) *Waste Materials in Construction*, Elsevier Science Publ. B.V., Amsterdam.
13. Eighmy, T.T. & H.A. van der Slood (1994) A unified approach to leaching behavior of waste materials, pp. 979-988. In: (J.J.J.M. Goumons, H.A. van der Slood, Th.G. Aalbers, eds.) *Waste Materials in Construction*, Elsevier Science Publ. B.V., Amsterdam.
14. van der Slood, H.A., D.S. Kosson, T.T. Eighmy, R.N.J. Comans & O. Hjelm (1994) Approach towards international standardization: a concise scheme for testing of granular waste leachability, pp. 453-466. In: (J.J.J.M. Goumons, H.A. van der Slood, Th.G. Aalbers, eds.) *Waste Materials in Construction*, Elsevier Science Publ. B.V., Amsterdam.
15. Musselman, C.N., M.P. Killeen, D. Crimi, S. Hasan, X. Zhang & T.T. Eighmy (1994) The Laconia, New Hampshire bottom ash paving project, pp. 315-328. In: (J.J.J.M. Goumans, H.A. van der Slood, Th.G. Aalbers, eds.) *Waste Materials in Construction*, Elsevier Science Publ., B.V., Amsterdam.
16. Eighmy, T.T., D. Crimi, I.E. Whitehead, X. Zhang, & D.L. Gress (1997) The influence of monolith physical properties and integrity on diffusional leaching behavior of asphaltic pavements constructed with MSW combustion ash, pp. 125-147. In: (J.J.J.M. Goumans, G.J. Senden, H.A. van der Slood, eds.) *Waste Materials in Construction*, Elsevier Science Publ., B.V., Amsterdam.
17. Crannell, B.S., T.T. Eighmy, J.R. Krzanowski, & J.D. Eusden Jr. (1999) Phosphate stabilization mechanisms for heavy metals in electric arc furnace smelter dusts, pp.561-570. In: (N. Nikolaidis, C. Erkey & B. Smets, eds.) *Hazardous Wastes and Hazardous Materials*, Technomic Publishing, Lancaster, PA.
18. Karpinski, S., X. Zhang, V. Janoo, D. Gress, & T. Eighmy (2000) A Physical evaluation of municipal solid waste grate ash as an aggregate substitute in asphaltic concrete, pp. 215-226. In: (R.K. Dhir, T.D. Dyer, & K.A. Paine, eds.) *Use of Incinerator Ash*, Thomas Telford, London.
19. Gress, D.L., R. Kozikowski, & T.T. Eighmy (2000) Accelerated ASR testing of recycled concrete, pp. 221-233. In: (G.R. Woolley, J.J.J. Goumans & P.J. Wainwright, eds.) *Waste Materials in Construction*, Elsevier Science Ltd., Amsterdam.

20. Magee, B.J., K.H. Gardner, D.L. Gress, T.T. Eighmy, & M.Simon (2000) The Recycled Materials Resource Center: A new partnership to promote recycling in the highway environment, pp. 1008-1013. In: (G.R. Woolley, J.J.J. Goumans, & P.J. Wainwright, eds.) *Waste Materials in Construction*, Elsevier Science Ltd., Amsterdam.
21. Eighmy, T.T. & Holtz, K. (2000) Scanning tour explores European advances in use of recycled materials in highway construction. *AASHTO Quarterly* 78: 4-7.
22. Simon, M.J., W.H. Chesner, T.T. Eighmy, & H. Jongedyk (2000) National research projects on recycling in highway construction. *Public Roads* 64 (1): 2-10.
23. Holtz, K. & T.T. Eighmy (2000) Use of recycled materials in highway construction. *Public Roads* 64 (1): 34-40.
24. Eighmy, T.T. & B.J. Magee (2001) The road to reuse. *Civil Engineering* 71(9): 66-71, 80-81.
25. Crannell, B.S., T.T. Eighmy, L. Butler, E. Emery & F. Cartledge (2003) Use of phosphate to stabilize heavy metals in contaminated sediments, pp: 175-178. In: (J. Pederson & E. Adams, eds.) *Dredged Material Management: Options and Environmental Concerns*. MIT Sea Grant Publications, Cambridge, Massachusetts.
26. Chesner, W.H., M. Simon & T.T. Eighmy (2003) Recent federal initiatives for recycled materials use in highway construction in the United States, pp: 3-10. In: (T.T. Eighmy, ed.) *Beneficial Use of Recycled Materials in Transportation Applications*, Air & Waste Management Assoc., Sewickley, Penn.
27. Apul, D., K.H. Gardner, T.T. Eighmy, J. Benoît & L. Brannaka (2003) A review of water movement in the highway environment: implications for recycled materials use, pp: 195-204. In: (T.T. Eighmy, ed.) *Beneficial Use of Recycled Materials in Transportation Applications*, Air & Waste Management Assoc., Sewickley, Penn.
28. Crannell, B.S., T.T. Eighmy, L.G. Butler, F.K. Cartledge, E. Emery, C. Willson, D.D. Reible, & M. Yin (2003) Reactive barriers for containment of metals-contaminated dredged materials: diffusion studies, 377-388. In: (T.T. Eighmy, ed.) *Beneficial Use of Recycled Materials in Transportation Applications*, Air & Waste Management Assoc., Sewickley, Penn.
29. Cook, R.A., T.T. Eighmy, K.C.H. Hover, C.J. Korhonen, & M.J. Simon (2003) An approach to accelerated aging: Arrhenius aging, cyclical loading, and freeze-thaw distress in an experimental design, pp: 481-492. In: (T.T. Eighmy, ed.) *Beneficial Use of Recycled Materials in Transportation Applications*, Air & Waste Management Assoc., Sewickley, Penn.
30. Sanchez, F., D.S. Kosson & T.T. Eighmy (2003) Estimation of environmental performance from the utilization of secondary materials in road construction using accelerated aging techniques, pp: 513-524. In: (T.T. Eighmy, ed.) *Beneficial Use of*

Recycled Materials in Transportation Applications, Air & Waste Management Assoc., Sewickley, Penn.

31. Gardner, K.H. & T.T. Eighmy (2003) Recycled materials in transportation applications: knowledge gaps and research needs, pp. 1025-1034. In: (T.T. Eighmy, ed.) *Beneficial Use of Recycled Materials in Transportation Applications*, Air & Waste Management Assoc., Sewickley, Penn.
32. Crannell, B.S., T.T. Eighmy, L. Butler, E. Emery, & F. Cartledge (2003) Use of phosphate to stabilize heavy metals in contaminated sediments, pp: 175-178. In: (J. Pederson & E. Adams, eds.) *Dredged Material Management: Options and Environmental Concerns*. MIT Sea Grant Publications, Cambridge, Massachusetts.
33. Apul, D.S., K.H. Gardner, & T.T. Eighmy (2002) Comparison of risks from traditional and recycled road construction materials: accounting for variability in contaminant release estimates, pp. 75-82. In: (I. Likov, A Ramadan, eds.) *Comparative Risk Assessment* Kluwer, Amsterdam.
33. Apul, D.S., K.H. Gardner, & T.T. Eighmy (2005) Implications of roadway water movement for beneficial use of recycled materials, pp: 214-38. In: (T.A.T. Aboul-Kassim & K.J. Williamson, eds.) *The Handbook of Environmental Chemistry, Water Pollution Series (Volume 5): Environmental Impact Assessment of Recycled Hazardous Waste Materials on Surface and Ground Waters: Chemodynamics, Toxicology, Modeling and Information System*, Springer-Verlag, Germany.
35. Eighmy, T.T., Eusden, J.D. Jr. (2005) Phosphate stabilization of municipal solid waste combustion residues: geochemical principles. In: (R. Gieré & P. Stille, eds.) *Energy, Waste & the Environment: Geochemical Perspective*, Geological Society, London 236: 435-473.
36. Kinner, N.E., Eighmy, T.T., Mills, M., Coulburn, J., Tisa, L. (2005) Microbial processes in fractured bedrock environments, pp. 183-194. In: (B. Faybishenko, P.A. Witherspoon, J. Gale, eds.) *Dynamics of Fluids and Transport in Fractured Rock*, Geophysical Monograph 162, American Geophysical Union, Washington, D.C.

RESEARCH PUBLICATIONS (Refereed Journals)

1. Eighmy, T.T., D. Maratea, & P.L. Bishop (1983) Electron microscopic examination of wastewater biofilm formation and structural components. *Appl. Environ. Microbiol.* **45**: 1921-1931.
2. Eighmy, T.T., & P.L. Bishop (1984) Multiplicity of aspartate transport in thin wastewater biofilms. *Appl. Environ. Microbiol.* **48**: 1151-1158.
3. Eighmy, T.T., & P.L. Bishop (1985) Effect of reactor turbulence on the binding protein-mediated aspartate transport system in thin wastewater biofilms. *Appl. Environ.*

Microbiol. **50**: 120-124.

4. Kinner, N.E. & T.T. Eighmy (1985) Biological fixed-film systems. *J. Water Pollut. Control Fed.* **57**: 526-531.
5. Kinner, N.E. & T.T. Eighmy (1986) Biological fixed-film systems. *J. Water Pollut. Control Fed.* **58**: 498-501.
6. Kinner, N.E., & T.T. Eighmy (1987) Biological fixed-film systems. *J. Water Pollut. Control Fed.* **59**: 498-502.
7. Eighmy, T.T. & P.L. Bishop (1987) Autotrophic nitrification and its role in nitrogen removal in *Elodea nuttallii*-based aquatic treatment systems. *Water Supply* **6**: 119-124.
8. Kinner, N.E., & T.T. Eighmy (1987) Biological fixed-film systems. *J. Water Pollut. Control Fed.* **60**: 824-828.
9. Eighmy, T.T., M.R. Collins, S.K. Spanos, & J.M. Fenstermacher (1988) Microbial population distributions and benzoate mineralization kinetics in municipal slow sand filters. *Water Sci. Technol.* **20**: 293-299.
10. Bishop, P.L., & T.T. Eighmy (1988) Aquatic wastewater treatment using *Elodea nuttallii*. *J. Water Pollut. Control Fed.* **61**: 641-648.
11. Eighmy, T.T., & P.L. Bishop (1988) Distribution and role of bacterial nitrifying populations in nitrogen removal in aquatic treatment systems. *Water Research* **23**: 947-955.
12. Kinner, N.E., & T.T. Eighmy (1989) Biological fixed-film systems. *J. Water Pollut. Control Fed.* **61**: 807-810.
13. Collins, M.R., T.T. Eighmy, J.M. Fenstermacher, S.K. Spanos, & C.M. Spencer (1989) Improved removals of trihalomethane precursors by small water supply systems. *New England Water Works Assoc. J.* **103**: 100-113.
14. Jahnke, L.S., T.T. Eighmy, & W.R. Fagerberg (1990) Photosynthetic characteristics of *Elodea nuttallii* grown under photorespiratory conditions. I: Photosynthetic characteristics. *Plant, Cell & Environment* **14**: 147-156.
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