Catherine McCarthy

National Informal STEM Education Network (NISE Network) Director
Arizona State University, Center for Innovation in Informal STEM Learning
cmccarthystem@gmail.com

https://www.linkedin.com/in/catherinemccarthy59

EDUCATION

Ph.D., 1999, University of California Davis, CA
Graduate Group in Ecology, Emphasis: Environmental Policy Analysis and Planning

Master of Science Degree, 1990, University of California Davis, CA
Graduate Group in Ecology, Emphasis: Environmental Policy Analysis and Planning

Bachelor of Science Degree, 1988, Cornell University, Ithaca, New York
Environmental Engineering Technology; Natural Resources

QUALIFICATIONS

Administration, Management, and Organizational Skills

- Strong organizational and problem-solving skills.
- Able to initiate, work with stakeholders to prioritize and successfully follow through on projects.
- Budget preparation and management; contract development and oversight.
- Research and grant administration: grant writing, grant management, and reporting.
- Project manager for variety of complex, short and long-term initiatives.
- Data collection and report preparation; served as staff to boards and commissions.
- Nonprofit management: strategic planning, board governance.
- Managing paid professional staff, volunteers, and student interns in a variety of positions.
- Effective team leader and member; able to work with a wide spectrum of individuals.
- Committed to working collaboratively with various organizations, associations, and individuals.
- Planned, promoted, and coordinated successful large-scale events and meetings.
- Resourceful; able to work with limited resources and still "get things done" in a timely fashion.

Education, Public Engagement, and Science Communication

- Developed extensive informal science education professional development and public engagement programs using best practices to reach diverse audiences on a national scale using inclusive approaches.
- Engaged and educated public audiences of varying ages and backgrounds using a variety of communication methods and programming formats.
- Developed and delivered professional development training for informal science educators and scientists.
- Exhibit development: iterative prototype testing, label writing, formative evaluation.
- Authored, designed, and edited numerous publications including: newsletters, brochures, newspaper articles, press releases, marketing materials, visitor guides, conference proceedings, and signage.
- Community outreach experience with residents, businesses, community organizations, and agencies.
- Experienced public meeting facilitator; trained community mediator.
- Maintained excellent customer service, worked to resolve problems and improve community relations.

Research and Technical Skills

- Data collection, analysis, and interpretation to tell compelling, effective stories.
- Conducted research projects using mail questionnaires, in-person surveys, and in-person interviews; knowledgeable of social research methods and statistical analysis; human subjects research training.
- Instructor for college course in applied social science research methods and survey methods.
- Extensive experience with database and spreadsheet management; website content using Drupal, HTML, and WordPress; experience with statistical analysis, graphic design and layout, social media, digital and hand drafting; familiarity with GIS.

CHRONOLOGICAL WORK EXPERIENCE

4/2025-present **National Informal STEM Education Network (NISE Network) Director**

4/2020-4/2025 **Arizona State University, Project Manager Senior - NISE Network,** Tempe, AZ
Center for Innovation in Informal STEM Learning, School for the Future of Innovation in Society
Leadership role in NISE Network to increase capacity of informal science educators and scientists nationwide to engage the public in STEM topics. Provide oversight and leadership for:

- Collaborating with multiple institutions to achieve overall project goals, timelines, budgets, and reporting.
- Content and technical oversight of *nisenet.org* website for informal science education professionals.
- Oversee application and award processes for professional development opportunities.
- Cultivating and maintaining relationships with partners across the US.

Projects include STEM learning ecosystems (NASA, $4.9 million, 2021-25), engaging Hispanic communities (NASA, $.8 million, 2022-26, co-I; $4.5 million, 2022-26), Earth and space science (NASA, $19 million, 2016-23, co-I), Moon Adventure Game (NASA, $.8 million, 2019-21), Build a Habitat on Mars exhibit (NASA, $1 million, 2020-22, PI/co-I), Sustainability in Science Museums (IMLS 2020-22).

11/2009-3/2020 **Science Museum of Minnesota, Project Leader,** Saint Paul, MN
Leadership role in National Informal STEM Education Network (NISE Network) to increase capacity of informal science educators and scientists nationwide to engage the public in STEM topics. Projects include Earth and space science (NASA, $14.5 million, 2016-20, co-I), Build a Mars Habitat exhibit (NASA, $1 million, 2020-22, PI), Moon game (NASA, $.8 million, 2019-21), chemistry (NSF, $2.9 million, 2016-21), nanoscale science (NSF, $40 million, 2006-16), synthetic biology (NSF, $2.1 million, 2014-17), and sustainability (Rob and Melani Walton Foundation). https://www.nisenet.org/projects

Collaborated with multiple institutions to achieve overall project goals. Responsible for project management, timelines, budgets, and reporting for the Science Museum of Minnesota's portion of projects. Provided oversight and leadership for several aspects of the projects including:

- Exhibition development and distribution of 600-square-foot *Sun, Earth Universe* exhibition (52 copies installed nationwide) and 400-square-foot *Nano* mini-exhibition (93 copies installed nationwide)
- Kits distributed to up to 350 partners nationwide: *Explore Science: Earth & Space* (2018-2020), *Explore Science: Let's Do Chemistry* (2018), *Frankenstein200* (2018), *Building with Biology* (2016), *SustainABLE* (2016), Museum & Community Partnership *Explore Science* (2016)*, NanoDays* (2008-2015).
- Content and technical oversight of *nisenet.org* website for informal science education professionals.
- Oversaw application and award processes for mini-grants, kits, and exhibitions.

1/2001-11/2009 **Sciencenter, Grant Projects Director** (2006 - 2009) Grants Project Manager (2001-2005), Ithaca, NY
Responsible for managing timelines, budgets, contracts, and reports for numerous exhibit and program grants at a small hands-on science museum. Member of creative exhibits design team developing interactive, inquiry-based science exhibits that deliver engaging age-appropriate content that meet rigorous evaluation requirements and educational standards. Other duties included grant writing, evaluation research, staff and contractor supervision, meeting facilitation, and exhibit sign design and production.

- Project manager for NSF-funded $0.7 million 3,500 square-foot exhibition, *It's a Nano World: Smaller than a Spot on a Ladybug* (*www.sciencenter.org/rentals.htm*); began national tour in 2003.
- Project manager for $1.8 million 5,000 square-foot exhibition *Too Small to See: Zoom into Nanotechnology* (*www.sciencenter.org/rentals.htm*); began national tour in 2006.
- Collaborator on national $20 million NSF-funded Nanoscale Informal Science Education Network (NISE Network) (*www.nisenet.org)* working with informal science educators and scientists to engage the public in nanoscale science, engineering, and technology. Coordinated regional hub leader efforts; served as Northeast regional hub providing partners with resources and professional development training to engage the public locally. Collaborated with Network-wide effort to recruit organizations to host local NanoDays events nationwide. Member of the public engagement exhibits working group; coordinated team to produce *NanoLab* and *Nanotechnology: Fact or Fiction* exhibits.

CHRONOLOGICAL WORK EXPERIENCE continued

- Initiated and oversaw traveling exhibition rental program (*www.sciencenter.org/rentals*); touring twelve exhibitions to museums nationwide (including exhibitions created by the EEC! and TEAMS Collaboratives); responsibilities included contract development and negotiation, coordinating logos, print and digital marketing and promotional materials, and overseeing website structure and content.
- Oversaw completion of *Discovery Space* and *Curiosity Corner* construction projects (completed 2003).
- Worked with team to design, implement, and disseminate (2004) *Chemistry Challenge* activities delivered by teenage volunteers and staff; funded by the Camille and Henry Dreyfus Foundation
- Served as advisor and host site for NSF-funded PBS series *DragonflyTV Nano* produced by Twin Cities Public TV; worked closely with TPT staff and Cornell researchers to develop local episode on nano silver and pollution and a segment featuring a local scientist and business venture (completed 2009).
- Coordinated development and installation of exhibits including: waste reduction *Reinvention Station* (completed 2003), tobacco, integrated pest management (completed 2005), *Mars and Stars* astronomy gallery (completed 2006), and *Sagan Planet Walk* asteroids and meteorite station (completed 2009).

9/1996-1/2001 **Solano County, Environmental Management, Senior Planner,** Fairfield, CA (population: 400,000)
Served as lead staff member for 27-member task force coordinating regional solid waste, recycling, and hazardous waste programs and implementation of County Integrated Waste and Hazardous Waste Management Plans. Other projects focused on pollution prevention, air quality, watershed planning and restoration, creek and beach cleanups, marina and agricultural oil collection, stormwater runoff, wastewater pre-treatment, school field trip mini-grant programs, teacher professional development, electric mulching mower program, waste disposal and diversion data tracking, backyard composting workshops, compost bin distribution, and regional environmental education programs and events. Responsibilities included: budget preparation and management, contract development and oversight, grant writing and administration, preparation of written and oral reports, and collaborating with stakeholders. Responsible for land use planning and permitting for landfills, composting, recycling, biosolids, and other waste-related facilities. Developed content for first departmental website, member of committee that led to GIS conversion process for land use maps. Developed mobile traveling exhibits that toured community events and facilities year-round; hired and oversaw contractors to deliver educational programs. Collaborated with many statewide, Bay Area, and Sacramento Valley agencies to develop comprehensive services for residents and businesses.

8/1994-8/1996 **Division of Integrated Waste Management, Yolo County,** Public Works, CA (population: 175,000)
Job duties included: completion and submittal of County Integrated Waste Management Plan to the state, coordination of county-wide events and activities, production of newsletters and educational literature, development of content and coding for first departmental website, promotion and staffing of small quantity generator and household hazardous waste programs, grant writing and management, septic tank education program, compilation of waste disposal origin data, and waste diversion programs at county-owned landfill.

8/1991-9/1996 **Recycling Program, City of Davis,** Public Works, Davis, CA (population: 50,000)
Responsible for design and implementation of local programs, policies, and community education in solid waste, recycling, and business and household hazardous waste programs designed to meet state-mandated goal of 50% waste reduction by the year 2000. Developed educational literature, displays, videos, presentations, and website content and coding. Developed backyard composting workshops, compost demonstration garden, bulky waste drop-off programs, and business waste reduction programs. Community outreach with residents, apartment managers, businesses, institutions, and local community groups. Conducted waste audits, participated in waste generation studies, and compiled reports. Collaborated with interdepartmental team responsible for pollution prevention and environmental programs and outreach including weekly newspaper column. Program was awarded 1992 National Recycling Coalition Public Education Award and 1992 *City and State* Magazine Environmental Achievement Recycling Award.

CHRONOLOGICAL WORK EXPERIENCE continued

4/1991-1/1999 **Graduate Research: Public Participation and the Siting of Hazardous Waste Facilities,** UC Davis, CA
Conducted dissertation graduate research on the role of local citizen advisory panels in the siting of hazardous waste facilities in California. In an attempt to permitting of new hazardous waste facilities in California, the 1986 Tanner Act (Assembly Bill 2948) established procedures for siting treatment and disposal facilities for hazardous substances. This study focused on the effectiveness of the planning and public participation processes in reducing local opposition towards proposed facilities. Changes in the local community's perceptions of a project were measured with a variety of data collection methods including field observation, document review, and semi-structured interviews with participants, community leaders, and government officials. Set within the context of environmental justice, land use planning, policy analysis, public participation, and risk communication. Dissertation: *Testing the Tanner Act: Public Participation and the Reduction of Local Opposition in Siting Hazardous Waste Facilities in California*

9/1988-5/1993 **Graduate Research: Forest Service Decision-Making,** Div. of Environmental Studies, UC Davis, CA
Developed a content analysis database of planning documents and analyzed decision-making and planning in 44 National Forests. Designed and implemented a mail questionnaire survey focusing on the views of over 1,000 Forest Service agency personnel regarding planning processes and decision-making. Examined the relationships of formative, educational, and institutional socialization to attitudes and policy views. Research included conducting in-person interviews, mail questionnaires, extensive statistical analysis, and literature reviews. This research served as the backbone for my Master's thesis: *Policy Orientation and Role Attitudes of USDA Forest Service Planning Personnel*

1992-1993 **Resource Insights**, **Consultant,** Sacramento, CA
Subcontractor for variety of environmental consulting projects including wetlands mitigation, energy, and environmental impact reports.

5/1991-9/1991 **Science Technology and Public Policy Symposium Workshop, Proceedings Documenter,** Davis, CA
Helped organize a national 3-day symposium examining the status of science technology and society (STS) and science engineering and public policy (SEPP) graduate school programs. Facilitated sessions and was responsible for documenting and writing final proceedings and summary reports.

9/1989-6/1991 **Instructor; Course Organizer; Teaching Assistant,** UC Davis, Davis, CA
Responsible for preparing lectures, leading discussion sections, selecting readings, in-person teaching, grading, and advising students in a variety of subject materials related to environmental studies. Course organizer and designer for Environmental Dispute Resolution graduate seminar series. Instructor for Research Methods course on social science evaluation research methodologies and analysis tools for environmental science policy majors. Served as teaching assistant for: Principles of Environmental Studies, Applied Research Methods, Natural Resource Agency Behavior, and Concepts in Forestry.

9/1986-6/1988 **Graphics Office,** Dept. of Agricultural Engineering, Cornell U., Ithaca, New York
Collaborated with scientists to translate their research data into meaningful graphics for presentations, publications, and posters. Prepared charts, graphs, drawings, slides, blueprints, and signs. Range of duties included: manual and CAD drafting, computer graphics, manual and digital design and layout, photography, darkroom film development, slide production, writing and copyediting, and signage design and layout.

6/1986-8/1987 **The Sunnyside Foundation**, Intern, Sunnyside, New York
Organized community outreach and education programs. Worked on conservation easement, downtown revitalization, economic development, and open-space projects; served as youth program coordinator and administrator; newsletter coordinator and editor. Learned how to run a small nonprofit organization, how to write grant and budget proposals, sustain good community relations, and solve day-to-day problems. Worked with agencies on local, state, and federal levels to improve community services.

CHRONOLOGICAL WORK EXPERIENCE continued

5/1987-8/1987 **Soil and Water Lab,** Dept. of Agricultural Engineering, Cornell U., Ithaca, New York
Groundwater contamination research assistant in research lab: (1) analyzing the effectiveness and accuracy of suction lysimeters for determining pollutant concentrations, (2) tracing concentrations of Aldicarb pesticides in the field, and (3) studying the infiltration and flow patterns of water in layered porous material.

6/1985-1/1986 **The Sunnyside Gardens Conservancy**, Intern, Sunnyside, New York
Conducted a landscape inventory and created database; responsible for archival research, legal research, community outreach and development, neighborhood beautification, and historic preservation projects.

9/1985-5/1986 **News and Feature Service,** News Clerk, Cornell News Service, Cornell U., Ithaca, New York
Scanned newspapers for articles related to Cornell science research and outreach. Other responsibilities included proofreading, editing, writing, and filing.

VOLUNTEER EXPERIENCE / SERVICE

2001-present **Professional informal learning science activities:**
• Advisor for NSF-funded Scaling National Informal STEM Programs with NGC and EDC (2023-2024)
• Advisor for LEAP into Science: Engaging Diverse Community Partners in Science and Literacy (2017-18)
• Advisor for NSF-funded PBS series DragonflyTV Nano produced by Twin Cities Public TV (2008-2009)
• Reviewer for Journal of STEM Outreach (2018-2019) and Curator: The Museum Journal (2018-2019)
• Science Advisory Board member for WSKG Public TV/Radio (2016-2019)
• Grant proposal reviewer
Participate actively:
• Association of Science-Technology Centers (ASTC)
• Association of Children's Museums (ACM)
• NASA Museum & Informal Education Alliance (MIE)
• Center for Advancement of Informal Science Education (CAISE) (2009-2023)

2006-2011 **Cayuga Nature Center,** President, Board of Directors, Ithaca, NY.
Worked with staff, volunteers, and partners on initiatives including: strategic plan development, capital improvement planning and design process, planning outdoor art trail, grant writing and fund development. During this time the organization went through significant changes including: implementation of a reorganization, hiring a new executive director and staff, obtaining ownership of 100-acre main site, becoming steward and owner of 30-acre Smith Woods old growth forest, and a merger with Paleontological Research Institution (PRI) and the Museum of the Earth. Developed and fabricated exhibits and educational signage on a variety of environmental education topics designed to foster connections to the natural world.

2001-2005 **Fall Creek PTA**, PTA President (2003-2005), Publicity Chair (2001-2004)**,** Ithaca, NY.
Responsible for: event planning, fiscal management, fundraising, communication, and program development. Programs included monthly family night events and afterschool enrichment programs. Collaborated with volunteers, school administration, and community groups to achieve goals.

1991-1/2001 **Professional waste management and recycling associations:**
Held various positions in these organizations: organizing local chapter meetings, collaborating as host of several statewide and regional conferences, giving public presentations, working collaboratively on regional projects (air quality, wastewater, solid waste, hazardous waste), and legislative advocacy.
• California Resource Recovery Association (CRRA), Sacramento, CA
• California Household Hazardous Waste Information Exchange (HWWIE), Sacramento, CA
• National Association of Environmental Professionals, Northern California Chapter
• Women in Waste, Sacramento Chapter

1994-1/2001 **Muir Commons Co-housing community**, resident/various committee positions**,** Davis, CA.
First co-housing community built in United States. Lived in a consensus-based, planned community. Member of coordination and meeting facilitation committees and newsletter editor.

1999-1/2001 **Bay Area Hazardous Waste Allocation Committee,** Solano County representative, San Francisco, CA
Working with regional group on hazardous waste identification and reduction and pollution prevention including green business recognition programs and regional public and business education campaigns.

1990-1994 **Graduate Group in Ecology**, various committee positions, UC Davis, Davis, CA.
Served as member of Executive Committee, student admissions committee, faculty selection committee, curriculum committee for Environmental Policy Area of Emphasis; developed student and faculty surveys, worked collaboratively on changing curriculum standards and design of core graduate student courses.

9/1988-6/94 **Ecology Graduate Students Association**, Executive Officer, UC Davis, Davis, CA.
Coordinated group activities, promoted student-faculty interaction, event and symposium planning, and responsible for administrative duties. Represented 250 graduate students to the Graduate Group in Ecology Executive Committee, graduate admissions committee, the UC Davis administration, and the Yolo Environmental Resource Center.

VOLUNTEER EXPERIENCE / SERVICE continued

1999-2001 **Putah Creek Council**, volunteer, Davis, CA
Water rights and watershed restoration nonprofit group; active in habitat restoration, planting projects, removal of invasive species, assisted with obtaining funding and volunteers for creek cleanups.

6/1991-2/1993 **Yolo Environmental Resource Center,** founding member Board of Directors, Davis, CA
Responsibilities included personnel and fiscal management, strategic planning, publicity, community outreach, fundraising, grant writing, newsletter production, intern and volunteer supervision, management of paid staff, and coordination of facility. The Center was a nonprofit, nonpartisan umbrella group for fifteen local organizations which cooperatively advocated environmental protection, conservation, and education.

10/1988-6/1991 **Davis Food Co-op,** Food Politics Committee Chair, Davis, CA.
Responsible for developing un-biased informative educational materials for Co-op members regarding food production, processing, and packaging. Worked within a cooperative structure committed to promoting environmental quality and local food.

11/1988-6/1991 **Earth Day Steering Committee,** UC Davis student representative, Davis, CA
Worked alongside other members of the Davis community to plan events for the month surrounding Earth Day. Co-Chair of the Long Term Projects Sub-Committee which wrote a successful proposal and business plan and raised funds for the establishment of the Yolo Environmental Resource Center.

1/1987-6/1988 **Ithaca Recycles Task Force,** Member, Ithaca, New York
Participated in committee to design and implement City's mandatory recycling program. Designed brochure, researched similar municipal recycling programs, and organized support within the community.

9/1986-6/1988 **Ujamaa Residential College,** Co-Chair Lecture Series and Films Committee & resident, Ithaca, NY.
Chaired committee which organized several lectures, panel discussions, or films per month; speakers and participants included Native Americans, African Americans, Latinos, and Asian Americans. Learned to effectively manage a small group of diverse people with limited resources. Ujamaa is a Swahili word for cooperative economics; the dormitory was created to learn from diverse ethnic and cultural backgrounds.

9/1986-6/1988 **American Society of Agricultural Engineers, Cornell Branch,** Publicity Chair, Ithaca, NY.
Planned group's activities, averaging one speaker and one field trip per month. Served as a representative of the Cornell student branch to the national association.

OTHER TRAINING and CERTIFICATIONS

- Nonprofit management: strategic planning, board governance, development, fundraising, human resources
- Research and grant administration: grant writing, grant reporting, human subjects research training
- Website: content management and technical services website management (HTML, Drupal, WordPress)
- Exhibit development: iterative prototype testing, label writing, formative evaluation
- Graphics: graphic design, layout, web design, desktop publishing
- NNOCCI climate change communication (2022)
- Environmental management: wastewater, pollution prevention, waste management and safety including: Household Hazardous Waste Operations Training (1998), Hazardous Waste OSHA Health & Safety Training (1998), Hazardous Materials Community Awareness & Emergency Response Training (1993)
- Communication and meeting facilitation including: Community Mediation Training, 1994, Environmental Dispute Facilitation Training, 1992, meeting facilitation
- First Aid: First Aid, Adult & Child CPR & AED, last renewed 2005

AWARDS and RECOGNITION

Solano County Board of Supervisors, Resolution of Honor for Dedicated Service, Fairfield, CA, 2001
Solano County Environmental Management, *Star Performer* employee award, Fairfield, CA, 2000
Solano County Local Task Force for Integrated Waste Management, Dedicated Service, Fairfield, CA, 2000
VALCORE Recycling, Recognition award, Vallejo, CA, 1998
VALCORE Recycling, *#1 Supporter* award, Vallejo, CA, 1997
UC Davis Graduate Group in Ecology, Appreciation for Dedicated Service, Davis, CA, 1994
Yolo County Environmental Resource Center, Appreciation for Service, Davis, CA, 1993
City of Davis Recycling Program awarded National Recycling Coalition Public Education Award, 1992
City of Davis Recycling Program awarded *City and State* Environmental Achievement Award, 1992
UC Davis Chancellor, Community Service Award, 1992
W. Keith Kennedy, Cornell Tradition Fellow, Ithaca, NY, 1985-1988

GRADUATE ADVISORS

PhD Dissertation Advisors

Testing the Tanner Act: Public Participation and the Reduction of Local Opposition in Siting Hazardous Waste Facilities in California (1999)
Themes: public participation, environmental justice, land use planning, policy analysis and planning, science communication, risk communication, hazardous waste management,
• Paul P. Craig, (PhD Caltech) Applied Science, UC Davis, *deceased*
• Seymour I. Schwartz, (PhD USC) Environmental Science and Policy, UC Davis, *deceased*
• Bruce Hackett, (PhD UC Berkeley) Sociology, organizational and technology, UC Davis, *deceased*

MS Thesis Advisors

Policy Orientation and Role Attitudes of USDA Forest Service Planning Personnel (1990)
Themes: policy analysis and planning, land use planning, forest management, public participation, public participation, environmental justice, land use planning, policy analysis and
• Paul Sabatier, (PhD U. Chicago) Environmental Science and Policy, UC Davis, *deceased*
• John Loomis, (PhD Colorado SU) Agricultural and Resource Economics, Colorado SU *emeritus*
• Gloria Helfand, (PhD UC Berkeley) School of Natural Resources & Environment, U Michigan

EDUCATIONAL PRODUCTS

Served as a member of each of these collaborative teams that created and disseminated these public engagement and professional learning products:

- NISE Network website (2009-present)
  - funded by multiple sources
  - website for informal science educators and scientists: http://www.nisenet.org
- *STEM Learning Ecosystems professional learning materials*
  - funded by NASA ($4,598,797) #80NSSC21M0007 (1/2021-12/2025)
  - https://www.nisenet.org/stem-learning-ecosystems
- *Sparking Interest in STEM Among Hispanic Learners Nationwide*
  - funded by NASA ($799,981) #80NSSC22M0100 (3/2022-3/2026) (co-I) *(forthcoming)*
  - https://www.nisenet.org/hispaniccommunities
- *Engaging Hispanic Communities in NASA Science (forthcoming)*
  - funded by NASA ($4,922,818) #80NSSC22M0122 (5/2022-4/2026)
  - https://www.nisenet.org/hispaniccommunities
- *Build a Human Habitat on Mars* exhibit (2023) (PI, co-I)
  - funded by NASA ($1,000,000) #80NSSC20M0030
  - https://www.nisenet.org/mars-habitat-project
- *Voyage through the Solar System* kit (2023)
  - funded by NASA #80NSSC21M0082
  - https://www.nisenet.org/solarsystem-kit
- *Changing Brains* activities (2023)
  - funded by the Dana Foundation and The Kavli Foundation
  - https://www.nisenet.org/brain
- *Sustainability in Science Museums (professional development materials)*
  - funded by IMLS #MG-245910-OMS-20 (2020-2022)
  - https://www.nisenet.org/sustainability
- *Moon Adventure Game* (2020)
  - Moon and Beyond Immersive Game for STEM Learning (2019-2021)
  - funded by NASA ($745,582) #80NSSC18K1219
  - https://www.nisenet.org/moongame
- *Sun, Earth, Universe* exhibition (2018)
  - Space & Earth Informal STEM Education (SEISE) project (2016-2020)
  - funded by NASA ($14.5 million) #80NSSC18M0061 & #NNX16AC67A
  - http://www.nisenet.org/catalog/sun-earth-universe-exhibition
- *Explore Science: Earth & Space* toolkits (2017-2020)
  - Space & Earth Informal STEM Education (SEISE) project (2016-2020) (co-I)
  - funded by NASA ($14.5 million) #80NSSC18M0061 & #NNX16AC67A)
  - http://www.nisenet.org/earthspacekit
- *Frankenstein 200* kits (2018)
  - Increasing Learning and Efficacy about Emerging Technologies through Transmedia Engagement by the Public in Science-in-Society Activities
  - funded by NSF AISL #1516684 (2005-2018)
  - http://www.nisenet.org/frankensteinkit
- *Explore Science: Let's Do Chemistry* kits (2018)
  - ChemAttitudes: Using Design-Based Research to Develop and Disseminate Strategies and Materials to Support Chemistry Interest, Relevance, and Self-Efficacy (2016-2021)
  - funded by NSF AISL ($2,634,708) #1612482) (10/16-9/19
  - http://www.nisenet.org/chemistry-kit

EDUCATIONAL PRODUCTS continued

- *Building with Biology* kits (2016)
  - Multi-site Public Engagement with Science - Synthetic Biology (2014-2018)
  - funded by NSF ($2,288,713) #1421179 (10/14-9/18)
  - http://www.nisenet.org/building-with-biology
- *SustainABLE* kits
  - Sustainability in Science Museums (2016-2017, 2019-2020)
  - funded by Walton Sustainability Solutions Initiatives at ASU
  - http://www.nisenet.org/sustainability
- Museum & Community Partnership *Explore Science*: *Zoom into Nano* kits (2016) NISE Network
  - funded by NSF ($40 million) #0532536 and 0940143
  - http://www.nisenet.org/museum-community-partnerships
- *NanoDays* kits (2008-2015) NISE Network
  - funded by NSF ($41,741,754) #0532536 and 0940143 (9/10-2/17)
  - http://www.nisenet.org/nanodays
- *Nano* mini-exhibition (2011) Science Museum of Minnesota, NISE Network
  - funded by NSF ($41,741,754) #0532536 and 0940143 (9/10-2/17)
  - http://www.nisenet.org/catalog/exhibits/nano_mini-exhibition
- *NanoLab* exhibit (2009) Sciencenter
  - funded by NSF ($41,741,754) #0532536 and 0940143 (9/10-2/17)
  - http://www.nisenet.org/catalog/exhibits/nanolab
- *Sagan Planet Walk* Asteroids and Meteorite Station and educational materials (2009) Sciencenter
  - funded by NASA/NY Space Grant Consortium, multiple local agencies and sponsors
  - http://www.sciencenter.org/sagan-walk.html
- *Mars and Stars* exhibition (2006) Sciencenter
  - funded by multiple sources including NASA/NY Space Grant Consortium, two NASA EPO grants, and the Space Telescope Science Institute
  - http://www.sciencenter.org/exhibits.html
- *Chemistry Challenge* activities and programs (2004) Sciencenter
  - funded by the Camille and Henry Dreyfus Foundation
  - http://www.sciencenter.org/resources.html
- *Zoom into Nano* (formerly *Too Small to See*) traveling exhibition (2006) Sciencenter
  - funded by NSF ($1.8 million) #0426378
  - http://www.sciencenter.org/zoom-into-nano.html
- *It's a Nano World* traveling exhibition (2003) Sciencenter
  - funded by NSF ($0.7 million)
  - http://www.sciencenter.org/nano-world.html

PUBLICATIONS

Chambers, L. et al. (*forthcoming)* Uniting Under the Eclipse: A Mega-Collaboration to Activate Science Learning Across the Penumbra and Beyond, *Bulletin of the AAS.*

Kollmann, E. K., Atwood, A., Anderson, A., Ostman, R., Bledsoe, K. L., Buffington, C., Cass, M., DeLisi, J., Jackson, A., Leavell, C., Mannis, K., Martin, P., McCarthy, C., Neff, R., Peake, L., Sparrow, E. B. (2025). Implementing Culturally Responsive Evaluation Methods: Reflections on Challenges to Traditional Understandings of Power, Validity, and Rigor. *Visitor Studies,* 1-21. https://doi.org/10.1080/10645578.2025.2494485

McCarthy, C., Krakowski, A., Lindsey, R., & Porcello, D. (2024). Hi AI! Playful Early Encounters with Artificial Intelligence. *Hand to Hand*, *37*(1), 12-18, Association of Children's Museums. https://www.nisenet.org/catalog/hi-ai-playful-early-encounters-artificial-intelligence-publication

McCarthy, C., Leavell, C., Jackson, A., & Porcello, D. (2024). Preparing Museum and Science Center Educators to Engage the Public across the United States for the 2017, 2023, and 2024 Solar Eclipses. *Bulletin of the AAS, 56*(3). https://doi.org/10.3847/25c2cfeb.84ce9019

McCarthy, C., and Leavell, C. (2023), *Build a Human Habitat on Mars: Survive and Thrive Exhibit Museum Educator & Promotion Guide,* NISE Network, 38pp, https://nisenet.org/marshabitat

McCarthy, C. and D. Porcello (2021). *Working with STEM Experts: A Guide for Educators in Museums and Other Informal Learning Settings*. NISE Network: Arizona State University. https://www.nisenet.org/working-with-experts

McCarthy, C. and A. Jackson (2019) "Engaging Museum and Science Center Audiences Across the United States During the 2017 Solar Eclipse" pages 313-320 in *Celebrating the 2017 Great American Eclipse: Lessons Learned from the Path of Totality*, edited by Sanlyn R. Buxner, Linda Shore, and Joseph B. Jensen. ASP Conference Series, Volume 516, Astronomical Society of the Pacific, San Francisco.

McCarthy, C., and Leavell, C. (2020), *Moon Adventure Game Guide,* NISE Network, 95pp, https://nisenet.org/moonadventuregame

McCarthy, C., Leavell, C., and NISE Network Exhibits Team Members (2019), *Sun, Earth, Universe Exhibition Host Resources Guide,* NISE Network, http://www.nisenet.org/catalog/sun-earth-universe-exhibition

Porcello, D, C. McCarthy, and R. Ostman (2017), *Gaming and the NISE Network: A Gameful Approach to STEM Learning Experiences,* NISE Network, http://www.nisenet.org/catalog/gaming-guide

McCarthy, C. and B. Herring (2016) *Museum & Community Partnerships: Collaboration Guide for museums working with community youth-serving organizations*, NISE Network, http://www.nisenet.org/collaboration-guide

Ostman, R. and C. McCarthy (2015) *Nano:* Creating an Exhibition that is Inclusive of Multiple and Diverse Audiences**,** *Exhibitionist (Fall 2015) Vol. 34 No. 2, pages 34-39.*

C. McCarthy with NISE Network exhibits team members (2011), *Nano Exhibition Host Resources Guide,* NISE Network, http://www.nisenet.org/catalog/sun-earth-universe-exhibition

McCarthy, C. (2008) Nanotechnology Exhibits . . . for Kids?, *ASTC Dimensions*, January/February.

PUBLICATIONS continued

McCarthy, C., R. Ostman, E. Maletz, and S. Hale (2008) *How Small is Nano?: Measuring Different Things,* Sciencenter, Ithaca, NY, available at www.lulu.com, ISBN-10: 0578001977, ISBN-13: 978-0578001975.

Ostman, R., C. McCarthy, E. Maletz, and S. Hale (2008)) *Is That Robot Real?: How Small Can Robots Be?,* Sciencenter, Ithaca, NY, available at www.lulu.com, ISBN-10: 0578001969, ISBN-13: 978-0578001968

McCarthy, C. (1999) *Testing the Tanner Act: Public Participation and the Reduction of Local Opposition in Siting Hazardous Waste Facilities in California,* University of California Davis, Doctor of Philosophy Dissertation, 918p.

Sabatier, P., J. Loomis, and C. McCarthy (1996) Policy Attitudes and Decisions within the Forest Service: Is There a Connection? *Journal of Forestry,* 94 (1): 42-46.

McCarthy, C. (1995) Book Review: Hird, John A. Superfund: The Political Economy of Environmental Risk. *Society and Natural Resources,* 8 (6): 577-578.

Sabatier, P., J. Loomis, and C. McCarthy (1995) Hierarchical Controls, Professional Norms, Local Constituencies, and Budget Maximization: An Analysis of United States Forest Service Planning Decisions, *American Journal of Political Science,* 39 (1): 204-242.

McCarthy, C. (1994) Socialization and the Policy Views of USDA Forest Service Planning Personnel, *Environmental Professional,* 16 (4): 314-326.

McCarthy, C., P. Sabatier, and J. Loomis (1991) Attitudinal Change in the Forest Service: 1960-1990, Annual Meeting of the Western Political Science Association, Seattle, 21-24 March, 1991. *(Accepted in 1994 by Society and Natural Resources Journal but not published).*

Glasser, H., P. Craig, and C. McCarthy (1991) *Proceedings of the Integrated Technology and Public Policy Workshop,* sponsored by the University of California Toxic Substances Research and Teaching Program, UC Davis, 31 May - 2 June 1991.

McCarthy, C. (1991) Gender and Policy Orientation in the USDA Forest Service, *(unpublished manuscript)*

McCarthy, C. (1990) *Policy Orientation and Role Attitudes of USDA Forest Service Planning Personnel,* University of California Davis, Master of Science Thesis, 280p.

Pimentel, D., M. Hunter, J. LaGro, R. Efroymson, J. Landers, F. Mervis, C. McCarthy, and A. Boyd (1989) Benefits and Risks of Genetic Engineering in Agriculture, *BioScience,* 39 (9): 606-614.

PRESENTATIONS & POSTERS

McCarthy, C. (2025) “The Power of Networks to Increase Capacity of informal Science Educators to Engage Local Communities: An Example of the National Informal STEM Education Network (NISE Network),” poster, The National Academies of Sciences, Engineering, and Medicine (NASEM) Convocation on the Status of Informal Science and Engineering Education, 2025 (Washington, DC).

McCarthy, C. (2025) “Introduction to STEM Learning Ecosystems,” in Uplifting Community Priorities: Museums and Connected Learning Ecosystems, Museum Association of New York (MANY) Conference, 2025 (Ithaca, NY), co-presenters: Emily Belle, Sciencenter, Ithaca, NY; Alanna Dolan, RMSC Cumming Nature Center, Naples, NY; Jacob Baldwin, Coordinator, Children's Museum at Saratoga, Saratoga, NY.

McCarthy, C. (2024) “AI ASAP: How to Amplify Existing Hands-On Activities to Start Sharing AI Concepts with Learners,” ASTC Conference, 2024 (Chicago), co-presenters: Christina Leavell, Arizona State University, Tempe, AZ; Darrell Porcello, Children's Creativity Museum, San Francisco, CA; Keith Ostfeld, Children's Museum of Houston, Texas; James Harold, Space Science Institute, Boulder, CO; Anne Holland, Space Science Institute, Boulder CO.

McCarthy, C. (2024) “How Can Children's Museums Participate in STEM Learning Ecosystems,” Association of Children’s Museums Interactivity Conference, 2024 (Madison, WI), co-presenters: Allison Anderson, Museum of Science, Boston, MA; KT Todd, Children’s Museum of Pittsburgh, Pittsburgh, PA; Ali Jackson, Sciencenter, Ithaca, NY; Lynnsey Childress-Wimp, Discovery Lab, Tulsa, OK

McCarthy, C. (2024) “Hi AI! Playful Early Encounters with Artificial Intelligence,” Association of Children’s Museums Interactivity Conference, 2024 (Madison, WI), co-presenters: Darrell Porcello, PhD, Children’s Creativity Museum, San Francisco, CA; Ari Krakowski, Lawrence Hall of Science, Berkeley, CA; Chip Lindsey, Discovery Lab, Tulsa, OK

McCarthy, C. (2023) “Solar Eclipse: Choose Your Own Adventure,” ASTC Conference, 2023 (Charlotte), co-presenters: Carolyn Ng, NASA Goddard Space Flight Center, MD; Anne Holland, Space Science Institute, Boulder, CO; James Harold, Space Science Institute, Boulder, CO; Laura Peticolas, Sonoma State University, Santa Rosa, CA; Dennis Schatz, National Science Teaching Association; Darrell Porcello, Children's Creativity Museum, San Francisco, CA

McCarthy, C. (2022) “The Village It Takes: Utilizing Community Expertise to Better Engage Audiences,” Association of Children’s Museums Interactivity Conference, 2022 (Saint Louis), co-presenters: Ali Jackson, Sciencenter, Ithaca, NY; Barbara Knoss, Director: Education & Volunteers, Cape Cod Museum of Natural History, Brewster, MA; Erin Wiese-Reichert, Early Childhood Educator, Children's Discovery Museum, Normal, IL; Tara Henderson, Director of Education and Visitor Services, Explora, Albuquerque, NM

McCarthy, C. (2022) “The Long Game: Using Games to Transform Science Center Experiences,” poster, ASTC Conference 2022, (Pittsburgh) co-presenters: Jeannie Colton, Arizona State University, Tempe, AZ; Max Cawley, Museum of Life and Science, Durham, NC

McCarthy, C. (2021) “Reigniting Science: finding and collaborating with STEM experts,” ASTC Conference 2021, (Virtual), co-presenters: Darrell Porcello, Children's Creativity Museum and Christina Leavell, Science Museum of Minnesota

PRESENTATIONS & POSTERS continued

McCarthy, C. (2019) "Partnerships in unusual places (places of worship, prisons, the beach, and canoes): Best practices, strategies, and resources for local partnerships," NISE Network Earth & Space Partner Meeting, 2019 (Tempe), co-presenters: Alan Brown, Sci-Port Discovery Center, Shreveport, LA, Charlie Gibson, Michigan Science Center, Detroit, MI, Derrick Pitts, The Franklin Institute, Philadelphia, PA, Samantha Sands, Denver Museum of Nature & Science, Denver, CO

McCarthy, C. (2019) "Collaboration and Professional Development: How to prepare and train event volunteers and staff," NISE Network Earth & Space Partner Meeting, 2019 (Tempe), co-presenters: Emily Belle, Sciencenter, Ithaca, NY, Alex Dour, Orpheum Children's Museum, Champaign, IL, Susan Heilman, Museum of Science, Boston, MA, Meghan Murray, Above & Beyond Children's Museum, Sheboygan, WI, and Calvin Uzelmeier, Rochester Museum & Science Center (RMSC), Rochester, NY

McCarthy, C. (2019) "STEM Celebrations! Moon landings, Earth Day 50th anniversary, International Year of Periodic Table, Solar Eclipses" poster ASTC Conference, 2019 (Toronto), co-presenters: Meghan Curry, Executive Director, Insights El Paso, Michele Kloda, Museum of Life and Science, Amelia Chapman, Propulsion Laboratory, Christina Carlson, Science Beyond the Boundaries, Saint Louis Science Center

McCarthy, C. (2019) "Bringing chemists and chemistry experiments into your museum and out into your community" ASTC Conference, 2019 (Toronto), co-presenters: Darrell Porcello, Children's Creativity Museum, Soma Chatterji, Carnegie Science Center, Emily Belle, Sciencenter, Patricia Galvan, American Chemical Society

McCarthy, C. (2019) "Fear Less! Bringing Chemists and Chemistry Experiments into Your Museum" Association of Children's Museums Interactivity Conference, 2019 (Denver) Co-presenters: Barb McMillin, The Children's Museum in Oak Lawn, Gini Philipp, WOW! Children's Museum, Frank Kusiak, The Lawrence Hall of Science

McCarthy, C. (2019) "Museums collaborating with chemists on public outreach events nationwide using Explore Science: Let's Do Chemistry kit activities" poster, American Chemical Society, March 2019 (Orlando, Florida)

McCarthy, C. (2019) "Museums collaborating with chemists on public outreach events nationwide using Explore Science: Let's Do Chemistry kit activities," American Chemical Society, March 2019 (Orlando, Florida)

McCarthy, C. (2019) Museum – Chemist Collaborations with Explore Science: Let's Do Chemistry kits at 250 events in the United States" American Chemical Society, March 2019 (Orlando, Florida)

McCarthy, C. (2018) "Space and Earth Informal STEM Education" poster, Southeast Planetarium Association (SEPA), 2018, (Memphis, TN)

McCarthy, C. (2018) "From Thin Mints to Thin Films: Museum Partnerships Engaging the Girl Scouts in STEM Education" ASTC Conference, 2018 (Hartford, CT) co-presenters: Pamela Harman, SETI Institute, Joelle Adolfi, Rochester Museum & Science Center, Kristen Martin, The Tech Museum of Innovation

PRESENTATIONS & POSTERS continued

McCarthy, C. (2018) “Bringing Science Experts into Your Museum – Why, How, and Wow!” Association of Children’s Museums Interactivity Conference, 2018 (Raleigh) co-presenters: Michelle Kortenaar, Sciencenter, Christina Leavell, Science Museum of Minnesota, Becky Wolfe, The Children’s Museum of Indianapolis, Celeste Kathleen, Marbles Kids Museum

McCarthy, C. (2017) “STEM Community Partnerships: Strategies and Resources for Developing Collaborations and Reaching New Audiences” ASTC Conference, 2017 (San Jose) co-presenters: Rae Ostman, ASU, Brad Herring, Museum of Life + Science, Ali Jackson, Sciencenter, Keith Ostfeld, Children's Museum of Houston, Elizabeth Kollmann, Museum of Science

McCarthy, C. (2017) “Engaging All Learners: Partnerships and Programs to Reach Diverse Audiences” Association of Children’s Museums Interactivity Conference, 2017 (Pasadena) co-presenters: Rae Ostman, Arizona State University, Kathleen Lawson, Arkansas Discovery Network, Keith Ostfeld, Children’s Museum of Houston Nora Thompson, Port Discovery Children's Museum, Don Riefler, Children’s Museum of Indianapolis

McCarthy, C. (2016) “New National Collaborative Network Provides Opportunities for U.S. Museums and Science Centers Around STEM Topics” ASTC Conference, 2016 (Tampa, FL) co-presenters: Paul Martin, Science Museum of Minnesota, Larry Bell, Museum of Science, Rae Ostman, Arizona State University

McCarthy, C. (2016) “Tools for Collaboration: Increasing Your Museum’s Local Impact Through Partnerships” Association of Children’s Museums Interactivity Conference, 2016 (Connecticut) Co-presenters: Brad Herring, Museum of Life + Science, Ali Jackson, Sciencenter, Rae Ostman, PhD, Science Museum of Minnesota

McCarthy, C. (2016) “Museums and Community Partnerships: Leveraging Resources and Increasing Impact” Association of Children’s Museums Interactivity Conference, 2016 (Connecticut) Co-presenters: Rae Ostman, Science Museum of Minnesota, Melissa Ballard, Afterschool Alliance, Karen Peterson, National Girls Collaborative Project, Keith Ostfeld, Children’s Museum of Houston

McCarthy, C. (2015) “Activities and Techniques for Synbio Engagement: Promoting conversations around synthetic biology between scientists and publics,” ASTC Conference, October 2015 (Montreal), co-presenters: Larry Bell, Museum of Science, Jayatri Das, The Franklin Institute, Michelle Kortenaar, Sciencenter, Elizabeth Kollmann, Museum of Science, David Sittenfeld, Museum of Science, Jeanne Braha, American Association for the Advancement of Science, Ali Jackson, Sciencenter

McCarthy, C. (2015) “Great Science in Small Packages: Successful approaches to development and fabrication of science activity kits,” ASTC Conference, October 2015 (Montreal), co-presenters: Kurt Huffman, COSI, Jayatri Das, The Franklin Institute, Ali Jackson, Sciencenter

McCarthy, C. (2015) “Recreate the Wheel? Aint Nobody Got Time For That!” ASTC Conference, October 2015 (Montreal), RaeAnn Fox, Arizona Science Center, Jonathan Barnes, Morehead Planetarium and Science Center, Jeff Bassett, Discovery Place, Inc., Amanda Fisher, Oregon Museum of Science and Industry, Frieda Smith, Saint Louis Science Center, Dana Semos, Wagner Free Institute of Science

PRESENTATIONS & POSTERS continued

McCarthy, C. (2015) "Creating exhibit components, signage, and media in conjunction with the Nano mini-exhibition," NISE Network 2015 Network-Wide Meeting, June 2015 (Saint Paul), co-presenters: Idalia Ramos, University of Puerto Rico at Humacao, Anji McStravic, Imaginarium Science Center, Jessica Enloe Murphy, Golisano Children's Museum of Naples, Kelli Isenhour, SciWorks, Michael Rathbun, Discovery Center Museum, Paul Freiling, Saint Louis Science Center, Saint Louis, MO

McCarthy, C. (2015) "A conversation with museum and exhibit directors about future opportunities for mini-exhibitions on other STEM topics," NISE Network 2015 Network-Wide Meeting, June 2015 (Saint Paul), co-presenters: Rae Ostman, Arizona State University, Paul Martin, Science Museum of Minnesota, Larry Bell, Museum of Science, Boston, MA

McCarthy, C. (2015) "Great Ideas for Planning and Hosting Special Events," Association of Children's Museums Interactivity Conference, May 2015 (Indianapolis), co-presenters: Michelle Kortenaar, Sciencenter, Liz Leahey, The Discovery Museums, Becky Wolfe, The Children's Museum of Indianapolis, Juliet Gray Moliere, Brooklyn Children's Museum, Aaron Guerrero, Children's Museum of Houston, Ali Jackson, Sciencenter, Brad Herring, Museum of Life and Science

McCarthy, C. (2014) "Strategies for Creating Current Science Exhibits," ASTC Conference, October 2014, (Raleigh), co-presenters: Mary Olson, Pacific Science Center, Andrew Lloyd, International Centre for Life, William Katzman, LIG, Becca Hatheway, National Center for Atmospheric Research/UCAR

McCarthy, C. (2014) "Collaborations: How to Fulfill Dreams and Avoid Nightmares," Association of Children's Museums Interactivity Conference, May 2014 (Phoenix), co-presenters: Sari Custer, Arizona Science Center. Sam Dean, Amazeum, Keith Ostfeld, Children's Museum of Houston, Betsy Loring, EcoTarium, Jennifer Rei Cameron, Arizona Science Center

McCarthy, C. (2013) "Innovative Collaborative Development and Sharing of Educational Resources Online," Materials Research Society, 2013 MRS Fall Meeting, December 2013 (Boston)

McCarthy, C. (2013) "Small Spaces: Creating Intimate Visitor Experiences," ASTC Conference, October 2013 (Albuquerque), co-presenters: Neil Gordon, The Discovery Museums, Paul Martin, Science Museum of Minnesota, Kristofer Kelly, Telus Spark, Roy Griffiths, Museum of Life and Science

McCarthy, C. (2013) "Mini-Grants: Doing a Lot with Just a Little," ASTC Conference, October 2013 (Albuquerque), co-presenters: Karen Peterson, National Girls Collaborative Project, Chip Lindsey, ScienceWorks Hands-On Museum Heather Armstrong, University of New Mexico, Mike Rathbun, Discovery Center Museum, Kimberly Hanson, Las Cruces Museum of Natural History, Christi Whitworth, Pisgah Astronomical Research Institute, Lisa Chappa, Informal Science Learning Associates

McCarthy, C. (2013) "Engaging young children in emerging science --sharing our experiences with nanoscience," Association of Children's Museums Interactivity Conference, May 2013 (Pittsburgh), co-presenters: Hardin Engelhardt, Marbles Kids Museum, Kathy Fournier, McWane Science Center, Denise LeBlanc, Discovery Museums, Nora Moynihan, Port Discovery Children's Museum, Shannon Johnson, Creative Discovery Museum, CoCo Tarantal, Children's Museum of Tucson, Ali Jackson, Sciencenter, Paul Martin, Science Museum of Minnesota, Aaron Guerrero, Children's Museum of Houston

PRESENTATIONS & POSTERS continued

McCarthy, C. (2012) "Creating Nano Exhibits and Self-Guided Visitor Experiences," NISE Net Network-Wide Meeting, December 2012 (Boston), co-presenters: Sarah Heath, Imaginarium Science Center, James Owens, Headwaters Science Center, Douglas Borzynski, Buffalo Museum of Science, Paul Freiling, Saint Louis Science Center, Victoria Scalise, Palouse Discovery Science Center

McCarthy, C. (2012) "Museums and Scientists Engaging Public Audiences throughout the United States with the Nano Mini-exhibition," Materials Research Society, 2012 MRS Fall Meeting, December 2012 (Boston), co-presenter: Paul Martin, Science Museum of Minnesota

McCarthy, C. (2012) "Adding Unfamiliar Current Research to Science Museums," ASTC Conference, October 2012 (Columbus), co-presenters: Larry Bell, Christine Reich and Eli Bossin, Museum of Science, Paul Martin, Science Museum of Minnesota, Rae Ostman, Sciencenter.
"Innovative Collaborative Development and Sharing of Educational Resources Online," ASTC Conference, Baltimore, October 2011, co-presenters: Darrell Porcello, Lawrence Hall of Science, Jim Spadaccini, Ideum.

McCarthy, C. (2011) "Mini-exhibitions - Challenge of Creating Fun, Interactive Exhibitions in a Small Footprint," Association of Children's Museums Interactivity Conference, May 2011, Houston, co-presenters: Rae Ostman, Sciencenter, Mike Yankovich, Children's Museum of Denver, Lindy Hoyer, Omaha Children's Museum, Paul Martin, Science Museum of Minnesota.

McCarthy, C. (2011) "Big Thoughts about Super-Small: Nano in Children's Museums," May 2011 (Houston) and May 2010 (Saint Paul), Association of Children's Museums Interactivity Conference pre-conference workshops, co-presenters: Keith Ostfeld, Children's Museum of Houston, Rae Ostman, Sciencenter, Paul Martin, Science Museum of Minnesota.

McCarthy, C. (2009) "Innovative Ways to Connect: University, Museum and Public Partnerships for Nanoscience and Materials Education." Materials Research Society Fall Meeting, Boston, November 2009. Co-presenters: Keith Ostfeld, Children's Museum of Houston; Michael Rathbun, Discovery Center Museum, Shenda Baker, Harvey Mudd College, Andrew Greenburg, UW Madison, Carol Lynn Alpert, Museum of Science, Jayatri Das, Franklin Institute, and Rae Ostman, Sciencenter.

McCarthy, C. (2009) "Science Alliance: Advancing Science communication by Bridging Diverse Organizations." ASTC Conference, San Francisco September 2009. Co-presenters: Richard Hudson, Twin Cities Public TV, Anders Liljeholm, OMSI, Rae Ostman, Sciencenter.

McCarthy, C. (2009) "Designing Nano Education Materials for Young Audiences." NISE Network Annual Meeting, San Francisco September, 2009. Co-presenters, Keith Ostfeld and Krystal Willeby, Children's Museum of Houston.

McCarthy, C. (2009) "Making Nano Relevant: Programs and Exhibits about Energy and Environment." NISE Network Annual Meeting, San Francisco, September 2009. Co-presenters, David Sittenfeld and Karine Thate, Museum of Science, Richard Hudson and Lisa Regalla, Twin Cities Public TV, Jayatri Das, Franklin Institute, Todd Kehoe, OMSI, Paul Martin, Science Museum of Minnesota.

McCarthy, C. (2006, 2007,2008) Public outreach in nanoscale science, engineering, and technology presentations, Cornell Nanobiotechnology Center Annual Symposiums, 2002-2008. Co-presenters: Rae Ostman and Steve Hale, Sciencenter (2006-2008)

PRESENTATIONS & POSTERS continued

McCarthy, C. (2006, 2007, 2008) Nanoscale science, engineering, and technology outreach presentations, Cornell Nanoscale Facility Annual Meeting, 2006, 2007, and 2008. Co-presenters: Rae Ostman and Steve Hale, Sciencenter.

McCarthy, C. (2008) “Nanoscale science, engineering, and technology outreach.” Innovations in Nanotechnology for Cancer Research," Cornell University, 2008. Co-presenter with R. Ostman and S. Hale.

McCarthy, C. (2008) “Museum Exhibit Collaboratives: Dreams and Nightmares.” ASTC Annual Conference, 2008 Philadelphia. Session Organizer. Co-presenters: Alexander Goldowsky, EcoTarium, Lara Kimber, Sciencenter, Diane LaFollette, Arkansas Discovery Network, and Vicki Coats, OMSI.

McCarthy, C. (2008) “(Math + science) x play = museum fun!” Association of Children's Museums Interactivity Conference, 2008, Denver. Co-presenters: Rae Ostman, Sciencenter and Marcos Stafne, NY Hall of Science.

McCarthy, C. (2006, 2007) Network Expansion and Exhibits presentations, NISE Network Annual Meetings, 2006, 2007.

McCarthy, C. (2007) “Hosting Museum Exhibitions in Unusual Places.” ASTC Annual Conference 2007 Los Angeles. Session Organizer. Co-presenters: Kathy Krafft, Sciencenter, and Chris Cable, Imaginarium. "Bringing Cutting Edge Science to Children's Museums." Association of Children's Museums Interactivity Conference, 2006. Session Organizer. Co-presenters: Sue Koch, Science Museum of Minnesota, Cheryl McCallum, Children’s Museum of Houston, and Olivia Castellini, Museum of Science and Industry.

McCarthy, C. (1994-2000) Various presentations on solid waste, recycling, and hazardous waste programs at California Household Hazardous Waste Information Exchange (HHWIE) meetings and California Resource Recovery Association (CRRA) conferences.

McCarthy, C. (1994) Testing the Tanner Act: Public Participation and the Reduction of Local Opposition in Siting New Hazardous Waste Facilities in California, American Sociological Association Annual Meeting, Los Angeles, 1994.

Sabatier, P., J. Loomis, and C. McCarthy (1993) Factors Affecting Output Levels in the NFMA Plans in Regions 1 to 6, Society of American Foresters National Convention, Indianapolis, 7-10 November, 1993.

McCarthy, C., P. Sabatier, and J. Loomis (1991) Policy Orientation of USDA Forest Service Forest Planning Personnel, Annual Meeting of the Western Social Science Association, Reno, 24-27 April, 1991.

Sabatier, P., J. Loomis, and C. McCarthy (1990) Professional Norms, External Constituencies, and Hierarchical Controls: An Analysis of U.S. Forest Planning Decisions, Annual Meeting of the American Political Science Association, San Francisco, 30 August - 2 September, 1990.

Sabatier, P., J. Loomis and C. McCarthy (1990) Professional Norms and Hierarchical Controls: An Analysis of U.S. Forest Planning Decisions, Annual Meeting of the Western Political Science Association, Chicago, April, 1990.

GRANTS and PROJECT FUNDING

Most of these grant-funded projects were developed and implemented in collaborative teams across multiple institutions; grant projects are listed by my home institution:

Arizona State University

Sparking Interest in STEM among Hispanic Learners Nationwide through Meaningful Connections to NASA Explorations and Discoveries, NASA TEAM II, #80NSSC22M0100, PI M. Cawley, Museum of Life and Science, $799,984 award with $89,997 contract to ASU, 1/1/2022–12/31/2025. Role: Co-I; ASU PI

Engaging Hispanic Communities in Authentic NASA Science: Broadening participation in Science Activation through Local Partnerships and National Networks, NASA Science Activation, #80NSSC22M0122, PI P. Martin, ASU, $5,432,130, 5/2/2022–4/30/2026. Role: Personnel

Engaging Latinx youth in understanding the science of climate change by developing digital narratives and games, NSF ITEST, #2148016, PI R. Ostman, ASU, $431,984, 7/1/2022– 6/2025. Role: Personnel

SciAct STEM Ecosystems to Broaden Participation in Authentic STEM Learning: Connecting subject matter experts, communities, and learners of all ages, NASA Science Activation, #80NSSC210007, PI R. Ostman, ASU, $4,922,818, 1/1/2021–12/31/2025. Role: Personnel

Destination Moon (Voyage through the Solar System), NASA TEAM II, #80NSSC21M00082, PI M. Kortenaar, Sciencenter, $1,000,000 award with $35,000 contract with ASU, 1/1/2021–12/31/2023. Role: Personnel

Advancing the Conversation on Scaling National Informal STEM Programs, NSF, #2214449, PI K. Peterson, National Girls Collaborative, $294,72, 9/2022-11/2025. Role: Advisor

New directions for neuroscience public engagement: Barbara Gill Civic Science Fellow, Dana Foundation, PI R. Ostman, ASU, $334,968, 9/1/2021–6/1/2023. Role: Personnel

Sustainable Museums: Professional development to support fieldwide capacity in practice, partnerships, and education for sustainability, IMLS #MG-245910-OMS-20, PI R. Ostman, ASU, $431,443, 9/1/2020–8/31/2023. Role: Personnel

Arizona State University & Science Museum of Minnesota overlap

Build a Mars Habitat: Survive and Thrive, NASA TEAM II, #80NSSC20M0030, PI C. McCarthy, Science Museum of Minnesota then transferred to C. Dwyer, $1,000,000, 1/1/2021–12/31/2023. Role: PI at SMM, transferred to Co-investigator /ASU PI

Space and Earth Informal STEM Education, NASA Science Activation, #80NSSC18M0061, PI P. Martin, ASU, $4,332,118, 1/1/2021–12/31/2023 and NASA #NNX16AC67A, PI P. Martin, Science Museum of Minnesota, $15,760,114, 1/1/2015–12/31/2023. Role: Co-investigator

Moon and Beyond: An Immersive Game for STEM Learning in Museums and Planetariums (Moon Adventure Game), NASA #80NSSC18K1219, PI D. Briere, Arizona Science Center, $749,582 award with $184,891 subaward to ASU, 1/1/2019–12/31/2022. Role: Personnel

Citizen Science, Civics, and Resilient Communities (CSCRC): Increasing Resilience through Citizen-created Data, Local Knowledge and Community Values, NOAA, #NA18SEC0080008, PI D. Sittenfeld, Museum of Science, $500,000, 10/1/2018–9/30/2022. Role: Personnel

GRANTS and PROJECT FUNDING continued

Science Museum of Minnesota

ChemAttitudes: Using Design-based Research to Develop and Disseminate Strategies and Materials to Support Chemistry Interest, Relevance, and Self-efficacy, NSF AISL, #1612482, PI L. Bell, Museum of Science, $2,930,748, 10/1/2016–9/30/2021. Role: Personnel

Increasing Learning and Efficacy about Emerging Technologies through Transmedia Engagement by the Public in Science-in-society Activities, NSF, #1516684, PI E. Finn, ASU, $2,953,905, 8/1/2015–7/31/2021. Role: Personnel

LEAP into Science: A National Museum/Library Partnership, NSF, # 0714658, PI Dale McCreedy, Franklin Institute, $1,175,857.00 8/2007-7/2014. Role: Advisor

Sustainability in Science and Technology Museums, Rob and Melani Walton Foundation, Arizona State University, $175,000 (6/1/2015–5/31/2018) and $740,000 (10/1/2018–9/30/2020), 6/2015-9/2020. Role: Personnel

Planning and partnerships conference for neuroscience public engagement, Kavli Foundation, $89,705, PI J. Das, Franklin Institute, 2018. Role: Personnel

Multi-site Public Engagement with Science – Synthetic Biology (MSPES), NSF AISL, #1421179, PI L. Bell, Museum of Science, $2,288,713, 10/1/2014–9/30/2018. Role: Senior Personnel

Science Museum of Minnesota & Sciencenter overlap

Nanoscale Informal Science Education Network (NISE Network), NSF #0532536 and #0940143, PI L. Bell, Museum of Science, $41,741,754, 9/1/2005–2/28/2017. Role: Senior Personnel

Sciencenter

Participated in grant writing, implementation, project management, and reporting for grant projects from government agencies, private philanthropic funders, and charitable organizations. Projects included support for exhibits, educational programs, and facility improvements, and operating support.
A selection of grant funded projects are provided below:

Exhibitions – traveling exhibitions

- What Happens when the Earth Shakes traveling exhibition, NSF, #0421142, Network for Earthquake Engineering Simulation Research (NEESR) NEESR-SG Evaluation of Ground Rupture Effects on Critical Lifelines, George E. Brown Jr. Network for Earthquake Engineering Simulation (NEES), PI T. O'Rourke, Cornell University, $2,000,000 with Sciencenter subcontract $157,296, 10/2004-3/2009. Role: Personnel

- Too Small to See Traveling exhibition, NSF, #0426378, PI C. Batt, Cornell University, Nanobiotechnology Center, $1,869,025, Sciencenter subaward $389,305, 6/2004 – 6/2007. Role: Senior Personnel

- Here to the Ocean watershed traveling exhibition, NOAA, #NA08SEC4690025, PI C. Trautmann, Sciencenter, $750,000, 6/1/2008–9/30/2012. Role: Personnel

- It's a Nano World traveling exhibition, NSF, #9876771, PI H. Craighead, Cornell University Nanobiotechnology Center (NBTC) Science Technology Center (STC), $39,497,888 with Sciencenter subaward $709,969 (1/2000-12/2002) + $77,000 supplement (2003-7/2004); 1/2000-7/2004. Role: Senior Personnel

GRANTS and PROJECT FUNDING continued

- TEAMS III - Small Museum Exhibit Collaborative - From Here to There traveling exhibition, NSF, #ESI-0407058, PI D. Goudy, Montshire Museum of Science, $2,299,225 with Sciencenter Subaward $405,000 + $23,000, 10/2004-9/2008, Role: Personnel

- TEAM II Traveling Exhibitions – Cool Moves traveling exhibition, NSF, #ESI-0000589, PI: D. Goudy, Montshire Museum of Science, $2,074,689 with Sciencenter subaward $380,000 + $4,996 + $23,000, 10/2000-9/2005. Role: Personnel

- Tech City traveling exhibition, NSF, #ESI-9725605, PI C. Trautmann, Sciencenter, $639,543, 7/1998-6/2002. Role: Personnel

Exhibitions – Astronomy

- Public Access to Recent Hubble Space Telescope Mars Imagery (Mars and Stars astronomy exhibition - Mars Imagery Quest exhibit component), NASA, #HST-EO-09738.07, Space Telescope Science Institute, PI J. Bell, Cornell University, Sciencenter subcontract $30,049, 2004-6/2005, Role: Senior Personnel

- Mars & Stars astronomy exhibition, NASA EPO, #NAG5-13220, #HST-EO-09738.07-A, PI: M. Romanova and R. Lovelace, Cornell University, Sciencenter subcontract: $40,000, 2005-2006. Role: Senior Personnel

- Mars and Stars astronomy exhibition, NASA - New York Space Grant Consortium, #NGT5-40048, #39555-6506, PI Y. Terzian, Cornell University, $10,000, 2005-2006. Role: Personnel

- Mars and Stars astronomy exhibition component – Infrared Camera Exhibit, NASA Goddard Space Flight Center EPO, #NNG05GF79G, PI D. Chernoff, Cornell University, Sciencenter subcontract: $30,000, 2006-2007. Role: Senior Personnel

Exhibits - Outdoor Exhibits

- Sagan Planet Walk Passport and Meteorite Exhibit, NASA - New York Space Grant Consortium, #NNG05GH17H, PI Y. Terzian, Cornell University, $10,000, 2008. Role: Personnel

- Sagan Planet Walk Audio Tour, Tompkins County Strategic Tourism Planning Board (STPB) Tompkins County Area Development (TCAD), $3,620, 2008. Role: Personnel

- Geometry Playground Exhibition, NSF, #DRL 0610436, PI T. Rockwell, Exploratorium, $25,000, 2008-2012. Role: Personnel

- Outdoor Science Park Upgrade, Tompkins County Foundation, PI C. Trautmann, Sciencenter, $10,000, 2007-2008. Role: Personnel

- Outdoor Science Park Upgrade, Tompkins County Strategic Tourism Planning Board (STPB) Tompkins County Area Development (TCAD), $60,000, 2007-2008. Role: Personnel

- Galaxy Golf Miniature Golf Course, Tompkins County Strategic Tourism Planning Board (STPB) Tompkins County Area Development (TCAD), PI C. Trautmann, Sciencenter, $25,000, 2003-2004. Role: Personnel

GRANTS and PROJECT FUNDING continued

Sciencenter

Exhibits – Other Topics

- Reinvention Station beyond recycling exhibition and ongoing maintenance, Tompkins County Solid Waste Division, PI: C. McCarthy, Sciencenter, multiple awards: $20,000 (2001-2004), $2,800 (2005) $3,000 (2006), $3,000 (2007), $3,000 (2008), $3,000 (2009), 2006-2009. Role: PI
- Health and Tobacco Exhibits, Tompkins County Health Tobacco Control, PI C McCarthy, Sciencenter, $2,000, 2002-3/2003, $2,000. Role: PI
- Integrated Pest Management exhibits, Northeast Regional IPM Program, PI C. Koplinka-Loehr, New York State IPM Program, $6,400, 2005. Role: Senior Personnel
- Curiosity Corner early childhood area and Discovery Space discovery room, Anonymous private foundation, PI C. Trautmann, Sciencenter, $750,000, 2000-2004. Role: Personnel

Educational Program Development and Delivery - Chemistry

- Science museum chemistry programs for school and family audiences, The Camille and Henry Dreyfus Foundation, Inc., PI R. Ostman, Sciencenter $30,943, 1/1/2007–12/30/2010. Role: Personnel
- Chemistry Teen Docents 2003-2005, The Camille and Henry Dreyfus Foundation, Inc., Sciencenter, $25,000, 2003-2005. Role: Senior Personnel
- Chemistry Challenge activities and Chemistry Teen Docents 2001-2003, The Camille and Henry Dreyfus Foundation, Inc., SG-01-028, Sciencenter, $24,134, 2003-2005. Role: Senior Personnel
- Chemsations teen chemistry program, American Chemical Society - Cornell Section, PI: R. Silberman, Sciencenter, $1,750 (2001-2002), $4000 (2002-2004), $1,550 (2005-2006), $3,000 (2007-2008), $1,750 (2008-2009). Role: Personnel

Educational Program Development

- Collaborative Research: Informal Experiential Learning Via Reflective Programming, NSF, $75,000 PI, V. Sazawal, University of Maryland, $75,000 subaward to Sciencenter $30,000, 2009-2010. Role: Co-I
- Math Momentum in Science Centers. NSF, #0229782, PI J. Mokros, TERC, $1,999,891, Sciencenter subcontract: $13,000, 1/2003-6/2007. Role: Personnel
- Communicating Climate Change (C3), NSF, #DRL-0813135, PI W. Staveloz, ASTC, $2,998,311 with Sciencenter subcontract $60,000, 9/2008–12/2012. Role: Personnel.
- Global Warming Activity Toolkit, IMLS, #MA-03-07-0143-07, PI C. Trautmann, Sciencenter; $74,900, 2007-8/2009. Role: Personnel

Educational Programs and Field Trips Programs

- Japan &Nature: Spirits of the Season exhibition programming, Freeman Foundation/Asian Exhibitions, Association of Children's Museums, Sciencenter contract award $15,000, 2008. Role: Personnel
- Connect to the Ocean, Strategic Tourism Planning Board (STPB) Tompkins County Area Development (TCAD), $20,000, 2006-2007. Role: Personnel

GRANTS and PROJECT FUNDING continued

Sciencenter

- Kids Discover the Trail field trips, Ithaca Public Education Initiative (IPEI), PI C. Trautmann, Sciencenter, multiple awards: $4,000 (2005), $56,400 (2006-2007), $71,545, (2008), $8,224 (2009), 2005-2009. Role: Personnel

Educational programing: Astronomy teacher professional development and rural outreach programs

- Astronmoy Solar System Teacher Professional Development Workshops, NASA, #NAS5-26555, #HST-ED-90222.02-A, Space Science Telescope Institute IDEAS program, Sciencenter subcontract, $11,173, 2001-9/2002. Role: Personnel

- Astronomy afterschool enrichment program, NASA - New York Space Grant Consortium, #NGT5 40048, PI Y. Terzian, Cornell University, Sciencenter subcontract Cornell University, $3,000, 2003. Role: Personnel

- Portable Planetarium Programs for Rural Outreach, Physics Learning and Astronomy Training Outreach (PLATO), NASA Office of Space Science Education and Public Outreach, #NCC5-641, PI C. Narasimhan, Space Science Center for Education and Outreach at DePaul University, Sciencenter subcontract: $1,000, 2004. Role: Personnel

- Portable Planetarium Outreach, NASA - New York Space Grant Consortium, #NNG05GH17H, PI Y. Terzian, Cornell University, Sciencenter subcontract $5,000 (3/2007-3/2008), $10,500 (3/2008-3/2009), 2007-2009. Role: Personnel

Teen workforce development programs and afterschool programs

- Teenage employment and training program, City of Ithaca IURA, Community Development Blog Grant (CDBG), Lead Agency: City of Ithaca Youth Bureau Youth Employment Service (YES), Sciencenter subaward $20,000, 2006. Role: Personnel

- Teenage employment and training program, Tompkins County Youth Services PI C. Trautmann, Sciencenter, $5,000, 2004. Role: Personnel

- Teenage employment and training program - YouthAlive!, Community Foundation of Tompkins County, PI C. Trautmann, Sciencenter, $2,000, 2002. Role: Personnel

- Computer Clubhouse programs, City of Ithaca HUD Community Development Block Grant (CDBG), PI C. Trautmann, Sciencenter, $25,000, 2001-6/2002. Role: Personnel

- Computer Clubhouse programs, Joint Youth Commission Town of Ithaca, PI C. Trautmann, Sciencenter, $1,380 (2001), $1,380 (2002), $1,200 (2003), 2001-2003. Role: Personnel

- Computer Clubhouse Mars Rover Robotics programs, NASA EPO, #NAG5-10636, PI J. Bell, Cornell University, $23,810, 2004. Role: Personnel

Science Communication and Media

- DragonFly TV GPS: Investigating the Nanoworld, NSF, #0741749, PI R. Hudson, Twin Cities Public TV, $1,982,391, 5//2008–4/2011. Role: Advisor

- Science Minutes radio public service announcements, NASA - New York Space Grant Consortium, Lead: Cornell University, $5,000 (2001), $5,000 (2002), $5,000 (2003), $5,000 (2004), $5,000 (2005), 2000-2005. Role: Personnel

GRANTS and PROJECT FUNDING continued

Solano County

Coordination of regional oil and household hazardous waste education and activities (UBG6), California Integrated Waste Management Board (CIWMB) Used Oil Recycling Block Grant 6th Cycle, Lead Agency: PI C. McCarthy, Solano County; $59,106 (2000-2001), $59,106 (2001-2002), $59,106 (2002-2003), 2000-2003. Role: PI

Coordination of regional used oil and hazardous waste recycling and disposal education activities and construction of mobile exhibit and display materials, and needs assessment study, California Integrated Waste Management Board (CIWMB) Used Oil Recycling Block Grant 5th Cycle, #UBG5-96-1992, Lead Agency: C. McCarthy, Solano County, $50,069 (1996-1997) $48,182 (1997-1998) $48,182 (1998/1999), 1996-1999. Role: PI

Community cleanups, cleanup of illegal dumping, abate abandoned vehicles, posting educational signage, and riparian restoration and vegetative management, CALFED Bay Delta Phase III, Lead Agency: Solano County, $100,500, 2000-2001. Role: Senior Personnel

Development of a consensus-based watershed strategy involving key stakeholders along Putah Creek; riparian restoration and vegetative management, State Water Resources Control Board Delta Tributary Watershed Program, Lead Agency: Solano County, $150,000, 2000-2001. Role: Personnel

Grasscycling Mower Campaign to reduce yard waste and air pollution and improve water conservation including coordination of electric mulching mower rebate program (2000), Regional collaborative program (Counties of Contra Costa, Sonoma, Napa, Solano, and Santa Clara); multiple funding sources; Solano County portion: California Integrated Waste Management Board (CIWMB) ($20,00); Yolo Solano Air Quality Management District ($5,000); California Air Resources Board Bay Area Air Quality Management District and PG&E ($8,740), 2000. Role: Senior Personnel

Grasscycling Mower Campaign to reduce yard waste and air pollution and improve water conservation including coordination of electric mulching mower rebate program (1999), Regional collaborative program (Counties of Contra Costa, Napa, and Solano); multiple funding sources Solano County portion $16,500: California Integrated Waste Management Board (CIWMB), California Air Resources Board Bay Area Air Quality Management District and PG&E, 1999. Role: Senior Personnel

Implementation of education and collection programs for the marina/boating communities and agricultural/grower communities, California Integrated Waste Management Board (CIWMB) Used Oil Opportunity Grant 6th Cycle: (UOG), Lead Agency: C. McCarthy, Solano County, $434,000, 2000-2001. Role: PI

Installation of recycled rubber playground surface, California Integrated Waste Management Board (CIWMB) Playground Cover Grant, Lead Agency: Solano County Office of Education, $5,686.66, 1997. Role: Senior Personnel

Establish a hazardous waste facility in Rio Vista available to rural residents in Solano County, California Integrated Waste Management Board (CIWMB) Household Hazardous Waste Grant, Lead Agency: City of Rio Vista, Solano County portion: $212,835, 1999-2000. Role: Personnel

Promotion of beverage container recycling opportunities and litter control, California Department of Conservation Division of Recycling, Lead Agency: C. McCarthy, Solano County, $10,000, 2000-2001. Role: PI

Installation of recycling containers and educational signage at public parks, museums, and other facilities, California Department of Conservation Division of Recycling, #5096-209, Lead Agency: C. McCarthy, Solano County, $36,425, 1997-1998. Role: PI

Yolo County

Used oil disposal education, installation of oil storage facilities, and collection of used oil, California Integrated Waste Management Board (CIWMB) Used Oil Recycling Block Grant 4th Cycle, #UBG4-95-1317, Lead Agency: Yolo County, $24,036, 1995-1996. Role: Personnel

Providing public education regarding proper disposal of used oil and septic tank education, California Integrated Waste Management Board (CIWMB) Used Oil Opportunity Grant, #UOG2-94-174-57, Lead Agency: Yolo County, $6,391, 1994-1995, Role: Personnel

City of Davis

Used motor oil disposal education and programs and facilities for the collection of used oil, California Integrated Waste Management Board (CIWMB) Used Oil Recycling Block Grant 4th Cycle, Lead Agency: City of Davis, $8,000, 1995-1996, Role: PI

Yolo Environmental Resource Center

I participated in the development of small operating fund and program implementation grants from a variety of agencies and philanthropic organizations including seed funds from UC Davis, 1990-1993. Role: personnel

UC Davis

I participated in the development of proposals and implementation of research grants from the USDA Forest Service and the California Department of Forestry relating to my Master's graduate research studying the National Forest Service land management planning process. Role: Personnel

Sunnyside Foundation & Sunnyside Gardens Conservancy

I assisted in the development and implementation of several community development and historic preservation grant projects to private funders, 1986-87. Role: Personnel