November 22, 2022

John M. Burth
Adirondack Park Agency
PO Box 99
Ray Brook, NY 12977

Beth Magee
New York State Department of Environmental Conservation
Region 5
232 Golf Course Rd.
Warrensburg, NY 12885

RE: Comments on Visual Impact Assessment for APA Project 2021-245: Barton Mines Expansion, Town of Johnsburg, Warren County

Dear Mr. Burth and Ms. Magee:

Protect the Adirondacks ("PROTECT") submits these comments concerning the Visual Impacts Analysis ("VIA") prepared by H2H Geoscience Engineering, PLLC for the proposed expansion by Barton Mines Corporation, LLC ("Barton") of the Ruby Mountain Mine in the Town of Johnsburg, Warren County. PROTECT's comments on the VIA are fully set forth in the attached report prepared by Dr. Richard Smardon. Dr. Smardon is a Distinguished Service Professor Emeritus at the State University of New York College of Environmental Science and Forestry in Syracuse, New York, where he has taught for over 36 years. He is a certified environmental professional with over 40 years of experience in visual impact assessments, and has written three professional reference books on the subject. These comments supplement PROTECT's prior submissions in June 2021 and July 2022 concerning the proposed mine expansion.

As explained in the attached expert report, Barton's VIA is seriously flawed because (i) it does not include two publicly accessible viewpoints on Forest Preserve lands and one publicly accessible viewpoint on private lands (Garnet Hill Lodge) with existing views of the mining operations; (ii) it fails to consider the industrial machinery and heavy duty motor vehicles that are visible at and near the summit of the residual materials ("RM") pile; (iii) it fails to include key simulations and cross sections to

address visual impacts of the proposed mining operation expansion phases; (iv) it fails to quantify the severity or significance of the visual impacts of the mine expansion as required by agency guidance for assessment of visual impacts; (v) the proposed measures to mitigate visual impacts are not adequately detailed or explained; and (vi) it fails to address the visual impacts from blasting and wind-blown dust.

We ask that the Adirondack Park Agency and the Department of Environmental Conservation require Barton to remedy the serious deficiencies in the VIA so that the full visual impacts of the existing mine and the proposed expansion may be addressed.

On behalf of the Board of Directors of Protect the Adirondacks, please let me express our gratitude for the opportunity to submit these comments.

Sincerely,

Christopher Amato
Conservation Director and Counsel
Protect the Adirondacks! Inc.
P.O. Box 48
North Creek, NY 12853
Office: (518) 251-2700
Cell: (518) 860-3696

REPORT ON BARTON MINES VISUAL IMPACT ASSESSMENT
by Richard Smardon MLA PhD CEP

Introduction

This report has been prepared at the request of Protect the Adirondacks! Inc. to evaluate a Visual Impact Assessment (VIA") submitted by Barton Mines Corporation, LLC (Barton) as part of applications to the Adirondack Park Agency (APA) and the Department of Environmental Conservation (DEC) for the proposed expansion of Barton's Ruby Mountain Mine located in the Town of Johnsburg, Warren County, New York in the Adirondack Park. The VIA was prepared by H2H Geoscience Engineering, PLLC in June 2021.[1] This report is based upon review of the VIA and a site visit conducted on November 4, 2022. My education and professional experience and qualifications are set forth in the curriculum vitae attached as Appendix F to this report.

As discussed in detail below, the VIA is seriously flawed because it does not include two publicly accessible viewpoints on Forest Preserve lands and one publicly accessible viewpoint on private lands (Garnet Hill Lodge) with existing views of the mining operations. In addition, the VIA does not consider the industrial machinery and motor vehicles that are visible at and near the summit of the RM pile. The VIA also fails to include key simulations and cross sections to address visual impacts of the proposed mining operation expansion phases. In addition, the VIA fails to quantify the severity or significance of the visual impacts of the mine expansion, and the proposed measures to mitigate visual impacts are not adequately detailed or explained. Finally, the VIA fails to address the visual impacts from blasting and wind-blown dust.

Proposed Permit Modifications

The project is a proposed expansion of Barton's Ruby Mountain Mine in the Town of Johnsburg in Warren County. Barton is seeking to expand its mining operations from 194.5 acres to 267 acres and to raise the elevation of its tailings/debris piles (the Residual Material pile, or "RM pile") by 100 feet by completion of Phase Four of the mine expansion. Barton proposes to double the footprint of the RM pile from 67 to 130 acres and increase the height of the RM pile from 2,275 feet Above Mean Sea Level (AMSL) to 2,375 ASML. Barton states this will expand the mine face view by approximately 4.13 acres (APA 2021). According to APA NIPA comments, the 4.13-acre face view estimate does not account for side slope areas on the east or west nor lateral expansion below 2,275 feet. The quarry will more than double, from 27 to 68 acres.

The proposed expansion is to occur in four phases:

Phase 1- expand the RM pile north and south of its current location.
Phase 2- expand the RM pile by 70% around the perimeter with concurrent 100-foot lifts with topsoil and vegetation which is meant to reduce visibility from higher elevations.
Phase 3- raise the RM pile elevation to 2,310 feet with concurrent 100-foot lifts with topsoil and

[1] H2H Geoscience Engineering, PLLC, Visual Impact Assessment, Barton Mines, Town of Johnsburg Warren County New York, NYS DEC Mine Permit #5-5230-00002/00002 Mine File #50483, APA Permit No. P79-140, P70-356, P87-39, P87-39A, P87-39B, P88-393, P88-393A.

vegetation.
Phase 4- raise the RM pile elevation to 2,375 feet with concurrent 100-foot lifts with topsoil and vegetation and expand the quarry highwall to the south. The quarry highwall is the operating face of the mine from which material is removed.

In addition, in Phase 4 there will be forest, soil and, rock removal for the expansion southward of the quarry highwall along 2,100 feet of forested ridgeline, which will increase the face view of the quarry to 150 feet vertical by 1,400 foot horizontal, totaling 4.82 acres.

Summary of DEC and APA Guidance for VIAs

DEC guidance (NYS DEC 2000) specifies that VIAs must include an inventory of scenic resources in the project area; a visual assessment utilizing viewshed delineation with line-of-sight (or digital computer GIS) from receptor to the project; an assessment of the potential significance of the impacts; and proposed measures for mitigating visual impacts. This guidance applies to all projects reviewed by both the APA and the DEC.

The APA also has specific guidance for preparation of visual impact assessments (APA undated). The APA guidance requires an applicant to (i) delineate viewsheds from the introduced structure's (in this case the RM pile and quarry face) location on a topographic map with foreground, middleground and background view areas on the map plus all publicly accessible use areas; (ii) delineate line of sight profiles on the map; (iii) prepare separate and scaled line of sight profiles for each transect showing existing topography, public use areas and overall height of the proposed structure (RM Pile and quarry face); (iv) delineate by shading all areas on the map within a five-mile radius where the proposed structure would be visible based on topography; (v) assess the nature and extent of the structure's visibility from each identified public use area, documenting any screening by intervening vegetation, buildings, or other feature; and (vi) delineate on a map all public use areas and portions of those areas where the proposed structure will be visible, including the duration of visibility from roads and trails.

Summary of Barton's VIA Findings

The methodology set forth in the VIA generally follows the APA guidance. The VIA describes the current mine viewshed and proposed viewshed utilizing GIS topography, and the VIA identifies potential view receptors with use of existing data sources for historic roadways, surface water features, trails, scenic vistas, and other public use areas, including some potential viewshed receptors within a five-mile viewshed radius.H2H did field photography on December 11, 2020, from 16 different receptors approved by APA staff. Eight weather balloons were used to simulate the RM pile visibility, and photographs were taken with 55mm, 85mm and 105mm camera lenses. Based on the field photography, the VIA concludes the following in terms of visibility the RM pile from public areas:

- The RM pile is currently visible from County Route 78 (Thirteenth Lake Road); it is partially visible at 1.2 miles for 7 to 9 seconds and at 0.7 mile for 24 to 32 seconds.

- The edge of the active quarry area will become visible from the eastern shore of

Thirteenth Lake (.Note: Photo location 4 is designated as a campsite at Elizabeth Point.)

- The RM pile and the quarry are visible from the summit of Gore Mountain but are screened from the Schaefer trail on Gore Mountain by vegetation.

Thus, the VIA concludes, based on field photography with the balloon visibility test, that the only publicly accessible areas where the RM pile or quarry are visible are , two stretches of Route 78, and one location on Gore Mountain. The VIA also concludes that if the proposed expansion occurs the mine will become visible from the eastern shore of Thirteenth Lake.

H2H constructed visual simulations from four viewpoints for each of the four phases of RM pile expansion and for the quarry expansion in Phase Four. These simulations included (i) simulations from two locations on the eastern shore of Thirteenth Lake; (ii) simulations from Thirteenth Lake Road; and (iii) simulations from the summit of Gore Mountain.

Line-of-sight profiles were provided for only three of the four major viewpoint receptor locations identified by H2H; there was no line of sight profile provided for the Thirteenth Lake viewpoint. The line-of-sight profiles, combined with the location data of the visual simulation viewpoints, illustrate the degree of visibility of the project from these viewpoints.

Barton's Proposed Mitigation Measures

The measures proposed in the VIA to mitigate visual impacts include delaying mine expansion, phased and concurrent reclamation, and modifications to the RM pile design. The delayed mine expansion would extend the timelines for each of the four mining phases but would not mitigate the eventual visual impact. The phased concurrent reclamation would create 100-foot bench earthen structures on the RM pile which will be vegetated in order to mitigate visual impacts from the pile. The VIA claims that modification to the RM pile design will alter the final shape of the RM pile to mimic the local topography in order to mitigate visual impacts, but the visual renderings show a flat-top mound at mine closure.

Analysis of Barton's VIA

As discussed in detail below, the VIA is seriously flawed because it does not include two publicly accessible viewpoints on Forest Preserve lands and one publicly accessible viewpoing on private lands (Garnet Hill Lodge) with existing views of the mining operations. In addition, the VIA does not consider the industrial machinery and motor vehicles that are visible at and near the summit of the RM pile in its assessment. The VIA also fails to include key simulations and cross sections to address visual impacts of the proposed mining operation expansion phases. In addition, the VIA fails to quantify the severity or significance of the visual impacts of the mine expansion, and the proposed measures to mitigate visual impacts are not adequately detailed or explained. The VIA also fails to address the visual impacts of blasting and wind-blown dust.

<u>The Analysis is Incomplete</u>

There are several potential visual impacts not addressed in the VIA. The proposed modifications to the mine entrance road are not evaluated for an increase in visibility of mining operations. The

VIA also fails to consider the visual impacts from fugitive particulate matter (*i.e.* dust) generated from mine operations, including blasting, wind entrainment from RM piles RM conveyor operation and truck traffic. In addition, the VIA's assessment of visual impacts fails include the heavy machinery (*e.g.* tall conveyors) and heavy duty trucks typically located at or near the crest of the pile, thus increasing the the visibility of the RM pile and changing the impact to be more industrial in nature.

Failure to Include Sensitive Receptors

The APA and DEC visual impact assessment guidance require that visual impacts be evaluated from all publicly accessible roads and trails. The VIA identified several Forest Preserve hiking trails, but none were included as viewpoint receptors. Some of these are sensitive publicly accessible receptors that should have been included in the VIA, such as the Hooper Mine trail and the Balm of Gilead Mountain trail in the Siamese Ponds Wilderness Area (s*ee* Appendix A) and the Moxham Mountain trail in the Vanderwhacker Mountain Wild Forest (*see* Appendix B.) The photos taken in Appendix A and Appendix B depict the optimum viewpoints from which visual simulations and cross sections should have been done to properly address visual impacts from these key publicly accessible viewpoints. In addition, the sensitive publicly accessible receptor at Garnet Hill Lodge was not included in the VIA.

The VIA fails to include crucial information about whether the balloons were at the maximum height of 2,375 feet AMSL during the visual assessment or whether wind conditions affected the height or visibility of the balloons. Some of the photos have poor light quality and are therefore not representative of visual conditions during bright days. In addition, the VIA fails to state whether visual impacts at the four receptors are year-round or seasonal visibility, and the number of people who may experience those impacts was not provided. This is important information that is required by the APA and DEC visual impact guidance.

Inadequate Visual Simulation

The visual simulations in the VIA are flawed or deficient in several respects, as described below, resulting in an inadequate and inaccurate assessment of the project's visual impacts.

The visual simulations built from the Thirteenth Lake eastern shore photo do not provide an adequate simulation of visual impacts from the lake. The Thirteenth Lake simulations should have been based on photos from the middle of the lake which, as noted above, is heavily used by the public and has a much clearer line of sight to the mine than the eastern shore (*see* Appendix D).

The VIA simulations from County Route 78 (Thirteenth Lake Road) are flawed because of the darkness of the original inventory photos. The poor lighting in the original photos results in -the simulations only showing the shape of the ridgeline alternation, with no color or textural detail. As shown in Appendix C, the RM material is very light in color and thus creates a stark visual contrast with the existing darker vegetation cover. The simulations thus fail to accurately represent the visual impacts from Thirteenth Lake Road.The simulations from Gore Mountain are also flawed due to hazy atmospheric conditions when the original inventory photos were taken, making it difficult to see the mine site. In addition, the VIA fails to state whether the full southern build-out of the mine headwall planned for Phase 4 was utilized in producing the simulation.

The VIA is also deficient by failing to include simulations from the Hooper Mine trail (Appendix A) in the Siamese Ponds Wilderness Area and Moxham Mountain in the Vanderwhacker Mountain Wild Forest (Appendix B), both of which are important publicly accessible receptors which, according to APA and DEC guidance, should have been included in the assessment of visual impacts.

The VIA does not explain how the simulations were created. This usually involves digitally locating the original photographs on a GIS data base; constructing a 3D model of the mine in all four phases of expansion; locating each of these on a wire frame on the photograph in correct perspective and elevation; and rendering in the topographic landform changes and deletions of vegetative cover. The underlying data was not provided, thereby denying the public the opportunity to independently evaluate the assumptions used.

Inadequate Vertical Profiles

The VIA does not include digital terrain models or profiles addressing visibility from the either the middle or east shore of Thirteenth Lake. This is a critical omission because the southern expansion of the mine highwall during Phase 4 will be visible from the lake. Also, line of sight profiles should have been done for the Hooper Mine trail (Appendix A) which is approximately 6,000 feet from the mine site and Moxham Mountain (Appendix B) which is approximately six miles from the mine. These are important publicly accessible hiking trails from which the RM pile expansion and active quarry are visible.

In addition, the VIA only addresses only the visibility of expanded mining operations and fails to consider the severity or significance of visual impacts as required by the DEC guidelines, NYSDEC (2000).

Visual Mitigation Issues

The VIA fails to provide sufficient detail on the phased concurrent reclamation measures, including how the 100-foot lifts are to be constructed; how the proposed vegetation will be planted and maintained; and which plant species will be utilized and the survivability of these species over time under Adirondack weather conditions. The VIA should also include information on rock residual material weathering to reduce visual color contrast.

Although the VIA states that more natural contours for the RM pile design will be used to mitigate visual impacts, the simulations only show a bench-like final ridgeline shape, which is inconsistent with the adjacent natural topography. The actual ridgeline designs are not shown, and it is unclear how they would reduce visual impacts. In addition, as noted in the APA (2021) permit application review, the final RM pile elevation does not account for expansion of the side slope areas to the east and west, which may result in more reduction of screening ridgeline screening vegetation. To address these issues, alternative RM pile designs should be described, simulated from key viewpoints, and evaluated.

Mitigation measures to control blowing dust need to be described. Appendix E are photos showing the dust plume from the mine on a typically windy day, which creates much more visibility on the

ridge line of the RM pile.

References

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H2H Geoscience Engineering, PLLC. 2021. Visual Impact Assessment Barton Mine, Town of Johnsburg Warren County New York, NYS DEC Mine Permit #5-5230-0002/0002 Mine File #50483 by H2H Geoscience Engineering, PLLC, Troy, NY

NYS DEC. 2000. Assessing and Mitigating Visual Impacts, DEP-00-2 NYS DEC, Albany NY.

Bartin Mine VIA Review Appendix A

Figure 1: Entry point for trail to Hooper Mine in the Siamese Ponds Wilderness Area. Photo by R. Smardon taken on November 4, 2022. According to Garnet Hill Association owner there are up to 30 hikers using the trail on a busy day in the summer

Figure 2: View NW of both the RM pile and mine from Hooper mine in the Siamese Ponds Wilderness Area Photo by R. Smardon November 4, 2022. Note one can see both the RM pile as well as the mine face

Bartin Mine VIA Review Appendix B

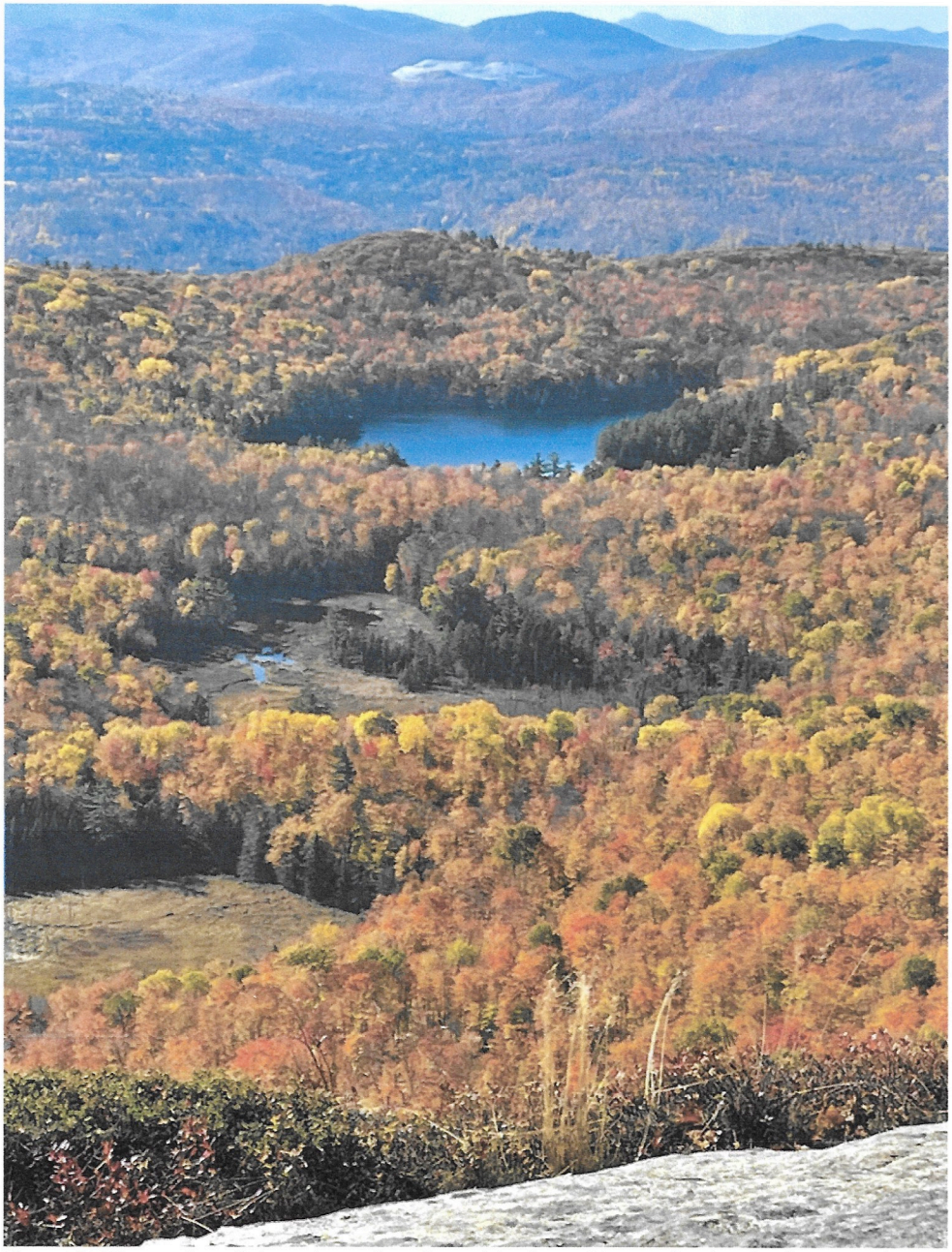

Figure 3: Viewpoint of the mine taken from Moxham Mountain clearly showing the mine face and residual materials pile.

Figure 4: View SW on Route 78 Thirteenth Lake Rd showing the RM pile along the central ridge which is clearly visible

Figure 5: View from the McCabe residence just off Route 78 to the west clearly showing the high contrast of the RM pile material.

Figure 6: View North from the Thirteenth Lake Association launch point which should have been taken from the middle of the lake Photo by R. Smardon November 4, 2022. According to Joanne Strongin Thirteenth Lake Garnet Hill Property Owners Association President -there are 183 boats owned by 90 members who launch from this point into the lake with heavy use months being July, August September and October which would justify a visual simulation from the middle of the lake. Users include property owners, renters, and Garnet Hill Lodge Guests

Bartin Mine VIA Review Appendix E

Figures 6 and 7 illustrating dust from RM pile operations affecting visibility. Photos taken by Alan Belensz taken on November 7 from the McCain Residence and Thirteenth Lake Road respectively illustrating the amount of dust coming off the conveyor belt off-loading dust on the residual material pile

APPENDIX F

Curriculum Vitae
RICHARD C. SMARDON, PhD

Present Position/Affiliations
Professor, Dept. of Environmental Studies and SUNY Distinguished Service Professor Emeritus
College of Environmental Science and Forestry, SUNY, Syracuse

Education
1970 University of Massachusetts; BS in Environmental Design; cum laude
1973 University of Massachusetts; Master's in landscape architecture
1982 University of California; Ph.D. in Environmental Planning

Work Experience

1972-73	Environmental Planner/Landscape Architect with Wallace, Floyd, Ellenzweig, Inc., Cambridge, MA
1973-75	Associate Planner, Executive Office of Environmental Affairs, Commonwealth of Massachusetts, Boston, MA
1974-75	Adjunct Assistant Professor, Department of Forestry and Wildlife Management, University of Massachusetts, Amherst, MA
1975-76	Environmental Impact Assessment Specialist, USDA Extension Service, Oregon State University, Corvallis, OR
1976	Sea Grant Trainee, Institute for Urban & Regional Development, University of California, Berkeley, CA
1977	Landscape Architect, USDA Pacific Southwest Forest & Range Experiment Station, Berkeley, CA
1977-79	Post-Graduate Research Landscape Architect, Department of Landscape Architecture, University of California, Berkeley, CA
1979-82	Research Associate, School of Landscape Architecture, College of Environmental Science & Forestry, SUNY, Syracuse, NY
1980-82	Environmental Planner, US Geological Survey, Intermittent Faculty position, Syracuse, NY
1980-88	Associate, The Graduate Program in Environmental Science, ESF-SUNY, Syracuse, NY
1981-83	Chief Technical Consultant, Ecology Compliance Ltd., Syracuse, NY
1982-89	Senior Research Associate, Faculty of Landscape Architecture, ESF-SUNY, Syracuse, NY
1986-87	Coordinator for the Graduate Program in Research, Faculty of Environmental Studies
1986-1997	Director, Institute for Environmental Policy and Planning
1986-2007	Co-Director, Great Lakes Research Consortium
1988-99	Intermittent Research Scientist, US Corps of Engineers, Waterways Exp. Station
1989-	Appointed by the Governor of New York to the Great Lakes Advisory Council
1991-97	Associate Professor, Faculty of Environmental Studies
1997	Professor, Faculty of Environmental Studies
1998-2007	Chair, Faculty of Environmental Studies
1998-2007	Director, Randolph G. Pack Environmental Institute Co-Director Division of Environmental Science and Director Graduate Program in Environmental Science
2008-2013	Professor of Environmental Studies
2013-2015	SUNY Distinguished Service Professor

Activities/Memberships Awards

1971	Life Member, Alpha Zeta Honorary Agricultural Fraternity
1972	Certificate of Honor for Excellence in the Study of Landscape Architecture, ASLA
1977	Design Award Recipient, Design and Environment Magazine Beatrice Farrand Fund Award for Ph.D. Dissertation Support

Activities/Memberships Awards (continued)

1979	Honorary Discharge, Captain, U.S. Army Reserve
1981	Sigma Lambda Alpha Landscape Architectural Honor Society
1981	Editorial Board Member, Northeastern Environmental Science Journal
1981	Member, Landscape Research Group (England)
1982	*Coastal Zone Management Journal* Reviewer and Special Issue Editor
1985	UUP Professional Development Award
1985	Transportation Research Board-NAS, Committee on Environmental Design and Landscape
1985-1990	Technical Advisory Board - Wetlands Research, Inc. (Chicago)
1985-1990	Advisory Board - Wetlands Fund (New York)
1987-1995	Advisory Board - Great Lakes Program, SUNY at Buffalo Board Member, Landscape Research Group (UK)
1980-1990	Editorial Board Journal of *Landscape and Urban Planning*
1991	Who's Who in the East
1991	CHP40 Community Leadership Practicum named by the Collaborative for Community Service and Development as an outstanding program model of community service in higher education
1992-1995	3rd continued appointment to NRC-TRB's Committee on Environmental Design and Landscape
1992	Who's Who Environmental Registry
1992	Progressive Architecture Award in Public Practice for work on Third Chicago Airport.
1992-	Who's Who in the East
1992-	Who's Who in Education
1992-	Who's Who in Science and Engineering
1993-	Who's Who in America
1993-1994	World Biographical Review
2000-2008	Editorial Board of *Environmental Science and Policy*
2008- 2011	Editorial Board of *ScientificWorld* (electronic Journal)
2006-	Editorial Board of *Journal of International Asian Environmental Science*
2007-2011	Chair of Environmental Research and Studies Group, National Association of Environmental Professionals
2009	Presidents Leadership Award – National Association of Environmental Professionals
2013	SUNY Distinguished Service Professor
2014	Editorial Board member for the journal *Water*
2015	Associate Book Review Editor *Journal of Environmental Studies and Sciences*
2018	Editorial board member Journal or *Urban Planning*
2019	Editorial board member for journal *Land*
2019	Book editor for the *Landscape Journal*

International Guest lectures

Madrid Polytechnic, Enginieros de Montanes, 1980 & 1986
CHIEAM, Short Courses in Zaragosa, Spain 1985 & 1987
Athens Polytechnic, Greece, 1989
Milan Polytechnic, Italy, 1992
Paris-Sorbonne, France, 1998
Goettingen University, Germany, 2003
Elphinstone College, Mumbia, India, 2006
Taipei, Taiwan 2008 and 2011(4 colleges)
University of Chile, Santiago, Forestry Division 2010 & 2012
University at Vitoria-Gasteiz Spain 2009 & 2011

External Environmental Program Reviews

Montclair State University, Doctoral program in Environmental management – 2002
St. Thomas College, Houston, Texas, Environmental Studies/Science programs – 2002
University of New Hampshire, Environmental Studies Program - 2004
Duquesne University Environmental Science and Management program - 2006

Pomona College Environmental Analysis Program – 2007
Ryerson University, Masters and Proposed Ph.D. in Env. Mgmt – 2008
Ithaca College, undergraduate Environmental Studies Program - 2008 & 2013
University of Maryland Univ. College, Masters in Env. Mgmt. – 2008
Bard College, Masters in Climate Change policy and Science – 2010
Salisbury State College, Maryland Environmental Studies program - 2011
Hobart & William Smith Colleges BA in Environmental Studies - 2012

Academic Committees and Task Forces

1980-2015 **Major professor** to 128 graduate students including 28 PhD's.

College-Wide

1981-82 Served on Working Group on Instructional, Research and Financial Resources for Middle States College Accreditation
1981-82 Chair of Search for Director of the Graduate Program in Environmental Science
1982-83 Appointed to the Advisory Committee on Allegheny State Park Research
1984-85 Appointed to School of Landscape Architecture Dean Search Committee
1985 Blue Ribbon College Reorganization Committee to the President
1985 Environmental Policy Coordinator for Institute for Environmental Program Affairs
1986-87 Appointed Task Force on the Graduate Education and Research Initiative
1986- Appointed Director, Institute for Environmental Policy and Planning
1986-87 Appointed to two Environmental and Forest Biology Search Committees
1988- Public Service Committee
1990-92 Sussman Fund Coordinator for SUNY/ESF
1990 EPA National Environmental Management Study Coordinator for SUNY/ESF
1991 Middle States Accreditation Review Public Service Task Force
1997-98 College Public Service Committee Chair
2003 Committee on instruction, academic quality chair
2007 Committee on Public Service
2007 Faculty search committee for Construction Mgmt & Wood Products Engineering – green construction position
2008 Middle States Review Planning Committee

SUNY-Wide

1982 Invited to review Faculty Incentive Grant proposals for the Research Foundation, State University of New York
1986-2007 Co-Director Great Lakes Research Consortium
1987 Sea Grant Research Advisory Committee
2011-2012 SUNY Faculty Senate committee on research and graduate studies_ including developing and conducting a SUNY wide program for sustainability research development May 2012 to now
2012 Reviewer for SUNY Research Foundation Collaborative Grant Program
2013 Appointed as SUNY Distinguished Service Professor

PUBLICATIONS

Books and Book Chapters

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Smardon, R.C. 2003. Impacts to Aesthetics and Quality of Life. In R. Kelty and S. Bliven (Eds.), **Environmental and Aesthetic Impacts of Small Docks and Piers, Workshop Report: Developing a Science-Based Decision Support Tool for Small Dock Management, Phase 1: Status of the Science**. NOAA Coastal Ocean Program Decision Analysis Series No. 22, NOAA Coastal Program, Silver Spring Maryland, pp. 41-46.

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Manno, J; R. Smardon, J. DePinto, E. T. Cloyd and S. Del Granado. 2008. **The Use of Models in Great Lakes Decision Making: An Interdisciplinary Synthesis**, Randolph G. Pack Environmental Institute SUNY/ESF Occasional Paper 16, 95pp. Available at http://www.esf.edu/es/pack/

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Briggs, R and R.C. Smardon (Co-PI's) 2011. **Central NY Watersheds Program Final Report**. Submitted to US EPA under cooperative agreement #CR830828, SUNY/ESF, 230+ pp.

Pasi, N. and R.C. Smardon 2011. **Urban and Rural Treatment Wetlands Manual; A New Old Green Infrastructure**, Syracuse University Environmental Finance Center, 38pp.

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Smardon, R.C. 2013. Visual impact assessment: Where have we come from and where are we going? **Conference Proceedings; Walk the Talk NAEP/AEP Joint Conference** Los Angeles CA.

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Gobster P. H. and Smardon R.C. (eds.) 2018. **Visual Resource Stewardship conference proceedings: Landscape and Seascape Management in a Time of Change.** USDA Forest Service Gen. Tech. Rep. NRS-183, Newton Square PA [on line] https://doi.org/10.2737/NRS-GTR-P-183

Hoffman R. and Smardon R. (eds.)2019. **Visual Resource Stewardship Conference: Seeking 20/20 Vision for Landscape Futures 1**[online] https://digitalcommons.esf.edu/vrconference/1

Thesis and Dissertation

Smardon, R.C. 1973. **Assessing visual-cultural values of inland wetlands in Massachusetts.** Unpublished Master's Thesis: Department of Landscape Architecture and Regional Planning, University of Massachusetts, Amherst, 295 p. including 32 plates, NTIS call number PB-233-687/3WU.

Smardon, R.C. 1982. **An organizational analysis of Federal agency visual resource management systems.** Ph.D. Dissertation: Environmental Planning Program at the College of Environmental Design, University of California, Berkeley, CA, 330 p. Available from International Microfilms, Ann Arbor, MI.

RESEARCH AND GRANT ACTIVITY

Department of Landscape Architecture, University of California and USDA, Forest Service Pacific Southwest Forest and Range Experiment Station, January 1977-August 1979

Project Manager-**Landscape Planning Methodology Research for Range, Timber and Energy Producing Wildlands: Visual Contrast Rating Research**-Multi-investigator research to assess the reliability and validity of visual impact assessment methods and procedures-Budget $60,000 for two years from USDI, Bureau of Land Management, Washington, DC.

Co-organizer-**Our National Landscape: A Conference on Applied Techniques for Analysis and Management of the Visual Resource**-Budget $98,000 from U.S. Forest Service, BLM, SCS and conference registrations.

Faculty (Dept.) of Landscape Architecture, SUNY College of Environmental Science and SUNY Research Foundation September 1979 to 1986

Primary Investigator (with R. S. Hawks)-**Feasibility Study Guidebook: Availability of Wood for Use as an Industrial Boiler Fuel**-major responsibilities were overseeing production of mapped data covering the continental United States-Sub- for the Solar Energy Research Institute, Golden, CO.

Primary Investigator-**Forests in the Visual Landscape**-produced general visual landscape classification of New York State-for the Department of Environmental Conservation, Division of Lands and Forests, Albany, NY.

Primary Investigator (with D. Sundquist)-**Visual Impact Assessment of Corps Project on Cape Hatteras**-Preparation of Report on visual and recreational impact of Corps jetties on Oregon Inlet- for the National Park Service, Southeast Region, Atlanta, GA.

Primary Investigator-**Landscape Development Concept of New Village, Uniontown, PA**-Faculty sponsor for graduate student intern with the New Village who did landscape and site analysis, recreation planning and environmental review- for the Institute for Man and Science, Rensselaerville, NY.

Primary Investigator-**Visual Analysis Annotated Bibliography and Expertise Index**-compile, edit and prepare final manuscript and index, 192 pages, 569 annotated citations- for the Forestry Extension, University of California, Berkeley, CA. Available at http://www.esf.edu/via

Primary Investigator-**Development of Generic Visual Impact Checklist and Training Manual**-Culmination of multi-year testing project on visual impact assessment method improvement- for the USDI, Bureau of Land Management, Washington, DC.

Primary Investigator-**Development of Alternative Futures Annotated Bibliography and Primer**- for the U.S. Geological Survey, Reston, VA.

Primary Investigator-**Clayton Image Assessment and Waterfront Redevelopment Study**-Supervision of graduate student who did study and slide tape - various sponsors.

Primary Investigator (with R. S. Hawks and D. Sundquist)-**Thruway Entrance and Commercial Strip Redevelopment Study**-coordination and supervision of two undergraduate students, two graduate students and several faculty- for the Northern Chautauqua Community Council, Fredonia, NY.

Co-Principal Investigator (with J.F. Palmer)-**Investigation of the Utility of Using Neighborhood Stands as a Management Unit for Urban Forestry**-Individual cognitive mapping and identification of neighborhoods and sampling what city residents' perception is of urban outdoor space and their attitudes toward urban Vegetation- for the Consortium for Environmental Forestry (U.S. Forest Service), Milford, PA.

Principal Investigator-**St. Lawrence River Scenic Access Study**-Photography and mapping of public views of the St. Lawrence River from a road running through 6 towns, investigation of critical views and legal means of view protection- for St. Lawrence-Eastern Ontario Commission, Watertown, NY.

Principal Investigator (with T. Day and J.F. Palmer)-**Simulating Visual Management Alternatives for Blue Ridge Parkway Scenic Overlooks**-Production of color photographic simulations of vegetative management options, study of historic vegetation management practices and management recommendations- for the National Park Service, Southeast Regional Office, Atlanta, GA.

Principal Investigator (with M. Gratzer)-**Perceptual Differences Towards Attributes of the Beach**-Support for Ph.D. student to gather and analyze differences between the perceptions of recreation users and those of management staffs on four state beaches on Lake Ontario gathered by survey instruments and video tape. For National Oceanic and Atmospheric Administration Sea Grant, Albany, NY.

Principal Investigator-**Village of North Syracuse Main Street Study**-Visual inventory and assessment of the image of the Rouge 11 corridor in the village utilizing social survey techniques and video imagery-alternatives were simulated with modelscope and scale models-public response was solicited with photoquestionnaire- for the Village of North Syracuse, NY.

Principal Investigator-**Aesthetic Resources: Identification, Analysis and Evaluation**-development and delivery (with J.P. Felleman, R. S. Hawks, R. A. Lambe & J.F. Palmer) of two National short courses at Fort Belvoir, VA- for the U.S. Corps of Engineers, Washington, DC and Huntsville, AL.

Co-Investigator (with J.F. Palmer)-**Convergence Analysis Approach for a National Landscape Architecture Research Agenda** - use of convergence analysis and national surveys to develop a National Research Agenda for the profession of landscape architecture- for the Landscape Architecture Foundation, Washington, DC.

Co-Principal Investigator (with J.F. Palmer)-**Development of Visual Impact Assessment Methodology for the U.S. Army Corps of Engineers**-for three years from U. S. Army Corps, Waterways Experiment Station, Vicksburg, MS.

Principal Investigator-**Study of the Seaway Trail Signage System**-assessment of existing signage along the trail, development of standards and specifications for signs, sign placement, information kiosks and loops, and general recommendations for signage system development-for the St. Lawrence-Eastern Ontario Commission, Watertown, NY.

Principal Investigator-**Aesthetic Resources: Identification, Analysis and Evaluation**-development and delivery (with J.P. Felleman, R. S. Hawks & J.F. Palmer) of national short course at San Francisco, CA for the U.S. Corps of Engineers, Washington, DC and Huntsville, AL.

Principal Investigator-**Aesthetic Resources: Identification, Analysis and Evaluation**-development and delivery (with T. Day, J.P. Felleman, R. S. Hawks & J.F. Palmer) of a national short course at Fort Belvoir, VA. For the U. S. Corps of Engineers, Washington, DC and Huntsville, AL.

Principal Investigator (with A.R. Lewis) - **Review of Planning and Legal Measures Related to Strip Development in the Fort Drum Impact Area -** Production of written report and slide tape on strip development for New York State Temporary State Commission on Tug Hill.

Smardon, R.C. and J.F. Palmer - Testing **for Explanatory Variables for Assessing Change in Perceived Visual Quality Due to Introduction of Development Activity in Natural/Rural Landscapes.** Funded by the Landscape Research Group (United Kingdom). One graduate assistantship supported for one year - perception testing using photographic stimulus in seven countries and statistical analysis of data.

Smardon, R.C. and J.F. Palmer - **Socio-cultural Assessment of Wetland Values for Land Use Planning in Juneau, AK.** Funded by the City/Bureau of Juneau, AK. Two-graduate assistantships in summer 1986 - involves setting up and running workshops in Juneau, as well as fieldwork, then developing mail survey to elicit response to socio-economic values of wetlands and analyzing data.

Smardon, R.C. - Study **of Wetland Values and Management in Onondaga County.** Funded by Physical Facilities Planning Department from Fisher-Guide Division, General Motors. One Ph.D. student graduate assistantship for 1-2 years to access values and functions of freshwater wetlands in Onondaga County, as well as development of a priority-based management plan.

Smardon, R.C. - **Production Writing of Scenic Roads Program Handbook for New York Department of Environmental Conservation.** Funded by Department of Environmental Conservation. One summer graduate assistantship - writing and some research on scenic roads program - layout and camera-ready manuscript production on computer.

<u>Research with the Faculty (Dept.) of Environmental Studies SUNY/ESF 1986-2015</u>
Smardon, R.C. - **Assessing Existence and Quality of Coastal Zone Data for 10 West Coast African Countries.** Funded by AID through USDI, National Park Service, International Affairs Office - work was done by Ph.D. student during summer 1986.

Smardon, R.C. & R.G. Werner, PI's, **Great Lakes Research Consortium** - operating budgets for fiscal years 1987-1988, 1988-1989, 1989-1990, 1990-1991, 1991, 1992-2004 Responsible with Jack Manno for basic direction and program development seminar exchange, research workshop, small grants programs and statewide Great Lakes science policy development. Budget varied from $50,000 to $200,000 per year

Smardon, R. C. **Scenic Road Management Plans for the Towns of Red Hook and Rhinebeck, New York.** Funded by Department of Environmental Conservation. Graduate assistantship to develop scenic road management plans for both towns.

Smardon, R.C. **Research Development in Environmental Studies** – unfunded development of two master's ecotourism project in Yucatan Peninsula, Mexico.

Smardon, R. C., **Des Plaines Wetlands Interpretation and Public Use Plan** - Wetland Research, Inc. Graduate assistantship to develop interpretative program, trail, and center concepts for Des Plaines River Experimental Wetlands.

Smardon, R. C., et al. $106,000 - Great Lakes Research Consortium **Summer Practicum for Applied Environmental Problem Solving - New Approaches and Techniques for Undergraduate Faculty**. National Science Foundation - first multi-campus GLRC research grant funded.

Smardon, R. C. **Preemptive Remediation Workshop**, sponsored by the City of Syracuse. Included development of geographic information system and interactive mitigation workshop held in Syracuse. And supported one MS graduate student.

Smardon, R. C. **U. S. Nigeria Dissertation Improvement Research on Barriers to Coastal Environmental Information Transfer: A Cast Study in Nigeria**. National Science Foundation Dissertation Support Grant.

Smardon, R. C. with J. Manno **Conversations in the Disciplines - The Role of Ecosystem Health Indicators: Lake Ontario Study** with SUNY Research Foundation funding**.**

Smardon, R. C. (with D. Reuter) **A Guidebook to Landowner's for Wetland Enforcement.** NYS Department of Environmental Conservation. Color booklet writing and production for positive development options for wetland owners.

Smardon, R. C. Development **of a Community Information Program for Onondaga Lake. Onondaga Lake Advisory Committee**. Development of 28-minute video and static/movable displays focused on Onondaga Lake cleanup strategies. And supported one MS graduate student.

Smardon, R.C., P1 with Jack Manno. **Contested Lakes: Public Involvement in Shaping the Great Lakes Water Quality Agreement and Implications for Canada-U.S. Relations**. Canadian Consulate. And supported one MS graduate student.

Smardon, R.C. P1 (with others) **Undergraduate Faculty Enhancement Grant for Environmental Problem Solving from National Science Foundation** ($98,000 second grant from NSF).

Smardon, R.C, Co-P1 with J. Felleman. **Development of A Guidebook for Managing Natural Resources in the Floodplain.** For USEPA Wetlands Policy and Local Government, Wash., DC and supported one MS graduate student.

Smardon, R.C. **National Urban Forestry Technology Transfer**. US Forest Service Coop Agreement Award number 01-CA-11242343-080. Sept. 1, 2001, thru Sept. 30, 2002, and supported a PhD student.

Smardon, R. C. National **GIS Database for Asian Longhorned Beetle Assessment**. US Forest Service Coop. Award Number 01-CA-11242343-045 May 14, 2001, thru May 13, 2002, and supported a PhD student.

Smardon, R.C. and John Ferrante. **Urban Stormwater Treatment Wetland Project**. USEPA Demonstration Grant with Atlantic States Legal Foundation and Randolph G. Pack Environmental Institute; $57,000, 11/2000 to 12/2001 (renewed to Sept. 2002) and supported two MS graduate students.

Smardon, R.C. **Canastota Wetland Enhancement Project**. U.S. Fish and Wildlife Service and supported one MS graduate student.

Smardon, R.C. and S. Thering. **Benefits of Multidisciplinary/Participatory Approaches to Community Decision-Making as Indicators of Community Capacity**. Department of Housing and Urban Development. $30,000 - resubmitted for 2001-2002 and funded to support a PhD student.

Smardon, R.C. **Analyzing Urban Forests in Morgantown, WV**. US Forest Service Coop Agreement submitted April 28, 2002, and supported PhD student.

Smardon, R.C. **Tree and Impervious Cover Mapping for the Northeastern US**. US Forest Service Coop. Agreement Amendment. Submitted May 1, 2003, for $98,000 extended to Dec. 2004 to support two graduate students.

Smardon, R.C. **Proposal to Create a New York State Energy Research Consortium**. Submitted March 15th to SUNY Conversations in the Discipline Program, Albany, $4000.

Smardon, R. C. and B. Faust. **Project to Develop Interactive Tools for Community Empowerment in Resource Management**. EnSpire Seed Grant Proposal with CINVESTAV. Merida' Mexico; Syracuse University and SUNY College of Environmental Science and Forestry, Syracuse, May 2004 -$24,000 to support faculty and graduate student international exchange.

Smardon, R.C. and others. **Onondaga Creek Sub-basin Conceptual Revitalization Study**. Submitted thru Onondaga Lake Partnership to USEPA. Sept. 1, 2004, thru Dec. 2005, $275,000- SUNY/ESF portion addressed creation of a Citizen Advisory Committee and public participation plan for creek revitalization. Supported two graduate students.

Smardon, R.C. **Harbor Brook Treatment Wetland Monitoring**. Submitted to USEPA, proposed start dates 10/01/05 thru 9/28/2009, $125,000. Second year of funding at $125,000 has been awarded thru 2008 for a total of $250,000, as part of Central NY Watersheds project with Russ Briggs. Supported two graduate students.

M. Hall and D. Nowak. Ultra Grant; "**Positioning Rust Belt Cities for a Sustainable Future; A systems approach to enhancing urban quality of life**", $300,000 2-year grant from NSF and US Forest Service. Working with B. Nordenstam on social science portion of assessing urban residents' reactions to proposed green infrastructure $35,000 used to fund two Ph.D. students

Smardon, R.C. PI. **SUNY Senate Sustainability Research Development** project funded by SUNY Senate and SUNY Research Foundation for workshop in May 2012 plus subsequent webinars

Smardon, R.C and Wendong Tao, Co-PIs. **Harbor Brook CSO 018 Treatment Wetland** with CH2MHILL and Onondaga County to monitor treatment wetland complex. Budget is $226,477 for 2-year project to run from September 2014 to December 2016. Includes support of four graduate students.
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L. Quackenbush and R.C. Smardon, Co-Pi's **Great Lakes Coastal Wetlands Restoration Strategy -** October 2016 to September 2018. Work included development of strategy and prioritization web based geographic information system for NYS coastal wetland restoration with budget of $34, 500.

CURRENT COMMUNITY & PROFESSIONAL SERVICE

Board member of Central NY Land Trust since 1985 and past governing board chair
Member and Chair of the Great Lakes Basin Advisory Council (1989 to now) advises the NYS Governor and legislature on Great Lakes policy issues
National Association of Environmental Professionals – Past Educational and Research working group chair plus track coordinator for NAEP conferences for over 10 years.
Founding Member of Scenic Resources Working Group –created in 2012 to promote best professional practice in visual resources management and visual impact assessment