

David A. Hart, Ph.D., AICP

Senior Scientist, University of Wisconsin Aquatic Sciences Center
Associate Director for Extension, University of Wisconsin Sea Grant Institute
Affiliate, Department of Planning and Landscape Architecture, University of Wisconsin-Madison
Affiliate, Nelson Institute for Environmental Studies, University of Wisconsin-Madison

Goodnight Hall, Room 201
1975 Willow Drive
Madison, Wisconsin 53706-1177

phone: (608) 262-6515
email: dhart@aqua.wisc.edu

web: <https://www.seagrant.wisc.edu/bio/david-hart/>
linkedin: <https://www.linkedin.com/in/david-hart-9a571b9>
google scholar: <https://scholar.google.com/citations?user=f5uIPnYAAAAJ&hl=en>
research gate: https://www.researchgate.net/profile/David_Hart25
orcid: <https://orcid.org/0000-0002-8762-0389>

Research Interests

- Application of geospatial technologies in coastal management, urban and regional planning, and environmental assessment
- Development of methods for discovering, acquiring, and integrating distributed geospatial data to support regional-scale analyses
- Spatial narratives and deep maps
- Planning for resilience to natural hazards
- Spatial decision support tools for adaptive management
- Geospatial interoperability
- Technology to support place-based learning and coastal stewardship
- Climate adaptation for coastal communities

Education

Ph.D., Land Resources, University of Wisconsin-Madison, 2000

Dissertation: *Building a Horizontally and Vertically Integrated Coastal GIS Using Local Government Spatial Data: The Case of Coastal Erosion Hazards on the Lake Michigan Coast of Wisconsin*. Advisor: Stephen J. Ventura

Master of Urban and Regional Planning, University of New Orleans, 1986

Thesis: *Regional Planning Concepts for Stormwater Management in the Lake Pontchartrain (Louisiana) Watershed*. Advisor: Fritz Wagner

B.S. Natural Resources, University of Michigan, 1981

Professional Experience

Senior Scientist/Associate Scientist, University of Wisconsin Aquatic Sciences Center, University of Wisconsin-Madison, August 2002 to present

Serve as the Assistant Director for Extension for Wisconsin Sea Grant since November 2014. Conduct research and provide outreach that supports sustainable coastal development along the Great Lakes. Develop methods for discovery, acquisition, integration, and analysis of local geospatial data for use in decision-making about coastal management issues at a regional scale. Recent projects include supporting the NOAA Coastal Services Center on development of a map-based visualization tool for adaptive management of coastal hazards related to variable water levels on the Great Lakes, providing outreach to coastal communities to better understand and plan for climate adaptation, building “geotools” that demonstrate the value of a spatial narrative to promote stewardship of important coastal ecosystems, and supporting the NOAA Digital Coast Partnership on development of a Great Lakes Coastal Resilience Planning Guide.

Senior Outreach Specialist, Land Information and Computer Graphics Facility, University of Wisconsin-Madison, December 1998 to August 2002

Conducted research and provided technical assistance and outreach to Wisconsin local government officials for the development of geographic information system applications for Great Lakes coastal management. Served as the Coastal Geographic Information Systems Specialist for the University of Wisconsin Sea Grant Institute.

Research Assistant, Land Information and Computer Graphics Facility, University of Wisconsin-Madison, January 1993 to November 1998

Applied geospatial technologies for sustainable management of the Great Lakes with support from the University of Wisconsin Sea Grant Institute. Utilized GIS to support urban nonpoint source pollution modeling as part of the Lake Superior Binational Program - Urban Stormwater Project. Developed a GIS for a stormwater utility in Marquette, Michigan. Developed educational materials for metadata implementation. Coordinated a national metadata satellite videoconference for the National States Geographic Information Council.

Senior City Planner/City Planner, City Planning Commission, New Orleans, Louisiana, February 1987 to January 1993

Managed a \$4 million multipurpose land information system for the City of New Orleans funded, in part, by the National Geodetic Survey. Conducted neighborhood land use and zoning studies. Reviewed ordinances that impact the tenure of city-owned properties.

Coastal Zone Planner, Department of Planning and Zoning, St. Charles Parish, Louisiana, December 1986 to February 1988

Consulted on the coastal zone management plan for St. Charles Parish.

Planner, Burk & Associates, Inc., New Orleans, Louisiana, September 1985 to October 1986

Worked on a variety of planning projects, including a comprehensive lakefront development plan for Kenner, Louisiana.

Teaching Experience

Nelson Institute for Environmental Studies, University of Wisconsin-Madison

- ENVIRST 719 – Water Resources Management Summer Practicum (co-taught with Jen Hauxwell) – Summer 2019 – 9 students
- ENVIRST 718 – Water Resources Management Practicum Planning Seminar II (co-taught with Jen Hauxwell) – Spring 2019 – 9 students
- ENVIRST 717 – Water Resources Management Practicum Planning Seminar I (co-taught with Jen Hauxwell) – Fall 2018 – 9 students
- 2019 Practicum Report (<https://nelson.wisc.edu/wp-content/uploads/wrm-report-2019.pdf>)

Department of Urban and Regional Planning, University of Wisconsin-Madison

- URPL 590 – Planning for Resilience to Natural Hazards (co-taught with Asli Göçmen) – Spring 2016 – 17 students
- URPL 590 – Contemporary Topics in Urban and Regional Planning: Mapping Mashups (co-taught with A.J. Wortley) – Spring 2009 – 11 students
- URPL 590 – Contemporary Topics in Urban and Regional Planning: Planning Support Systems Spring 2009 – 8 students
- URPL 969 – Applied GIS Workshop: Land Use Inventory and Analysis – Spring 2007 – 10 students
- URPL 969 – Applied GIS Workshop: Rethinking New Orleans After Hurricane Katrina – Spring 2006 – 17 students
- URPL 969 - Applications of GIS in Urban and Regional Planning – Spring 2005 – 19 students

Stone Laboratory, Ohio State University

- ENR 690 – Teaching with Google Earth and Google Ocean (co-taught with Rosanne Fortner) – Summer 2010 — 8 students
- ENR 690 – Great Lakes Curriculum Development and Evaluation (co-taught with Rosanne Fortner) – Summer 2008 — 5 students

Professional Affiliations and Certifications

- American Planning Association
- American Institute of Certified Planners, Certified Planner No. 6269, July 1988

Academic and Professional Honors

- Robert and Carroll Heideman Award for Excellence in Public Service and Outreach, University of Wisconsin-Madison, 2024
- Outstanding Programming Award, Great Lakes Sea Grant Network, 2015 (as part of team for the St. Louis River Estuary Stories and Science project)
- Early Career Award, Great Lakes Sea Grant Network, 2007
- Distinguished Service Award, Wisconsin Land Information Association, 2007
- Excellence in Coastal and Marine Graduate Study, 1999 Walter B. Jones Memorial and NOAA Excellence Awards for Coastal and Ocean Management
- Certificate of Commendation, Wisconsin Coastal Management Program, January 1999
- Best Map, Project Showcase, URISA '94 Conference, Milwaukee, Wisconsin
- Honorable Mention, Horwood Critique, URISA '94 Conference, Milwaukee, Wisconsin

- Outstanding Planning Student Award, American Institute of Certified Planners, School of Urban and Regional Studies, University of New Orleans, 1985

Referred Articles

Hart, D., Prestby, T., and R. Roth. 2022. "Design and Evaluation of Coastal Web Atlases: Best Practices and Future Opportunities for Map Representation, Interaction, and Usability." *Coastal Management*. <https://doi.org/10.1080/08920753.2022.2126271>.

Eanes, F., Silbernagel, J., Robinson, P., and D. Hart. 2020. Interactive Deep Maps and Spatial Narratives for Landscape Conservation and Public Engagement. *Landscape Journal*. July 2020 Vol. 38, pp. 7-24. <https://doi.org/10.3368/lj.38.1-2.7>.

Eanes, F., Silbernagel, J., Hart, D., Robinson, P. and M. Axler. 2018. Participatory mobile- and web-based tools for eliciting landscape knowledge and perspectives: introducing and evaluating the Wisconsin geotools project. *Journal of Coastal Conservation*. April 2018. Vol. 22, pp. 399–416. <https://doi.org/10.1007/s11852-017-0589-2>.

Roth R., Hart, D., Mead, R., and C. Quinn. 2017. Wireframing for interactive & web-based mapping: Designing the NOAA Lake Level Viewer. *Cartography and Geographic Information Science*. Vol. 44, No. 4. pp. 338-357. <https://doi.org/10.1080/15230406.2016.1171166>.

Silbernagel, J., Host, G., Hagley, C., Hart, D., Axler, R., Fortner, R., Axler, M., Smith, V., Drewes, A., Bartsch, W. and Danz, N. 2015. Linking place-based science to people through spatial narratives of coastal stewardship. *Journal of Coastal Conservation*, Vol. 19, No. 2. pp.181-198. <https://doi.org/10.1007/s11852-015-0380-1>.

Roth R., Quinn, C., and D. Hart. 2015. "The competitive analysis method for evaluating water level visualization tools" In: A. Vondrakova, J. Brus, and V. Vozenilek (eds) *Modern Trends in Cartography, Lecture Notes in Geoinformation and Cartography*. Chapter 19, pp. 241-256. https://doi.org/10.1007/978-3-319-07926-4_19.

Kuhlman, K., D. Hart, S. Ventura, and J. Prey. 1994. "GIS and Nonpoint Pollution Modeling: Lessons Learned from Three Projects" *Journal of the Urban and Regional Information Systems Association*. Vol. 6, No. 2 (Fall 1994), pp. 69-72.

Wagner, F. and D. Hart. 1986. "Urban Estuarine Systems Under Stress: Environmental Issues Facing Louisiana's Lake Pontchartrain" *The Environmentalist*. Vol. 6, No. 1, pp. 25-33.

Wagner, F. and D. Hart. 1986. "The Politics of Planning and Managing Water Quality in a National Park: The Case of Jean Lafitte" *The Environmental Professional*. Vol. 8, pp. 32-40.

Book Chapters

Hart, D. 2010. "Status of the Wisconsin Land Information Program" In B. Niemann, S. Ventura, D. Moyer, & R. Chenoweth (Eds.), *Citizen Planners: Shaping Communities with Spatial Tools*. Redlands, CA: ESRI Press. pp. 129-149.

Hart, D. 2010. "Towards a Wisconsin Coastal Atlas" In D. Wright, E. Dwyer, & V. Cummins (Eds.), *Handbook of Research on Coastal Informatics: Web Atlas Design and Implementation*. Hershey, PA: IGI Global. pp. 145-155.

Nyerges, T., Belpaeme, K., Haddad, T., and D. Hart. 2010. "Creating a Usable Atlas" In D. Wright, E. Dwyer, & V. Cummins (Eds.), *Handbook of Research on Coastal Informatics: Web Atlas Design and Implementation*. Hershey, PA: IGI Global. pp 256-266.

Hart D. 2005. "Policy Tools for Addressing Landslide Hazards in Pittsburgh, Pennsylvania" In J. Schwab, P. Gori, and S. Jeer (Eds.). *Landslide Hazards and Planning*. Planning Advisory Service Report Number 533/534. Chicago: American Planning Association. pp. 125-130.

Conference Proceedings

Nawshin N.T., R.E. Roth, A. Anderson, G. Baldrice-Franklin, and D.A. Hart. 2025. "Locative audio for educational and inclusive cartography: A case study in green stormwater infrastructure." In: Proceedings of the 32nd International Cartographic Conference. Vancouver, Canada: 18-22 August 2025. <https://icc2025.swoogo.com/icc2025/session/3356879/414-user-experience>.

Nawshin N.T., R.E. Roth, A. Anderson, G. Baldrice-Franklin, R.J. Hougham, and D.A. Hart. 2025. "Locative audio technology for exploring green stormwater infrastructure: A preliminary study." In: Proceedings of the 19th Conference on Location Based Services. Helsinki, Finland: 7-9 May 2025. <https://doi.org/10.5281/zenodo.15352929>.

Roth, R.E., Nawshin, N.T., Anderson, A., Baldrice-Franklin, G. and Hart, D.A., 2023. "A Comparative Analysis of Locative Audio for Mobile Cartography: A Preliminary Study." In Proceedings of the 18th International Conference on Location Based Services. 20 November 2023. <https://doi.org/10.34726/5699>.

Hagley, C.A., Silbernagel, J., Host, G., Hart, D.A., Axler, R., Fortner, R.W., Axler, M., Smith, V., Drewes, A., Bartsch, W. and Danz, N., 2016. "Connecting People to Place: Stories, Science, Deep Maps, and Geo-Quests for Place-Based Learning". In AGU Fall Meeting Abstracts. <https://agu.confex.com/agu/os16/meetingapp.cgi/Paper/92429>.

Roth, R., Hart, D., Mead, R., and C. Quinn. 2014. "Design before you code: Using wireframes in support of interactive and web-based mapping" in *AutoCarto 2014*. Pittsburg, PA, 5-7 October 2014.

Roth, R., Quinn C., and D. Hart. 2014. "A Competitive Analysis of Web-based Water Level Visualization Tools" in *CartoCon 2014*. Olomouc, Czech Republic, 25-28 February 2014.

Hart, D. and E. Hamilton. 2012. "Spatial Decision Support Tools for Adaptive Management of Water Resources" in *Geographic Information Systems (GIS) and Water Resources VII*. AWRA's 2012 Spring Specialty Conference. Edited by S. Fox. American Water Resources Association, Middleburg, Virginia, TPS-12-1, CD-ROM.

Hart, D., Silbernagel, J., Smith, V., Drewes, A., and R. Greene. 2011. The Use of Spatial Narratives to Promote Stewardship of Coastal Resources. *Proceedings of CoastGIS 2011 Conference*. Oostende, Belgium. 6-9 September 2011. Vol. 1, pp. 34-41.

Kopke, K., Dwyer, N., Belpaeme, K., Berman, M., Taylor, K., Hart, D., and D. Wright. 2010. Improving Participation of Users in Coastal Web Atlases. *Littoral 2010: Adapting to Global Change at the Coast*. London. 21-23 September 2010.

Clark, G., D. Hart, K. Angel, and M. Friis. 2008. "Wisconsin Sea Grant Institute and the Wisconsin Coastal Hazard Team" in *Solutions to Coastal Disasters – 2008*. Edited by L. Wallendorf, L. Ewing, C. Jones, and B. Jaffe. American Society of Civil Engineers.

Burkett, V., D. Zilkoski, and D. Hart. 2003. "Sea-Level Rise and Subsidence: Implications for Flooding in New Orleans" *U.S. Geological Survey Subsidence Interest Group Conference, Proceedings for the Technical Meeting*. November 27-29, 2001, Galveston Island, Texas. USGS Water Resources Division, Open File Report Series. pp. 63-70.

Hart, D. and A. Vargas. 2000. "Who Owns the Coast? Applications of an Integrated Digital Parcel Map for the Lake Michigan Coast of Wisconsin" *Coastal GeoTools '01 Proceedings*.

Rink, M., D. Hart, and A. Miller. 1998. "Customized Geographic Information Systems Training for Coastal and Marine Resource Managers" *1998 ESRI User Conference Proceedings*. <http://www.esri.com/library/userconf/proc98/PROCEED/TO650/PAP604/P604.HTM>

Hart, D., A. Miller, B. Niemann, and S. Ventura. 1997. "Developing GIS Applications for Coastal Management in Wisconsin Local Government" *1997 ESRI User Conference Proceedings*. <http://www.esri.com/library/userconf/proc97/PROC97/TO350/PAP310/P310.HTM>

Hart, D., A. Miller, B. Niemann, and S. Ventura. 1997. "Coastal GIS Applications in Wisconsin" *Coastal Zone '97*. Vol. 2, pp. 718-720.

Hart, D., B. Niemann, S. Ventura, and A. Miller. 1995. "Support for Development of Coastal GIS Applications in Wisconsin". *GIS/LIS '95 Proceedings*. Vol. 1, pp. 388-398.

Hart, D. and E. Wilkinson. 1995. "Developing a Mechanism for Sharing Geodetic Information in the New Orleans Region" *Coastal Zone '95*. pp. 375-376.

Hart, D., and D. Zilkoski. 1994. "Mapping a Moving Target: The Use of GIS to Support Development of a Subsidence Model in the New Orleans Region" *URISA 1994 Annual Conference Proceedings*. Vol. 1, pp. 555-569.

Hart, D., G. Thompson and E. Wilkinson. 1990. "Problems in Coordinating and Implementing a Land Information System in a Subsiding Region" *1990 ACSM-ASPRS Fall Convention Technical Papers*. pp. A56-A60.

Hart, D., and F. Wagner. 1987. "Analysis of Institutional Policy for the Provision of Stormwater Management in the Lake Pontchartrain (Louisiana) Watershed" *Coastal Zone '87*. Vol. 3, pp. 755-769.

Reports

Mieras C., Ohm, B. and D. Hart. 2022. Addressing Coastal Hazards in Local Comprehensive and Hazard Mitigation Plans: An Update on Wisconsin Coastal Communities. April 2022.

Mangham, A., Hart, D., Bechle, A. Clark, G., Peroff, D., Noordyk, J., Stitt, B. and L. Stitt. 2018. Adaption to a Changing Coast: Options and Resources for Local Officials in Southeastern Wisconsin Coastal Communities. University of Wisconsin Sea Grant Institute. June 2018.

Hart, D. 2018. Expanding the Use of IOOS Web Services for Cost-Effective and Sustainable Decision-Support at Coastal Beaches. April 2018.

Mangham, A., Hart, D., Bechle, A. Clark, G., Peroff, D., Noordyk, J., Stitt, B. and L. Stitt. 2017. Adaption to a Changing Coast: Options and Resources for Lake Michigan Property Owners in Southeastern Wisconsin. University of Wisconsin Sea Grant Institute. August 2017.

Hart, D., Mangham, A. and A. Bechle. 2016. Integrated Assessment on Water Level Variability and Coastal Bluff Erosion in Northern Milwaukee County and Southern Ozaukee County, Wisconsin. Phase 2 Report – Response Options. Prepared for the Graham Sustainability Institute, University of Michigan. November 2016.

Hart, D. and Clark. G. 2016. Integrated Assessment on Water Level Variability and Coastal Bluff Erosion in Northern Milwaukee County and Southern Ozaukee County, Wisconsin. Phase 1 Report – Interdisciplinary Synthesis of Existing Research. Prepared for the Graham Sustainability Institute, University of Michigan. May 2016.

Hart, D. 2015. Integrated Assessment on Water Level Variability and Coastal Bluff Erosion in Northern Milwaukee County and Southern Ozaukee County, Wisconsin. Planning Grant Final Report – Interdisciplinary Synthesis of Existing Research. Prepared for the Graham Sustainability Institute, University of Michigan. September 2015.

Sippel, B., Pearce, A., Ohm, B. and D. Hart. 2015. A Review of Coastal Hazard Planning in Comprehensive Plans and Hazard Mitigation Plans in Coastal Communities in Wisconsin. Prepared for the NOAA Great Lakes Coastal Storms Program. May 2015.

Roth, R., Hart, D., Quinn, C., and R. Mead. 2014. Low-Fidelity Wireframe Evaluation of the NOAA Lake Level Viewer: Summary of Findings. Prepared for the NOAA Coastal Services Center. April 2014.

Roth, R., Quinn, C. and D. Hart. 2013. A Comparative Analysis of Online Water Level Visualization Tools. Prepared for the NOAA Coastal Services Center. December 2013.

Murdock, E. and D. Hart. 2013. Great Lakes Coastal Community Climate Adaptation Checklist. 2013. University of Wisconsin Sea Grant Institute. March 2013.

Lichtkoppler, F., Joshi, S., Dorworth, L., Hart, D., Hagley, C., Hueffmeier, R., McCartney, A. and D. White. 2012. 2010 GLOS Great Lakes Sea Grant Network - Education and Outreach Project: Adaptive Management Needs Assessment. LaMP/AOC – Public Health – Fisheries. Prepared for the Great Lakes Observing System. July 31, 2012.

Lichtkoppler, F., Joshi, S., Dorworth, L., Hart, D., Hagley, C., Hueffmeier, R., McCartney, A. and D. White. 2012. 2010 GLOS Great Lakes Sea Grant Network: Needs Gap Analysis. Prepared for the Great Lakes Observing System. September 28, 2012.

Snyder, F., Lichtkoppler, F., Sturtevant, R., DeMarchi, C., Bergeron, D., Clark, G., Hart, D., Farnsworth, R., Dorworth, L., Grise, S., MacNeill, D., and J. Lucente. 2011. Preparing Coastal Communities for Climate Change: Translating Model Results to Prepare Ports, Harbors, and Stormwater Management Facilities in an Era of Climate Variability and Scientific Uncertainty – Project Final Report. Prepared for the NOAA Climate Program Office. 15 pp.

Hart, D. and R. Greene. 2011. Visualization of Shoreline and Water Level Changes in Great Lakes Coastal Communities. Prepared for the NOAA Climate Program Office. July 12, 2011. 8 pp.

Greene, R. and D. Hart, D. 2011. Topographic/Bathymetric Models for the Harbors of Toledo and Duluth/Superior: Data Acquisition, Integration, and Visualization. Prepared for the NOAA Climate Program Office. July 12, 2011. 17 pp.

Shanley, L., S. Ventura, and D. Hart. 2001. *Wisconsin and National Framework Surveys – Comparison, Validation, and Recommendations*. Prepared for the Federal Geographic Data Committee and the University Consortium for Geospatial Information Science. April 4, 2001. 31 pp.

Wade, C., and D. Hart. 2001. *Land Use/Land Cover Change Analysis for the Lake Michigan Potential Damages Study, Wisconsin Coastal Zone*. Prepared for the U.S. Army Corps of Engineers, Detroit District. February 2001. 14 pp.

Koch, T., D. Hart, D. Moyer, and B Niemann. 2001. *Land Information Modernization Activity in Wisconsin: Impacts, Status, and Future Tasks – 1990-2000*. Prepared for the Wisconsin Land Information Board and the Strategic Assessment Task Force. January 2001. 31 pp.

Hart, D. 2000. *Acquisition and Integration of Digital Parcel Mapping to Support Coastal Management Along the Lake Michigan Coast of Wisconsin*. Prepared for the U.S. Army Corps of Engineers, Detroit District. 44 pp.

Hart, D., H. Phillips and S. Jeer. 1999. *Metadata Profile for Land Use Data*. Prepared for the Land-Based Classification Standards Project, American Planning Association.

Hart, D. 1998. *The Status of Digital Parcel Mapping in Wisconsin's Lake Michigan Coastal Counties*. Prepared for the U.S. Army Corps of Engineers, Detroit District. 41 pp.

Hart, D., and A. Miller. 1998. *Evaluating the Development of a Horizontally and Vertically Integrated GIS for the Lake Michigan Coast Using Local Government Spatial Data*. Prepared for the Wisconsin Coastal Management Program. 89 pp.

Hart, D., and T. Miller. 1998. *Demonstration of a State-Level Natural Hazards GIS for the Lake Michigan Coast in Wisconsin*. Prepared for the Wisconsin Coastal Management Program. 14 pp.

Hart, D., and S. Ventura. 1996. *Lake Superior Binational Program Urban Stormwater Demonstration Project - Design and Development of a Geographic Information System to Support a Stormwater Utility in Marquette, Michigan*. Prepared for the Wisconsin Department of Natural Resources. 48 pp.

Hart, D., and S. Ventura. 1996. *Lake Superior Binational Program Urban Stormwater Demonstration Project - Digital Land Use Data and Watershed Data for the Duluth, Minnesota Region and Integration of Land Use and Water Quality Data for the Miller Creek Watershed in Duluth, Minnesota*. Prepared for the Wisconsin Department of Natural Resources. 34 pp.

Hart, D., S. Ventura and M. Mashayekhi. 1994. *Lake Superior Binational Program - Stormwater Demonstration Project: Geographic Data Acquisition and Automation Techniques and Results*. Prepared for the Wisconsin Department of Natural Resources. 41 pp.

Hart, D. 1989. *To Restore Lake Pontchartrain*. Sections on Municipal Runoff, Atmospheric Deposition of Pollutants, and Institutional Issues Concerning Water Quality. Prepared for the Lake Pontchartrain Causeway Commission. 270 pp.

White Papers

Hart, D. 2025. Three Decades of Coastal GIS at Wisconsin Sea Grant. July 2025.
https://maps.aqua.wisc.edu/geocatalog/pdf/CoastalGIS_at_WISG.pdf.

Hart, D. 2025. How Wisconsin Sea Grant Benefits From the NOAA Digital Coast. July 2025.
https://maps.aqua.wisc.edu/geocatalog/pdf/How_WISG_Benefits_from_DigitalCoast.pdf

Hart, D. 2025. Enabling Resilience to Great Lakes Coastal Hazards through the Wisconsin Coastal Atlas. July 2025. <https://maps.aqua.wisc.edu/geocatalog/pdf/wca-enabling-resilience.pdf>

Hart D. 2017. Wisconsin Sea Grant and the Land Information Community. November 2017.
https://maps.aqua.wisc.edu/geocatalog/pdf/WISG_and_Land_Info.pdf

Story Maps

Hart DA. 2023. The Wisconsin Coastal Atlas and ICAN: How participating in a global network strengthens coastal GIS in Wisconsin. ArcGIS Story Map.
<https://storymaps.arcgis.com/stories/d81b5a237d054fcca76fe59ed150a5bc>.

Silbernagel Balster J, Hart DA, Eanes F, Axler M and P Robinson. 2021. Spatial Narratives: A Landscape App - Every place has a story. What if communities could write their own narrative? ArcGIS Story Map. <https://storymaps.arcgis.com/stories/37a22cf78900446fa44b60ac06f839e4>.

Lesson Plans

Axler, M. and D. Hart. 2012. Great Lakes Waves and Water Safety Lesson 1 - Activity 1: The Path of the Edmund Fitzgerald. Prepared for the Great Lakes Observing System - Teaching with Great Lakes Data. June 14, 2012.

Axler, M., Ballard, K. and D. Hart. 2012. Great Lakes Waves and Water Safety Lesson 1 - Activity 2: Using the Great Lakes Coastal Forecasting System for Ship Routing Through the North American Extratropical Cyclone of October 2010. Prepared for the Great Lakes Observing System - Teaching with Great Lakes Data. June 15, 2012.

Other Publications

Ventura, S., D. Hart, D. Moyer, and B. Niemann. 2001. "Surveying the Lay of Land Information Systems" *GeoSpatial Solutions*. Vol. 11, No. 10, pp. 32-35.

Hart, D., H. Phillips and S. Jeer. 1999. *LBCS Metadata Primer: A Practical Guide on Documenting Digital Land-Use Data Based on the Land-Based Classification Standards*. Prepared for the Land-Based Classification Standards Project, American Planning Association.

Hart, D. and H. Phillips. 1997. *Metadata Primer -- A "How-To" Guide on Metadata Implementation*. Prepared for the National States Geographic Information Council.

Hart, D. 1997. *A Resource Guide for Great Lakes Coastal Hazards in Wisconsin*. Prepared as part of an Independent Work class (URPL 999) in the Urban and Regional Planning Department at the University of Wisconsin-Madison under the direction of Prof. Stephen Born.

Miller A. and D. Hart. 1997. *Managing the Coasts of Wisconsin: The Application of GIS to Coastal Resource Management*. Planning Wisconsin Seminar. February 11, 1997. (with A. Miller).

Hart, D. 1985. "Patterns of Migration in Modern Jamaica" *SURS Occasional Papers No. 5 - Comparative Urbanization*. pp. 18-35.

Book Reviews

Hart, D. 2009. Review of "Smart Land-Use Analysis – The LUCIS Model Land-Use Conflict Identification Strategy" by Margaret H. Carr and Paul D. Zwick. *Journal of the American Planning Association*. Vol. 75, No. 1 (Winter 2009), p. 89.

Hart, D. 1996. Review of "GIS and Organizations: How effective are GIS in practice?" by Heather Campbell and Ian Masser. *Journal of the Urban and Regional Information Systems Association*. Vol. 8, No. 2 (Fall 1996), pp. 100-101.

GIS Training Exercises

Koehler, J., B. Lemke, and D. Hart. 2005. *Stormwater Management GIS Tools*.

Hart D., and T. Miller. 1997. *Coastal Erosion and Shoreland Development Regulation GIS Application*. Town of Mosel, Sheboygan County, Wisconsin.

Hart, D., and T. Sutphin. 1997. *Shoreland Management GIS Application*. Blue Lake, Oneida County, Wisconsin.

Web Sites

Wisconsin Coastal Atlas (with K. Bernard, E. Hamilton, T. Wallace, R. Greene, H. Bremer, R. Dellinger, T. Dellinger, J. Grandt, T. Xiong, T. Yao, Y. Gen, and S. Congdon)

<https://wicoastalatlas.net/>

Wisconsin Coastal Guide (with M. Purdy, J. Zeisloft, S. Johnson, J. Karl, E. White, T. Yao, T. Dellinger, and R. Dellinger)

<https://www.wisconsincoastalguide.org/>

Web Mapping Applications – UW Sea Grant

<https://maps.aqua.wisc.edu/>

Mapping and GIS - University of Wisconsin Sea Grant Institute

<https://www.seagrant.wisc.edu/our-work/focus-areas/mapping-and-gis/>

Retired Websites

- Wisconsin Coastal GIS Applications Project
- Great Lakes Mapping Workshops: How to Develop Your Own Great Lakes Web Mapping Applications
- Wisconsin County and Municipal Web Mapping Sites
- Great Lakes Observing System – Education and Outreach – Wisconsin
- Hydrologic Dashboard (with Z. Johnson*, A. Woodruff, and R. Donohue)
- Lake Superior Coastal Mapping Portal (with M. Miller*, and J. Zeisloft)
- Great Lakes Coastal Community Planning Resource (with L. Shanley*, T. Krzeminski, T. Yao, T. Dellinger, and R. Dellinger)
- Great Lakes Bathymetry Explorer. (with J. Alliet*)
- Coastal Erosion on the Great Lakes – Ozaukee County, Wisconsin (with M. Harrower*, J. Stone*, T. Koch, A. Vargas, and A. Wortley)
- 3D Visualization of Coastal Resources (with T. Miller*)
- An Educational and Research Program in Support of Content Standards for Digital Geospatial Metadata (with H. Phillips*)

* indicates primary web developer

Videos

2000. Participant in "Approaches to Analyzing Land and Land-Use Characteristics." American Planning Association Professional Development Workshop. April 18, 2000. 3 hours. Prepared by the American Planning Association and the Urban and Regional Information Systems Association.

1997. Coordinator for "*A Practical Guide to Metadata Implementation for GIS/LIS Professionals*." National Satellite Videoconference. October 15, 1997. 2 hours. Prepared for the National States Geographic Information Council.

Digital Resources

2012. Big Two-Hearted River – Google Lit Trip (with M. Hart)

<https://www.googlelitrrips.org/>

2011. Great Lakes Mapping Mashup Resources. Prepared for the Great Lakes Observing System. (Flash Drive)

2008. Paddle-to-the-Sea – Google Lit Trip (with N. Hart)

<https://www.googlelitrrips.org/>

1998. *Coastal GIS Training Exercises*. December 1998. Prepared for the Wisconsin Coastal Management Program. (Compact Disc)

1998. *Ozaukee County Coastal Hazards Emergency Management -- GIS Demonstration Project*. July 1998. Prepared for the Wisconsin Coastal Management Program. (Compact Disc)

1998. *Wisconsin Great Lakes Coastal Hazards State-Level GIS Data and ArcView Application*. May 1998. Prepared for the Wisconsin Coastal Management Program and Wisconsin Emergency Management. (Compact Disc)

Presentations

From 1997 through September 2025, David has given 332 presentations reaching 14,195 people.

Workshops

From 1996 through September 2025, David has instructed 97 workshops reaching 2,494 people.

Project Funding

From 1994 through September 2025, David developed and collaborated on 100 sponsored projects totaling \$7.9M, including 54 as PI totaling \$4.4M.

Service

University

- Search Committee for Vice Chancellor for Research and Graduate Education, UW-Madison, 2019-2020
- Academic Staff Assembly, District 103 Representative, 2014-2015
- Ad Hoc Committee on Academic Staff with Multiple Roles, Academic Staff Executive Committee, UW-Madison, 2011-2013
- Committee on State Cartography, UW-Madison, 2002-2012
- Equity and Diversity Committee, Graduate School, UW-Madison, 2006-2009
- Creating a Collaborative Research Environment, UW-Madison, 2002-2003
- Board of Directors, University of New Orleans Alumni Association, 1987-1991

State

- Natural Hazards Advisory Committee, Wisconsin Coastal Management Program, 1995-present
- Co-Chair, Coastal Resilience Working Group, Wisconsin Climate Change Initiative, 2009-present
- Geospatial Working Group, Wisconsin Climate Change Initiative, 2020-present
- Science Advisory Group, Wisconsin Climate and Health Program, 2016-present
- Board of Directors, Wisconsin Land Information Association, 2005-2007
- Wisconsin Coastal and Estuarine Land Conservation Plan Advisory Committee, 2005
- Wisconsin Coordinate Systems Task Force, Wisconsin Land Information Association, 2004-2007
- Elevation Data Task Force, Wisconsin Land Information Board, 2001-2003
- Land Use Task Force, Wisconsin Land Information Association, 1999-2001
- Technical Working Group, Wisconsin Land Council, 1998-2000
- Chair, Metadata Task Force, Wisconsin Land Information Association, 1995-1997

Regional

- Chair, Great Lakes Sea Grant Network Extension Program Leaders, 2019-2023
- NOAA Coastal Storms Program - Shoreline Change Workshop Steering Committee, 2012-2013
- Advisory Committee, Great Lakes Information Network (GLIN) Labs Project, 2009
- Coastal Zone Technical Working Group, International Upper Great Lakes Study, International Joint Commission, 2007
- Information Integration and Education/Outreach Subsystem Teams, Great Lakes Observing System, 2005
- Sustainable Coastal Community Development Team, Great Lakes Sea Grant Network, 2001-present
- Conference Topic Shepherd, Making a Great Lake Superior, 2007
- Planning Team, Great Lakes Geospatial Service Center Needs Assessment, 2006
- Conference Planning Committee, Great Lake Regional Data Exchange, 2005
- Geotourism and the Great Lakes Circle Tour, Great Lakes Commission, 2005
- Steering Committee, Delta Assembly on Gulf of Mexico Environmental Issues, 1992
- Principal Investigator, Lake Pontchartrain Basin Study, 1988-1989

National

- Executive Committee, Sea Grant Extension Assembly, 2019-2023
- Sustainable Coastal Development Focus Area Team, National Sea Grant College Program, 2008-2014
- Coastal Communities and Economies Theme Team, National Sea Grant Network, 2002-2008
- Conference External Committee, Coastal GeoTools Conference, NOAA Coastal Services Center, 1999, 2001, 2005, 2007, 2009
- National Shoreline Data Standard Working Group, Bathymetric Subcommittee, Federal Geographic Data Committee, 1997
- Technical Advisory Committee, Land Based Classification Standards Project, American Planning Association, 1996-1999
- Local Planning Committee, American Planning Association National Conference, New Orleans, 1991

International

- International Coastal Atlas Network, 2008-present
 - Steering Committee, 2017-present
 - Technical Committee, 2008-present
- Editorial Advisory Board, Coastal Management Journal, 2002-present
- Executive Committee, CoastGIS, 2001-present
- Editorial Board, GeoCoast Journal, 2001

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