

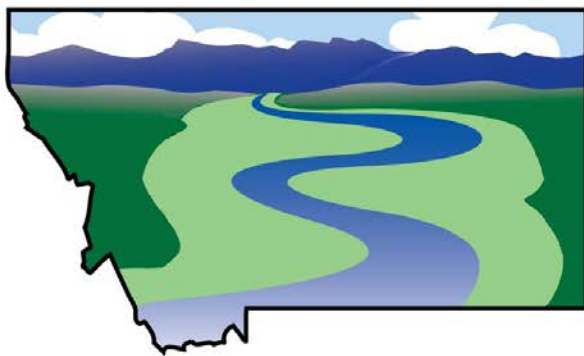
**Building Thriving Community Resilience  
and Sustainability: Floodplain Legal and  
Sustainable Development Workshop  
July 25-26, 2013**

**Miles City, Montana**



## Sponsors

The Natural Hazard Mitigation Association and the Montana Department of Natural Resources & Conservation would like to thank the following sponsors:



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## Workshop Description

A special workshop will begin at 8:00 am GMT on July 25, 2013. This special workshop, sponsored by the Montana Department of Natural Resources & Conservation and the Natural Hazard Mitigation Association will bring together Montana experts and national engineering, planning, architectural and legal experts in a session designed to promote a safer more resilient future for communities. This event is designed for everyone involved in making community development decisions: Legal experts, community officials, developers, architects, engineers, government leaders, and floodplain managers are strongly encouraged to attend. The workshop, ***Building Thriving Community Resilience and Sustainability***, will focus on providing information and tools for local communities faced with a myriad of complex issues that affect the viability of communities economically and aesthetically, and provide a framework for leveraging private and public resources and information to achieve success. Additionally, the workshop will create a mechanism for communities to initiate work groups to further discuss and develop goals and solutions. The workshop will be facilitated by both Montana and nationally recognized experts in the fields of law, planning, architecture & low impact design and engineering.

This workshop will:

- a) explain the ancient legal roots of the National Flood Insurance Program and “No Adverse Impact”, or “Safe Development”;
- b) demonstrate how floodplain management and other forms of regulation designed to prevent harm can be structured to avoid much, if not all, of the uncertainty surrounding the “Takings” issue;
- c) explain how property rights principles support floodplain and other natural hazard regulations;
- d) demonstrate that local floodplain management designed upon the “Safe Development” or “No Adverse Impact” concept is not anti-development but rather protects everyone’s property rights,
- e) examine legal risks for areas protected from flooding by dams and levees;
- f) demonstrate how to successfully negotiate towards a safer community future; and
- g) explore opportunities for floodplain managers to work more closely with developers, architects, engineers and all others involved in community development to build a safer future for Montana and the entire Nation.

# Agenda

## Thursday, July 25

8:00 – 8:30 AM	<b>Arrivals and Registration</b>
8:30 – 9:00 AM	<b>Welcome and Introductions</b> <i>[insert speaker name]</i>
9:00 -10:00 AM	<b>Defining Local Conditions</b> <i>Kent Atwood</i> <i>State Hazard Mitigation Officer</i>
10:00 – 10:15 AM	<b>Break</b>
10:15 – 11:15 AM	<b>Law, Policy, and Programs</b> <i>Edward A. Thomas, Esq.</i> <i>Natural Hazard Mitigation Association</i>
11:15 – 12:00 PM	<b>Peer Networks and Other Best Practices</b> <i>Alessandra Jerolleman PhD, MPA, CFM</i> <i>Natural Hazard Mitigation Association</i>
12: 00 – 12:30 PM	<b>Property Rights and Flood Management</b> <i>Edward A. Thomas, Esq.</i> <i>Natural Hazard Mitigation Association</i>
12:30 – 1:15 PM	<b>Lunch Break</b>
1:15 – 2:00 PM	<b>After Koontz v. St. Johns River Water Management District: Negotiating Safe Development (Part 2)</b> <i>Edward A. Thomas, Esq.</i> <i>Natural Hazard Mitigation Association</i>
2:00 – 2:45 PM	<b>Case Studies In Mitigation</b> <i>David Mallory, P.E.</i>
2:45 – 3:00 PM	<b>Break</b>
3:00 – 4:00 PM	<b>Break-out Groups</b> <i>“Define the natural hazard risks in your community and the barriers to mitigation”</i>
4:00 – 4:30 PM	<b>Break-out Group Reports</b>

4:45 – 5:00 PM

**Summary of Day 1**

*Edward A. Thomas, Esq.*

*Natural Hazard Mitigation Association*

5:00 PM

**Adjourn**

**Friday, July 26**

8:00 – 8:30 AM	<b>Coffee Served (informal)</b>
8:30 – 9:30 AM	<b>Current and Future Trends In Mitigation Planning</b> <i>Edward A. Thomas, Esq</i> <i>Natural Hazard Mitigation Association</i>
9:30 -9:45 AM	<b>Break</b>
9:45 – 10:30 AM	<b>Mitigation Design: Drought, Fire, and Flood</b> <i>Donald Watson, FAIA, NCARB</i>
10:30 – 11:30 AM	<b>Break-out Groups</b> <i>Define next best steps to remove barriers to mitigation in your community.</i>
11:30 – 12:15 PM	<b>Break-out Group Reports</b>
12:15 – 12:30 PM	<b>Summary of Workshop</b> <i>Edward A. Thomas, Esq.</i> <i>Natural Hazard Mitigation Association</i>
12: 30 PM	<b>Adjourn</b>

## Speaker Biographies

### **Alessandra Jerolleman, PhD, MPA, CFM**

**Alessandra Jerolleman** is the founder and Executive Director of the Natural Hazard Mitigation Association (NHMA). Dr. Jerolleman is a Senior Emergency Management and Hazard Mitigation Planner for JEO Consulting Group Inc. She currently serves as one of the Tri-Chairs for the National Hazard Mitigation Collaborative Alliance, sits on the board of the Greater New Orleans Disaster Recovery Partnership, and sits on the Executive Committee of the American Society of Public Administration's Section on Emergency and Crisis Management. She is the co-author of a textbook, "Natural Hazard Mitigation," published by CRC Press in 2012 as well the co-author of "What Has Been Done? Louisiana After Katrina." in an upcoming book *Disasters & Development: Issues and Country Studies* edited by Dr. Naim Kapucu. She completed her dissertation, "The Privatization of Hazard Mitigation: A Case Study of the Creation and Implementation of a Federal Program" at the University of New Orleans in 2013. Dr. Jerolleman has acquired wide-ranging experience in the private, non-profit, and academic sectors.

Dr. Jerolleman's experience includes the following: serving as a Program Specialist in the Gulf Coast with Save the Children USA, working on a resilience initiative around children's needs in emergencies; hazard mitigation planning at the local, state and campus level; community education and outreach regarding mitigation measures and preparedness; development of collaborative networks and information sharing avenues among practitioners; and, delivery of training and education to various stakeholders. She is involved in various aspects of planning and policy at the national and local level, including participation in several workshops each year. Dr. Jerolleman speaks on many topics including: hazard mitigation and climate change; campus planning; threat, hazard and vulnerability assessments; hazard mitigation planning; protecting children in disasters; and, public/private partnerships.

### **Edward A. Thomas, Esq.**

**Ed Thomas** is the President of the Natural Hazard Mitigation Association; and an elected member of the Council of the State and Local Government Section of the American Bar Association. He is also the Chair of the Hazards Sub-Committee of the Land Use Planning and Zoning Committee, of the ABA. In addition, Ed serves on the Advisory Committee of the Natural Hazards Center of the University of Colorado; and is an active member of both the American Planning Association and the American Geophysical Union.

He is a former board Member of the Association of State Floodplain Managers; and now serves as the Senior Liaison for that organization's on the No Adverse Impact Committee.

Ed retired from the Department of Homeland Security-Federal Emergency Management Agency after nearly thirty-five years of Public Service. During his time in government, he worked primarily in Disaster Mitigation, Preparedness and Response. He also was extensively involved in Community Development, during his nearly 10 years with the Department of Housing and Urban Development.

Ed worked on about two hundred disasters and emergencies, serving as the President's on scene representative, the Federal Coordinating Officer, dozens of times.

Ed is an Attorney, is a frequent lecturer on Emergency Management issues, especially the Constitutional and Legal Aspects of Floodplain Regulations. He has authored dozens of publications and articles on various Disaster related issues and regularly participates as a member of National Task Forces and other boards in developing National disaster-related and floodplain management policies.

Ed has received numerous national and international awards including the nation's highest award for Floodplain Management: The Goddard-White Award from the Association of State Floodplain Managers. In addition, he received the Gulf of Maine Visionary Award from the International Gulf of Maine Council, for his efforts in helping develop the NOAA StormSmart Coasts Program; and their first lifetime achievement award from the Georgia Association of Floodplain Management.

He manages a private practice of Law, Edward A. Thomas Esq., LLC and lives with his wife in the floodplain of beautiful Marina Bay in Quincy, Massachusetts.

### **David Mallory, PE, CFM**

**David Mallory** currently serves as the Senior Project Engineer in the Floodplain Management Program of the Urban Drainage and Flood Control District in Denver, Colorado. David is a graduate of Colorado State University and has over 30 years of experience in the Denver Metropolitan Area, 20 years in the private sector and the last 13 with the District. He was first registered as a professional engineer in the state of Colorado in 1981.

David supervises many aspects of the District's Floodplain Management Program, including the review of development proposals adjacent to major drainageways, master plan implementation and the Cooperating Technical Partnership (CTP) program with the Federal Emergency Management Agency (FEMA). He is heavily involved in letter of map change (LOMC) reviews conducted by the District as part of the CTP program with the assistance of consultant staff and in cooperation with FEMA and the Michael Baker Jr. Corporation. David has participated in FEMA's map modernization efforts for the Denver metropolitan area and is transitioning to the new Risk MAP program as it is rolled out.

David is active in the American Public Works Association (APWA), the Association of State Floodplain Managers (ASFPM), the Colorado Association of Stormwater and Floodplain Managers (CASFM), the National Association of Flood and Stormwater Management Agencies (NAFSMA), serving as the current co-chair of the Floodplain Management Committee and the Natural Hazards Mitigation Association (NHMA), serving on the Board of Directors.

David maintains a high level of interest in traditional floodplain management issues, such as floodplain mapping, as well as emerging sustainability and low impact development topics as they relate to floodplain preservation and protection of the natural and beneficial stream and river functions.



**Donald Watson, FAIA, NCARB**

**Donald Watson** is an architect and author of professional publications in planning and architecture.

Now retired from a career in architectural education, he was Professor at Yale University and Dean of Architecture, Rensselaer Polytechnic Institute. He is 2002 recipient of the Collegiate Schools of Architecture Distinguished Professor Award.

Since the early 1970s, Watson has an advocate of solar and environmental design of buildings and cities. In 1984, he was lead designer of the Johnson Controls Office Building in Salt Lake, which received U.S. Dept of Energy innovation award as the most energy-efficient office building in North America and prototype of many energy conserving measures now part of standard construction practices.

He is recipient of the 2008 U.S. Green Building Council Leadership Award and an AIA Presidential Citation for his role as a founding member of the green building movement in the United States.

He is editor-in-chief of the Time-Saver Standards Series, a professional reference library for architects and planners, including the current editions on Architecture and on Urban Design. He is author most recently of Design for Flooding, co-authored with Michele Adams, P.E.

Now in his fiftieth year as a practicing architect, Watson maintains a consulting practice to public and private clients, both in the U.S. and abroad, focusing on design for resilience. He has been consultant on disaster mitigation planning for projects in over 30 countries, most recently in Saudi Arabia and in Haiti.

In his hometown of Trumbull, CT, he serves as a public member of the Conservation Commission and the Greater Bridgeport Regional Planning Council, both of which are addressing issues of water resources, flooding, disaster preparedness and coastal zone resilience.

## References

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*The Value of Green Infrastructure: Guide to Economic, Environmental and Social Benefits*  
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Kooshian, Chuck and Steve Winkelman  
*Growing Wealthier: Smart Growth, Climate Change and Prosperity*  
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*EPA Municipal Handbook Series – Green Infrastructure*  
<http://cfpub.epa.gov/npeds/green> infrastructure

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New York: Van Nostrand Reinhold

NFIP F-002

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NFIP Publication F-002  
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Chicago: American Planning Association.

Schwab, James, Editor. 2010. *Hazard Mitigation: Integrating Best Practices into Planning*. Planning Advisory Service Report No. 560. Chicago: American Planning Association.

Topping, Kenneth. 2011. "Strengthening Resilience Through Mitigation Planning. *Natural Hazards Observer*, XXXVL [November 2011]: 1:18

Trout Unlimited (2012)

Williams, Jack E., Michael P. Dombeck, Christopher A. Wood  
*My Healthy Stream*  
Arlington, Virginia: Trout Unlimited and Aldo Leopold Foundation. 2012

Watson, Donald and Michele Adams (2011)

*Design for Flooding Architecture, Landscape, and Urban Design for Resilience to Climate Change*  
New York: John Wiley and Sons

## Selected Hazard Mitigation & Floodplain Management Legal Publications

- A) Planning and Building Livable, Safe & Sustainable Communities: The Patchwork Quilt Approach**  
Authors: Edward A Thomas Alessandra Jerolleman, Terri Turner, Darrin Punchard, and Sarah Bowen, Natural Hazard Mitigation Association, 2011.  
Located at: [http://stormsmart.org/uploads/patchwork-quilt/patchwork\\_quilt.pdf](http://stormsmart.org/uploads/patchwork-quilt/patchwork_quilt.pdf)

A PowerPoint Presentation of the Patchwork Quilt Workshop as presented at the National Floodproofing Conference in New Orleans in November 2008 is located at:  
[http://www.floods.org/PDF/Patchwork\\_Quilt/Patchwork\\_Quilt\\_Floodproofing\\_Conference\\_10908.pdf](http://www.floods.org/PDF/Patchwork_Quilt/Patchwork_Quilt_Floodproofing_Conference_10908.pdf)

- B) Climate Change and Emergency Management: Adaptation Planning**, Authors: Edward A Thomas and Terri Turner, American Bar Association, Section of State and Local Government, State and Local Law and News, Vol. 34, No. 3, Spring 2011  
Located at:  
[http://www.americanbar.org/content/dam/aba/publications/state\\_and\\_local\\_law\\_news/sl\\_34\\_3\\_tomas\\_turner.authcheckdam.pdf](http://www.americanbar.org/content/dam/aba/publications/state_and_local_law_news/sl_34_3_tomas_turner.authcheckdam.pdf)

A similar presentation on climate change and emergency management was delivered at the 2012 Hawai'i Water Law Conference. An expanded version was delivered at a national webinar sponsored by the Georgia Association of Floodplain Management and the Natural Hazard Mitigation Association. The webinar is available on line at: [http://www.gafoods.org/nai\\_commitee1.html](http://www.gafoods.org/nai_commitee1.html)

- C) Preventing Human Caused Disasters.** Authors: Edward A Thomas and Sarah Bowen, In the *Natural Hazards Observer*, November 2009, Volume XXXIV, Number 2, International Journal Article, explaining the concept of Patchwork Quilt as well as advocating the idea of the advantage of Hazard Mitigation preventing disasters from taking place.  
Located at: [http://www.colorado.edu/hazards/o/archives/2009/nov\\_observerweb.pdf](http://www.colorado.edu/hazards/o/archives/2009/nov_observerweb.pdf)

**D) Mitigating Misery: Land Use and Protection of Property Rights Before the Next Big Flood.**

Authors: Edward A. Thomas Esq. and Sam Riley Medlock JD. *Vermont Journal of Environmental Law*, Vol. 9, 2008.

Law Review Article on the National Flood Insurance Program and the concept of No Adverse Impact Floodplain Management.

Located at: [http://www.floods.org/PDF/Mitigation/ASFPM\\_Thomas&Medlock\\_FINAL.pdf](http://www.floods.org/PDF/Mitigation/ASFPM_Thomas&Medlock_FINAL.pdf)

**E) No Adverse Impact and The Courts: Protecting the Property Rights of All,**

Authors: Dr. John Kusler Esq. and Edward A. Thomas Esq. ,Edition of November 2007

Located at: [http://www.floods.org/PDF/ASFPM\\_NAI\\_Legal\\_Paper\\_1107.pdf](http://www.floods.org/PDF/ASFPM_NAI_Legal_Paper_1107.pdf)

**F) A Perfect Storm of Opportunities to Establish and Fund a Program to Reduce Misery and Protect Water Resources**

Author: Edward A. Thomas Esq., in *Louisiana Coastal Law*, Vol. 89, April 2008.

Article for the Louisiana State University, Sea Grant Law and Policy Program, which discusses why we should develop a unified program to treat water as a precious resource.

Located at: [http://www.lsu.edu/sglegal/pdfs/lcl\\_89.pdf](http://www.lsu.edu/sglegal/pdfs/lcl_89.pdf)

**G) “Significant Nexus” and Clean Water Act Jurisdiction.**

Authors: Jon Kusler Esq., PhD, Patrick Parenteau, Esq., and Edward A. Thomas Esq. Discussion paper for the Association of State Wetland Managers, March 2007.

Located at: [http://www.aswm.org/pdf\\_lib/significant\\_nexus\\_paper\\_030507.pdf](http://www.aswm.org/pdf_lib/significant_nexus_paper_030507.pdf)

**H) A California Challenge Flooding in the Central Valley: A Report From An Independent Review Panel to the Department of Water Resources, State of California**

Authors: Gerald Galloway, Edward A. Thomas, *et al.*

Located at: <http://www.water.ca.gov/news/newsreleases/2008/101507challenge.pdf>

**I) Liability for Water Control Structure Failure Due to Flooding**

Author: Edward A. Thomas, Association of State Floodplain Managers, 2006.

Located at: [http://www.floods.org/PDF/NAI\\_Liability\\_Failure\\_Facilities\\_0906.pdf](http://www.floods.org/PDF/NAI_Liability_Failure_Facilities_0906.pdf)

**J) Failed Dams and Levees: Examining Engineering Liability.**

PowerPoint for a Web-Cast for American Council of Engineering Companies May 2007.

Located at: [http://www.acec.org/advocacy/pdf/may07\\_thomas\\_presentation.pdf](http://www.acec.org/advocacy/pdf/may07_thomas_presentation.pdf)

**K) Brochure Titled: Property Rights and Community Development: A Legal Framework for Managing Watershed Development**, an ASFPM staff developed document based on materials developed by Wes Shaw and Edward A. Thomas Esq., and others for the Massachusetts Coastal Zone Management Agency's StormSmart Coasts Program.

Available at:

[http://www.floods.org/NoAdverseImpact/NAI\\_Legal\\_Framework\\_Watershed\\_Development\\_2007.pdf](http://www.floods.org/NoAdverseImpact/NAI_Legal_Framework_Watershed_Development_2007.pdf)

**L) Massachusetts Coastal Zone Management Agency Storm Smart Coasts Materials**, a series of brochures developed based on materials developed by Wes Shaw and Edward A. Thomas Esq., and many others:

1.) StormSmart Coasts Fact Sheet 1, Introduction to No Adverse Impact (NAI) Land Management in the Coastal Zone, available at:

[http://www.mass.gov/czm/stormsmart/resources/stormsmart\\_nai.pdf](http://www.mass.gov/czm/stormsmart/resources/stormsmart_nai.pdf)

2.) StormSmart Coasts Fact Sheet 2, No Adverse Impact and the Legal Framework of Coastal Management, available at:

[http://www.mass.gov/czm/stormsmart/resources/stormsmart\\_legal.pdf](http://www.mass.gov/czm/stormsmart/resources/stormsmart_legal.pdf)

3.) StormSmart Coasts Fact Sheet 3, A Cape Cod Community Prevents New Residences in Floodplains available at:

[http://www.mass.gov/czm/stormsmart/resources/stormsmart\\_chatham.pdf](http://www.mass.gov/czm/stormsmart/resources/stormsmart_chatham.pdf)

**M) *Smart Growth in Dumb Places: Sustainability, Disaster, and the Future of the American City***, author: Lisa Grow Sun, Brigham Young University Law Review, 2011 B.Y.U.L. Rev. 2157(2011)

**N) *Disaster Mythology and the Law***, author: Lisa Grow Sun, Cornell Law Review, 96 Cornell L. Rev. 1131(2011)

**O) Thomas, Edward. (2012) *Natural Hazards and the Law***, in Jerolleman, Alessandra & Kiefer, John (eds.) Natural Hazard Mitigation. CRC Press

**P) Conrad, David & Thomas, Edward. (2013). *Reforming Federal Support for Risky Development***.  
[http://www.hamiltonproject.org/papers/reforming\\_federal\\_support\\_for\\_risky\\_development/](http://www.hamiltonproject.org/papers/reforming_federal_support_for_risky_development/)

*The following is reprinted, with permission from the August 2007 edition of the ASFPM publication News & Views*

## Oklahoma Teaches Us All A Few Tricks for Enforcing Substantial Damage

***In the Arid West one of the more vexing problems Floodplain Managers face is the need to enforce flood program regulations in the midst of a drought, which can often be followed by abrupt and catastrophic rainfall. Oklahoma faced such a problem recently and has developed an interesting approach to local officials to encourage enforcement of required safe building regulations.***

In early July, Oklahoma and Texas were absolutely hammered by floods. One of the worst hit areas was the City of Miami in Ottawa County, Oklahoma. Some seven hundred homes have been damaged in this small county, many of which suffered substantial damage with several being hit by over 88 inches of floodwater.

Unfortunately, several of these structures have flooded as many as 21 times over the past 50 years, and historically, local officials in the City of Miami and Ottawa County have allowed devastated flood victims to rebuild as soon as possible, disregarding all locally adopted National Flood Insurance requirements for safe and proper rebuilding of substantially damaged buildings.

This time, however, the new slate of officials in place had a different view about rebuilding after a flood, but they wanted to make sure that they were on solid ground to take strong action and break the cycle once and for all. The primary power was City Attorney Erik Johnson. He was very concerned about inverse condemnation and the taking issue if the city did not allow folks to rebuild and go back into their flooded homes. General Counsel for the Oklahoma Water Resources Board, Dean Couch, consulted with ASFPM legal experts and contacted Mr. Johnson early on in this process, explaining the role of the floodplain administrator and the justification for performing the substantial damage determinations.

The State NFIP Coordinator's Office sent OWRB employees Gavin Brady, State Coordinator, and long time floodplain manager, Ken Morris, to provide technical support and guidance to local officials. Brady and Morris immediately called FEMA Region 6 for support and help in obtaining trailers to house the disaster survivors while a safe rebuilding process takes place. Brady and Morris also appealed to ASFPM Headquarters in Madison to provide legal and technical support to bolster the State efforts to ensure proper and safe rebuilding. ASFPM asked Ed Thomas, an Attorney, and Floodplain Manager, currently employed by Michael Baker Inc., to help with some quick talking points for state officials to use.

Ed replied with the following suggestions:

A) Give people a simplified summary of the situation, explaining how the municipality will be at legal and Flood Program risk for failing to fully enforce their regulations unless proper and safe rebuilding is enforced.

B) Instead of helping folks, ignoring regulations and allowing them to rebuild in the same old flood-prone way would facilitate a time bomb of misery for the residents and multiple future generations.

C) Each and every municipality and individual who does not enforce regulations is putting themselves at individual and even personal risk for liability from future damages.

D) Failure to enforce floodplain regulations puts the entire community at risk for probation and/or suspension from the NFIP, thus endangering the entire recovery process.

E) A “Patchwork Quilt Approach” to funding would be an appropriate and beneficial way to rebuild this area safely and properly without undue hardship on the residents. (More information on the “Patchwork Quilt Approach” is available on the ASFPM web site at: [http://www.floods.org/PDF/Post\\_Disaster\\_Reconstruction\\_Patchwork\\_Quilt\\_ET.pdf](http://www.floods.org/PDF/Post_Disaster_Reconstruction_Patchwork_Quilt_ET.pdf).)

Morris and Brady presented these materials to the City at a large Public Meeting, and the City was convinced to continue to enforce their existing floodplain regulations. Morris summed up this ongoing success story up by indicating that success was due to the leadership of local officials with the help of the OWRB. **“I also believe the Patchwork Quilt document and Ed's words were overwhelmingly convincing,” says Morris.**