



FOREWORD

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The workshop “Managing Agricultural Landscapes for Environmental Quality II: Achieving More Effective Conservation” brought together scientists, policymakers, and conservation practitioners to examine how the considerable efforts of farmers, ranchers, and conservation technical assistance providers can be better directed to achieve the environmental benefits that producers, members of the environmental community, and the general public expect. Building on the results of the first managing agricultural landscapes conference that looked at the body of science that serves as the basis for conservation program implementation, this conference took the next step by looking at the appropriateness of practice application, beginning with the tools and skills to identify vulnerable landscapes, manage environmental risk, and target risky behaviors.

Landscape assessment and monitoring have shown that agricultural practices may only be considered sustainable when viewed in the context of the landscape on which they are used. Practices adequate to control stormwater runoff and soil erosion in one landscape position may not be effective in another. Application methods for manure, fertilizer, and pesticides that effectively protect water quality in some fields or parts of fields may not be appropriate in landscape positions where concentrated flow

occurs during rainfall events or in landscape positions immediately adjacent to streams.

As thematic papers, perspective papers, and case studies were presented during the conference, discussion deepened on landscape vulnerability in evening roundtable discussions. Vulnerable landscapes were described in terms of their physical characteristics and resiliency, or ability to recover from extreme weather events. Social, institutional, and cultural dimensions of landowners and farm operators balanced the discussion, and an appeal was made conceptually to design functional landscapes resilient to changes in economic and political trends.

In formal presentations and roundtable discussions during the conference, risky behaviors in agricultural practice were a lightning rod. They were described by conference attendees in any combination of traditional, irresponsible, economically driven, and cultural characteristics. Where risky behaviors intersect with vulnerable landscapes, disproportionate environmental consequences are likely to occur. One of the discussion conclusions was that the externality cost of risky behaviors must become transparent and accounted for.

The challenge of motivating change on the part of farmers and ranchers is evident in the breadth in which it is addressed in the

commissioned papers in this book. Educational, incentive, social, adaptive, market-place, and regulatory frameworks were described in analytical and passionate discourse. The clearest of conclusions was that in a world challenged to produce more on a diminishing land base, simply doing more of the same will not achieve desired agricultural and environmental outcomes.

Several of the authors were asked to consider institutional factors affecting conservation implementation to achieve environmental benefits. From private land rights and an incentive-driven technical assistance model to a regulatory framework of socially and scientifically identified minimum performance standards for landowner compliance, the authors and participants considered whether the time has come for the traditional conservation district and technical support delivery system to evolve into a more prescriptive process.

While the roundtable discussions and case studies presented at the conference were not recorded for this book, as you read the papers herein you will experience the questions and policy challenges that were presented by those authors to conference participants. You have the opportunity to consider the thoughts and conclusions of each author in the context of your personal experience.

Finally, you can compare your conclusions to those articulated in the final chapter, “Managing Agricultural Landscapes for Conservation,” written by Conference Chairman Pete Nowak. He describes the tension surrounding contemplated and actual change and the emergence of philosophical and practical anomalies that support a shift to conservation on a landscape scale. He concludes that “transition to a landscape approach is occurring albeit not as fast as some might want,” and this transition is supported by precision agricultural tools developed to assist

both those who provide technical assistance and individual producers.

The second “Managing Agricultural Landscapes for Environmental Quality” workshop clearly advanced the dialogue directed at more strategic application of conservation practices to address risky behaviors occurring on vulnerable landscapes. Yet dialogue alone will not achieve agricultural production and environmental outcomes the future demands. A partnership of science, education, community, and commitment is necessary to achieve measurable landscape-scale environmental benefits and sustainability.

I hope you use the chapters in this book as thought-provoking resources and join the landscape vision conversation.