KJWA Workshop on workshop *sustainable land and water management, including integrated watershed management strategies, to ensure food security*.

My name is Pat O'Toole, and I am here today representing the Farmers Constituency. I am a rancher on the Colorado-Wyoming border in the western United States. Our family has been stewards of these lands for 140 years, since 1881. During that span of time, we have been truly fortunate to have shared productive and truly collaborative relationships with our community and our federal and state government partners.

I ask myself how we have been successful at a watershed level at the headwaters of a "mighty river"—the Colorado. It is because we have a community leader who has been able to look at a watershed in a way that values conservation as well as production. With competent leadership and a community that works together towards common goals, great things can be achieved. We navigate through a complex matrix of private, state and federal stakeholder objectives. Success is built on trust.

For a variety of reasons, that is not always the case in other large working landscapes. Undoubtedly, we need to find more places implementing and replicating the cooperative model that we have here. As a world community we must begin to recognize and acknowledge that critical changes are happening with the climate while great shifts in population and growth of urban areas are placing unprecedented demands on water for food production and available land. We have listened to the demonization of agriculture by those who do not participate in it and who believe they could do it better. We hear others clearly say they want to divert water away from food production to facilitate urban growth.

I believe that these conflicts and challenges are the most important things that we must address in the future. We have a saying here in this community: "people support what they help create." What that means is that you inclusively bring together your community, local leaders, as well as individual stakeholders to create a vision. What I have learned through hard, earned experience, is that by everybody pulling together and using a more robust set of tools and thinking, we can achieve a lot more.

In this watershed, the work began 30 years ago when we had a dynamic leader move into our community. Part of the success that we have accomplished is because we've had a series of effective professionals on the state and federal levels with both the resources and the ability to direct those resources. In our world, government employees must be more than competent, and should be almost inspirational. I think that is a part of the key to the future to have inspirational people who will help enable local communities. This has made our journey much easier. For example, our whole watershed is what is called trout passage friendly. That means the trout can swim from the main river to the head of the tributaries throughout the entire watershed.

Our community has collectively done a tremendous amount of river restoration over the years. As an example, sprinkler irrigation is usually perceived to be more efficient in some ways. This speaks to what I

called “the myth of efficiency.” In a watershed, efficiency is not the final goal. The final goal is a healthy watershed. On our ranch we have both sprinkler irrigation and flood irrigation. Sprinkler irrigation is very efficient and produces good crops. It is an efficient use of water, but it does not effectively recharge the aquifer.

Our flood irrigation does many other things efficiently, including aquifer recharge. Importantly, flood irrigation provides habitat for migratory birds and prevents migratory birds from being listed in this country as endangered species. An endangered species listing represents a dual failure. We do not have endangered migratory birds in the West because of the habitat provided by the ranchers and farmers seeking different levels of efficiency and results. We still produce an exceptional crop, and we create the kind of landscapes that ensure that biodiversity is going to be part of in the future.

Our multiple generation search and struggle is to know more and ask the hard questions: “What are the keys to the future of dealing with this changing and challenging world?”. One response certainly points to carbon, and there is a lot of discussion about the value of carbon that includes biodiversity. A new report that just came out last week indicates what we need to do when looking at a watershed. It alludes to what our community and our family has been doing successfully now for decades. It includes producing crops, but also producing everything from insects to the pollinators—bats, birds, bees, and butterflies. We have healthy riparian systems with thriving cottonwood gallery forests that have a huge potential carbon impact. We have significant wildlife populations, both avian and mammal, that are indicators of health.

I like the saying, “Birds vote with their wings.” What that means is good habitat becomes self-evident because wildlife like to be there. We have over the years grown our operation to include our family. We have two grown children here at the ranch and six grandchildren. We think that we can sustain our crop production numbers in our operation. We have actually grown our production, but at the same time we've done some tweaks that have really added to our wildlife capability. We are doing both production and conservation in a way that we think is sustainable.

We cannot lose sight of the fact that we all need to be food secure. We need education that emphasizes the multiple benefits of complementary food production and conservation systems. Food production is key, but we must think beyond that to have sustainable communities.

I often am asked to participate as the only rancher on ‘think tanks’ at both the national and international level where we talk about the need for an increased production of food by as much as 70% to sustain the growing world population. Uncomfortably, I sometimes feel that there are those, who through their attacks and criticism of agricultural producers, are seemingly advocating for 70% less global production. I say this because we are not acting as a world community in a way that celebrates people's understanding of how important food is and how difficult it is to produce it consistently. It is not only important that we tell a great message but also demonstrate with tangible results how those goals are achieved.

I have never been afraid of measurement. I think measurement very much helps us design our systems in a way that is critical, but I also think it is so important that we learn that it is not a bad thing to fail. Failure teaches you success, and I always tell people that I spent much of my life learning from my failures. Most of the things I do right I maybe did wrong one time.

As we go forward in this accumulation of values through agricultural endeavor, it is so critically important to understand the water resource. How do we balance production and conservation? How do we trust local people? This is key because it is going to be local people that are going to actually get on the ground and make decisions because they love the land. Farmers truly love their land. Agriculturists big and small

around the world cannot earn a predictable living, facing financial ruin season after season, forcing some to ask the question why do you farm or ranch? I answer, "We do it because we love what we do!" Providing consistent food and fiber is a key to success for the world in the future. Cooperation is the willingness to understand the role of success and failure. As I said earlier, people support what they help create. Bring in your community to create the working landscapes of the future.

I want to leave you with four take away messages:

1. **The Water Resource**, the water cycle, and watersheds are essential to agriculture and all life. It is critical to understand the water resource, to prioritize practices, infrastructure and policies that balance production and conservation. Pressure is growing to 'solve' current urban and environmental water shortages by simply moving water away from irrigated agriculture, a diversified water management portfolio that provides benefits to multiple use sectors is needed.

2. **Uncommon collaborations that build trust are essential**. Multi-stakeholder collaborative models bring landowners and farmers as well as scientists, government, the private sector, the food and agriculture value chain, forestry and aquaculture sectors, and civil society at landscape levels (watershed, country, region, etc.) to monitor, develop, and implement land and water uses and management policies that enable priority economic, social, and environmental outcomes.

3. **Produce beyond food security goals to grow nutritious healthy foods and healthy ecosystems** that integrate livestock-crop diversification systems with food and nutrition research and policies to achieve the SDGs.

4. **Involve, educate, encourage and equip farmers, ranchers and foresters to participate** in the development of policy and research agendas in order to expand capacities to deliver multiple co-benefits that improve both food security, nutrition, and rural livelihoods, and the quality of soil, water and ecosystem services.

Thank you for listening, and I look forward to your questions.

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