APPENDIX 2. Theme-relevant quotes from interviews. The different interviewees are designated by numbers within brackets.

Theme 1: Getting the "people part" right is critical

- "You have to get the people part right. ... These are not issues of birds and fish and water, they're issues of people." "This is really about choices that people make about what to do on the landscape." [2]
- "It's about *people*. Resource management is more about managing people than managing resources." [7]
- "Adaptive management is not a science project, it's basically a giant exercise in collaborative management on the part of people" [2]
- "You've got to build trust that [stakeholders] are willing to share what they know with you. Because a lot of times some people that know some[thing] very important to what you're doing may not share it with you because they don't trust how you're going to use it. Are you going to corrupt it or disseminate it in some way they disagree with; are you going to be a help to them or a hinderance?" [4]
- "Developing trust. That's been a key issue that's constantly been the biggest challenge within the [project]. It's been a real challenge for the stakeholders to trust the agencies to be honest and forthright..., things like transparency, those kind of things. Creating a system, whatever it takes to do that, that engenders trust and demonstrates that you can trust that what someone or some entity says or does in fact is what they tell you, you'll have a whole lot better chance of success. Because you're dealing with a lot of bureaucracies here. It's not easy to do that because the [people] who you can trust don't make decisions. And so very frequently in these programs where there are huge bureaucracies, decisions are made outside the hands of the people who are engaging in the process. So while they may have good intentions, somebody above them is going to make their decision based on something that is outside of what has been going on. And so immediately, the participants, you've lost trust." [1]
- "It's about people! Resource management is really about managing people more than about managing trees and wildlife and water and things." "Building that trust, that just comes from interacting with people over time and on multiple topics and in multiple kinds of settings. You never know what somebody's going to hear that's going to make them think about something in a little different way. But the more opportunities they have to do that, the more you have a chance at building more trust. And once you have that, then the collaborative kind of really operates in the background, the benefits of a collaborative really operate in the background because people just really don't think about those kinds of things." "That's hugely important. And a lot of that comes out of the conflict resolution, focus on conflict resolution. Good facilitation can help people build more trust" [7]

Theme 2: Projects should address meaningful problems, focus on practical solution strategies, and have well-defined goals.

- "People are attracted to a shared vision, especially something that looks like it's solving an important problem or it's part of solving an important problem." [10]
- "Ask and answer the question of 'why?' Why are you doing this? And use that simple question to help you frame what you're going to do and how you're going to do it and make sure [? what you have] control over, make sure there's an awareness of the things that you don't have control over that might influence what you learn or how fast you learn or your ability to learn at all. And before you ever get into the science and the specifics there needs to be a goal and a set of objectives that you're trying to meet and then you tailor adaptive management and your science and learning to that. This is not just a big science project, anybody can do that, this is doing something to try to provide a useful

input to management and into decision making. So asking and answering the 'why' question is the number one thing that I've learned, that I tell people you have to do, and you have to do it well and you have to do it correctly or you will build what I call a 'science pile': that is, you'll do a bunch of monitoring and research and you'll have smart people giving really good information but [hold it in] and it sits in a corner in a pile and you can't access it and you realize that you've collected a bunch of data that have no bearing on the questions that you really need to know about. And that happens all the time." "What I've seen happen in most of these programs is the science becomes disconnected from the decision-making process. And [if you] slow things down and take the time up-front to think about what ARE our questions, what decisions do we even have control over, and what do we want to tell Governors or funders or Congress about what we're doing; got to think about that first then that'll help you figure out the technical stuff." [2]

"A lot of projects get stuck because there's not a good linkage between the technical and the policy or the political and it takes a lot of finesse to figure out how to line those things up so that all the boxes are checked so you can actually implement the project." [4]

Theme 3: Committed involvement of people from the community (or communities) where the project will take place is important to achieving successful outcomes. This requires meaningful stakeholder participation in framing the problem and identifying potential solution strategies. Diverse viewpoints need to be included from the start.

"The first thing I'd say is that – and I've seen this done formally, but I don't think it has to be done formally – of doing some kind of, you know, they've called them 'community assessments', but somehow identify some people in the area that you're going to be working on your process and your plan or your project in that can help you kind of find out who are the movers and shakers in the community, the influencers – who really needs to be involved in this process, and make sure you have this group of people engaged." [6]

Need to [start with] people who have appropriate connections [networked] to bring needed/useful partners on board. Need people on the team who aren't in silos and have lots of contacts. [5]

"A lot of the success of collaboratives is really locally based. I think you can draw on what people are doing elsewhere and bring it into a community that is building a new collaborative, but there has to be... you know, 50% of the focus has to be on that community. Just because it works someplace else doesn't mean it's going to work here. What do you guys want to do, how do you guys want to organize this, how do you guys work – if you were just going to get together with your neighbors and do something, how would you do it? What would you do? And local culture is really important. Because if you try to build something that doesn't fit in with that local culture, people aren't going to want to be involved with it and [want] nothing to do with going to another meeting and time and all that and just not want to be involved because it's not something that they really relate to and that they think is kind of enjoyable. It doesn't have to be fun, it doesn't have to be a party, but it should be something that they either enjoy or they'll take the pain because they see there's a greater benefit coming from it. If it's something that's not, it's not going to be useful. The more that these projects, processes can be things that people really want to connect to and want to be a part of, the more chance that they have for sustainability." [7]

"You CANNOT avid the issue of conflict in collaboratives; you can't avoid conflict by picking your members. Bringing together divergent views is very hard at the start, but once you work through that it becomes much better." "Even the collaboratives that seem like they're the most successful need to deal with conflict. That's where the need is for social scientists and professional facilitators who study conflict resolution, for people who can kind of come in and work through, know how to work through

those kinds of issues. I think a lot of, I mean everybody interacts with other people all the time and I think the issue of collaboration, how to collaborate, you know when people say we're in a collaborative and we're going to do all these thinning projects, and we're going to do these prescribed burns and do these trails projects, whatever they're working on, they want to focus on those things. And they just think let's focus on those things, and we know how to collaborate because we're human beings and we always talk to each other. But there's a lot that, there's different ways you can do that, and communicate with each other and the structures you create and all those kinds of things that have to happen that those kind of influence the outcomes. Having people up front who can help you think through those issues and where you may go, and that's a lot of what I do in my job and I can tell you it's not easy because nobody wants to do that, nobody wants to sit down and go through writing a charter, or writing principles, things like that." [7]

"Engage landowners," in plans and conversations to develop the working relationships to help them recognize the problem as the manager understands it and to generate their desire to want to communicate about the common values you both have related to the resource and its problems [8, 9].

Theme 4: Leadership and active engagement at all levels is needed

"Having agency involvement is important, but the non-agency component is just as important. Agency folk come and go; there is a need for local leaders who are passionate about what you are doing and who will stick around. However, since local groups have no long-term funding sources, it's a challenge for them to create something sustainable, to keep things going long-term." [8]

"You have to have the buy-in from the project team level upward, all the way up into the political levels." [4]

"Having the leadership at the table all the time, involved, so that they are forced to see the sausage being made a little bit and that they are there to hear the complaints and the compliments and what's working. That's pretty important. They don't have to be there all the time, but they have to be there at the key times. They have to be engaged. And if they're not engaged and they make decisions without getting the necessary input at the level, that makes or breaks whether the program's going to work." [1]

"It would be really hard to try this approach if you did not have your agency managers having your back." "I know there's people, not even within the agency, that have wanted to do some kind of a collaborative process like this around land management and they're beating their head against a wall because the agency people won't come to the table. And that always goes back to your agency manager. Because an agency manager if nothing else can make their people come to the table. But if they're afraid of turning over some of their power so that you can have a collaborative process, it's going to be very difficult for it to be successful." [6]

Theme 5: Building and maintaining supportive relationships requires a thoughtful approach to communication.

Effective communication with stakeholders is critical; *how* the science and engineering is presented makes a big difference in how supportive and engaged they will be. [4]

"As much as you can make it, be open to anybody that's interested and/or very transparent, I think is really important from the get-go. Lots and lots of communication and transparency about what is happening." [6]

"We've been able to not only tell people that this stuff matters but help them understand what a watershed is, where that water goes, how they and their neighborhood and in their yard or their business are connected to that. And just as importantly, give them a vision that somebody has an idea of how all this should come together. And that we can put that idea on a map and talk about it in a way

that makes it feel like I, "I" – the citizen or the neighbor or even the person working for the local stormwater utility, can actually make a difference." "What it takes to get people in on the vision is that you actually have to go out and do something." [10]

"That was an important piece of it too from the get-go: don't focus on things that divide, focus on things that bring people together and they can more agree on at the beginning." "Focus on common goals, common interests initially. Don't come into a process and go 'oh, we've got to decide if we're going to graze or not graze this area' because you're immediately going to polarize everybody. Focus instead on 'we all appreciate healthy grasslands." [6]

Theme 6: Scale – both of the particular problem being addressed and of the organizations and communities engaged in the process – should shape project design.

"And so my suggestion to this one group was...um...to have capacity building type grants to give out to people along your focus area or your stretch of river, in this case it was the headwaters and then provide either one or two staff from your initiative that brings people together and that links us all and so we can all learn from each other and so we can all grow together and I think in that way...then if...you don't have to worry so much about the strangers coming to town telling the locals what is best for them...um...you can more or less depend on local initiatives to make sure that you're understanding the issues from their perspective...that being the...so the larger initiative...say on the Missouri River effort...um...is hearing the local concerns, hearing the local issues from those local entities and is able to kind of get a better sense of what it's like on the ground." [8]

"If you've got a big process and a big thing to conquer, take advantage of breaking into working groups, and they can be structured any kind of different way, but those small groups are very, very effective to actually get your tasks done." "You have to have a lot of ducks in a row to do a big project like this and have it work, but you should not rule out, even in a fairly polarized community, that there aren't smaller projects where you can have common goals and objectives and get a collaborative project done." [6]

"How do you build national initiatives or regional initiatives that don't forget about what's going on and what's successful and what's established in these small communities and support them?" "If they're making positive change and they're moving their reach of the river along whether it's um...in terms of health of the river or exposure to the community or community to the river...whatever they're working on...give 'em some cash...then be that entity that brings them all together so they feel like their shared efforts are really making a difference." [8]

Theme 7: Getting to positive outcomes and achieving long-term goals requires a committed champion that can keep the project on track over time.

It's important to have a person whose main focus of work is to drive the program. You can't expect landowners and people representing the partner organizations to do it. Landowners don't have the skill set and agencies don't have time. This person should have a LIGHT hand on the reins but should have the 10,000 foot view. This person can synergize things. [5]

Sometimes there's a benefit to having an outsider involved who isn't enmeshed in [local] entanglements, but it is essential to have a local person to serve as a community leader [in the effort. [7]

I am thrilled to know that there are people in their communities that are doing work that may not be exactly what we're doing here but they're making a positive change on the river along those different reaches of river. [8]

First thing I'd say is, find people who are passionate. Find people who are passionate about the same thing that you're passionate about and share that passion with them and then figure out ways to link each other's missions so you can apply that passion to what you're working on. [9]

Theme 8: Consider both the long- and short-term when setting up the project's structure.

"Be comprehensive and long-term in your thinking; go ahead and try to establish a framework, but don't be afraid to take whatever the smallest part of that framework is, the biggest part that you can do and take on yourself, and just try to get wins. Don't be ashamed or afraid to do a small project because small projects turn into bigger projects." [10]

"It's really challenging to get [collaboratives] started. I think you really need to have a good structure in place early on, but everybody just wants to get to work on whatever their project is. And you know there's something to be said for having an early success., and that's going to build more buy-in to the organization and things like that, but people need to know what the organization is that they're buying into also" [7]

"Don't get too big...don't get too big too fast because you want to show accomplishment. If you want to get buy-in from other people with the same passion you got to show accomplishment. People don't want to go to meetings after meetings where you talk about the same old things." [9]

Think about the end step – the 'adjust' step – from the beginning. Think about how you will do this, including synthesis and analysis and what you're going to *do* with this information. People are not conditioned to do this. They want to dive right in [and do stuff], and science gets ahead of the decision process. "The science is the easy part." [2]

Theme 9: Both organizational and cultural change take time. Small successes along the way are important for keeping people engaged with the process.

"Supporting the on-the-ground-work at the community level really has to be integral to all these efforts. If you look around and I'm sure you've talked to enough entities...they're all struggling. And funding sources aren't getting larger. Foundation dollars aren't getting larger. And we're all forced to apply for these small grants that will fund us for a year or two and it's very hard to build capacity with that kind of effort. And you don't want to disappoint your community by reaching high and then failing...so grow slowly is what we've done." [8]

Community engagement is helped by, "starting small with things you can accomplish" [8]

The team "needs to get things done...if you do, people will join in", otherwise, they disengage. [9]

Theme 10: When selecting and setting up early activities, focus on capacity building. This includes being flexible enough to take advantage of developing opportunities and to recover from setbacks.

"You can make a few tiny steps forward and then there's a big setback on these projects. Now, [when there's a big setback] you can cry about that for a few minutes, but then you have to sit down and say okay, we're not going to do this project and not do the statistical rigor, we're not going to do much of the adaptive management checks and balances. What can we do in the interim to make sure this doesn't happen again and build more trust so that people use the process to solve the problem rather than play their trump card." "You always have to take what happens and figure out how you can learn and benefit from it. Otherwise, you're wasting your time." [1]

Capacity building funding is needed for problem solving capacity building [8, 9]

"All this required money. We [the board] had to find agencies that had money to do the work. So, it was pretty easy when we were just building picnic areas but now since we were changing the game and also...now that we were starting to manipulate vegetation types needed to get the Fish and Wildlife

Service in because we were going to start to running into endangered species issues and stuff like that. All these things are things you can do. You just have to invite the right people to the table." [8]