

Development of an Ecosystem Services Marketplace in Northern Colorado

**Center for Collaborative Conservation
Seminar Series**

February 21, 2012



What are Ecosystem Services?

The processes and conditions that are mediated by ecosystems and their biodiversity and that sustain and enhance human life

Things that natural systems do for people

The benefits humans receive from nature that sustain and enhance human life

Examples:

- Water purification
- Productive agricultural soils
- Crop pollination
- Biodiversity habitat
- Climate regulation
- Waste decomposition
- Nutrient cycling
- Recreational experiences

What are Ecosystem Services Markets?

A system that provides positive incentives to manage ecosystems to produce environmental services

Economic tool to reward the conservation of ecosystem services

An economic structure that allows those who benefit from ecosystem services to pay resource managers whose stewardship promotes the provision of ecosystem services

Various types of ES markets:

- Water quality
- Wetland mitigation banking
- Conservation banking
- Carbon markets

What do Ecosystem Service Markets do?

Internalize the external costs or benefits to society of the production, consumption or destruction of ecosystem services

Ecosystem services are externalities

ES markets are an attempt to correct a market failure to properly value and incorporate ecosystem services



Water Provider

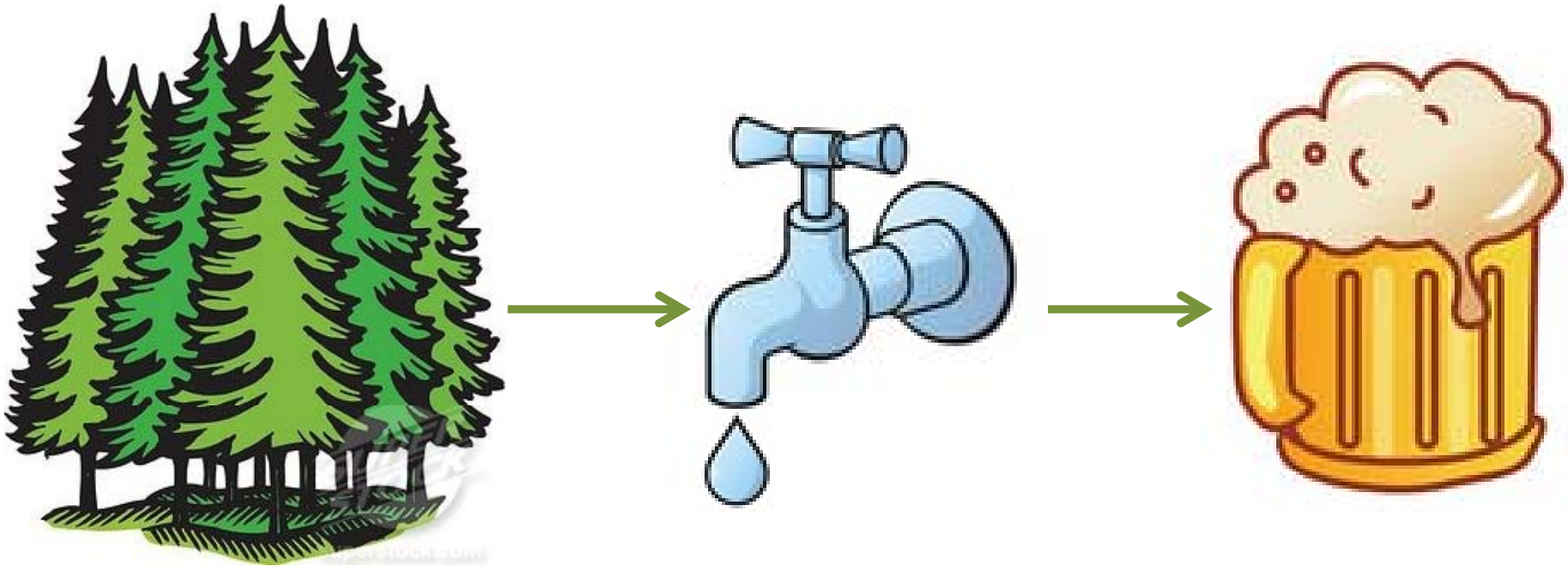


Rancher



Natural Capital

A stock of natural resources that yields a flow of valuable goods and services into the future



Examples of Ecosystem Markets

Willamette Partnership

Great Miami River Watershed Water Quality Trading Program

Florida Rangeland Env. Services Program

Denver Water – USFS: Forest to Faucet program

McKenzie River Watershed - Brewshed

TNC Water Funds – Latin America

Colorado Conservation Exchange

Our Vision: A Colorado where rural and urban communities join to enhance the natural resources, wildlands, and agricultural areas on which our quality of life depends.

Our Mission: To create a marketplace where community members support land stewards who conserve and enhance nature's ability to provide clean and abundant water, healthy food, productive soils, carbon storage, wildlife habitat, and inspiring open spaces.

Why Develop the Exchange?

Our quality of life depends on the ecosystem services we receive from rural landscapes

Northern Colorado depends on natural resources to provide us:

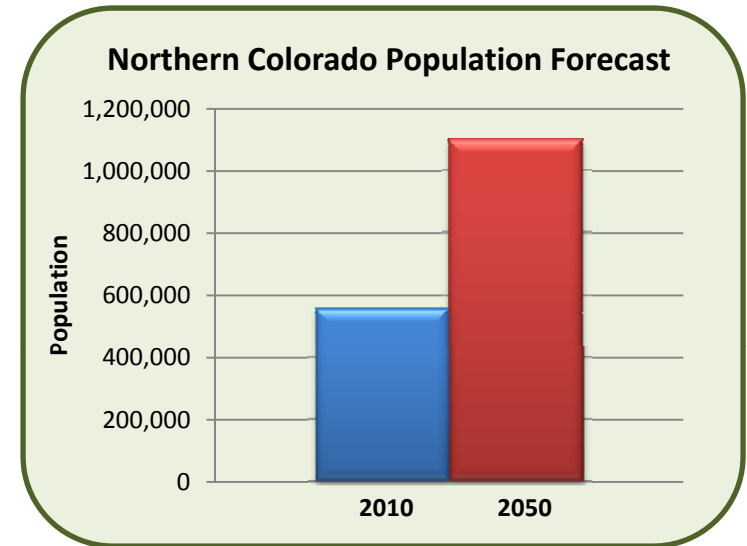
- Clean & Abundant Water
- Productive Soils & Healthy Food
- Open Space & Recreational Opportunities
- Wildlife Habitat
- Carbon Storage



Natural Resources Issues

1. Population doubling by 2050

- Increase demand for natural resources such as clean water, open space for recreation, and agricultural lands

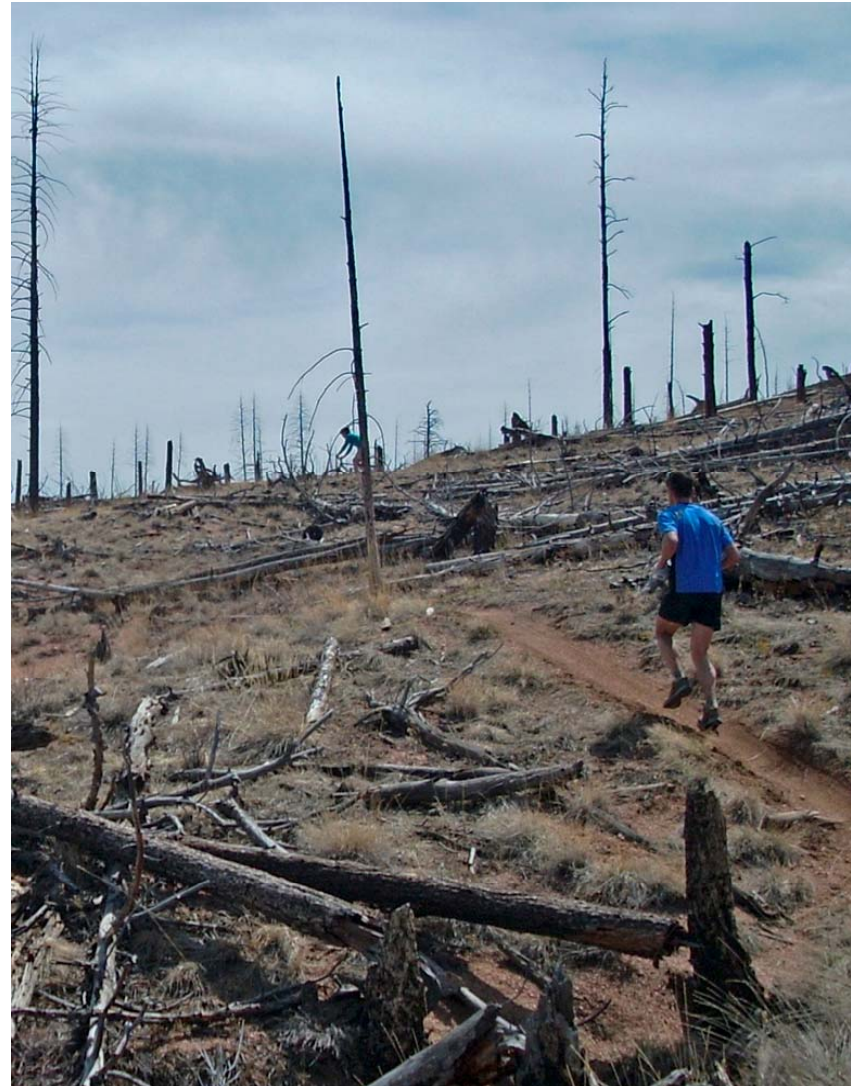


2. Loss of land stewardship knowledge

- Family ranchers, foresters & farmers who steward our natural resources face increasing development pressure, low profitability and scarce water resources

Natural Resources Issues

4. Pine beetle epidemic
 - Wildfire in national forests can impact drinking water
3. Decrease in stewardship funding
 - Federal funding for public & private land management
5. Future water quality regulations
 - Increased regulation can impact cost of providing drinking water



Our Goals

1. To preserve and enhance our quality life by raising the awareness of rural-urban interdependence on the benefits of healthy wildlands and working agricultural lands, and the threats to those benefits
2. To create a marketplace that enables beneficiaries ("buyers") to support land stewards ("sellers") who enhance nature's benefits
3. To develop the transaction functions necessary for marketplace transparency and effectiveness

What Does the Exchange do?

Connects the beneficiaries of nature's benefits with the landowners and natural resource managers who produce them

Example

A water utility needs improved water quality and a rancher can provide that



Water Utility

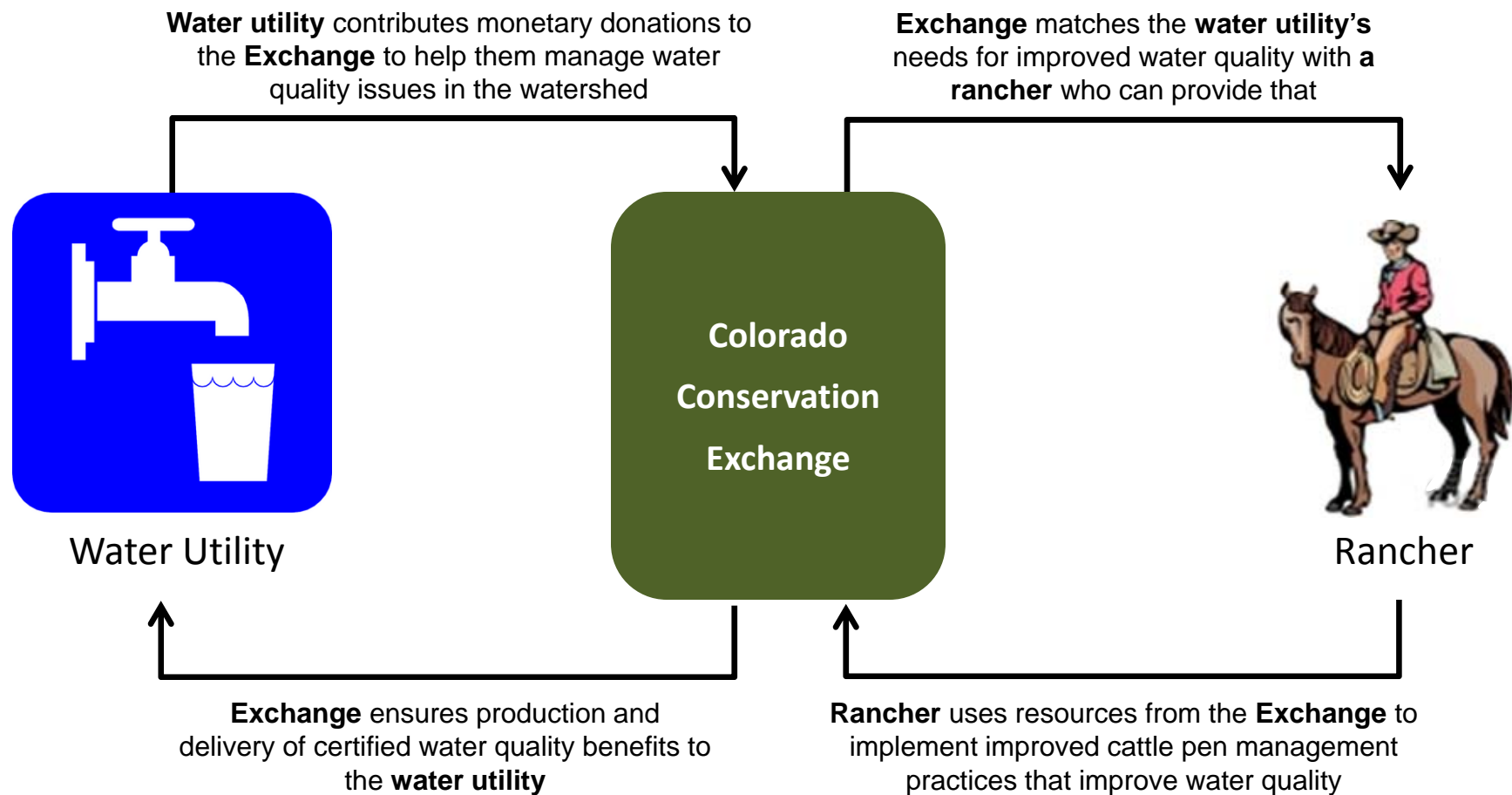
Colorado
Conservation
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Rancher

Pilot Project Model

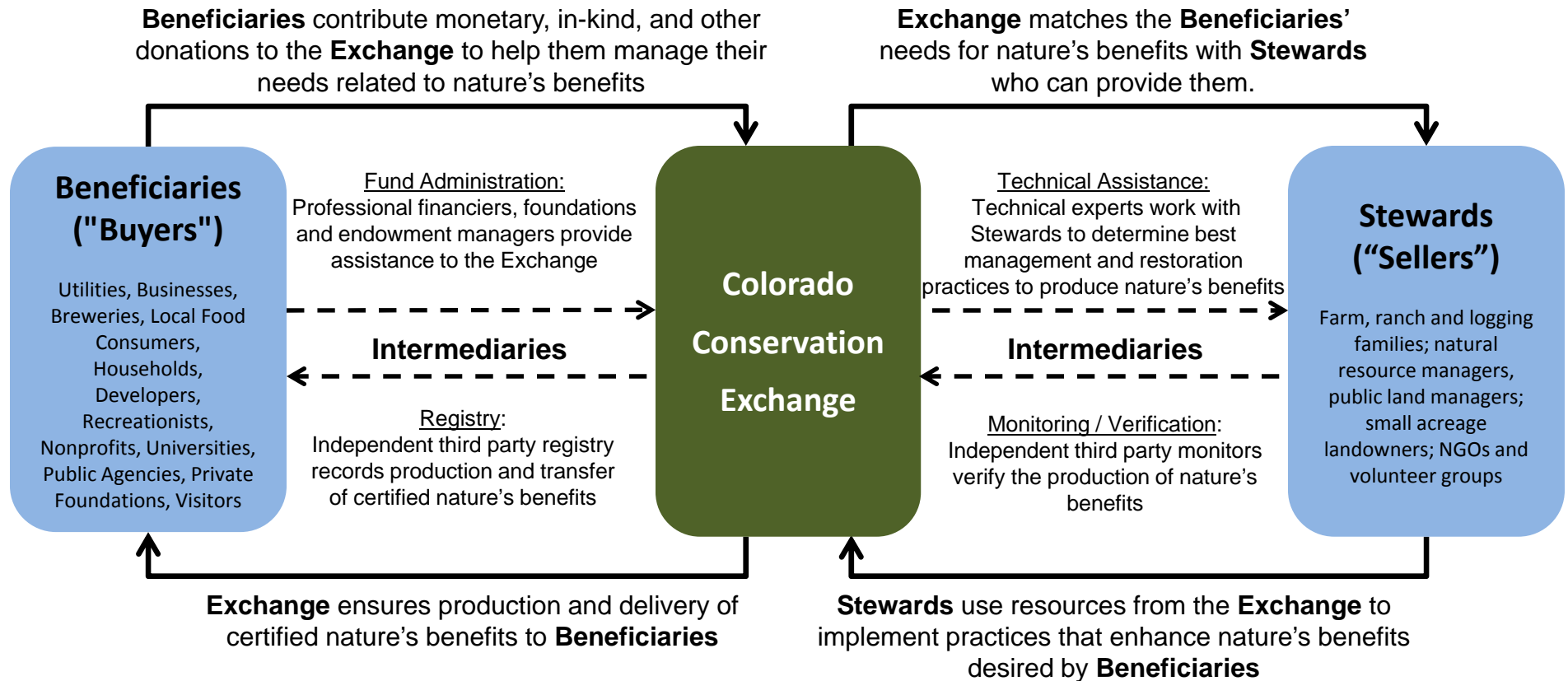
Nature's Benefit: Improved Water Quality



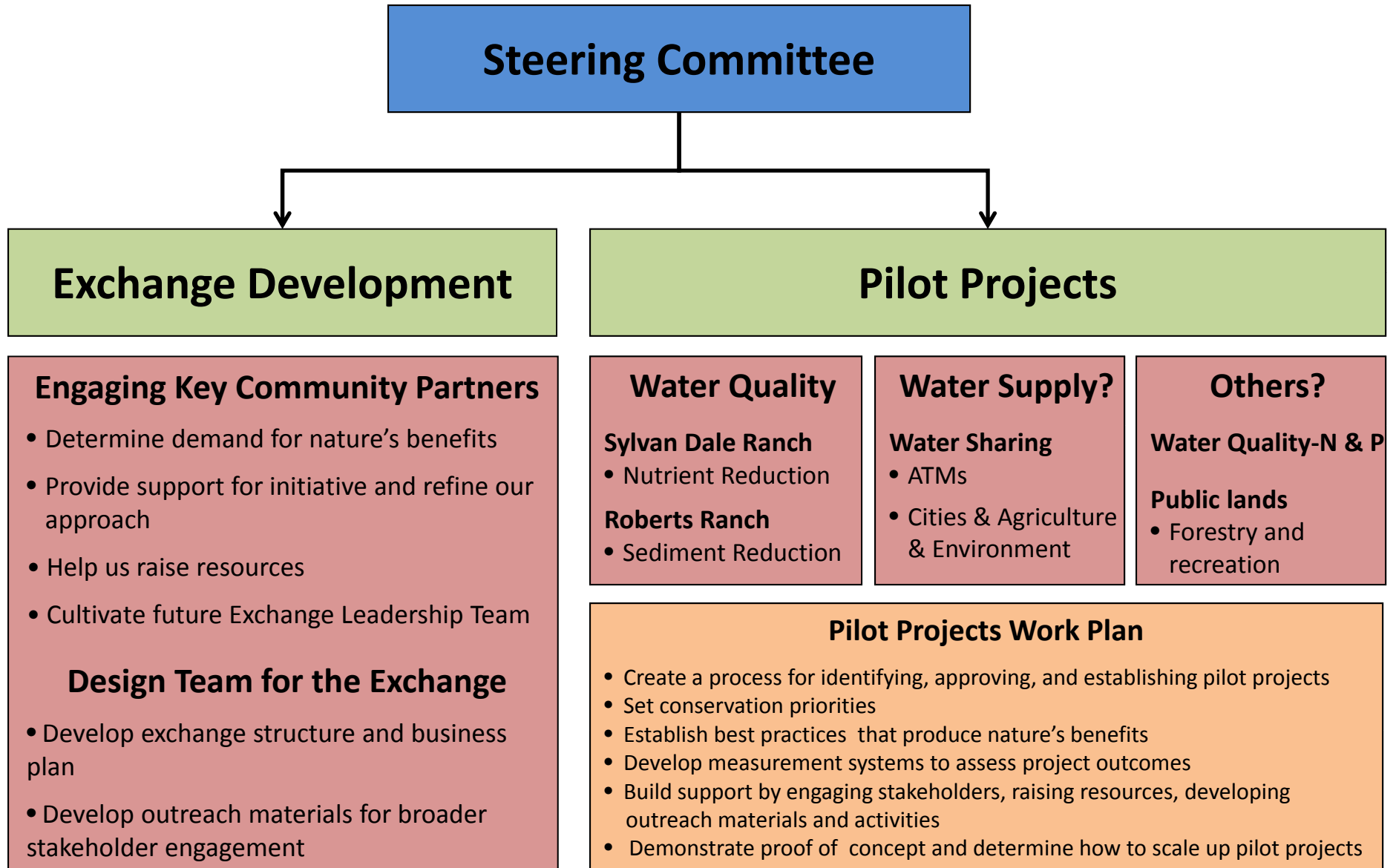
Exchange Overview

Ecosystem services targeted will include *improved*:

Water Quality & Supply • Productive Soils & Healthy Food •
Wildlife Habitat • Open Space & Recreation • Carbon Storage

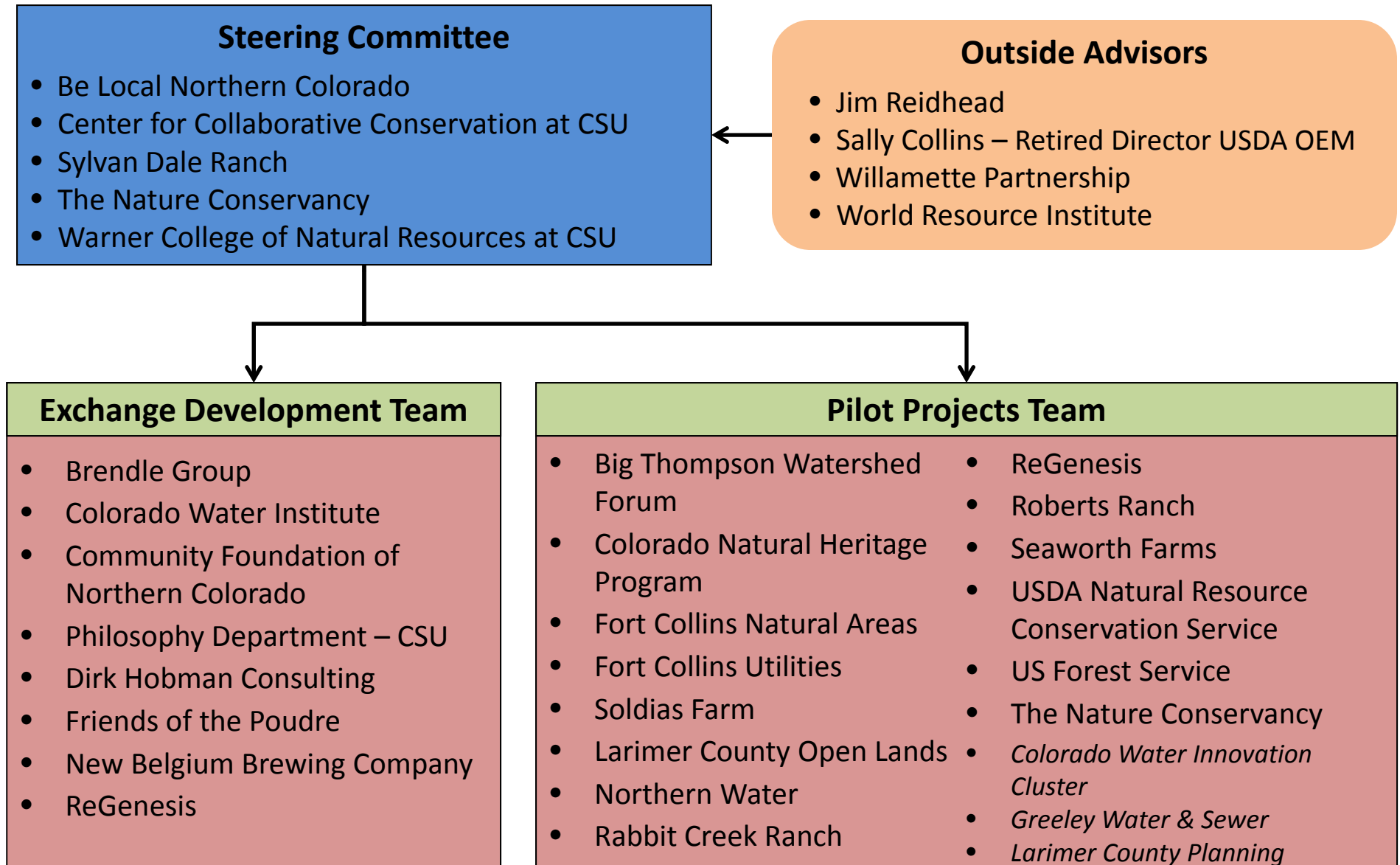


Institutional Structure



Colorado Conservation Exchange

Team Members



Work Plan and Timeline

