Adaptive Management in the Colorado Front Range Landscape Restoration Initiative

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An eligible project shall...“be developed and implemented through a collaborative process that...includes multiple interested persons representing diverse interests...”

“The Secretary shall...use a multiparty monitoring, evaluation, and accountability process to assess the positive or negative ecological, social, and economic effects of projects...”
Monitoring and the Adaptive Management Cycle
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Goal: To Sustain Front Range Montane Ecosystems

Define Desired Conditions (DCs) for Ecological Restoration and identify uncertainties
Defined by Front Range Roundtable* and Agencies

Define Restoration Areas
Proposed by Agencies; agreed by Front Range Roundtable (pre-NEPA)

Define Restoration Actions/Treatments
Defined by Front Range Roundtable; agreed by Agencies

Develop/Modify Monitoring Plan

Project Planning, NEPA

Project (Treatment) Preparation

Project Implementation and Implementation Monitoring**

Post-Treatment Monitoring

Analysis/Evaluation
By Agencies and Front Range Roundtable

External/Internal Research

* Currently delegated to the Landscape Restoration Team

** See Implementation Monitoring diagram and explanation in accompanying text

Effectiveness monitoring: long-term, landscape-scale

Adaptive monitoring: Continual and long term

Are we treating the right areas?

Are treatments contributing to DCs?

Have we defined appropriate DCs?

Did we define the goal(s) correctly?

Are we monitoring the right things? Is monitoring effective?

Yes

No
Implementation Monitoring Diagram (Adaptive NEPA)

Project Planning, NEPA

Project (Treatment) Preparation

Pre-Treatment Monitoring

Project Implementation

Post-Treatment Monitoring

Analysis/Evaluation
By Agencies and Front Range Roundtable

Contract Administration ("During-project" Monitoring)

Are contract design criteria being met? If not, ensure compliance, or modify or cancel contract.

Redesign project.

Was project implemented as designed?

Yes

No

Was project prepared as designed?

Yes

No

Were design criteria feasible?

Yes

No

Was trigger points/thresholds exceeded?

Yes

No

Ensure implementer understands project purpose and design.

Ensure preparer understands project purpose and design.

Post-project Monitoring