

2015-2019 DRRP Transition Plan: Monitoring

April 2014 DRRP Meeting

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Overview

- Overview of How Monitoring & Maintenance Pieces Fit Together
- Review of DRRP Monitoring Efforts to Date
- Monitoring Plan for 2014
- Transition Monitoring Plan for 2015-2019



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Overview of M & M pieces

- DRRP conducting 5 types of monitoring
 - 3 types of formal vegetation monitoring
 - Watershed Wide Monitoring
 - Pilot Project Monitoring
 - Rapid Monitoring
 - 2 types of informal site monitoring
 - Progress Reporting monitoring
 - Other walkabouts, 'look-sees'



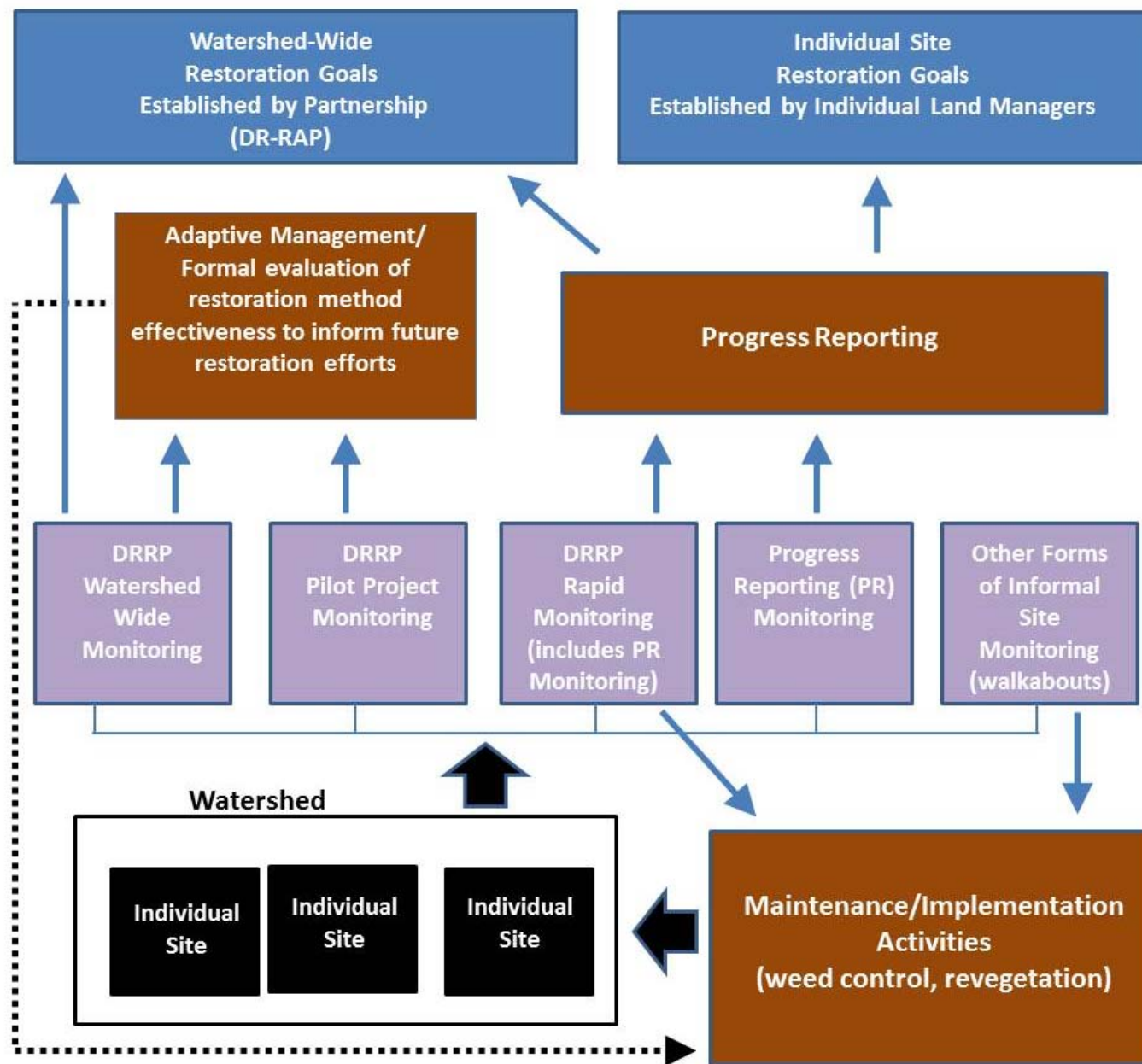
Overview of M & M pieces

- These monitoring efforts help us to:
 - Determine if meeting watershed-wide goals
 - Determine if meeting site-specific restoration goals
 - Determine implementation/maintenance needs for upcoming season
 - Formally evaluate restoration method effectiveness and inform adaptive management

Overview of M & M pieces



How All Monitoring & Maintenance Pieces Fit Together





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- **Review of DRRP Monitoring Efforts to Date**
- Monitoring Plan for 2014
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Watershed-Wide Monitoring Recap

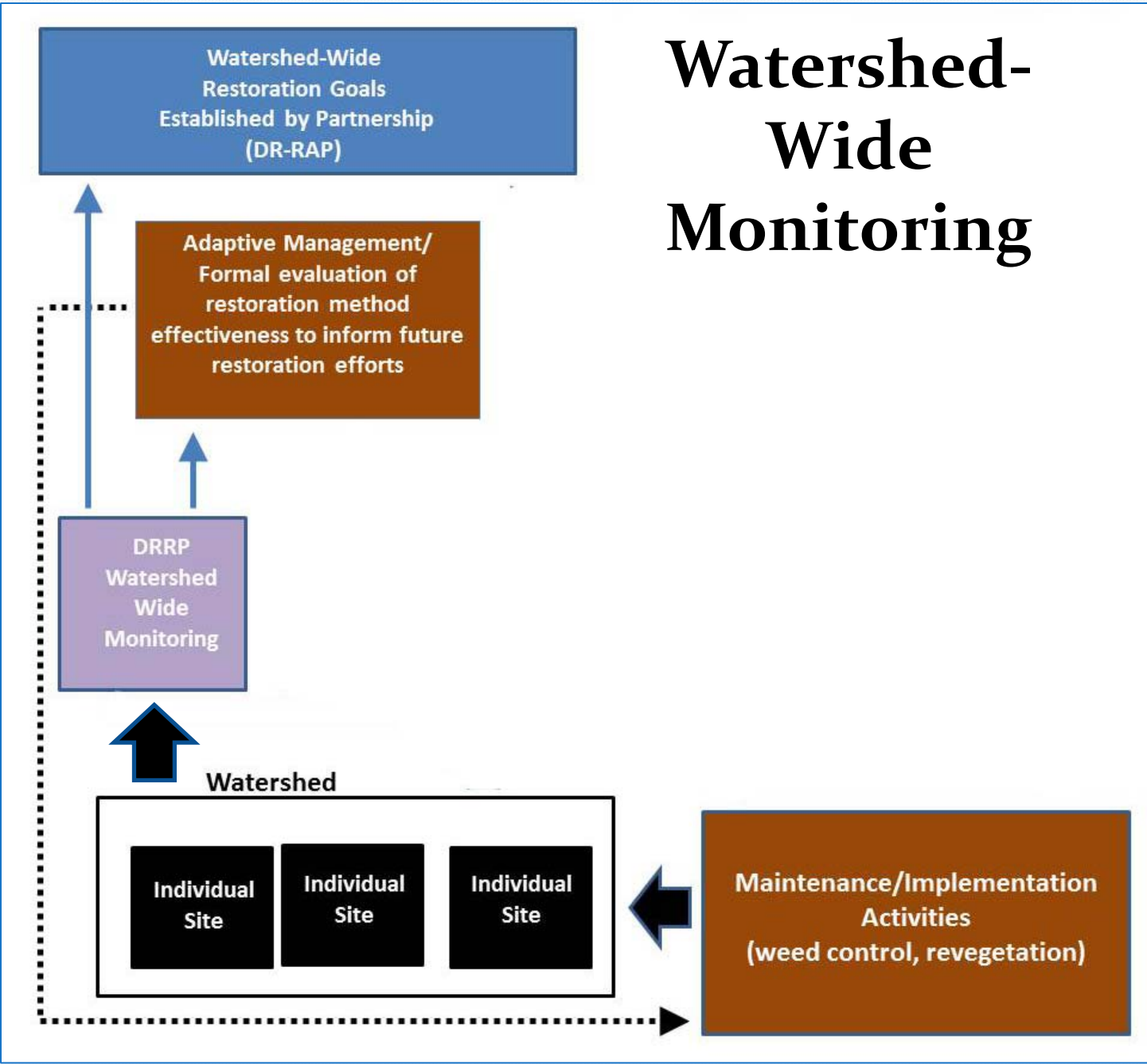




Watershed Wide Monitoring

- **Where:** At 40 sites located throughout the watershed
- **When:** To date conducted 2010, 2011, 2012
- **Who:** Data collected by University partners
- **Data collected:** Type and quantity of different vegetation/groundcover present (by surveying portion of site along transect lines). **Statistically rigorous**

Watershed-Wide Monitoring



Pilot Project Monitoring Recap

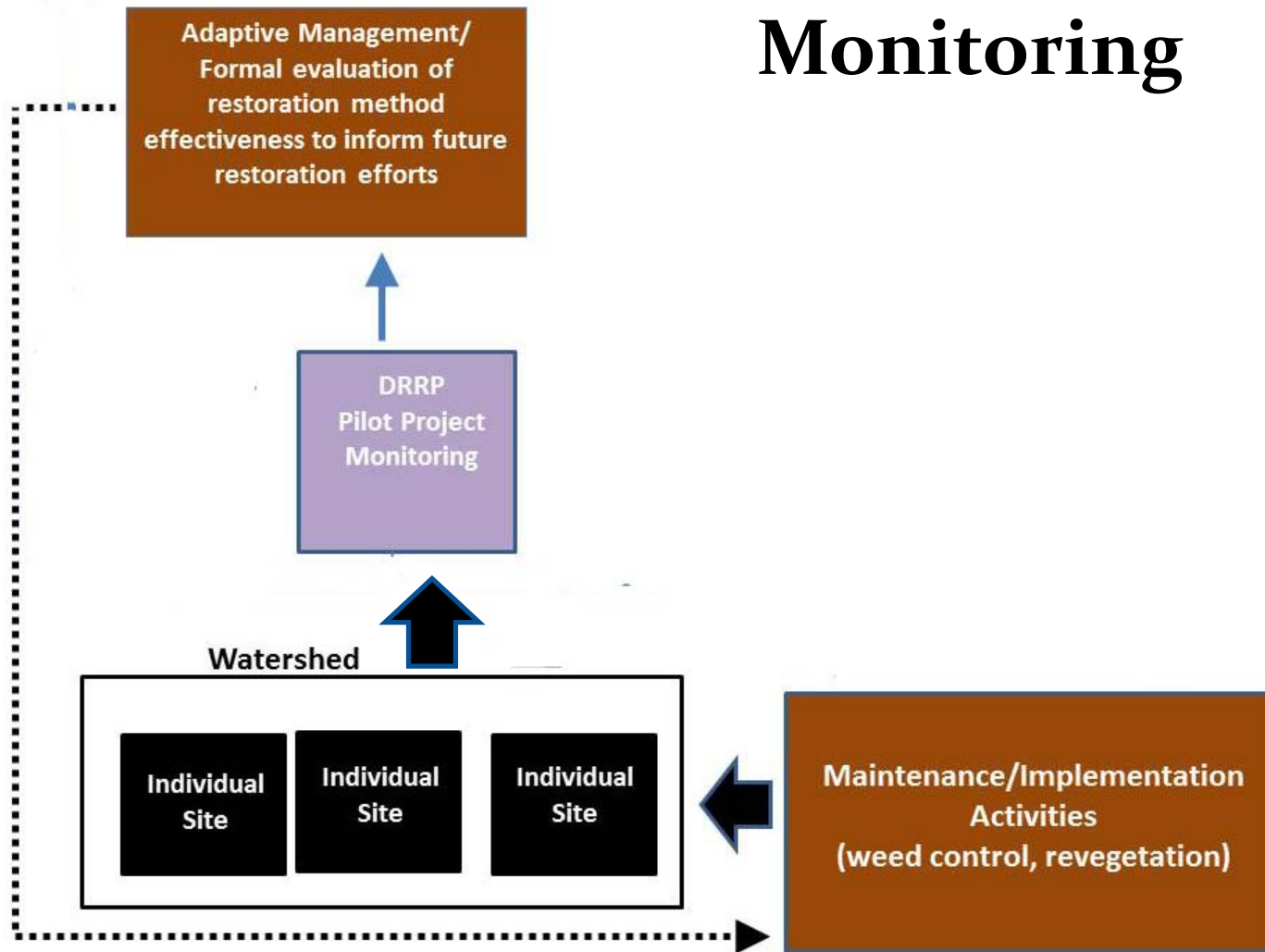




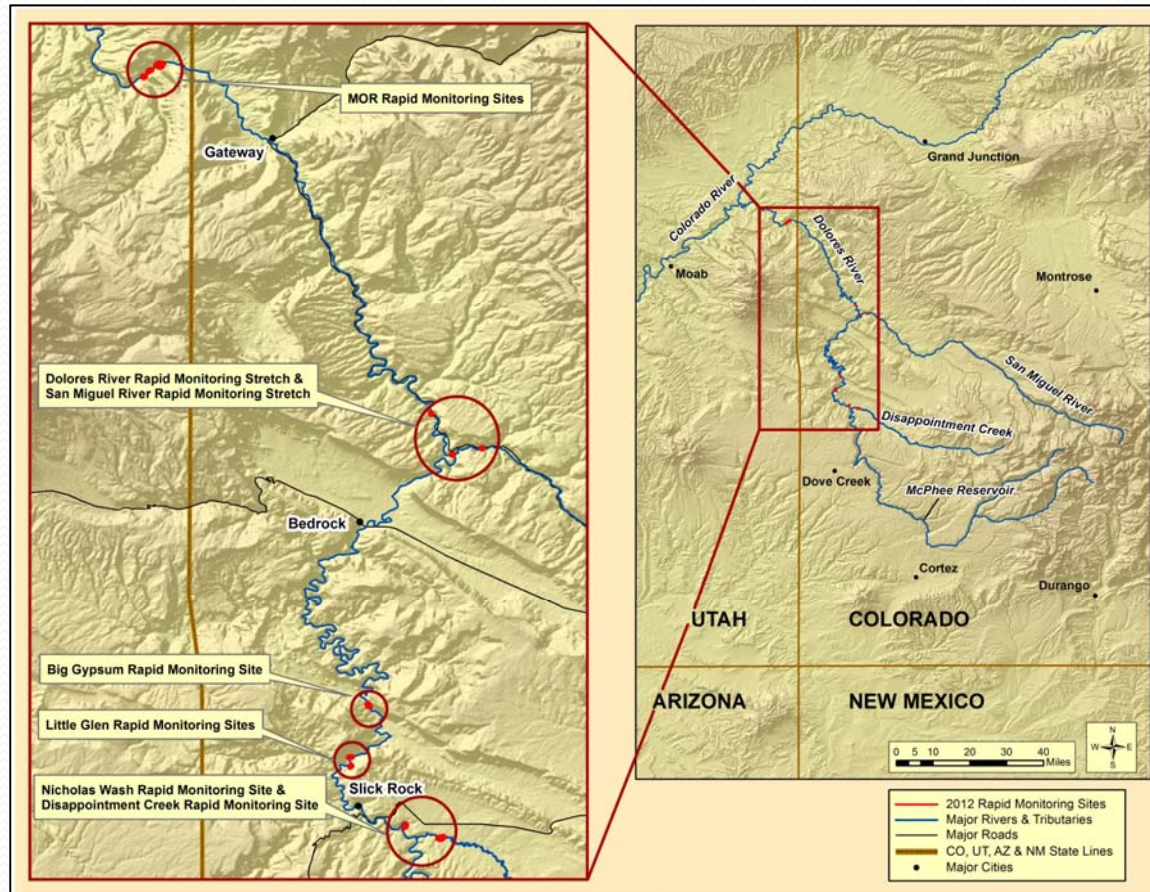
Pilot Project Monitoring

- **Where:** On 4 sites (subdivided to create 24 total plots) located within Uncompahgre BLM field office; *looking at more intensive and some unique active restoration treatments within a single geographic area*
- **When:** To date conducted 2010, 2012
- **Who:** Data collected by University partners
- **Data collected:** Type and quantity of different vegetation/groundcover present (by surveying portion of site along transect lines). **Statistically rigorous.**

Pilot Project Monitoring



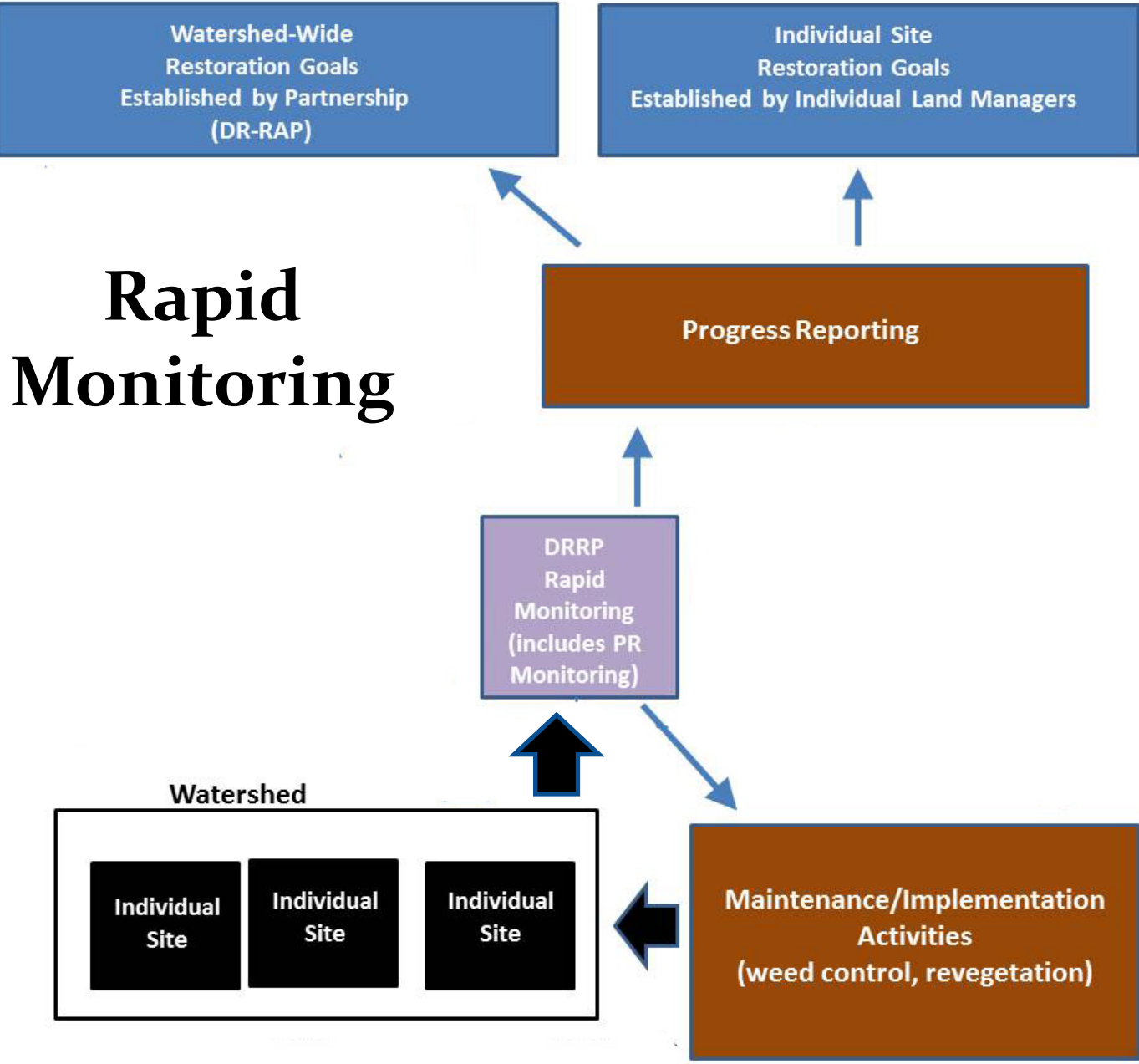
Rapid Monitoring Recap





Rapid Monitoring

- **Where:** (some form of this) Should be occurring at all treated sites; formally conducting on select BLM sites currently
- **When:** To date conducted 2011, 2012, 2013
- **Who:** Typically Conservation Corps/interns or BLM Field Offices
- **Data collected:** (for ex) Size/acreage of remaining weed infestations; survival rate/success of seeding and planting efforts; Progress Reporting data collection; taking repeat photo points for visually tracking progress. *Will now include tracking success of Cottonwood Suitability Assessment plantings (by conducting survey of entire site)*



Rapid Monitoring

Progress Reporting Monitoring Recap

Progress Reporting Categories

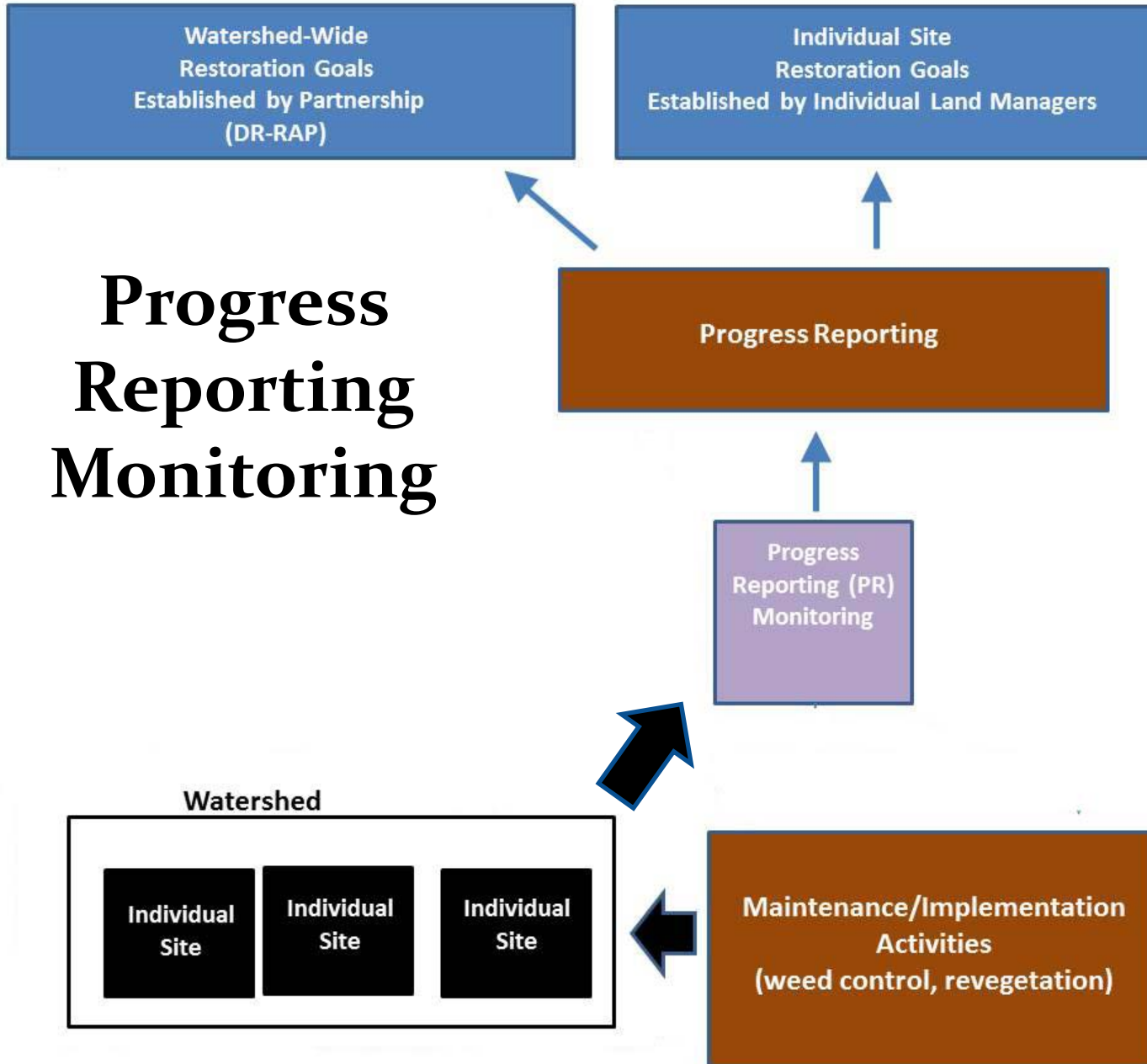
1. **No Restoration Needed** – The polygon was already in a state of natural recovery and a partnership is warranted.
2. **No Active Treatment Scheduled or Intended** – The polygon is not scheduled for active treatments in the polygon because of factors deemed sufficient to eventually meet objectives, but the landowner chooses not to participate in Partnership operations or the Partnership cannot efficiently conduct treatments.
3. **Active Treatment Scheduled** – The segment will be scheduled for active treatment prior to the report date.
4. **Actively Treated** – The Partnership has taken specific actions in the polygon in the treatment categories.
5. **Objectives Met through Active Management** - Native or desirable plants are restored on a given site to the extent that, assuming appropriate long-term maintenance by the private landowner or public land manager, it is reasonably foreseeable that plant succession will progress toward DR-RAP's long-term vision - *The Dolores River watershed is dominated by native vegetation, where the threats from tamarisk and other associated invasive species have been mitigated and the riparian areas of the watershed continue to become more naturally functioning, self-sustaining, diverse, and resilient over time.*





Progress Reporting Monitoring

- **Where:** (some form of this) Should be occurring at all treated sites
- **When:** Conducted informally prior to 2013; more formally since 2013
- **Who:** Land managers (or Conservation Corps crew when conducted as part of Rapid Monitoring)
- **Data collected:** Progress Reporting data (by conducting survey of entire site)



Progress Reporting Monitoring

Watershed

Individual Site

Individual Site

Individual Site

Maintenance/Implementation Activities
(weed control, revegetation)

Progress Reporting (PR) Monitoring

Progress Reporting

Watershed-Wide Restoration Goals
Established by Partnership
(DR-RAP)

Individual Site Restoration Goals
Established by Individual Land Managers

Other Forms of Informal Site Monitoring (Walkabouts, 'Look-sees')

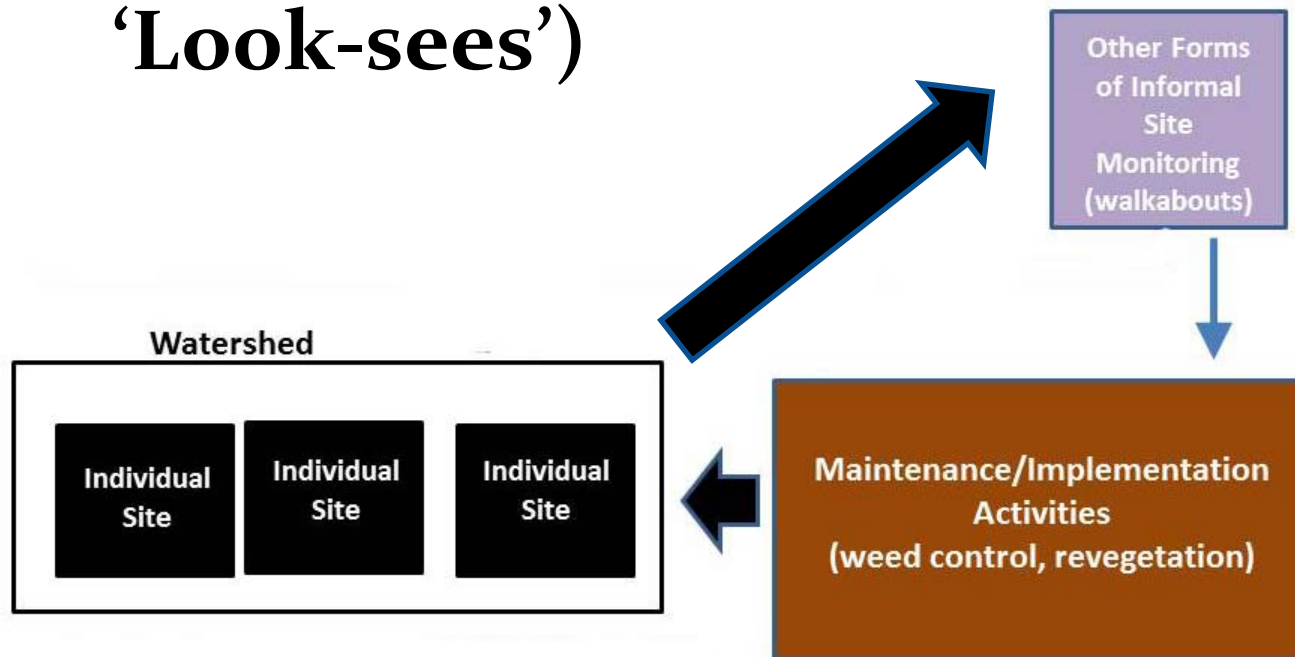




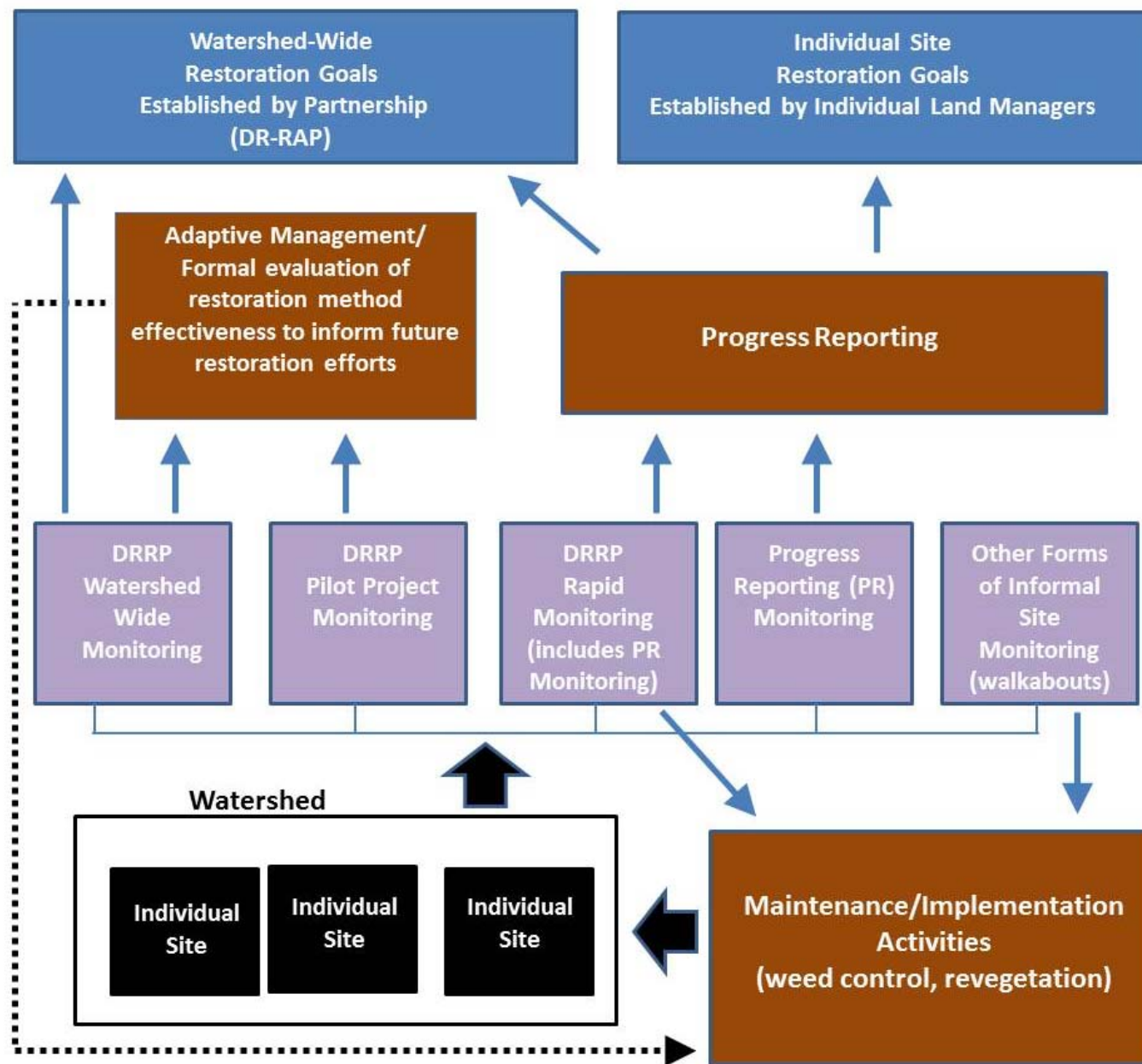
Walkabouts, 'Look-sees'

- **Where:** Typically conducted on select sites slated for active treatment (sites may not have received active treatment previously)
- **When:** Some form conducted every year since Partnership initiation
- **Who:** Typically DRRP personnel and/or land managers
- **Data collected:** Specific implementation data (e.g. acres of knapweed requiring treatment) (survey portion or entire site)

Other Forms of Informal Site Monitoring (Walkabouts, 'Look-sees')



How All Monitoring & Maintenance Pieces Fit Together





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- **Monitoring Plan for 2014**
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Monitoring Plan for 2014

- DRRP conducting 5 types of monitoring
 - 3 types of formal vegetation monitoring
 - Watershed Wide Monitoring – 2014
 - Pilot Project Monitoring – 2014
 - Rapid Monitoring – 2014
 - 2 types of informal site monitoring
 - Progress Reporting monitoring – 2014
 - Other walkabouts, ‘look-sees’ – 2014



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- **Transition Monitoring Plan for 2015-2019**

Monitoring Plan 2015-2019

- DRRP conducting 5 types of monitoring
 - 3 types of formal vegetation monitoring
 - Watershed Wide Monitoring – (2016), 2018
 - Pilot Project Monitoring - 2016
 - Rapid Monitoring – Annually 2015-2019
 - 2 types of informal site monitoring
 - Progress Reporting monitoring – Annually 2015-2019
 - Other walkabouts, ‘look-sees’ – Annually 2015-2019



Monitoring Plan 2015-2019

- How monitoring will be accomplished:
 - DRRP Science & Monitoring Subcommittee Working Group will continue to work through details
 - But current developing plan is as follows...



Monitoring Plan 2015-2019

- **Watershed-Wide Monitoring and Pilot Project Monitoring** will continue to be conducted by University partners
- **Rapid Monitoring** will be conducted by Conservation Corps 'Strike Team' crews trained in variety of key Monitoring & Maintenance activities
- **Progress Reporting** will continue to be conducted as part of Rapid Monitoring or as a stand-alone effort by land managers
- **Other Walkabouts, 'look-sees'** will continue to be conducted by DRRP personnel and/or land managers

Any Questions?



Photo by Sylvia Murphy