

RECLAMATION

Managing Water in the West

**Public Scoping Meetings
Arkansas Valley Conduit
and
Excess Capacity Master Contract
Environmental Impact Statement**



U.S. Department of the Interior
Bureau of Reclamation

August 16-19, 2010
Salida, Pueblo, La Junta,
Lamar, and Fountain
Colorado

Welcome!

- **Plan for the Meeting**
 - **Open House**
 - **Presentation by Reclamation**
 - **Your Comments**



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Why Are We Here?

Our Responsibilities

Describe the Proposed Projects

Describe the EIS Scope and Analysis Methods

Listen To and Record Comments

Your Opportunities

Learn About the Proposed Projects

Learn About EIS Methods

Provide Comments to EIS Team (Now or Later)

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Our Key EIS Staff is in Attendance

Lead Agency



Signe Snortland (EIS Manager)

Bill Cole (EIS Team)

Kara Lamb (Media Contact)

Roy Vaughan (Fry-Ark Project Manager)

3rd Party Consulting Team



Jerry Gibbens (MWH)

Lesley Siroky (MWH)

Bill Landin (MWH)

Mark DeHaven (ERO)

Susan Watkins (KW)

Chris Lieber (KW)

Cooperating Agencies



Phil Reynolds (AVC Project Manager)

Dan Kugler (Black & Veatch, Engineering Support)

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AVC Has A Long History

Original Fry-Ark Project

- Public Law 87-590, 1962
- Authorization Included 110 mile Conduit to Lamar
- Was Not Constructed Due to Inability to Repay

Renewed Local Interest in AVC

- Public Law 111-11, 2009
- Authorized Appropriations and 65/35 percent cost-share
- EPA STAG Grant Initiated Project Planning
- NEPA Initiated by Reclamation

Addition of Master Contract

- Added to AVC EIS at Request of Southeastern
- Would Allow for Storage of Non-Project Water in Fry-Ark Project Storage Space



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What's All This “Alphabet Soup”?

- **EIS** = Environmental Impact Statement
- **NEPA** = National Environmental Policy Act
- **AVC** = Arkansas Valley Conduit
- **Fry-Ark** = Fryingpan-Arkansas Project
- **STAG Report** = State and Tribal Assistance Grant
- **CDPHE** = Colorado Department of Public Health and Environment



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The EIS Will Be Conducted Based On NEPA Framework

- **NEPA Requirements**
 - **Disclose Environmental Effects of Federal Actions**
 - **Assess and Consider Environmental Effects in Decision Making**
- **Environmental Impact Statement (EIS)**
 - **Purpose and Need**
 - **Alternatives Analysis (Including No Action)**
 - **Analyze Full Range of Direct, Indirect and Cumulative Effects**
 - **Public Comment (Scoping, Draft EIS)**

Fry-Ark Project Made AVC Possible

- Trans-mountain diversion, storage and delivery project
- Signed into Law 1962; constructed 1964-1982
- Major Features
 - Five Major Dams and Reservoirs, tunnel, and powerplant
- Operations
 - Diverts 54,800 acre-feet/year
 - Provides Agricultural, Municipal and Industrial Water to
 - 12 counties
 - 200,000 acres of irrigated land
 - 650,000 people



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AVC Would Serve the Lower Arkansas Valley

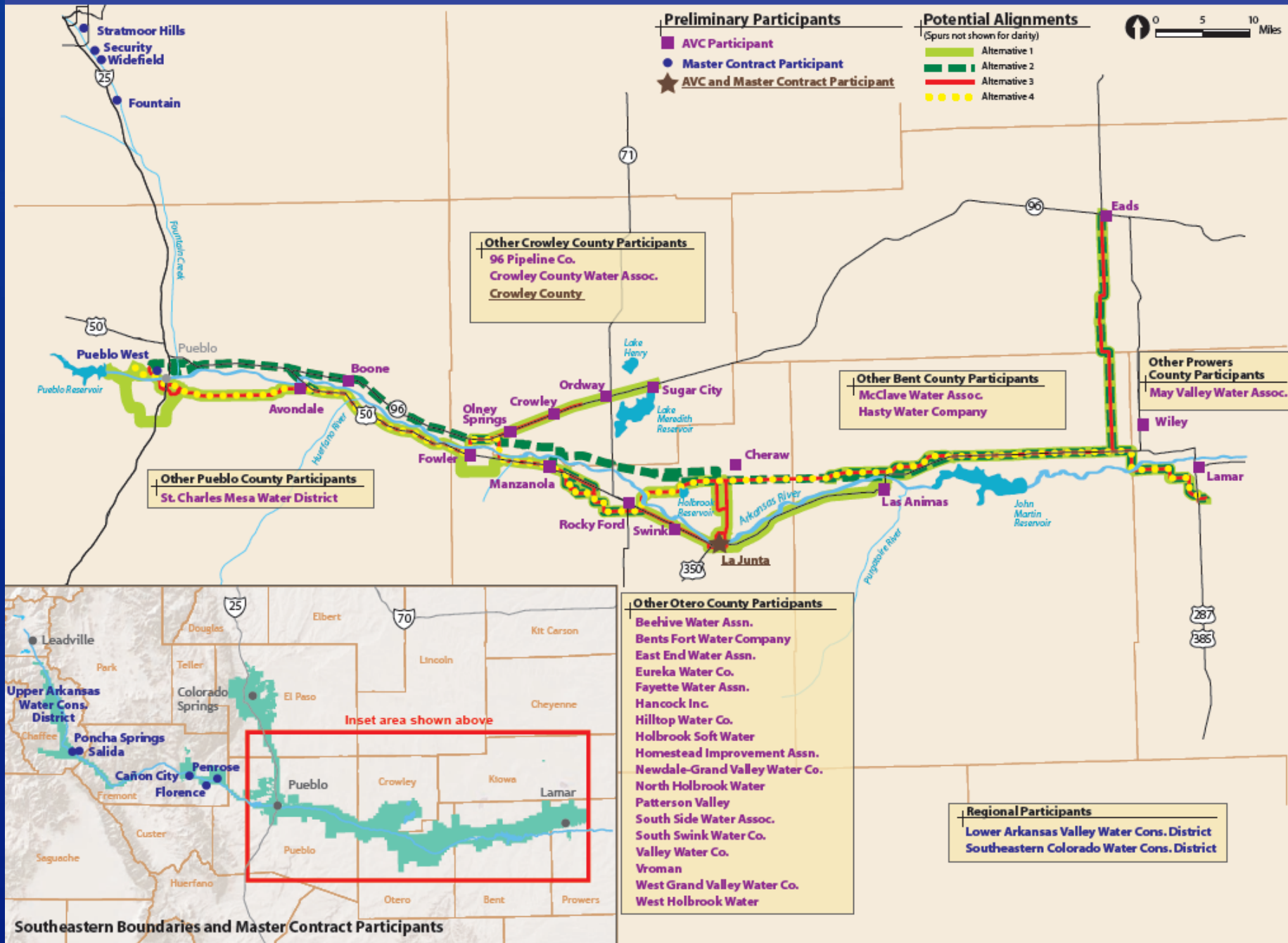
- Municipal Water Supply Pipeline
- Pueblo Reservoir to Lamar, Spurs to Other Users
- 41 Participants (Municipalities and Water Districts)
- Mainline
 - 135 miles
 - 42-inch to 18-inch
- Spurs
 - 91 miles
 - 16-inch to 4-inch
- Capacity (TBD)
 - 14 mgd – 20 mgd
 - 22 cfs – 30 cfs
- Treatment



mgd = million gallons per day
cfs = cubic feet per second

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Arkansas Valley Conduit and Long-term Excess Capacity Master Contract, Fryingpan-Arkansas Project



What Communities Could be Served by AVC?

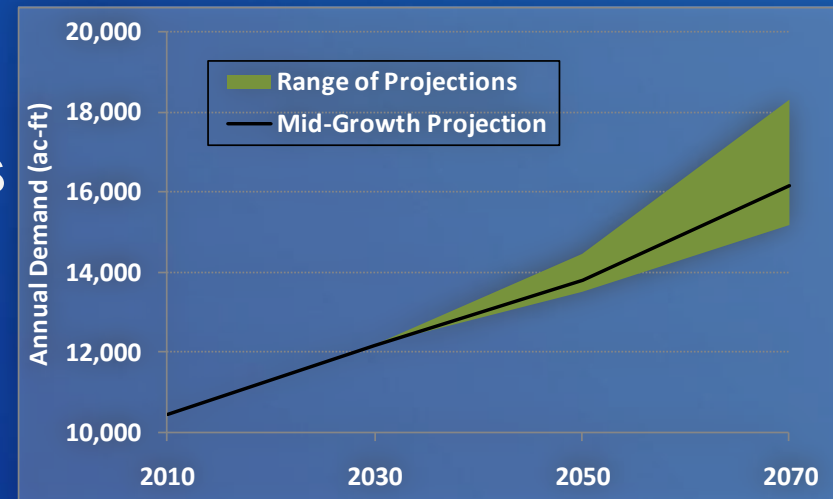
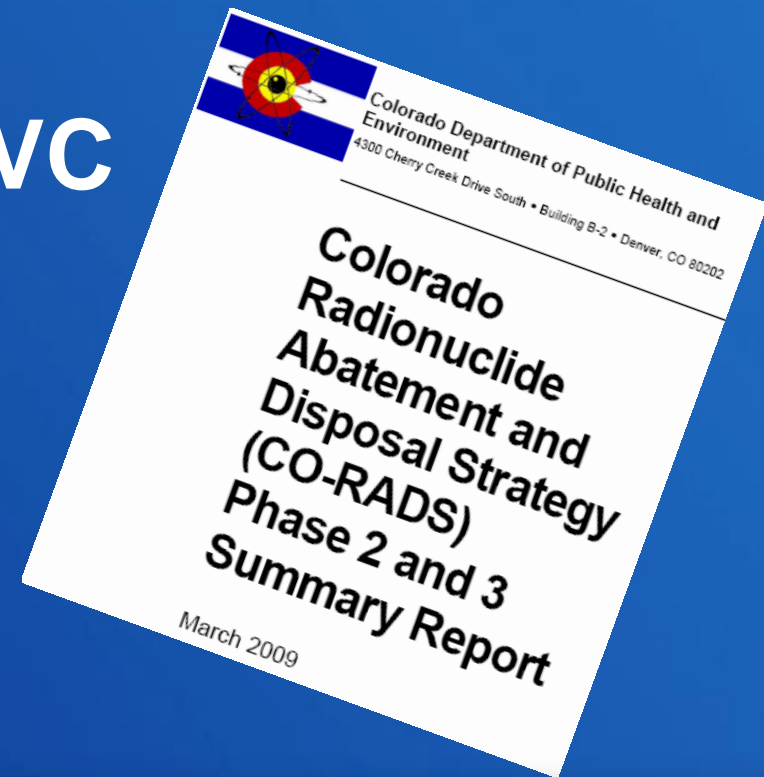
Participant	% of Annual Deliveries
Pueblo County	27%
Avondale	1.4%
Town of Boone	0.4%
St. Charles Mesa Water District	25.6%
Crowley County	12%
96 Pipeline Co.	0.2%
Crowley County Commissioners	4.1%
Crowley County Water Assoc.	4.3%
Town of Crowley	0.2%
Town of Olney Springs	0.7%
Town of Ordway	1.5%
Town of Sugar City	0.7%
Bent County	7%
Hasty Water Company	0.3%
City of Las Animas	6.6%
McClave Water Assoc.	0.5%
Prowers County	16%
City of Lamar	10.6%
May Valley Water Assoc.	5.4%
Town of Wiley	0.3%
Kiowa County	2%
Town of Eads	1.7%
Total	100%

Participant	% of Annual Deliveries
Otero County	35%
Beehive Water Assn	0.1%
Bents Fort Water Co.	0.8%
Town of Cheraw	0.6%
East End Water Assn.	0.1%
Eureka Water Co.	1.0%
Fayette Water Assn.	0.2%
Town of Fowler	1.5%
Hancock Inc.	0.1%
Hilltop Water Co.	0.3%
Holbrook Center Soft Water	0.2%
Homestead Improvement Assn.	0.1%
City of La Junta	18.2%
Town of Manzanola	0.5%
Newdale-Grand Valley Water Co.	0.7%
North Holbrook Water	0.1%
Patterson Valley	0.2%
City of Rocky Ford	7.7%
South Side Water Assoc. (La Junta)	0.0%
South Swink Water Co.	1.1%
Town of Swink	0.5%
Valley Water Co.	0.5%
Vroman	0.4%
West Grand Valley Water Inc.	0.2%
West Holbrook Water	0.1%

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Purpose and Need - AVC

- **Replace Existing Poor Quality Supplies**
 - 12 CDPHE Enforcement Actions (Radionuclides)
 - Remaining Participants Have Poor Quality Supplies
- **Provide Supplemental Supplies for Future Demands**
 - Additional Demand (af/yr)
 - 3,100 to 4,000 (2050)
 - 4,700 to 7,900 (2070)



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Master Contract Is About Storage

- **Storage of Non-Project Water in Fry-Ark Project Storage Space**
- **Long-Term Master Agreement with Southeastern**
- **15 Participants- All Use Within Southeastern Boundaries**



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Who Would the Master Contract Serve?

Participant	Annual Delivery (ac-ft)
Chaffee County	3,200
Poncha Springs	200
Salida	2,000
Upper Arkansas Water Cons. District *	1,000
Fremont County	4,150
Canon City	1,000
Florence	2,250
Penrose	900
Pueblo County	5,000
Pueblo West	5,000
El Paso County	3,350
Fountain	1,000
Security	1,500
Stratmoor Hills	200
Widefield	650
Otero County	12,000
La Junta	2,000
Lower Arkansas Valley Water Cons. District *	5,000
Southeastern Colorado Water Cons. District *	5,000
Crowley County	500
Crowley County	500
Total	28,200

* Service area includes more than one county. Use limited to portion of District within Southeastern boundaries.

Purpose and Need – Master Contract

- **Meet Existing and Future Storage Needs**
 - **AVC**
 - **Municipal/Domestic**
 - **Well Augmentation**
- **Spill Priorities Would Not Change**

Spill Order *	Storage Account
1	Entities Outside of District (Including Aurora)
2	If-and-When Storage
3	Winter Water (> 70,000 ac-ft)
4	Municipal non-Fry-Ark Project Water (including Master Contract)
5	Winter Water (< 70,000 ac-ft)
6	Native Arkansas River Basin Fry-Ark Project water

*First to spill is the first account in the list.

Alternatives Will Be Analyzed



Pipeline Alignments

- Routes through City of Pueblo
- Alternate Routes North and South of Arkansas River



Diversion Locations

- Pueblo Dam
- Arkansas River Below Pueblo Dam



Water Treatment Plant Locations/Treatment Levels

- Contracting with Board of Water Works of Pueblo
- New Water Treatment Plant



Various Water Supplies

- Fry-Ark Allocations/Return Flows
- Agriculture (Ditch Shares, Leases)



Storage of non-Project Water in Fry-Ark Space (Master Contract)

What If No Action Is Taken?

- Represents “Future Without Project”
- AVC
 - STAG Participant Survey

STAG Option	Number of Responses
Do Nothing, Continue Current Water Operations	18
Purchase other supplies	7
Construct a New or Additional Water Delivery System	4
Construct a New or Additional Water Treatment System	9
Regionalization	7
Haul Water	1
Individual Treatment at Tap	5
No Response	7

(Some Participants Had Multiple Responses)

- CoRADS Study
- Master Contract
 - No Master Contract (Status Quo)

There May Be **Water-Based** Issues



Surface Water Hydrology

- Changes in Streamflow, Reservoir Contents
- Effects of Climate Change
- Streamflow at State Line (Arkansas River Compact)
- Changes in Water Use (Agricultural to Municipal)



Water Quality

- Changes in Water Quality (Streamflow and Reservoirs)
- Changes in Drinking Water Quality



Effects on **Aquatic Species** Habitat (including Threatened & Endangered Species)



Changes **Groundwater/Aquifer** Levels



Floodplain, wetlands and riparian communities

- Spread of Invasive Species



Effects on **Water-Based Recreation**

There May Be **Land-Based** Issues



Terrestrial Plants, Animals and Habitat (including Threatened & Endangered Species)



Effects on **Cultural Resources**



Socioeconomics

- Effects of Repayment Requirements
- Environmental Justice
- Effects of Improved Domestic Water Supply



Effects of **Construction Activities**



Impacts to **Private Property**



NEPA Related Issues

- Reasonably Foreseeable Actions/Cumulative Effects
- Compliance with Executive Orders, Federal, State and Local Statutes

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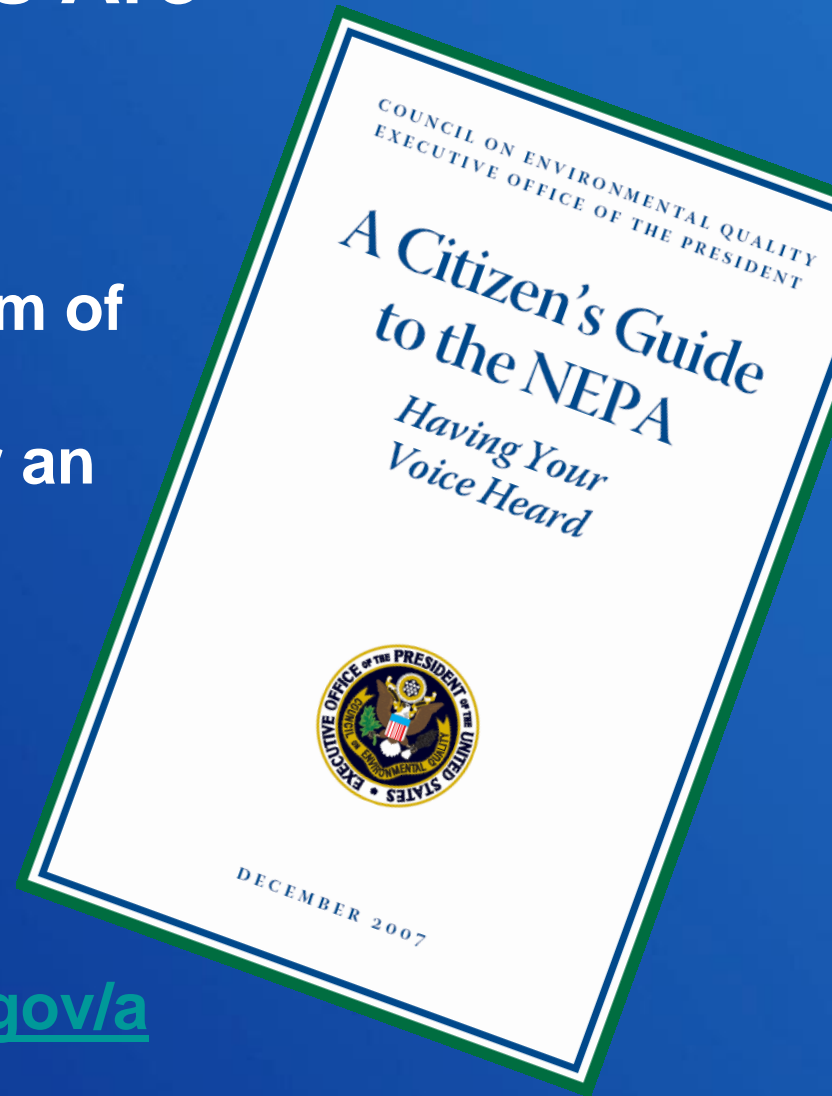
Substantive Issues and Comments Will Be Evaluated Over the Next Two Years



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Your Specific Comments Are Encouraged

- Substantive Comments:
 - are **specific** in their criticism of analysis methods,
 - identify **new information** or an Issue,
 - raise a **new alternative**, or
 - explain how an alternative could be **modified**
- Resource - Council For Environmental Quality (CEQ)
 - <http://www.whitehouse.gov/administration/eop/ceq/>



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How Do I Get Involved?

- Project Website: www.usbr.gov/avceis
- Submit Comments to Signe Snortland:

J. Signe Snortland
Bureau of Reclamation, Dakotas Area Office
P.O. Box 1017
Bismarck, ND 58502

E-mail: jsnortland@usbr.gov

Fax: (701) 250-4326

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