



**RECLAMATION**  
*Managing Water in the West*

# Recent Developments in Asset Management, Bureau of Reclamation

Asset Leadership Network  
September 24, 2019



# Topics

- Reclamation Mission
- New Developments in Asset Management
  - Past, current, future state

Photos: Glen Canyon Dam High Flow Experiment



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## Mission

Reclamation's mission is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

### Reclamation Brief Overview

- 492 dams
- 338 reservoirs
- 76 hydropower plants
- 300+ recreation and wildlife areas
- 2,600 miles of public roads
- 300 public bridges
- 1,500 total bridges
- 1,300 miles of trails



# Historical Practices





# **John D. Dingell, Jr.**

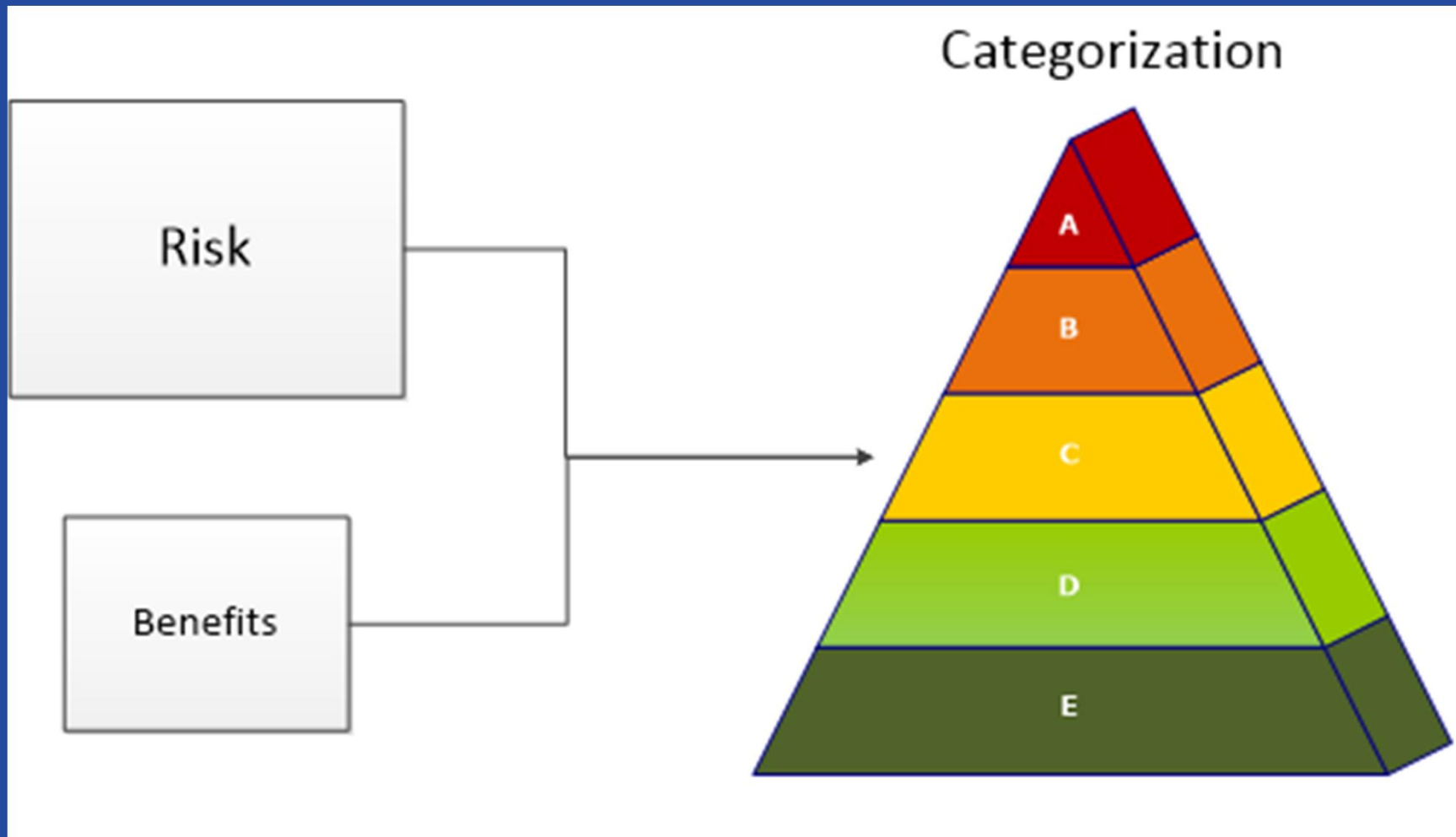
## **Conservation, Management, and Recreation Act, P.L. 116-9**

**Title VIII – Water and Power, Subtitle G -  
Reclamation Transparency Act (Section 8601)**

**Asset Management Plan every 2 years to include:**

- **Assessment of major repair needs**
- **Itemized list of repair needs by facility**
- **Level of cost estimate**
- **Appropriations needed to complete each item**
- **Categorical rating for each repair item**

# Major Rehabilitation and Replacement (MR&R)

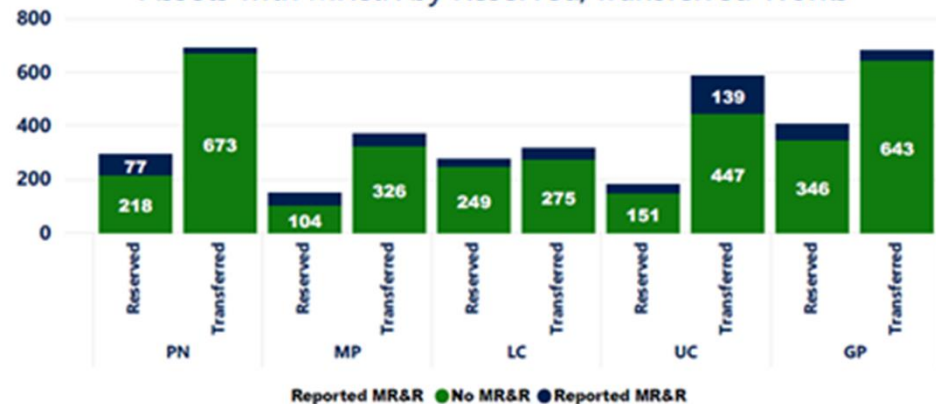


# 2018 MR&R

## Reclamation FY18 Major Rehabilitation & Replacement Data Summary

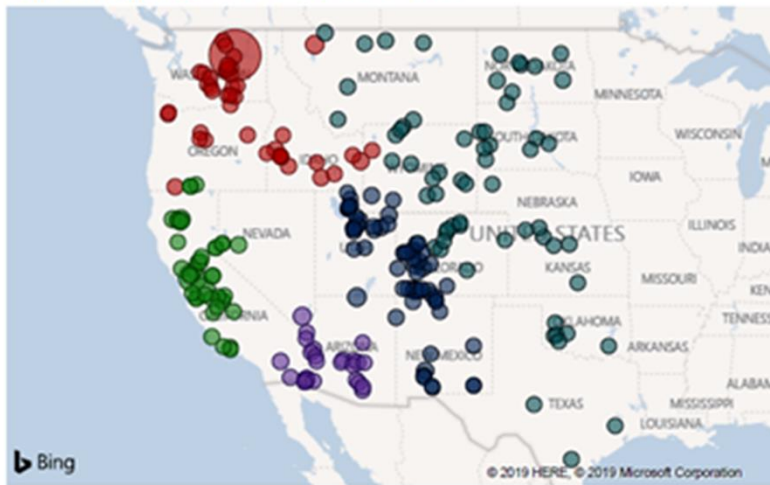
Region	Number of MR&R Activities	Estimated 5-Year MR&R Total (\$)	Estimated 30-Year MR&R Total (\$)
PN	643	\$895,361,316	\$4,903,960,873
MP	533	\$857,491,565	\$3,045,301,675
UC	445	\$532,237,404	\$1,386,719,234
GP	187	\$378,838,100	\$639,498,800
LC	206	\$315,877,350	\$437,422,800
<b>Total</b>	<b>2014</b>	<b>\$2,979,805,735</b>	<b>\$10,412,903,382</b>

Assets with MR&R by Reserved/Transferred Works

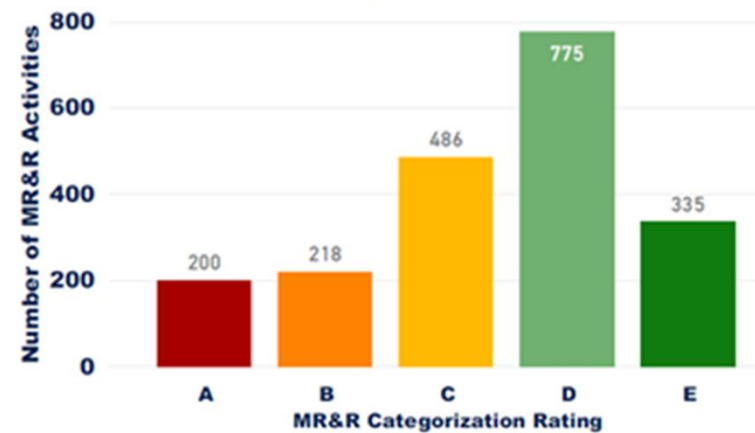


30-Year MR&R Total by Region

Bureau Region ● PN ● MP ● LC ● UC ● GP

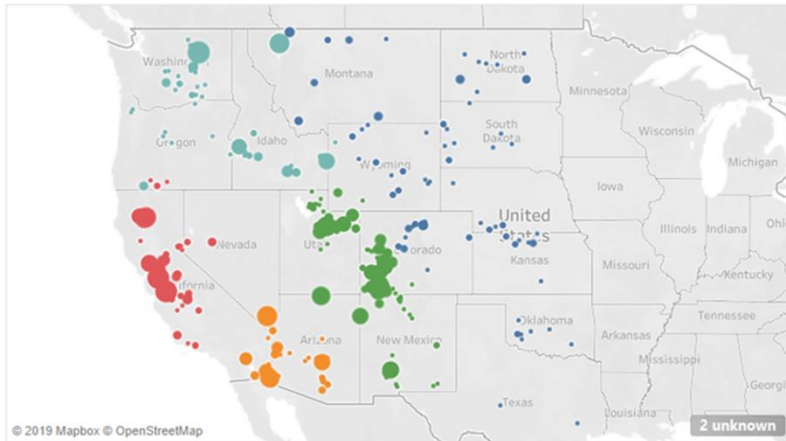


MR&R Categorization Rating

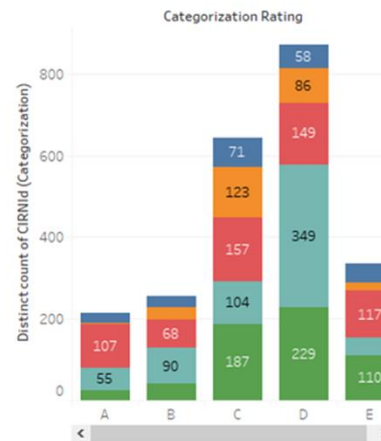


# Data Visualization

MRR Activities Locations



Categorization Rating



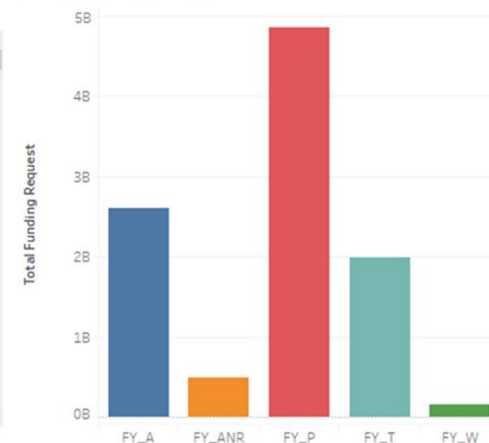
Number of MR&R Activities by Area Office



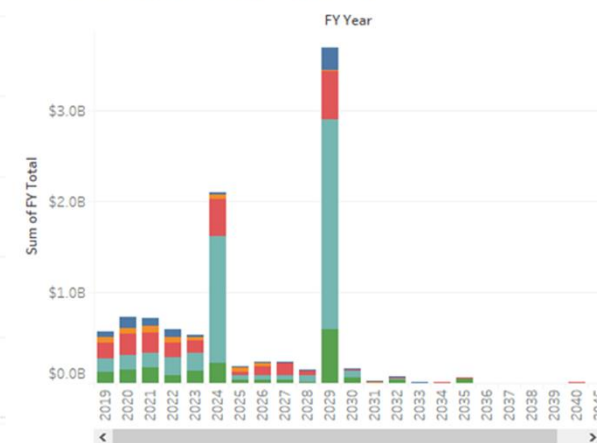
Number of Acts/Funding

AreaOfficeT...	Installation...	Number of MRR Ac...	Estimated Total C...	To
AAO	Avalon Dam...	1	\$1,000,000.00	
	Azotea Tun...	1	\$769,400.00	
	Blanco Dive...	2	\$5,358,850.00	
	Brantley Re...	3	\$839,463.00	
	Caballo Da...	3	\$590,000.00	
	Caballo Rec...	2	\$1,505,235.00	
	El Vado Da...	2	\$75,500,000.00	
	El Vado Rec...	3	\$1,020,323.00	
	Elephant B...	10	\$16,427,688.00	
	Heron Recr...	5	\$1,348,433.00	
	Lake Sumne...	2	\$1,400,000.00	
	Leasburg Di...	2	\$2,100,000.00	
	Leasburg R...	2	\$398,426.00	
	Little Oso D...	1	\$717,300.00	
	Mesilla Div...	1	\$500,000.00	
	Nambe Fall...	1	\$250,000.00	
	Nambe Fall...	1	\$500,000.00	
	Oso Diversi...	1	\$1,177,500.00	

Funding Year/Source



Total Funding Needs by Region and Year





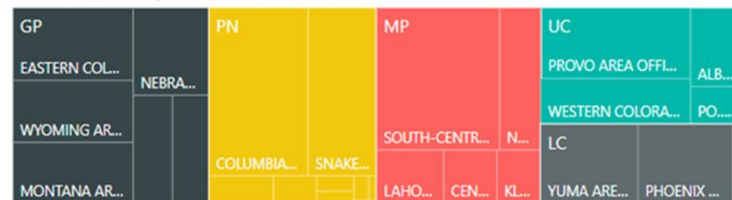
# Condition Data

Total Remining Incomplete Category 2 Recommendations by Year

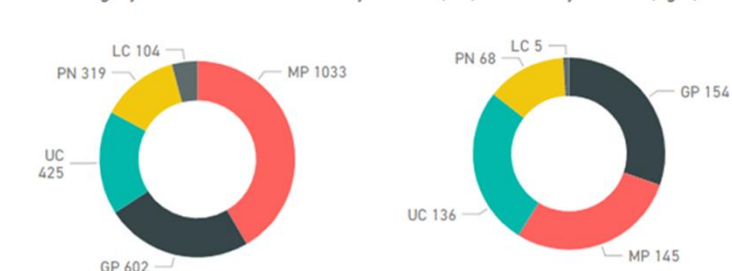


NAME	REC_ID	RECOMMENDATION
YUMA MESA IRRIGATION & DRAINAGE DISTRICT SYSTEM	2013-2-A	Yuma Mesa "B" Canal bridge at county Ave 4.5- Repair in timber rail on the west side bridge guardrail.
SAN LUIS CANAL	2010-2-BR-AX	Yuba Avenue Bridge - Repair road surface deterioration & right approaches to the Yuba Avenue Bridge such that the elevation matches the bridge deck elevation.
SAN LUIS CANAL	2010-2-AY	Yuba Avenue Bridge - Repair or replace the Yuba Avenue approach steel angles and steel expansion joint angles.
SAN LUIS CANAL	2010-2-BR-AY	Yuba Avenue Bridge - Repair or replace the Yuba Avenue approach steel angles and steel expansion joint angles.
SAN LUIS CANAL	2010-2-BR-BC	Yuba Avenue Bridge - Repair or replace damaged metal on the upstream and downstream side of the Yuba Avenue
SAN LUIS CANAL	2010-2-BR-BD	Yuba Avenue Bridge - Install object markers at both Yuba approaches in accordance with the Federal Highway Administration Manual on Uniform Traffic Control Devices.
RESERVATION	2002-2-L	Ypsilanti turnout off the All American Canal has Imperial

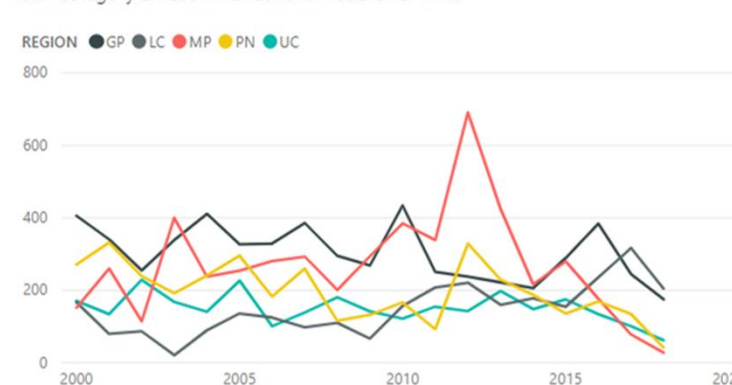
Count of STATUS by REGION and AREA\_OFFICE



Total Category 2 Recommendations > 3 years old (left) and > 10 years old (right)



Total Category 2 Recommendations Made Over Time



AREA\_OFFICE

- ☐ ALBUQUERQUE AREA OFFICE
- ☐ BEND FIELD OFFICE
- ☐ BOULDER CANYON OPERATIONS OFFICE
- ☐ CENTRAL CALIFORNIA AREA OFFICE
- ☐ COLUMBIA-CASCADES AREA OFFICE
- ☐ DAKOTAS AREA OFFICE
- ☐ EASTERN COLORADO AREA OFFICE
- ☐ EPHRATA FIELD OFFICE
- ☐ GRAND COULEE POWER OFFICE
- ☐ KLAMATH BASIN AREA OFFICE
- ☐ LAHONTAN BASIN AREA OFFICE
- ☐ LOWER COLORADO DAMS OFFICE
- ☐ LOWER COLUMBIA AREA OFFICE
- ☐ MONTANA AREA OFFICE
- ☐ NEBRASKA-KANSAS AREA OFFICE
- ☐ NORTHERN CALIFORNIA AREA OFFICE
- ☐ OKLAHOMA-TEXAS AREA OFFICE
- ☐ PHOENIX AREA OFFICE
- ☐ POWER OFFICE
- ☐ PROVO AREA OFFICE
- ☐ SNAKE RIVER AREA OFFICE
- ☐ SOUTH-CENTRAL CALIFORNIA AREA OFFICE

FAC\_TYPE

All

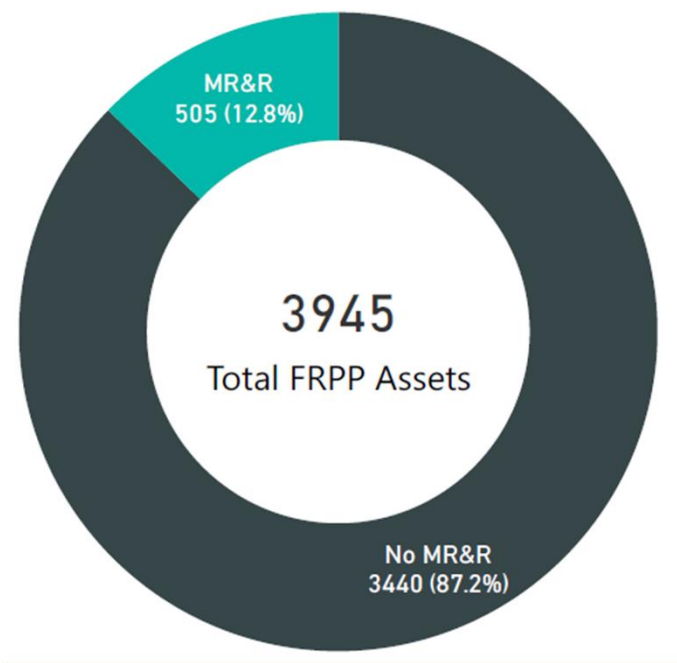
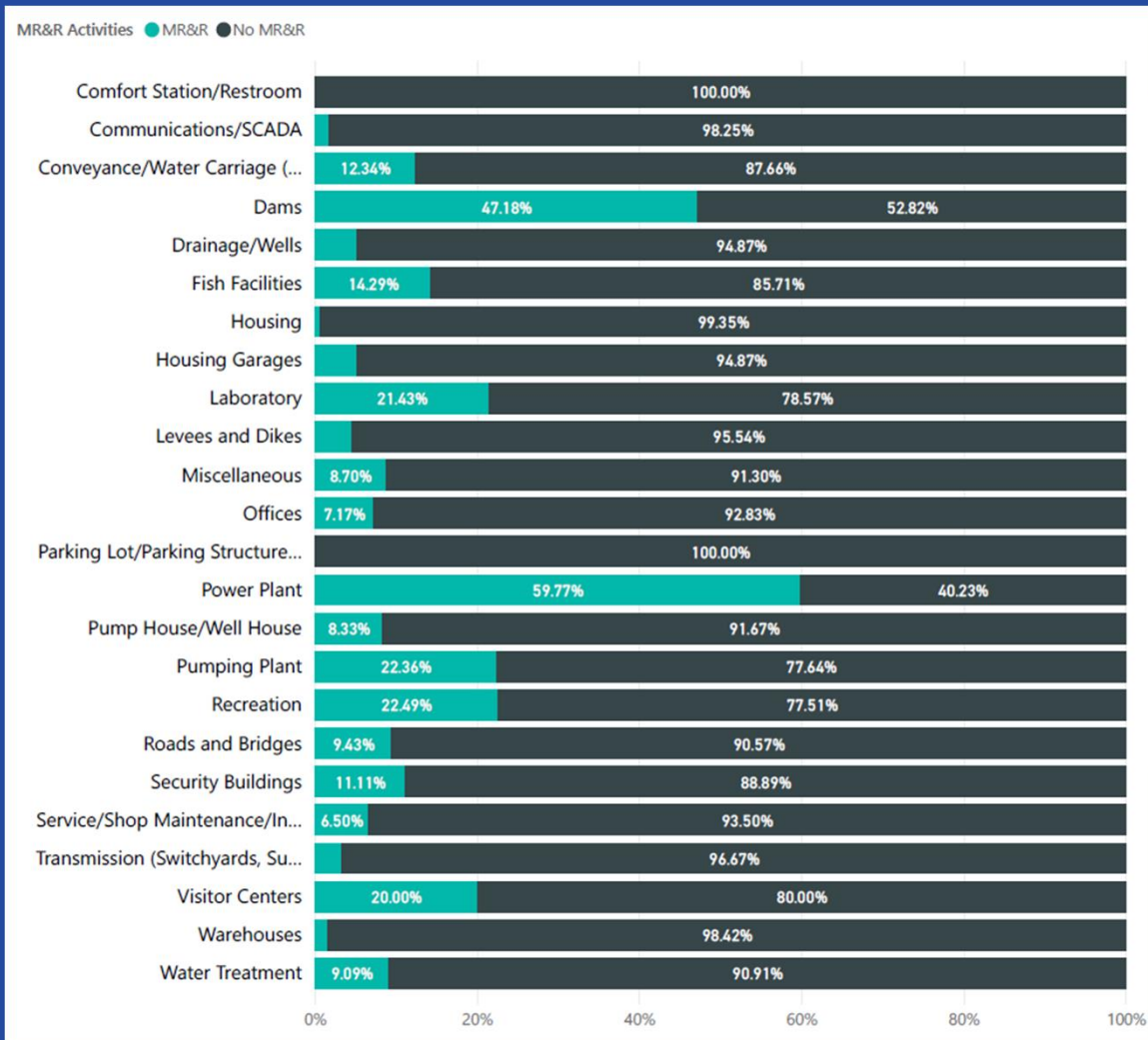
DOWN\_HAZ\_CLASS

All

TRANS\_RES

All

# State of MR&R Reporting

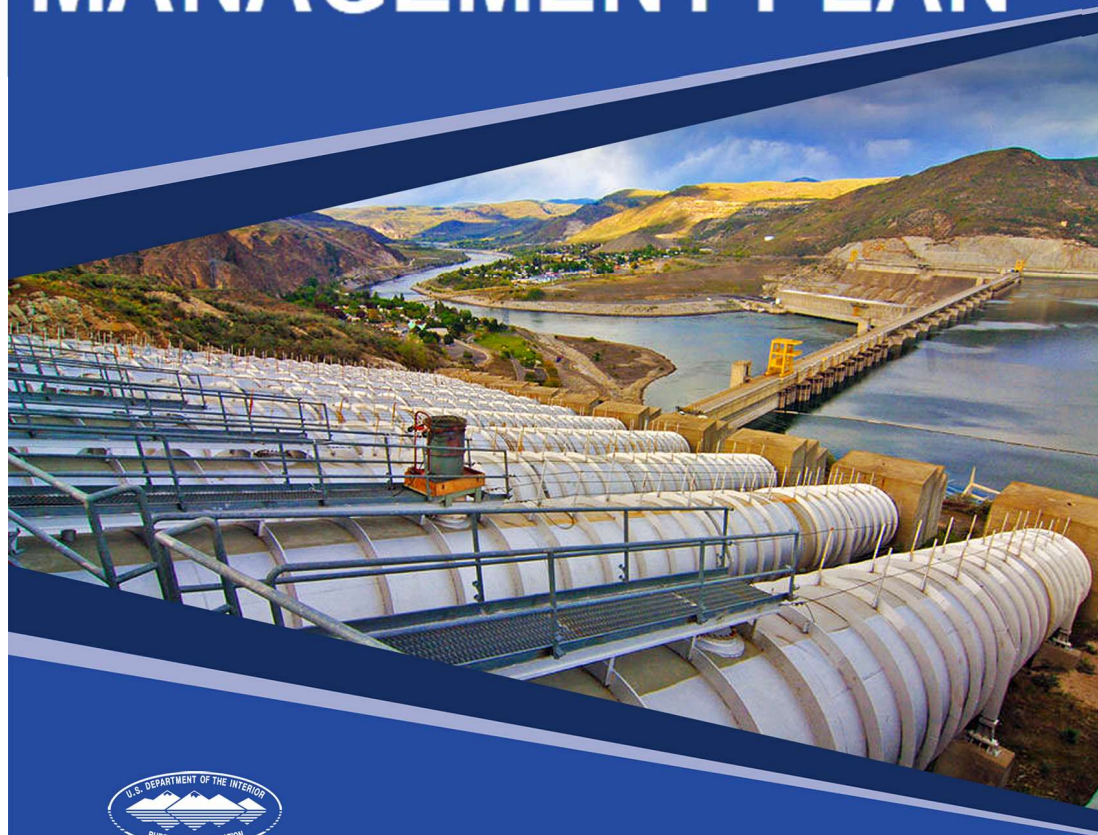


Analysis based on Reclamation Federal Real Property Profile and Major Rehabilitation and Replacement FY 2018 Reporting

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## STRATEGIC ASSET MANAGEMENT PLAN



U.S. Department of the Interior  
Bureau of Reclamation

September 2019



# Reclamation - Future State

- Collecting Good Data
- Streamline Data Collection
- Condition Assessments
- Incorporating GIS Spatial Data
- Workforce Planning
- Predictive Analytics





**Chris Vick, P.E., PMP**  
**Manager, Asset Management Division**  
**Bureau of Reclamation**  
**Denver, Colorado**  
[cvick@usbr.gov](mailto:cvick@usbr.gov), 303-445-2941

