

NOTICE AND CALL OF MEETING

LAS VEGAS VALLEY WATERSHED ADVISORY COMMITTEE

Tuesday, January 27, 2025 2:00 p.m.
MEETING TO BE HELD VIRTUALLY

Join Microsoft Teams Meeting: **+1 702-625-8405/** Conference ID: **913 894 922**

The Las Vegas Valley Watershed Advisory Committee makes reasonable efforts to assist and accommodate persons with physical disabilities who desire to attend the meeting. For assistance, please contact the agenda coordinator at (702) 822-8501 or agendas@snwa.com at least 48 hours in advance of the meeting.

Visit our website at www.snwa.com for Las Vegas Valley Watershed Advisory Committee agenda postings, copies of supporting material and approved minutes. To receive meeting information, including supporting material, contact the Agenda Coordinator at (702) 822-8501 or agendas@snwa.com.

Any Committee member may combine two or more agenda items for consideration, consider an item out of order, remove an item from the agenda or delay discussions relating to an item on the agenda at any time.

COMMENTS BY THE GENERAL PUBLIC

NO ACTION MAY BE TAKEN: This is a period devoted to comments by the general public pertaining to items on this agenda. If you wish to speak to the Committee about items within its jurisdiction, but not appearing on this agenda, you must wait until the "Comments by the General Public" period listed at the end of this agenda. Please limit your comments to three minutes or less. No action may be taken upon a matter not listed on the posted agenda.

ITEM NO.

1. *For Information Only:* Introductions
2. *For Possible Action:* Receive Presentation, Discuss and Authorize Staff to Proceed with Contracting a Consultant for the Weir Lifespan Assessment

COMMENTS BY THE GENERAL PUBLIC

NO ACTION MAY BE TAKEN: At this time, the Committee will hear general comments from the public on matters under the jurisdiction of the LVVWAC. Please limit your comments to three minutes or less.

Approved:


Joemel Llamado, Chair

THIS MEETING HAS BEEN PROPERLY NOTICED AND POSTED IN THE FOLLOWING LOCATIONS:

Southern Nevada Water Authority
100 N. City Parkway, Ste. 700
Las Vegas, NV 89106



Weir Life Span Assessment

Las Vegas Valley Watershed Advisory Committee

January 27, 2026





Agenda

- Summary of CIP Improvement
- Facilities Assessment Report
- Ongoing Maintenance
- Strategies For Assessment
- Agency Experience
- Next Steps

CIP History



Structure Types

- Flexible Rip Rap (Confined vs Unconfined)
- Concrete skinned Gabian
- Roller Compacted Concrete (RCC)
- All contain a sheet pile cut off wall, which is the linchpin of the structure

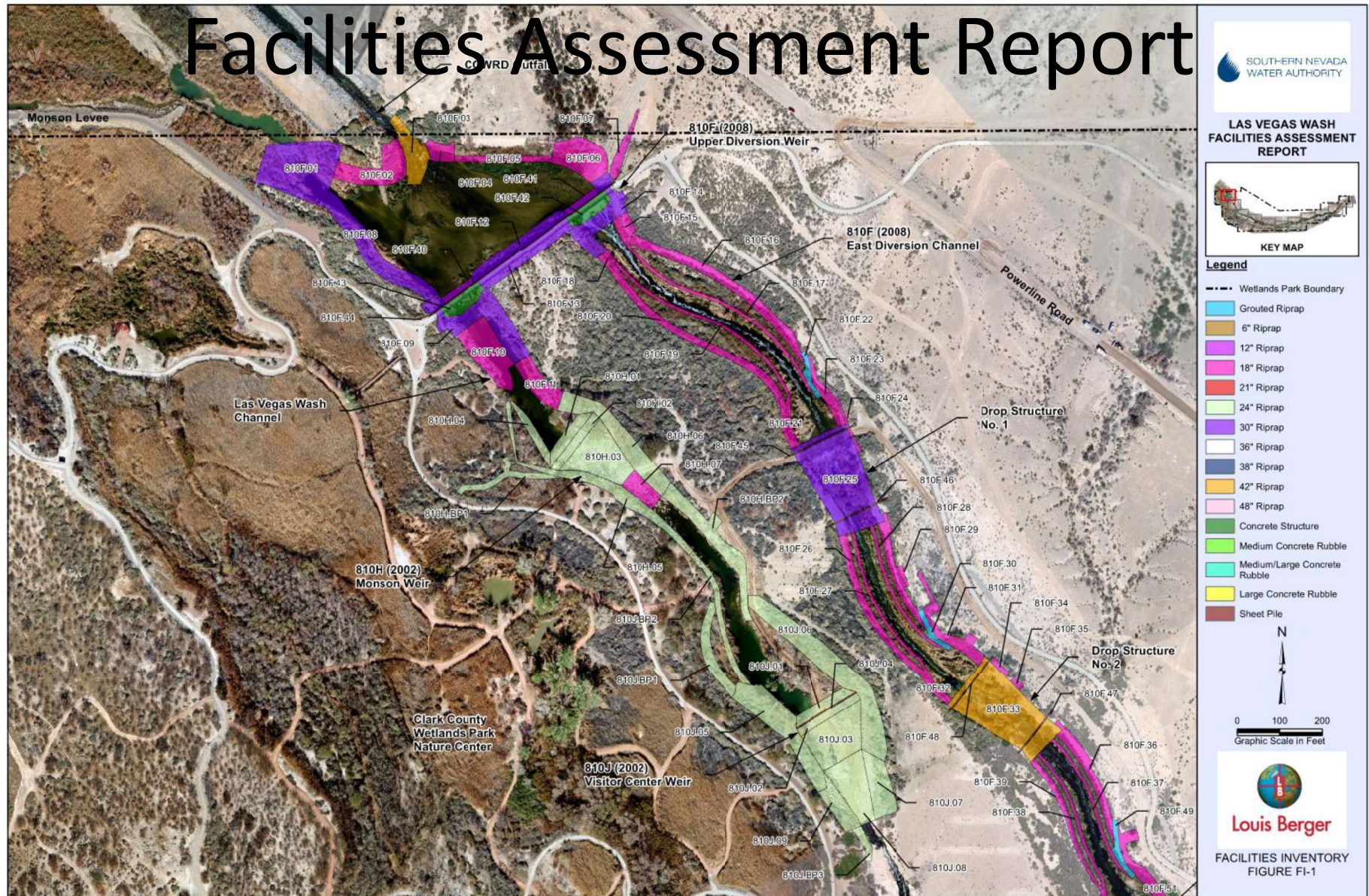


Facilities Assessment Report

- Completed in 2020
- Louis Berger Now WSP
- High Level Condition Assessment
- Vegetation Management Plan
- CLOMR



Facilities Assessment Report



Facilities Assessment Report

Louis Berger



Photo 1 - 810F (2008) Upper Diversion Weir



Photo 3 - 810J (2002) Visitor Center Weir



Photo 2 - 810H (2002) Manson Weir

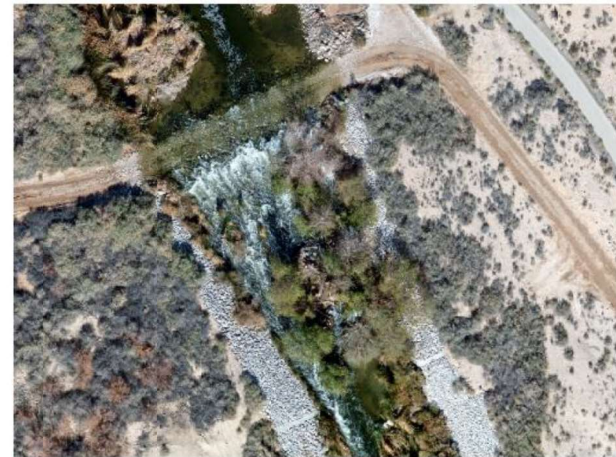


Photo 4 - 810F.25 Drop Structure No. 1

Facilities Assessment Report

Facility Inventory Table FI-1 (1 of 2)

Weir (Year)	Facility ID	Description	Material	Riprap Size	Condition Rating	Notes	Photograph Number
Upper Diversion Weir (2008)	810F.42	Weir	RCC		Good	Flash Gates Inoperable	
	810F.43	Weir	RCC		Good	Flash Gates Inoperable	AP7
	810F.44	Sheet Pile	Sheet Pile		x		
	810F.45	Sheet Pile	Sheet Pile		x		
	810F.46	Sheet Pile	Sheet Pile		x		
	810F.47	Sheet Pile	Sheet Pile		x		
	810F.48	Sheet Pile	Sheet Pile		x		
	810F.49	Access Ramp	Grouted Riprap	18"	Good*		AP43
Monson Weir (2002)	810H.01	Weir Crest	Riprap	24"	Good	Reconstructed in 2018	AP17
	810H.02	Weir Crest	Riprap	24"	Good	Reconstructed in 2018	AP17
	810H.03	Weir Chute	Riprap	24"	Good	Reconstructed in 2018	AP15, AP16
	810H.04	Bank Protection	Riprap	24"	Good*	Reconstructed in 2018	
	810H.05	Weir Bank Protection	Riprap	24"	Good*	Reconstructed in 2018	AP18, AP19, AP20
	810H.06	Weir Bank Protection	Riprap	24"	Good*	Reconstructed in 2018	
	810H.07	Weir Apron	Riprap	18"	Good*	Reconstructed in 2018	
	810H.BP1	Bank Protection	Riprap	24"	Good*	Reconstructed in 2018	
Visitor Center Weir (2002)	810H.BP2	Bank Protection	Riprap	24"	Good*	Reconstructed in 2018	AP21, AP22
	810J.01	Weir Crest	Riprap	24"	Good	Reconstructed in 2018	AP23
	810J.02	Weir Crest	Riprap	24"	Good	Reconstructed in 2018	AP23
	810J.03	Weir Chute	Riprap	24"	Good	Reconstructed in 2018	AP23
	810J.04	Sheet Pile	Sheet Pile		x	Reconstructed in 2018	
	810J.05	Bank Protection	Riprap	24"	Good	Reconstructed in 2018	AP23
	810J.06	Bank Protection	Riprap	24"	Good	Reconstructed in 2018	AP23
	810J.07	Weir Bank Protection	Riprap	24"	Good	Reconstructed in 2018	AP24, AP25
	810J.08	Apron	Riprap	24"	Good	Reconstructed in 2018	AP24
	810J.09	Weir Bank Protection	Riprap	24"	Good	Reconstructed in 2018	AP26, AP27
	810J.BP1	Bank Protection	Riprap	24"	Good	Reconstructed in 2018	
	810J.BP2	Bank Protection	Riprap	24"	Good	Reconstructed in 2018	

* Facility is partially buried, covered with vegetation, or under water.

x Facility is entirely buried, covered with vegetation, or under water.

Continued Maintenance

- Final Weir Maintenance (\$4.7M Contract)
- Long-Term Operating Plan (LTOP)
 - Annual maintenance (Approx \$1M/year)
 - All weirs maintained on 5-year schedule



Strategies for Assessment

- Updated Facilities Assessment
 - Visual Inspection required annually by the LTOP
 - Survey to track structure movement could be implemented
 - Sheet Pile Assessment – desirable, but requires expertise



Cost Approach



– Two Common Methodologies

- Escalation of historic construction costs
 - Very quick to do with historical bid information and Cost Indexes
 - Will not take current construction climate into account
 - Indices have struggled to account for COVID cost escalations
- Bottom-up cost estimate
 - Very accurate cost of construction in today's market
 - Loses accuracy with time and needs to be escalated
 - Takes longer to complete and can be expensive

Agency Experience

- Limited based on 1/21 Ops Meeting
 - CCRFCD is currently implementing a condition assessment
 - Consultant contacts for further exploration
 - Reached out to Army Corps of Engineers contact
 - Some previous testing experience but not with below grade/under water sheet pile



Next Steps

– Assessment Options

- Maintain Facilities Assessment and update tables annually
 - No sheet pile considerations
- Sheet Pile Assessment
 - Calculated life span estimates based on average decay rates and sheet pile thickness
 - In situ testing
 - » Determine actual decay rates and predict remaining useful life

– Replacement Cost Approach

- Select Cost Escalation or Bottom-Up Approach
 - Suggest cost escalation unless assessment shows a weir is close to end of life

Questions

