

Wrangling Bridges

Local Highway Technical Assistance Council

November 2023

Scott Wood, P.E.

LHTAC Federal-aid Engineer

Karissa Nelson, P.E.

LHTAC Environmental Engineer

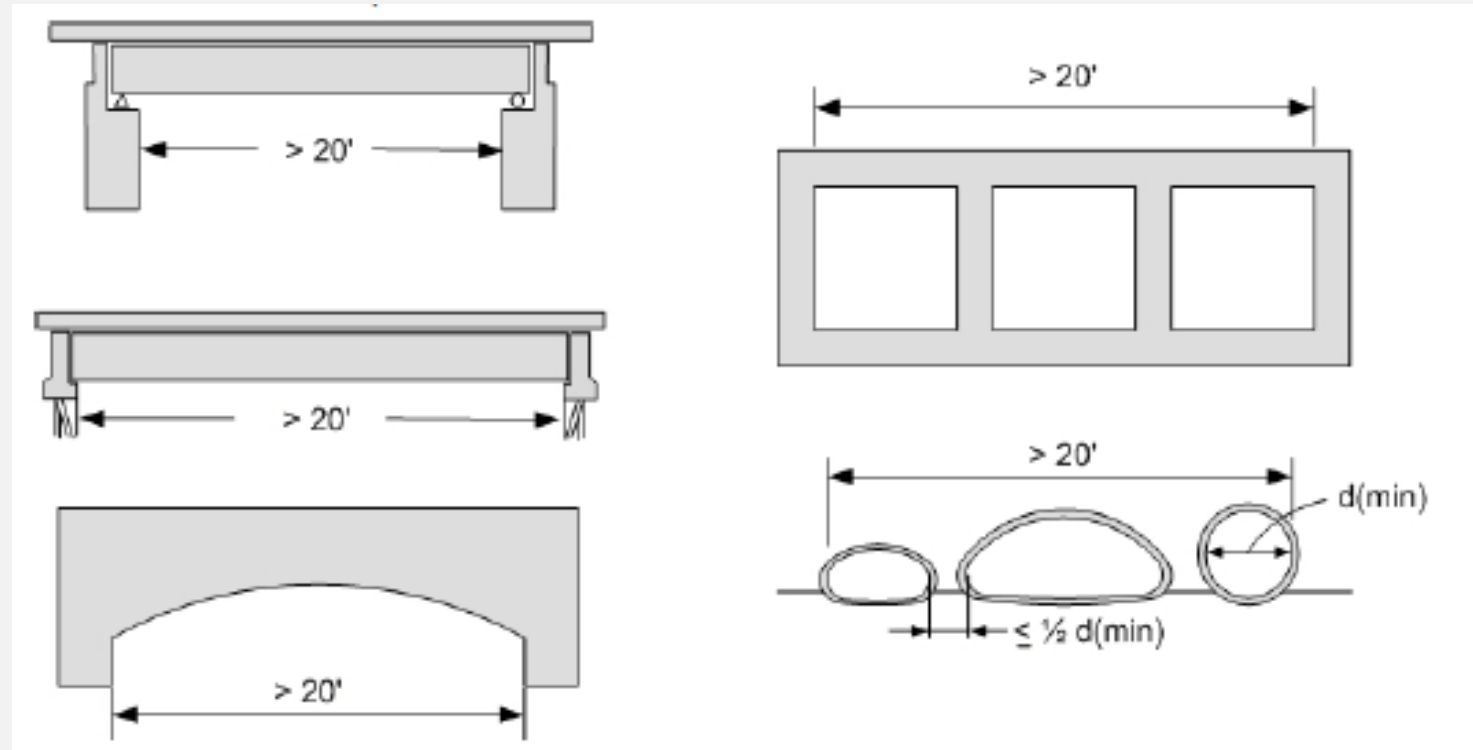


Agenda

- Local Idaho Bridges
- Bridge Asset Management – Planning for the Future
- Hydraulics
- Geotechnical/Foundations
- Permits and other Environmental

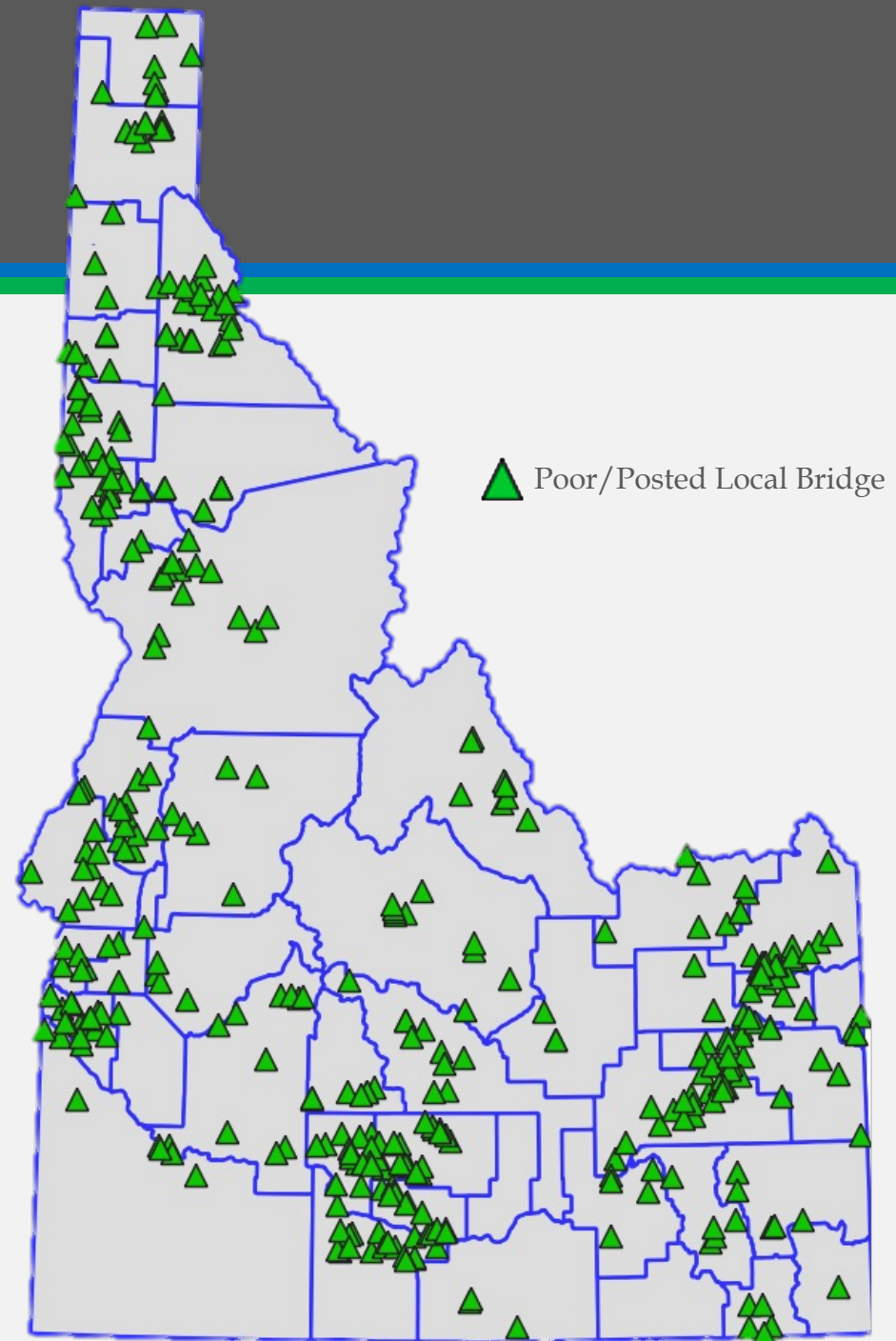
What is a Bridge?

- A structure carrying a road, path, railroad over a road, river, or other obstacle
- FHWA definition; 20+ ft in length
 - Local bridges inspected by ITD
 - National Bridge Inventory
- Small structure - bridge less than 20 ft

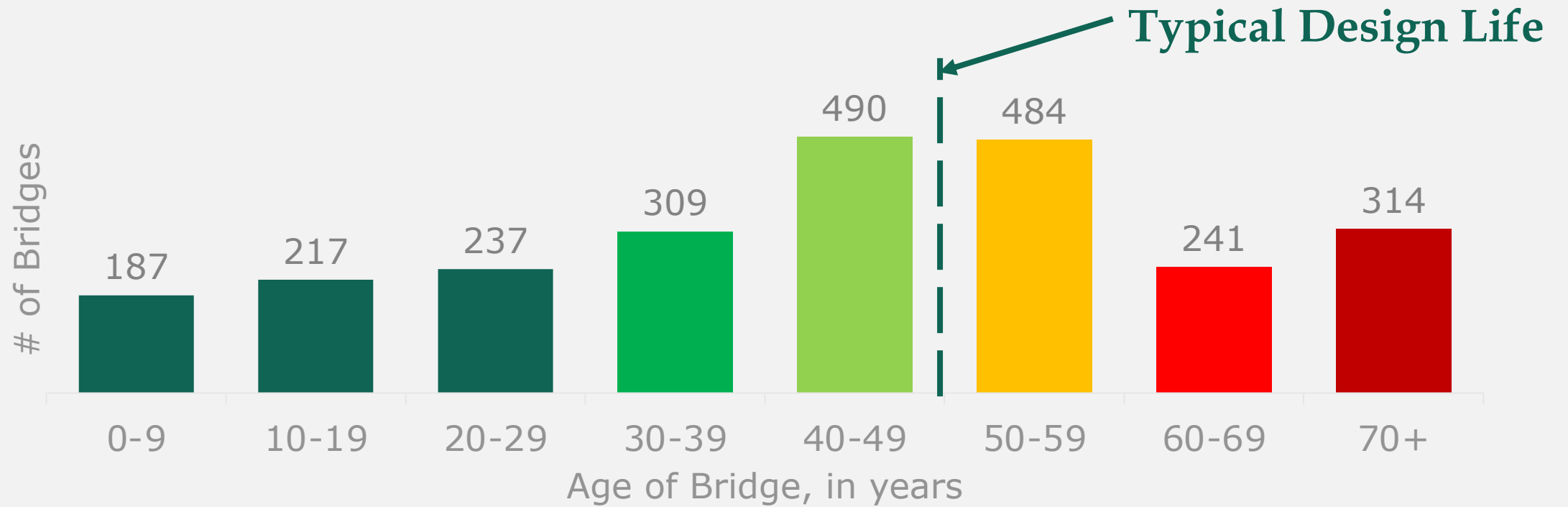


Local Idaho Bridges

- 4,259 Bridges in Idaho
- 2,479 local bridges
- 150 in poor condition
- 359 posted for load restriction
- 1,039 over 50 years old
- 2018 ASCE Report Card Grade D
- 227 Local Highway Jurisdictions (City, County, Highway District)
- Currently about \$13M federal-aid per year for local bridges



Local Bridge Age



Data as of Dec. 2022

What is my Bridge Condition?

Inspection reports for bridges over 20 feet in length.

Idaho Transportation Department: Division of Highways
Pontis Field Inspection Report

Bridge Key: 20320
 Feature Intersected: S.FK.PALOUSE RIVER

Structure Name: 945004 10.31
 Location: 0.5 N 2.8 E MOSCOW
 Admin Jurisdiction: 5701 - North Latah Highway Dist

IDENTIFICATION

- (1) State: 16 Idaho
- (2) District: District 2
- (3) County Code: 007 Latah
- (4) Place Code: 00000 Not within City/Town
- (5) Inventory Route: 141048040
- (7) Facility Carried: STC4504-ROBINSN PK
- (11) Milepoint: 010.125
- (12) Base Hwy Network: Not on Base Network
- (13a) LRS Inventory Route: Not on Base Network
- (13b) LRS Sub Route: Not on Base Network
- (16) Latitude: 46° 44' 27"
- (17) Longitude: 116° 56' 30"
- (98) Border Bridge Code/Pct: 02 Springer/Order
- Mac Segment on Route: 006310
- Mac Segment Under Rte: 006310
- Mac Segment Other Rte: 006310
- Drawing Number: 17194
- Project Key Number: -1
- Inspection Area: 0021

CLASSIFICATION

- (112) NBIS Bridge Length: Yes
- (104) Highway System: 0 Not on NHS
- (20) Functional Class: 07 Rural Mjr Collector
- (100) Defense Highway: 0 Not a STRAHNET hwy
- (101) Parallel Structure: No bridge exists
- (102) Direction of Traffic: 2 2-way traffic
- (103) Temporary Structure: 0 N/A (NB)
- (105) Federal Lands Highway: 0 Not part of rail netwo
- (110) Designated Natl Network: 3 On free road
- (20) Toll Facility: 25 Other Local Agencies
- (21) Custodian: 25 Other Local Agencies
- (22) Owner: 25 Other Local Agencies
- (37) Historical Significance: 3 Possibly eligible for

GEOMETRIC DATA

- (48) Maximum Span Length: 24 ft
- (49) Structure Length: 28 ft
- (50a) Curb/Sidewalk Width Lt: 0.5 ft
- (50b) Curb/Sidewalk Width Rt: 0.5 ft
- (51) Width Curb to Curb: 25.7 ft
- (52) Width Out to Out: 26.7 ft
- (32) Approach Roadway Width: 26 ft
- (33) Median: 0 No median
- (34) Skew: 0°
- (35) Structure Flared: 0 No flare
- (10) Vertical Clearance: 99.99 ft
- (47) Total Horiz Clearance: 25.7 ft
- (53) Min Vert Clr Over Deck: 99.99 ft
- (54a) Min Vert Undrolear Ref: N Feature not hwy or RR
- (54b) Min Vert Undrolear: 00.0 ft
- (55a) Min Lat Undrolear Ref Rt: N Feature not hwy or RR
- (55b) Min Lat Undrolear Rt: 00.0 ft
- (56) Min Lat Undrolearance Lt: 00.0 ft

STRUCTURE TYPE AND MATERIALS

- (43ab) Main Span Material/Design: 3 Steel
- (44ab) Approach Span Material/Design: 02 Springer/Order
- (45) Number of Spans Main Unit: 1
- (46) Number of Approach Spans: 0
- (107) Deck Type: 1 Concrete-Cast-in-Place
- (108a) Wearing Surface: 0 Bituminous
- (108b) Membrane: 0 None
- (108c) Deck Protection: None

Additional Condition

ROADWAY APPROACHES: The West Approach is straight and the appears to have adequate sight distance.

CURBS/SIDEWALKS: The 8-inch-high by 6-inch-wide galvanized satisfactory condition with minor collision damage to east end. The flange curb on the south side is in satisfactory condition, with surface

EMBANKMENT: The gradual embankments are moderately vegetated

WINGWALLS: Integral with abutments.

CHANNEL: No significant change in channel noted. Channel may allowing up to 30 inches of probe rod penetration. The West Abut inspection, which flows from north to south. Channel cross section

SIGNS: The weight limit signs are in good condition.

GUARDRAIL: None.

UTILITIES: The telephone cable along West Abutment is has

BIE: Recommend load rating analysis due to increased grade. Type 3S2 should be 21.0 but Pontis does not allow the current

WORK ACCOMPLISHED: None observed since last inspection

MAINTENANCE

Maintenance Item	Element	Repl E
20320-03	Metal Rail Coated	Repl E
Install bridge rails to meet current AASHTO standards.		
20320-04	Bridge	Other
Install transitions, approach rails, and approach rail end		

Inspector's Signature: _____
 Inspector Number: 157



Bridge Condition



Idaho Transportation Department Bridge Inspection Report

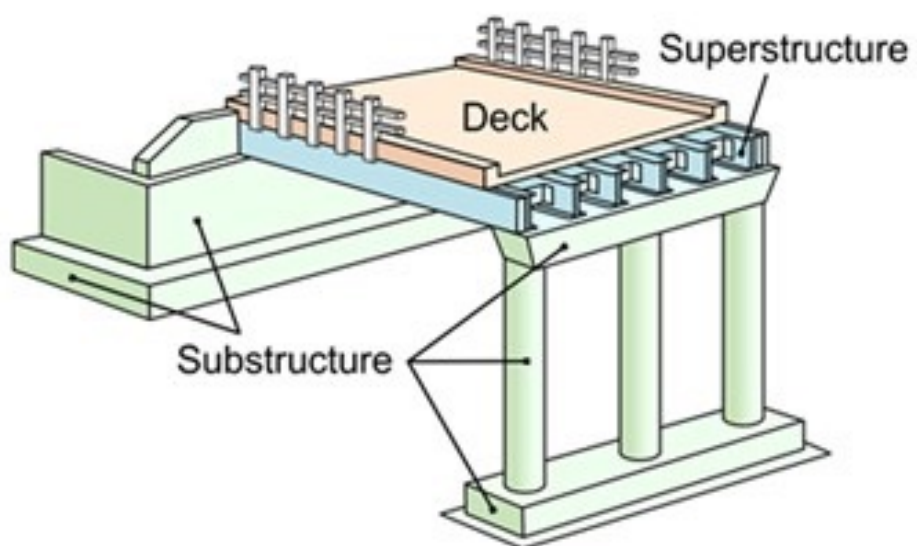
Bridge Key:	27590	Structure Name:	X993140 20.09
(6)Features Intersected:	INDIAN CREEK	(9)Location:	IN CALDWELL;S.4TH AVE
Facility Carried(Route):	S. 4TH AVENUE	Admin Jurisdiction:	2720 City of Caldwell
Xref Structure Name:		District:	

LOAD RATING

(31)Design Load:	2 M 13.5 (H 15)
(64)Operating Rating:	7 tons / HS3.9
(66)Inventory Rating:	4 tons / HS2.2
(70)Posting:	0 >39.9% below
(41)Posting Status:	P Posted for load

CONDITION

(58)Deck:	5 Fair
(59)Superstructure:	4 Poor
(60)Substructure:	4 Poor
(61)Channel/Protection:	5 Bank Prot Eroded
(62)Culvert:	N N/A (NBI)



DECK / SUPER / SUB CONDITION		OVERALL CONDITION
9	Excellent	GOOD
8	Very Good	
7	Good	
6	Satisfactory	FAIR
5	Fair	
4	Poor	POOR
3	Serious	
2	Critical	
1	Imminent Failure	
0	Failed	

What about my small structures?

- Bridges less than 20 feet
- Not inspected by ITD
- LHJ create small structure inspection program



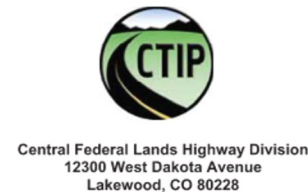
Small Structure Program

- T2 Class – Small Structure Inspection
- Regular scheduled inspection
- Data collection and maintenance

CULVERT ASSESSMENT AND DECISION-MAKING PROCEDURES MANUAL For Federal Lands Highway

Publication No. FHWA-CFL/TD-10-005

September 2010



FLH CULVERT ASSESSMENT FORM

Notes by: John Doe & Jim Doe Date: 10/30/14 Project: _____
 Measurements by: Jim Doe Time: 10:30AM
Site Information: Facility Location: Cabarton Road Lat/Long: N 44°27'18"
W 116°03'36"
 Milepost: 5.32 Project Station: _____ GPS Road CL Waypoint No. _____
 Named waterway: Unnamed Ditch Direction of Flow: W→E
Culvert Information: No. of Barrels: 1 Barrel Length (approx): 94' Barrel Slope: Mild / Steep / Mild (<2%)
 Skew (0 degrees = perpendicular to road): 25°± Approx Cover: Upstream 6' Downstream 6'
Barrel Shape (circle one): Circular Box Elliptical Pipe Arch Arch
 Diameter: 84" / Span _____ x Rise _____
Pipe Material (circle one): Metal Concrete / RCP - Corrugated Plastic - Smooth Plastic - Timber - Masonry
Appurtenances (circle one): Upstream: Projecting / Mitered / Headwall Headwall & Wingwalls / Flared End Section /
 Downstream: Projecting / Mitered / Headwall Headwall & Wingwalls / Flared End Section /
 Flowing or standing water? N Y Depth: <1' (ft) Est. Flow Velocity: 1 (ft/s) Possible AOP/fish passage: Y N
 Utilities Present (list)? N Possible historic features? N Open Bottom? Y N

Overall Rating
<u>Good</u>
Fair
Poor
Critical
Unknown
Performance Problems

Culvert Condition and Performance (circle / check all that apply and provide appropriate explanations below)		Performance Problems Requiring Level 1 Action
Category	Rating	
Invert deterioration	<u>Good</u> Fair Poor Crit Unk N/A	Debris/Veg Blockage > 1/3 of rise at inlet or outlet <input type="checkbox"/>
Joints & Seams	<u>Good</u> Fair Poor Crit Unk N/A	Sediment Blockage 1/3 to 3/4 of rise at inlet/outlet <input type="checkbox"/>
Corrosion / Chemical	<u>Good</u> Fair Poor Crit Unk N/A	Buoyancy or Crushing-Related Inlet Failure <input type="checkbox"/>
Cross-Section Deform	<u>Good</u> Fair Poor Crit Unk N/A	Poor Channel Alignment <input type="checkbox"/>
Cracking	<u>Good</u> Fair Poor Crit Unk N/A	Previous and/or Frequent Overtopping <input type="checkbox"/>
Liner / Wall	<u>Good</u> Fair Poor Crit Unk N/A	Local Outlet Scour <input checked="" type="checkbox"/>
Mortar and Masonry	Good Fair Poor Crit Unk <u>N/A</u>	Performance Problems Requiring Level 2 Action
Rot and Marine Borers	Good Fair Poor Crit Unk <u>N/A</u>	Embankment Piping <input type="checkbox"/>
Headwall/Wingwall	<u>Good</u> Fair Poor Crit Unk <u>N/A</u>	Channel Degradation / Headcut (circle one) <input type="checkbox"/>
Apron	Good Fair Poor Crit Unk <u>N/A</u>	Embankment Slope Instability <input type="checkbox"/>
Flared End Section	Good Fair Poor Crit Unk <u>N/A</u>	Sediment Blockage > 3/4 Rise at Inlet or Outlet <input type="checkbox"/>
Pipe End	<u>Good</u> Fair Poor Crit Unk <u>N/A</u>	Sediment Blockage > 1/3 Rise Throughout Barrel <input type="checkbox"/>
Scour Protection	Good <u>Fair</u> Poor Crit Unk <u>N/A</u>	Other Problems Requiring Level 2 Action
		No Access / Ends Totally Buried / Submerged <input type="checkbox"/>
		Aggressive Abrasion/Corrosion/Chemical (circle) <input type="checkbox"/>
		Exposed Footing (Open-Bottom Culvert Only) <input type="checkbox"/>

Photos (number): Inlet Outlet Roadway (ahead) ___ Roadway (back) ___ View downstream ___
 ___ View upstream Others: Typical barrel section

Notes / Recommendations:
Clear sloughing embankment at inlet
Fill scour hole at outlet with large diameter rock

Bridge Asset Management Plan



"Not doing your maintenance is just like deficit spending. If you're not maintaining your roads and bridges, it's just like borrowing money and not having a way to pay it back or deficit spending. Fixing this is like investing for the future."

- Gov. Brad Little

Bridge Asset Management Plan

- A plan for managing your bridge inventory
- Making informed and effective decisions
- Used for long-term and short-term budgeting
- Efficient management of funds
- Based on best existing information that you already have

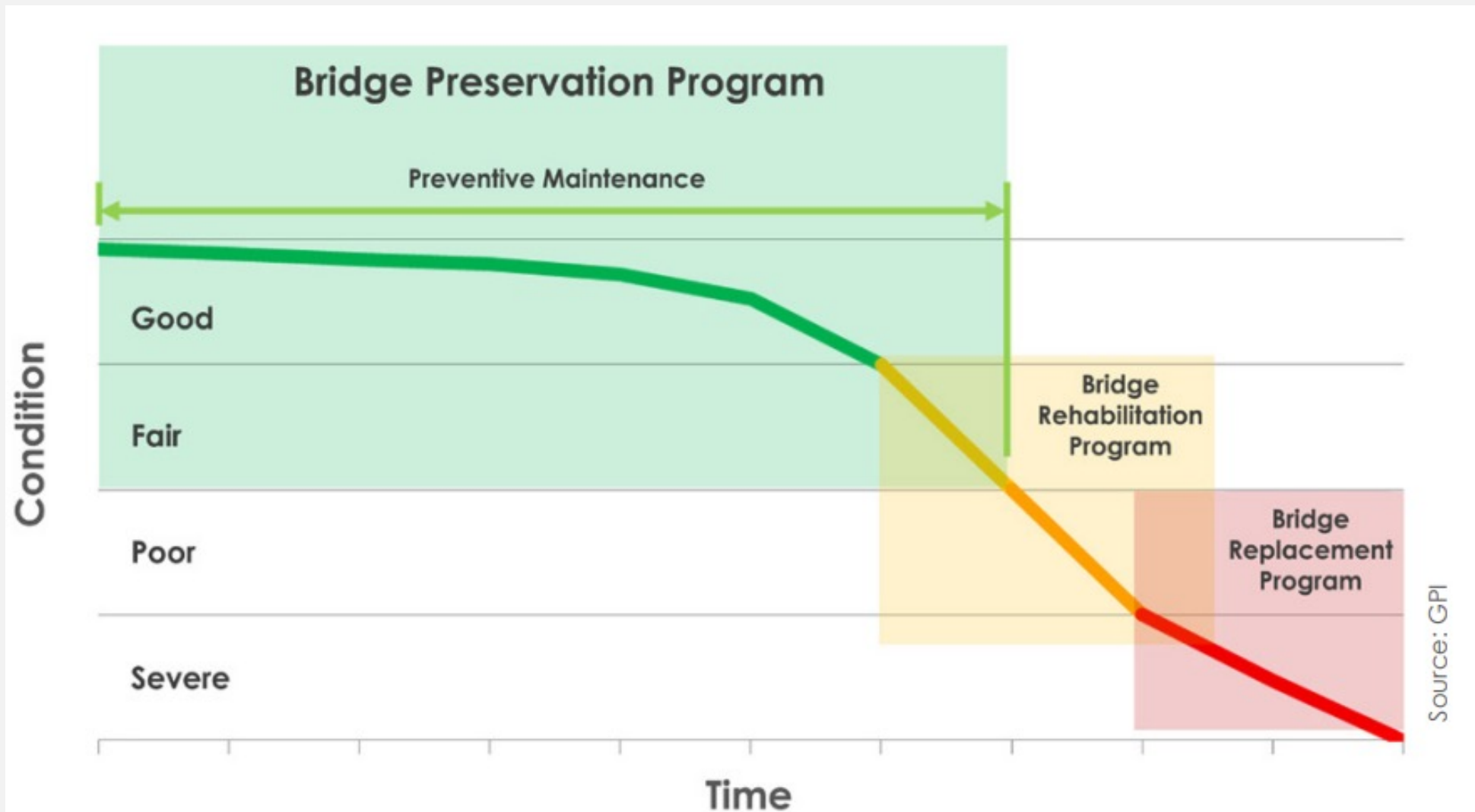
	A	B	C	D	E	F	G	H	I	J	K
1	Rank	Replace, Repair, Ready or Test	Group	Round	Bundle	Bridge Key	Google Map Link	District	Length	Increase Length	
2	1	Replace	2	2	1	23790	MULDOON CANYON RD over LITTLE WOOD RIVER	County	4	27	30
3	2	Replace	2	2	1	31815	CAPITOL AVENUE over SWAUGER SLOUGH	County	6	23	30
4	3	Replace	2	1	2	31052	COMMISSARY ROAD over RAINEY CREEK	City	6	24	30
5	4	Replace	2	1	2	31054	RANGER STATION RD over RAINEY CREEK	City	6	26	30
6	5	Replace	2	1	1	24540	50 NORTH ROAD over L' CANAL	Highway District	4	27	30
7	6	Replace	2	2		26795	ROSE GARDEN RD over NOTUS CANAL	City	3	51	30
8	7	Replace	2	2	2	24475	2100 EAST ROAD over S. GOODING MAIN CANAL	County	4	28	30
9	8	Replace	2	1	3	30800	S5765 SILVR VALLEY over MOON GULCH	County	1	29	30
10	9	Replace	2	1	1	24603	600 NORTH ROAD over 'R' CANAL	City	4	31	30
11	10	Replace	2	2	2	33037	S 1000 W over TRAIL CREEK	City	6	25	30
12	11	Replace	2	2	7	26680	BOISE STREET over PAYETTE RIVER	County	3	184	30
13	12	Replace	2	2	2	24485	2100 EAST ROAD over LITTLE WOOD RIVER	Highway District	4	27	30
14	13	Replace	2	2	8	30785	OLD RIVER ROAD over STC 5752 N FK CDA RIVER	County	1	264	30
15	14	Replace	2	1	7	20325	STC5703 SANDERS RD over SMITH CREEK	County	1	24	30
16	15	Replace	2	1	7	20330	STC5703 SANDERS RD over HANGMAN CREEK	County	1	25	30
17	16	Replace	2	1	4	29680	STC 7904 LENVILLE over S. FK PALOUSE RIVER	Highway District	2	30	30
18	17	Replace	2	2	5	30992	POTLATCH ROAD over ELK CREEK TRESTLE	County	1	85	30
19	18	Replace	2	1	3	30130	GROUSE CK. NF 280 over GROUSE CREEK	County	1	54	30
20	19	Replace	2	2	2	31585	DIVERSION ROAD over CAMAS CREEK	City	6	27	30
21	20	Replace	2	2	9	30590	STC 1699 CANYON RD over COEUR D'ALENE RIVER	Highway District	1	328	30
22	21	Replace	2	2	4	27415	STC 3851 HEXON RD over BOISE RIVER	Highway District	3	331	30
23	22	Replace	2	2	5	30735	FIFTH STREET over S. FK COEUR D'ALENE RIVER	City	1	35	30
24	23	Replace	2	1	7	20415	STC 5711 MOON PASS over BULLION CREEK	County	1	34	30
25	24	Replace	2	2	3	29705	SMA7614 MTN VIEW over PARADISE CREEK	Highway District	2	26	30

Bridge Asset Management Plan

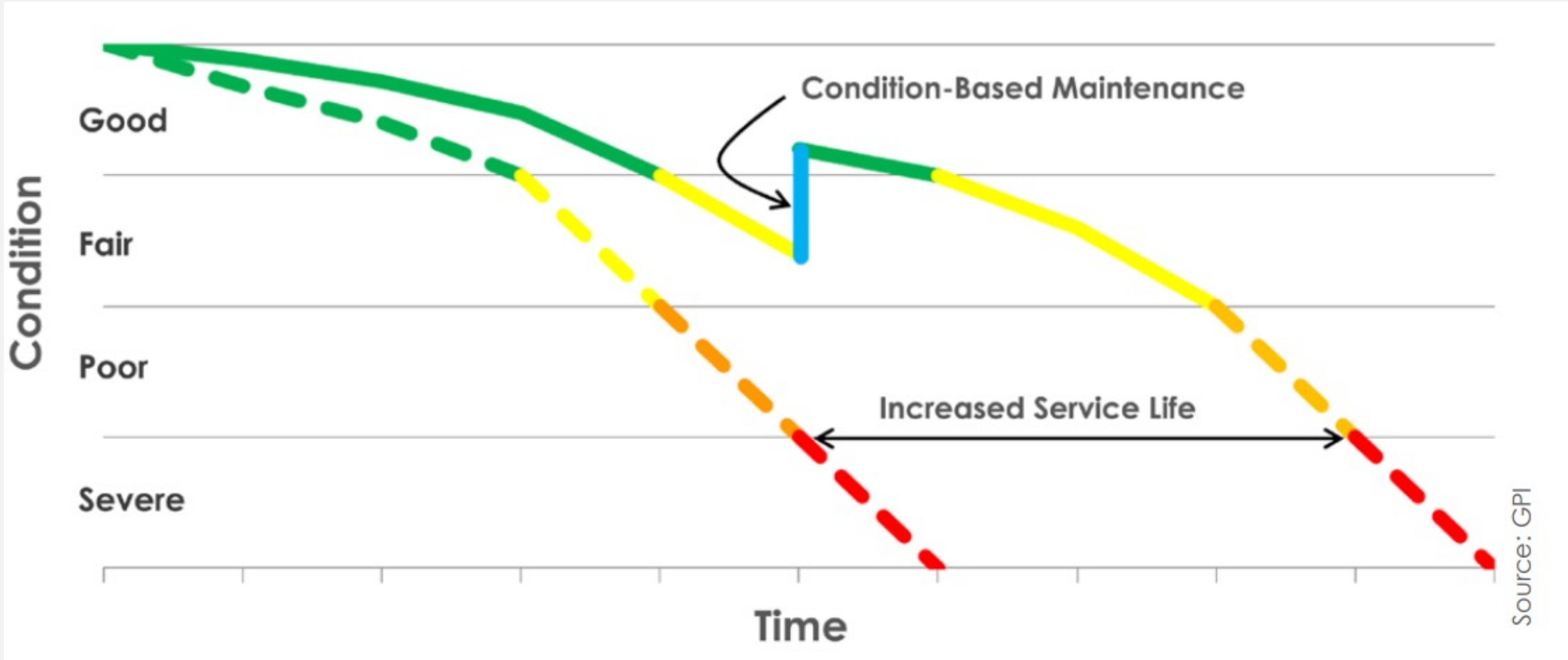
- Planning for
 - Maintenance
 - Preservation
 - Rehabilitation
 - Replacement
- Meet state and Federal regulations
- Creditability with leadership and stakeholders



Bridge Life Cycle

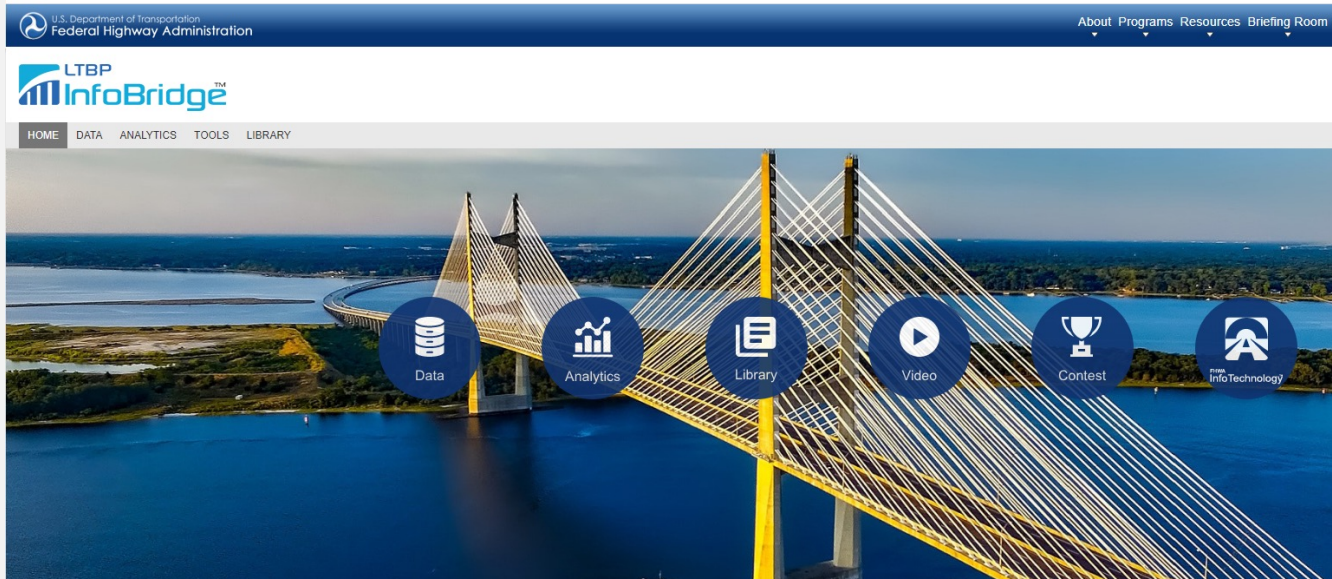


Bridge Treatment Life Cycle



Resources

- Bridge inspection reports
- [Gis.lhtac.org/bridges](https://gis.lhtac.org/bridges).
- [Infobridge.fhwa.dot.gov/Data](https://infobridge.fhwa.dot.gov/Data).



2022 Idaho Bridge Data

Select and customize an area filter

- County 44 Selected
- City Select
- Local Road Juris Select
- Legislative District Select

Bridge Filters: About | Contact Us | Need Help?

Bridge Statistics

Clear Bridge Selections

All bridges in selected area(s): 3843
 Local bridges in selected area(s): 2479
 Shown on Map (filtered): 3843
 Selected: 3
 Highlighted: 0

Bridges

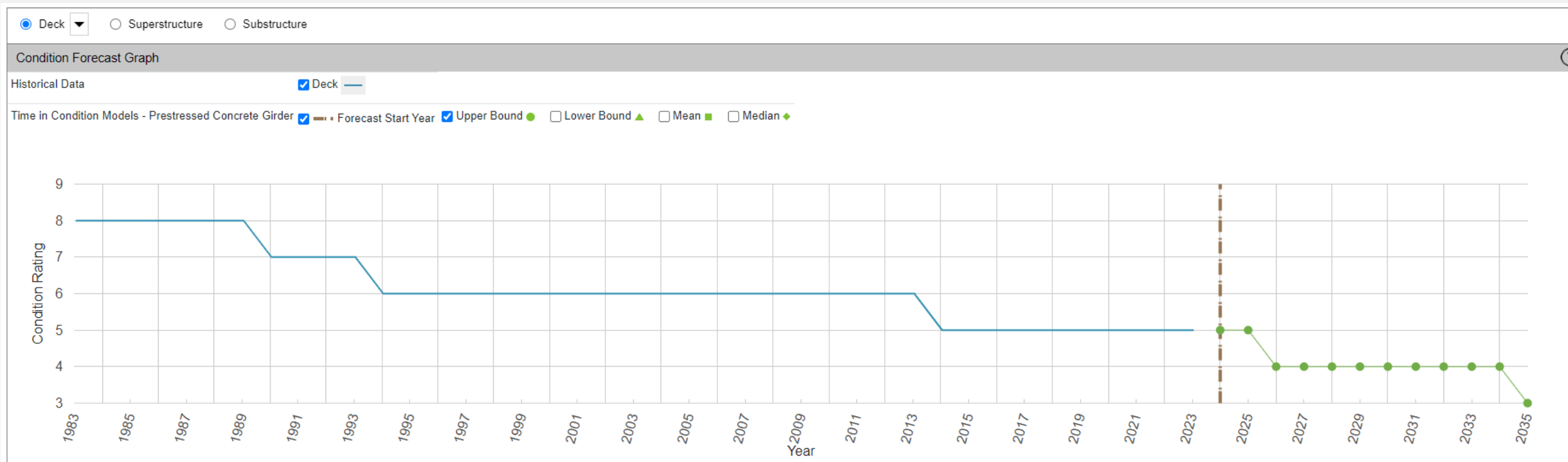
- △ State, No restriction (1358)
- △ State, Status other (0)
- △ State, Posting recommended (0)
- ▲ State, Posted for load (5)
- ▲ State, Closed to all traffic (1)
- △ Local, No restriction (2120)
- △ Local, Status other (0)
- ▲ Local, Posting recommended (6)
- ▲ Local, Posted for load (350)
- ▲ Local, Closed to all traffic (3)

Bridge Details - click to highlight in map

Bridge Key	Highway System	Year Built	Year Reco...	Carries	Crosses Over	Length (Ft)	Post Status	Condition	Lanes On	ADT
31547	local	1966		W ANTELOPE,FR 137	ANTELOPE CREEK	30	A Open, no restriction	Good	1	10
31548	local	1966		W ANTELOPE,FR 137	ANTELOPE CREEK	30	A Open, no restriction	Fair	1	10
31549	local	1966		W ANTELOPE,FR 137	ANTELOPE CREEK	32	A Open, no restriction	Fair	1	10

Deterioration and Expected Life

- Bridge built in 1967
- Current deck condition 5 (Fair)



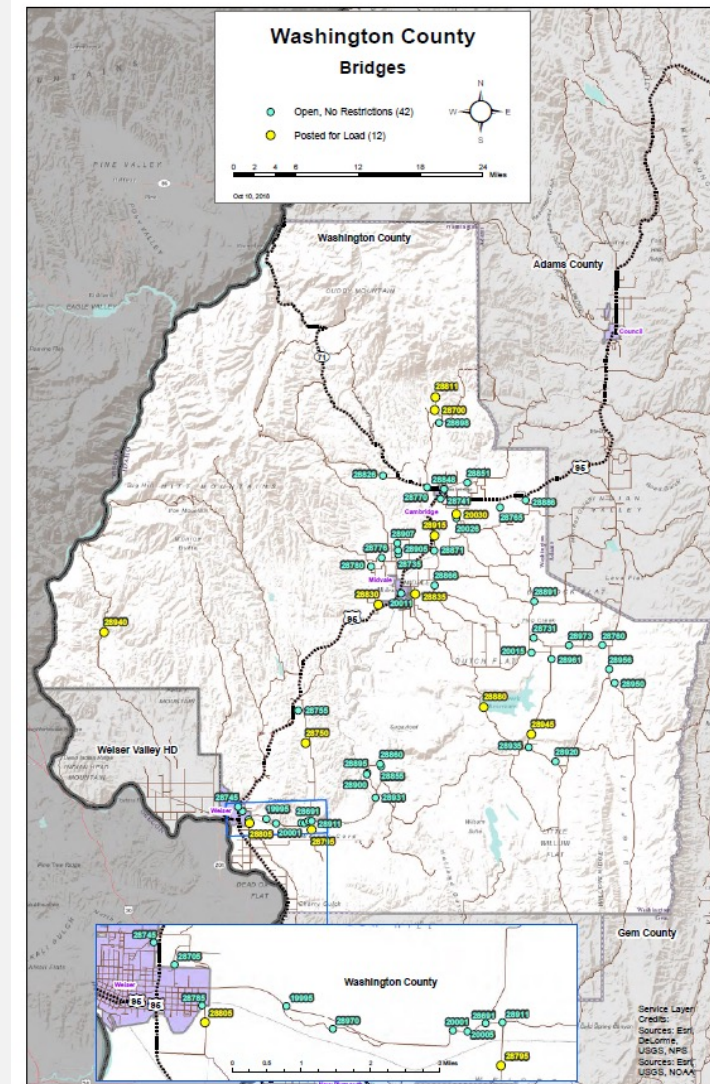
Elements of BAM Plan

- Identify the needs
- Prioritize the needs
- Define the goals
- Demonstrate cost effectiveness
- Dedicate resources

Bridge Identify & Priority

- Generate list of locally maintained bridges
 - Condition of all bridges
 - Ideas for low/med/high-cost solutions
 - Cost estimates for repair or replacement

Bridge ID	Facility	Features	Year Built	Condition	Priority
28795	UNITY ROAD	WEISER RIVER	1910	Poor	High
28835	OLD HWY ROAD	CREEK	1930	Good	High
28940	ROCK CREEK ROAD	ROCK CREEK	1970	Good	Med
28700	WARD ROAD SOUTH	RUSH CREEK	1987	Good	Med
28750	JONES ROAD	MANN CREEK	1960	Good	Med
28811	WARD ROAD NORTH	RUSH CREEK	2002	Good	Med
28830	SAGE CREEK ROAD	SAGE CREEK	1965	Poor	Med



Identify & Prioritize Needs

Maintenance Recommendations

Recommendation	Priority	Suggested Work Assignment
Repair both sides of bridge rail collision damage.	Low	Local Agency
Repair scour at both abutments.	High	Local Agency
Repair southeast and southwest approach guardrail.	Low	Local Agency



Idaho Transportation Department Bridge Inspection Report

Bridge Key:	20460	Structure Name:	95750A 5.06
(6)Features Intersected:	PINE CREEK	(9)Location:	3.4 S. PINEHURST
Facility Carried/Route:	STCS750,PINE CREEK	Admin Jurisdiction:	7900 Shoshone County
Xref Structure Name:		District:	01

Additional Information

ROADWAY APPROACHES: Both asphalt approaches have transverse cracks at backwalls up to 6 inches wide.

CURBS/SIDEWALKS: Both concrete curbs have minor scrapes.

EMBANKMENT: Concrete retaining walls poured behind the wingwalls at the northeast and southeast roadway embankments. Channel embankments are steep with large rocks, heavily vegetated, and in good condition.

CHANNEL: Rock channel with a few large rock rip rap at structure. Southeast corner capped with concrete. Main channel adjacent to the east abutment. Both abutments are dry. Channel cross section required every two years due to scour critical rating. Channel cross section done July 2017.

SIGNS: Hazard markers up on all corners, yield sign on southeast corner, and speed limit sign on northwest corner.

GUARDRAIL: Steel rail and timber post approach guardrail at the east approach only. Southeast rail has impact damage with missing post and spacer block. No approach guardrail at the west approach.

UTILITIES: 2 inch pipe running along the north side of structure and one 1/2 inch cable running along the east abutment which has wires exposed. Overhead utilities cross over the west approach.

NOTES: None.

SCOUR REVIEW: Scour Committee reviewed 4/28/16, item 113 to remain a 2, piles exposed up to 35 inches, no plans with assumed pile embedment of 10 feet, has maintenance recommendation. Scour committee reviewed 8/31/17, item 113 to change to 4, founded on piles, determined to be stable.

INSPECTION FREQ: N/A

WORK ACCOMPLISHED: Routine maintenance.

LOAD RATING:

Maintenance Recommendations

Recommendation	Priority	Suggested Work Assignment
Repair both sides of bridge rail collision damage.	Low	Local Agency
Repair scour at both abutments.	High	Local Agency
Repair southeast and southwest approach guardrail.	Low	Local Agency

Rick Smith

Digitally signed by Rick Smith

Date: 2019.08.09 11:42:32

-06'00'

Inspector's Signature:

07/08/2019

Inspector Number and Name: 997 - Rick Smith, Collins Engineers

Bridge Preservation & Maintenance



- Generate list of local bridges with schedules
- Regular maintenance and intervals
 - Washing
 - Minor repairs
 - Erosion repair
 - Concrete sealing
 - Painting

Bridge Repair Cost

- Cost/benefit analysis
- Highly variable depending on skill and level of effort
- Local forces or contractor
- Vendor pricing
- Seasonal
 - Local forces when slow
 - Low water



Bridge Replacement Cost

- Replace due to poor condition, too narrow, load capacity
- Obtain engineering design and permits
- Consider timing of construction
 - Weather
 - Low water
 - Permits
 - Contractor availability



Bridge Replacement Cost

- Bridge: \$200 - \$450 per square foot
 - Increase length 20% - 30% from existing
 - Increase width to minimum 24 ft or wider
- Approach work: \$100k - \$200k
- Project Development: \$300k
- CE&I: \$150k



Bridge Replacement Cost

Example Bridge Replacement:

- Existing 20 ft wide x 30 ft long
- New Bridge 32 ft wide x 40 ft long
- Bridge: 32' x 40' x \$300/sf = \$384k
- Approaches: \$150k
- Project Development & CE&I: \$300k
- Total: \$834,000



How to save money?

- Keep design and construction simple
- Reduce construction time
- Prefabricated Elements
- Full road closure
- Stay out of the water
- Contractor Flexibility
 - Extended construction window
 - Bid early
- Self preform construction



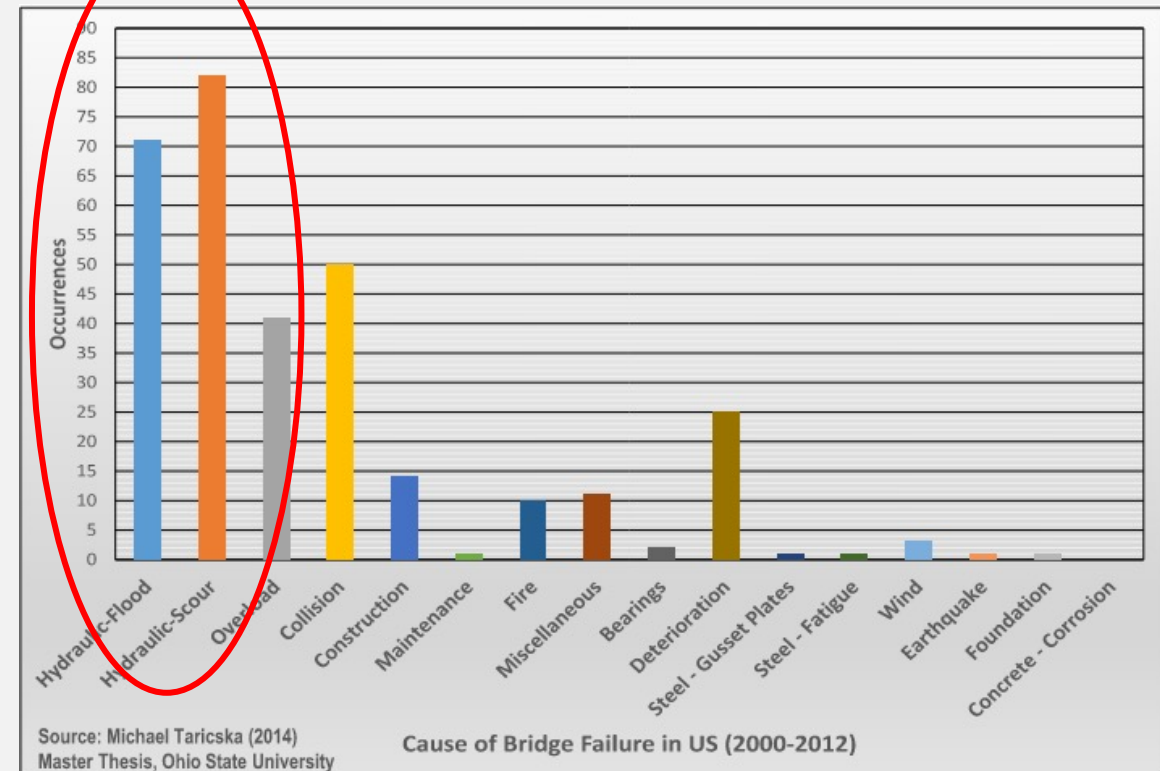
Hydraulic Study

- Determine how much water to pass below bridge
- Floodplain development permit
- Scour design



Scour & Hydraulics

- Primary causes of bridge failure nationwide
- Flooding and scour combined account for 50% of all bridge failures
- Many local bridge not designed with scour in mind
- Get a hydraulic report with each new bridge!



Foundation Design

- Borings or pits for subsurface investigation and testing
- Determine shallow/spread footings or piles
- Scour analysis
- Slope stability

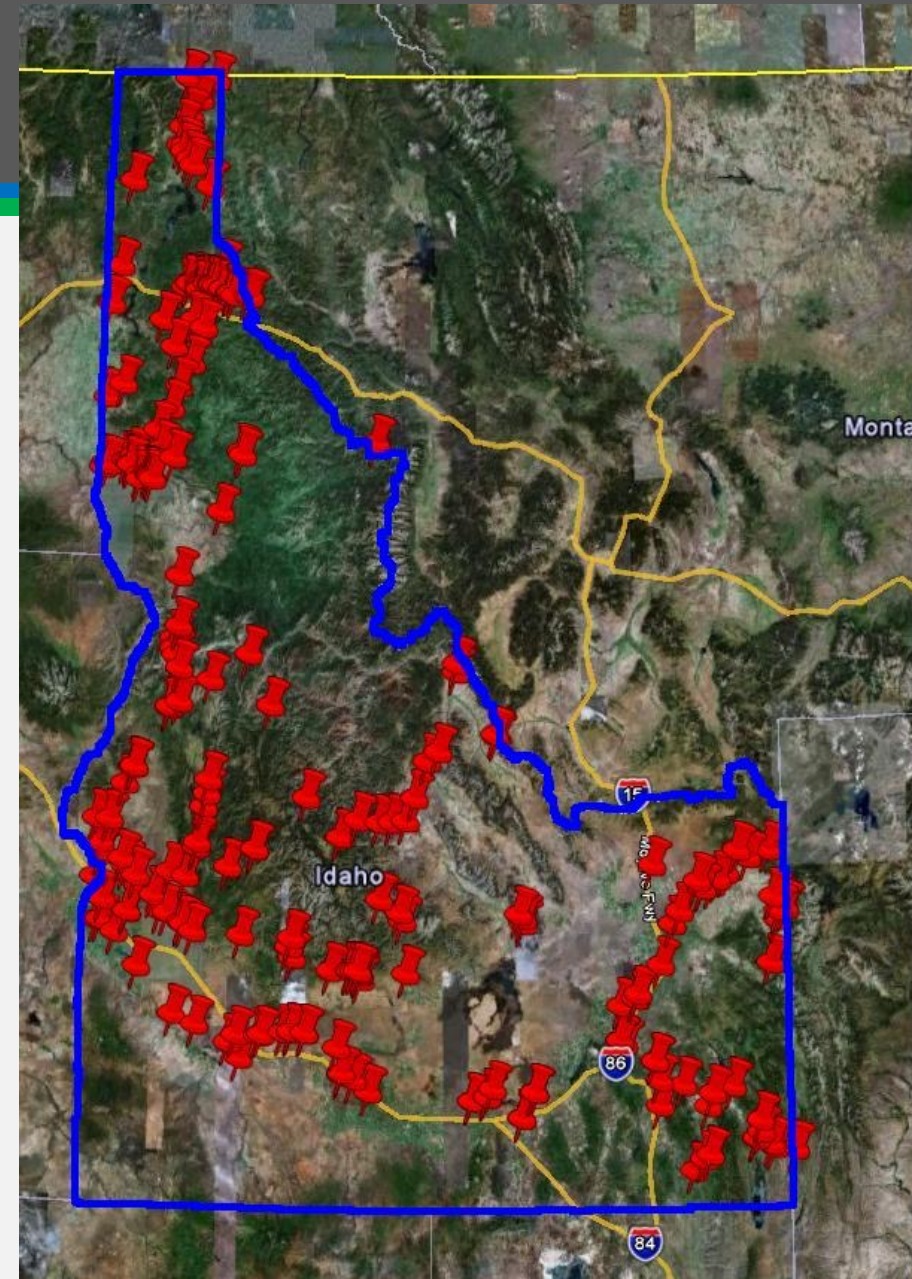


Scour Critical

105 Local Idaho Bridges are Scour Critical

APPRAISAL

(67)Structure Condition:	2 Intolerable - Replace
(68)Deck Geometry:	4 Tolerable
(69)Undrclear,Vert and Horiz:	N Not applicable (NBI)
(71)Waterway Adequacy:	6 Equal Minimum
(72)Approach Alignment:	8 Equal Desirable Crit
(36)Traffic Safety Features:	
(a)Bridge Rail:	0 Substandard
(b)Transition:	0 Substandard
(c)Approach Rail:	0 Substandard
(d)Approach Rail Ends:	0 Substandard
(113)Scour Critical:	2 SC - Extensive Scour



Bridge Environmental Permitting

What permits are needed and why?



Creek versus Canal

Creeks/Rivers

- US Army Corps or Engineers 404 permit
- IDWR Stream Alteration Permit (perennial flow only)
- Idaho Department of Lands Permit (only certain rivers)
- Flood Plain Development Permit (when there is a flood plain manager)
- US Coast Guard Permit (rarely, Clearwater/Snake River etc.)

HIGHER RISK

Canals

- US Army Corps or Engineers 404 permit
- Bureau of Reclamation Permit or Irrigation District Permit

LOWER RISK

US Army Corps of Engineers 404 Permit

Required for "Work" below the Ordinary High Water Mark (OHWM) or within wetlands (placement of dirt, rock, concrete, riprap, culverts etc).

<https://www.nww.usace.army.mil/Portals/28/docs/regulatory/JtApplication/Jt.Application.pdf>



US Army Corps of Engineers 404 Permit

What is the Ordinary High-Water Mark?



US Army Corps of Engineers 404 Permit

What is a wetland? SCOTUS recently redefined, but if you are next to water and there are wetland plants (willows, cat tails, reed canary grass etc.) it is likely a wetland.

Needs to be delineated by a wetland scientist if applying for a permit (“Reporting”).



US Army Corps of Engineers 404 Permit

Which permit do you need?

- Nationwide Permit 3 or 14 (NWP 3 or NWP 14)?
- NWP 3 if there are wetlands impacted
- NWP 14 if there are NO wetland impacts or if on Tribal lands

JOINT APPLICATION FOR PERMITS

U.S. ARMY CORPS OF ENGINEERS - IDAHO DEPARTMENT OF WATER RESOURCES - IDAHO DEPARTMENT OF LANDS

Authority: The Department of Army Corps of Engineers (Corps), Idaho Department of Water Resources (IDWR), and Idaho Department of Lands (IDL) established a joint process for activities impacting jurisdictional waterways that require review and/or approval of both the Corps and State of Idaho. Department of Army permits are required by Section 10 of the Rivers & Harbors Act of 1899 for any structure(s) or work in or affecting navigable waters of the United States and by Section 404 of the Clean Water Act for the discharge of dredged or fill materials into waters of the United States, including adjacent wetlands. State permits are required under the State of Idaho, Stream Protection Act (Title 42, Chapter 36), Idaho Code and Lake Protection Act (Section 50, Chapter 13 et seq., Idaho Code). In addition the information will be used to determine compliance with Section 401 of the Clean Water Act by the appropriate State, Tribal or Federal entity.

Joint Application: Information provided on this application will be used in evaluating the proposed activities. Omission of requested information is voluntary. Failure to supply the requested information may delay processing and issuance of the appropriate permit or authorization. **Applicant will need to send a completed application, along with one (1) set of legible, black and white (8 1/2"x11"), reproducible drawings that illustrate the location and character of the proposed project / activities to both the Corps and the State of Idaho.**

See Instruction Guide for assistance with Application. Accurate submission of requested information can prevent delays in reviewing and permitting your application. Drawings including clarity maps, plan-view and section-view drawings must be submitted on 5-12 x 11 papers.

Do not start work until you have received all required permits from both the Corps and the State of Idaho

FOR AGENCY USE ONLY					
USACE NWW: _____ No. _____	Date Received _____	<input type="checkbox"/> Incomplete Application Returned	Date Returned _____	Idaho Department of Water Resources No. _____	Date Received _____
		<input type="checkbox"/> Fee Received	Receipt No. _____	Idaho Department of Lands No. _____	Date Received _____
		<input type="checkbox"/> Fee Received	Receipt No. _____		
INCOMPLETE APPLICATIONS MAY NOT BE PROCESSED					
1. CONTACT INFORMATION - APPLICANT Required			2. CONTACT INFORMATION - AGENT:		
Name: _____			Name: _____		
Company: _____			Company: _____		
Mailing Address: _____			Mailing Address: _____		
City: _____		State: _____	Zip Code: _____	City: _____	
State: _____		Zip Code: _____	State: _____		Zip Code: _____
Phone Number (area and area): _____		E-mail: _____		Phone Number (area and area): _____	
E-mail: _____		E-mail: _____		E-mail: _____	
3. PROJECT NAME or TITLE: _____			4. PROJECT STREET ADDRESS: _____		
5. PROJECT COUNTY: _____		6. PROJECT CITY: _____		7. PROJECT ZIP CODE: _____	
8. NEAREST HIGHWAY/WATERBODY: _____		8. NEAREST HIGHWAY/WATERBODY: _____		8. NEAREST HIGHWAY/WATERBODY: _____	
9. TAX PARCEL ID# _____		10. LATITUDE _____		11a. 15a. 11b. 15b. 11c. SECTION: _____	
10. LONGITUDE _____		11d. TOWNSHIP _____		11e. RANGE _____	
12a. ESTIMATED START DATE: _____		12b. ESTIMATED END DATE: _____		13a. IS PROJECT LOCATED WITHIN ESTABLISHED TRIBAL RESERVATION BOUNDARIES? <input type="checkbox"/> NO <input type="checkbox"/> YES Tribal _____	
13b. IS PROJECT LOCATED IN LISTED OSA AREA? <input type="checkbox"/> NO <input type="checkbox"/> YES		13c. IS PROJECT LOCATED ON/NEAR HISTORICAL SITE? <input type="checkbox"/> NO <input type="checkbox"/> YES			
14. DIRECTIONS TO PROJECT SITE: Include clarity map with legible crossroads, street numbers, names, landmarks. _____ _____					
15. PURPOSE and NEED: <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Public <input type="checkbox"/> Private <input type="checkbox"/> Other _____ Describe the reason or purpose of your project, include a brief description of the overall project. Continue to Block 16 to detail each work activity and overall project. _____ _____					

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US Army Corps of Engineers 404 Permit

Reporting = Application
Non-Reporting = No Application

404 REPORTING Triggers
NWP 3 & NWP 14

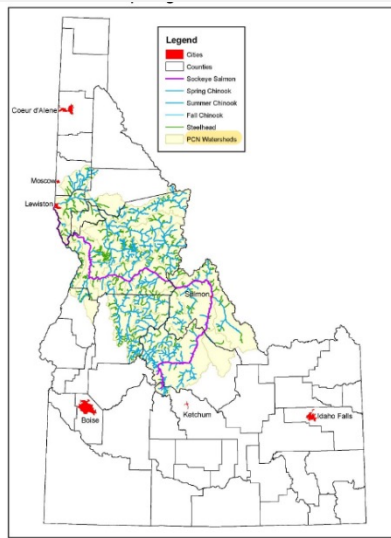
Within EFH

ESA
NLAA LAA

Wetland
Impacts

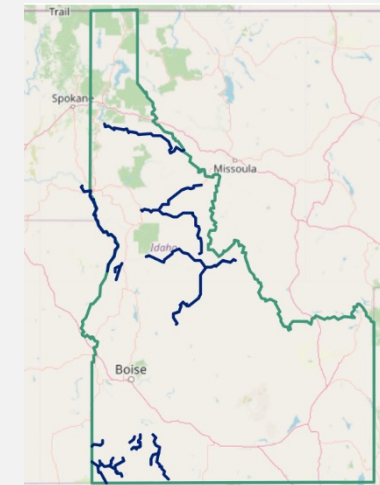
106 Impacts

Wild and
Scenic Rivers



HIGH RISK

NWP 3 >0.1 acres
NWP 14 = any
impacts



Idaho Dept. of Water Resources Stream Alteration Permit

When do you need an Idaho Department of Water Resources Stream Alteration Permit?

- Only if there is “Perennial” (year-round) flow and "Work" below the Ordinary High-Water Mark (OHWM).
- Not required for work in wetlands only.
- Same application, different submittal process.

JOINT APPLICATION FOR PERMITS
U.S. ARMY CORPS OF ENGINEERS - IDAHO DEPARTMENT OF WATER RESOURCES - IDAHO DEPARTMENT OF LANDS

Authority: The Department of Army Corps of Engineers (Corps), Idaho Department of Water Resources (IDWR), and Idaho Department of Lands (IDL) established a joint process for activities impacting jurisdictional waterways that require review and/or approval of both the Corps and State of Idaho. Department of Army permits are required by Section 10 of the Rivers & Harbors Act of 1899 for any structure(s) or work in or affecting navigable waters of the United States and by Section 404 of the Clean Water Act for the discharge of dredged or fill material into waters of the United States, including adjacent wetlands. State permits are required under the State of Idaho, Stream Protection Act (Title 42, Chapter 38), Idaho Code and Lake Protection Act (Section 58, Chapter 13 of IBC, Idaho Code). In addition the information will be used to determine compliance with Section 401 of the Clean Water Act by the appropriate State, Tribal or Federal entity.

Joint Application: Information provided on this application will be used in evaluating the proposed activities. Disclosure of requested information is voluntary. Failure to supply the requested information may delay processing and issuance of the appropriate permit or authorization. **Applicant will need to send a completed application, along with one (1) set of legible, black and white (24"x36"), reproducible drawings that illustrates the location and character of the proposed project / activities to 2025.its@corps.army.mil and the State of Idaho.**

See instruction Guide for assistance with Application. Accurate submission of requested information can prevent delays in reviewing and permitting your application. Drawings including vicinity maps, plan-view and section-view drawings must be submitted on 8-1/2 x 11 paper. **Do not start work until you have received all required permits from both the Corps and the State of Idaho.**

FOR AGENCY USE ONLY			
USACE	Date Received	<input type="checkbox"/> Incomplete Application Returned	Date Returned
NWWS			
Idaho Department of Water Resources	Date Received	<input type="checkbox"/> Fee Received	Receipt No.
No.		DATE	
Idaho Department of Lands	Date Received	<input type="checkbox"/> Fee Received	Receipt No.
No.		DATE	

INCOMPLETE APPLICATIONS MAY NOT BE PROCESSED

1. CONTACT INFORMATION - APPLICANT (Required)		2. CONTACT INFORMATION - AGENT:			
Name		Name			
Company		Company			
Mailing Address:		Mailing Address:			
City	State	Zip Code	City	State	Zip Code
Phone Number www.usace.army.mil	Email	Phone Number www.usace.army.mil	Email		

3. PROJECT NAME or TITLE:		4. PROJECT STREET ADDRESS:				
5. PROJECT COUNTY:		6. PROJECT CITY:				
7. PROJECT ZIP CODE:		8. NEAREST WATERWAY/WATERBODY:				
9. TAX PARCEL ID#	10. LATITUDE	11a. 1/4	11b. 1/4	11c. SECTION	11d. TOWNSHIP	11e. RANGE
	LONGITUDE					
12a. ESTIMATED START DATE:	12b. ESTIMATED END DATE:	13a. IS PROJECT LOCATED WITHIN ESTABLISHED TRIBAL RESERVATION BOUNDARIES?				
		<input type="checkbox"/> NO <input type="checkbox"/> YES Title				
13b. IS PROJECT LOCATED IN LISTED OSH ARDA?		13c. IS PROJECT LOCATED ON NEAR HISTORICAL SITE?				
<input type="checkbox"/> NO <input type="checkbox"/> YES		<input type="checkbox"/> NO <input type="checkbox"/> YES				

14. DIRECTIONS TO PROJECT SITE: Include vicinity map with legible crossroads, street numbers, names, landmarks.

15. PURPOSE and NEED: Commercial Industrial Public Private Other

Describe the reason or purpose of your project, include a brief description of the overall project. Continue to block 16 to detail each work activity and overall project.

NWW Form 1145-1/DWR 3804-B Page 1 of 4

Idaho Dept. of Water Resources Stream Alteration Permit

Submit the application electronically to attention;
file@idwr.idaho.gov

For north Idaho cc:
Emily.Barnes@idwr.idaho.gov

For south Idaho and east Idaho cc:
Cass.Jones@idwr.idaho.gov and
Katie.Gibble@idwr.idaho.gov



Idaho Department of Lands Encroachment Permit

<https://www.idl.idaho.gov/lakes-rivers/encroachments/>

- \$300 permit fee
- Only the bigger rivers



Flood Plain Development Permit

National Floodplain Insurance Program

Contact floodplain manager:

<https://idwr.idaho.gov/wp-content/uploads/sites/2/floodplain-mgmt/FP-list.pdf>



Coast Guard Permit/Section 10 Permit

US Coast Guard in coordination
With US Army Corps of Engineers

Danny McReynolds
USCG D13
Bridge Management Specialist
(206) 220-7234

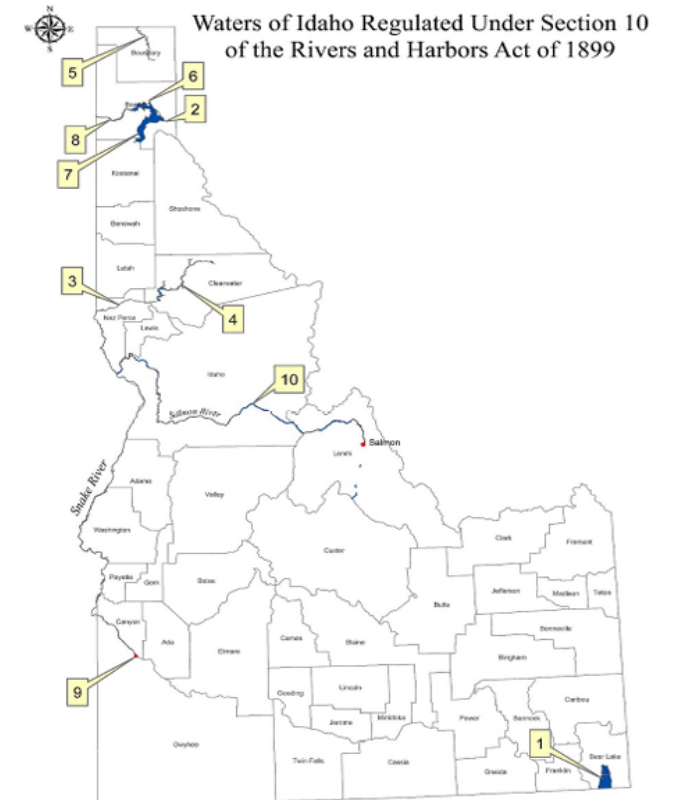
Danny.G.McReynolds@uscg.mil

SECTION 10 WATERS

The Corps of Engineers has jurisdictional authority over section 10, navigable waters, in Idaho.

There are currently 10 navigable waters in Idaho:

1. **Bear Lake**
2. **Clark Fork River** - mouth upstream to river mile 4.0
3. **Clearwater River** - confluence with the Snake River to river mile 40.5
4. **North Fork Clearwater River** - confluence with Clearwater River, including Dworshak Reservoir, upstream to river mile 57.9
5. **Kootenai River** - Bonners Ferry to the Canadian border
6. **Pack River** - mouth upstream to river mile 1.5
7. **Lake Pend Oreille** - Albeni Falls Dam to elevation 2062.5 NGVD (National Geodetic Vertical Datum)
8. **Pend Oreille River** - Idaho/Washington border, upstream to Albeni Falls Dam
9. **Snake River** - Idaho/Washington border to river mile 45.5
10. **Salmon River** - confluence with the Snake River to the City of Salmon, river mile 259



Bureau of Reclamation or Irrigation District Permit

Heyburn, ID

(208) 678-7206

470 22nd St

Heyburn, ID 83336

Boise, ID

(208) 378-5012

1150 N Curtis Rd Ste 100

Boise, ID 83706

pninfo@usbr.gov.

<https://www.gsa.gov/system/files/SF-299%20OMB%20Control%20Number%200596-0249.pdf>.

Northern Idaho



Southern Idaho



Permit Timing (Estimates)

- US Army Corps or Engineers 404 permit: 2 months typical, 1+ year with ESA fish or historic bridge
- IDWR Stream Alteration Permit: 2 months typical
- Idaho Department of Lands Permit: 3-6 months typical
- Flood Plain Development Permit: varies
- US Coast Guard Permit: 1+ year
- Bureau of Reclamation Permit: 3-6 months typical
- Irrigation District Permit: 1-2 months typical

Two Culvert/Bridge Grant Opportunities

- Idaho Office of Emergency Management (IOEM) Building Resilient Infrastructure and Communities (BRIC) Grant.

Susan Cleverly, CFM, Mitigation Section Chief,
IOEM 208-258-6545 scleverly@imd.Idaho.gov

- FHWA Aquatic Organism Passage (AOP) anadromous fish culverts.
(Salmon, Steelhead etc.)

<https://www.fhwa.dot.gov/engineering/hydraulics/culvertthyd/aquatic/culvertaop.cfm>.

Applications Now Open

- LRHIP – Applications Due November 30th
- Child Pedestrian Safety – Applications due December 7th
- Federal-aid Small Urban – Applications Due January 11th
- Federal-aid Bridge – Applications Due January 18th
- Transportation Alternatives Program – Pre-application January 5th, Applications due January 18th
- LHSIP – Applications Due January 25th
- No Rural application this year

Thank You for Attending

Scott Wood, P.E.
swood@lhtac.org

Karissa Nelson, P.E.
knelson@lhtac.org

208-344-0565



Advocate | Support | Train

