

Bridge Preservation Workshop

Environmental Best Management Practices

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Environmental Risk Questions

1. What are the potential pollutants?
2. How far away is the nearest water body, or inlet?
3. What time of year is it? Is it likely to rain?
4. Are any permits needed?
5. What BMPs should be used to protect the water?



What are the Potential Pollutants?

1. Sediment (dirt) is the most common pollutant from construction activity.



2. Petroleum, oil and other liquids.



Why is Dirt a Problem?

1. Clogs fish gills
2. Covers gravel spawning beds in streams
3. Blocks light transmission
4. Increases water temperature



How Far Away is the Nearest Water or Wetland?



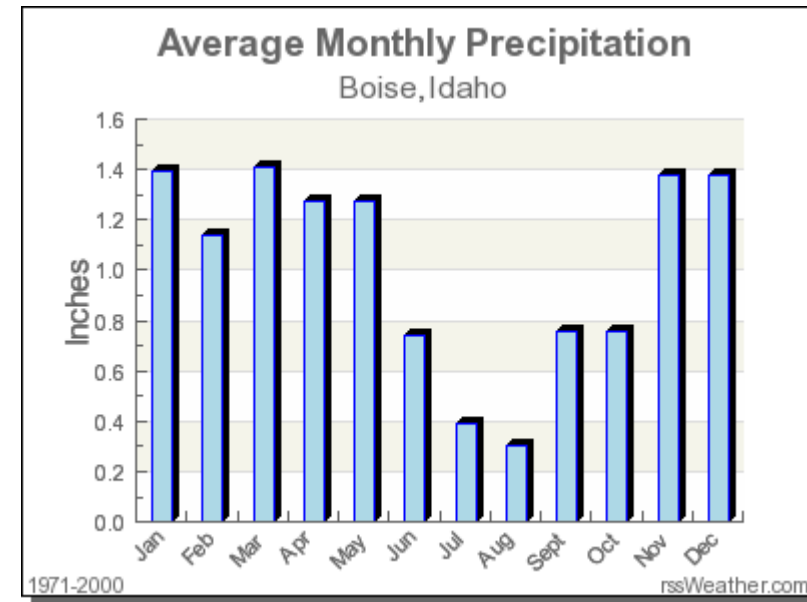
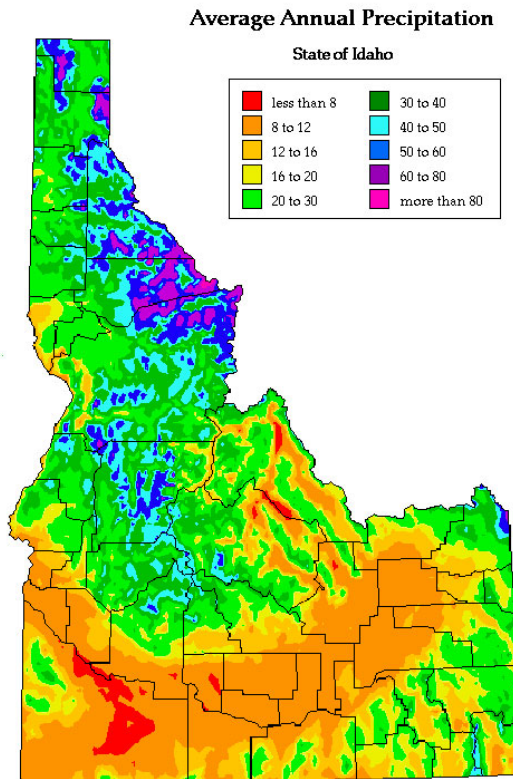
Both waters and wetlands are protected



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What time of year is it? Is it likely to rain?



Can work be done during low flow or no flow?



Are Any Permits Needed?

- 404 Joint Application (DEQ & USACE)
 - Work below OHWM/Wetlands
- Idaho Department of Water Resources (IDWR) Permit (Stream Alteration Permit)
 - Work below OHWM/Wetlands, not most canals
- Bureau of Reclamation (BOR)
 - Only canals, could be local canal company instead
- Floodplain Development Permit
 - Fill in floodplain
- Idaho Department of Lands (IDL) – only certain waters

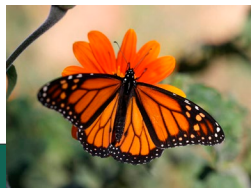


What other Environmental Laws?

- Clean Water Act
- Endangered Species Act
- Migratory Bird Act
 - Generally avoid nest removal April-August



Also Species of Concern



What BMPs Should be Used to Protect the Water/Wetlands?

ITD BMP Manual

<https://itd.idaho.gov/env/#collapse-best-management-practices-bmp-manual>



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ITD BMP Manual

Best Management Practices

Bridge Preservation Activity													
	Water Conservation Practices	Temporary Stream Crossing	Vehicle and Equipment Cleaning	Vehicle and Equipment Fueling & Maintenance	Vehicle and Equipment Maintenance	Concrete Curing	Material and Equipment Use Over Water	Staging and Materials Site Management	Material Delivery and Storage	Spill Prevention and Control	Solid Waste Management	Hazardous Waste Management	Concrete Waste Management
Bridge Washing	X		X	X	X		X	X	X				
Deck Patching		X	X	X	X	X	X	X	X	X	X		X
Crack Sealing		X	X	X	X	X	X	X	X	X	X	X	X
Hydro-blasting Concrete deck	X	X	X	X	X		X	X	X	X	X	X	
Epoxy overlays/Deck Seals	X	X	X	X	X		X	X	X	X	X	X	
Scour Repair/Rock armoring			X	X	X			X	X				



Water Conservation Practices

- If possible, use less water, water transports pollutants.
- Avoid using water to clean construction areas. Do not use water to clean pavement. Paved areas should be swept, shoveled, and/or vacuumed, or other dry cleanup methods.



Vehicle and Equipment Cleaning & Fueling/Maintenance

- Don't clean or maintain equipment by the water.
- Keep equipment well maintained.



Concrete Curing

- Avoid over-spray of curing compounds.
- Minimize the drift of chemical cure as much as possible.
- Use proper storage and handling.
- Protect drain inlets prior to work.



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Material and Equipment Use Over Water

- Use drip pans and absorbent materials.
- Keep a spill kit on site.
- If a leaking line cannot be repaired, remove equipment from over the water.
- Use containment under bridge if needed.
- Refuel 150 feet+ away from water.



Concrete Waste Management

Locate temporary concrete washout facilities a minimum of 50 feet from storm drain inlets, open drainage facilities, and water.



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