

**NORTH FORK**



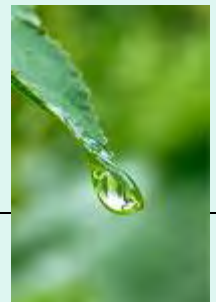
**COEUR D'ALENE RIVER**

August 27, 2009

Kajsa Stromberg, DEQ

# Updates

- New water quality standards for arsenic and cadmium
- NFCDA River Management Plan update from Ed Warner
- Results of USFS temperature data analyses
- Summary of BURP data in subbasin
- Updates on summer DEQ-USFS monitoring



# New WQS for Arsenic and Cadmium

- The Board of Environmental Quality has approved new water quality standards for arsenic and cadmium.
- This rulemaking was completed to protect human health from adverse effects of elevated arsenic and protect sensitive aquatic life from cadmium toxicity in low hardness waters.
- This rule will become final and effective upon adjournment of the 2010 legislative session if approved by the Legislature.
- For more information, see [http://www.deq.idaho.gov/rules/deq\\_rulemaking.cfm](http://www.deq.idaho.gov/rules/deq_rulemaking.cfm) and [Docket No. 58-0102-0801, Pending Rule.](#)



# NFCDA River Management Plan Update

- Grant received from RAC to fund UI students.
- Two students hired during summer 2009.
- Field trips and analysis.
- Draft management plan near completion.
- Will be circulated for review and comment before finalizing.
- Expected final report by end of year.



# Results of USFS Temperature Data Analyses

- USFS collected temperature data at 252 sites on 40 assessment units and 65 streams from 1999 to 2008.
- Data supplied to DEQ for analysis and evaluation requested by WAG.
- Data evaluated relative to Idaho WQS for temperature: cold water aquatic life and salmonid spawning.



# Criteria Evaluated for USFS Temperature Data Analyses

## Cold Water Aquatic Life =

22°C MDMT and 19°C MDAT

Applies all year.

## Salmonid Spawning =

13°C MDMT and 9°C MDAT

Applies *spring spawning* at 3,000-4,000ft May 15-Jul 15, and *fall spawning* Aug 15-Nov 15.



# Results of USFS Temperature Data Analyses

- 252 temperature logger datasets total:
  - 21 (8%) exceeded cold water aquatic life criteria
  - 244 (97%) exceeded criteria for salmonid spawning
  - 8 (3%) did not exceed either criteria



# Results of USFS Temperature Data Analyses

- Overall, temperature logger datasets revealed exceedances of Idaho WQS for temperature in **all** 40 assessment units evaluated.
- 18 of these were already listed as impaired by high water temperatures in 2008 Integrated Report.
- An additional 22 assessment units could be proposed for listing in next Integrated Report.





# Potential Options

- Recommend additional 22 assessment units for proposal as impaired in next Integrated Report.
- Include these streams in the temperature TMDL currently under development.
- Develop temperature TMDLs for these streams once impairments identified and approved in next Integrated Report.
- Conduct further analysis to determine whether exceedances are caused by natural background conditions.
- Combination of above? Other?



# Summary of BURP Data in Subbasin

- BURP = Beneficial Use Reconnaissance Program
- Rapid bioassessment of wadeable streams
- Primary method for Idaho statewide assessment of stream water quality
- Data used for indices of Bugs, Habitat and Fish



# Summary of BURP Data in Subbasin

- 123 BURP sites reported from 1995 to 2008
- - 2 sites 2008 data not yet analyzed
- - 1 site from 1997 used river protocol not BURP
- - 22 sites no BURP data collected
- = **98 sites with BURP data for assessment**



# North Fork Coeur d'Alene River BURP Sites 1995-2008



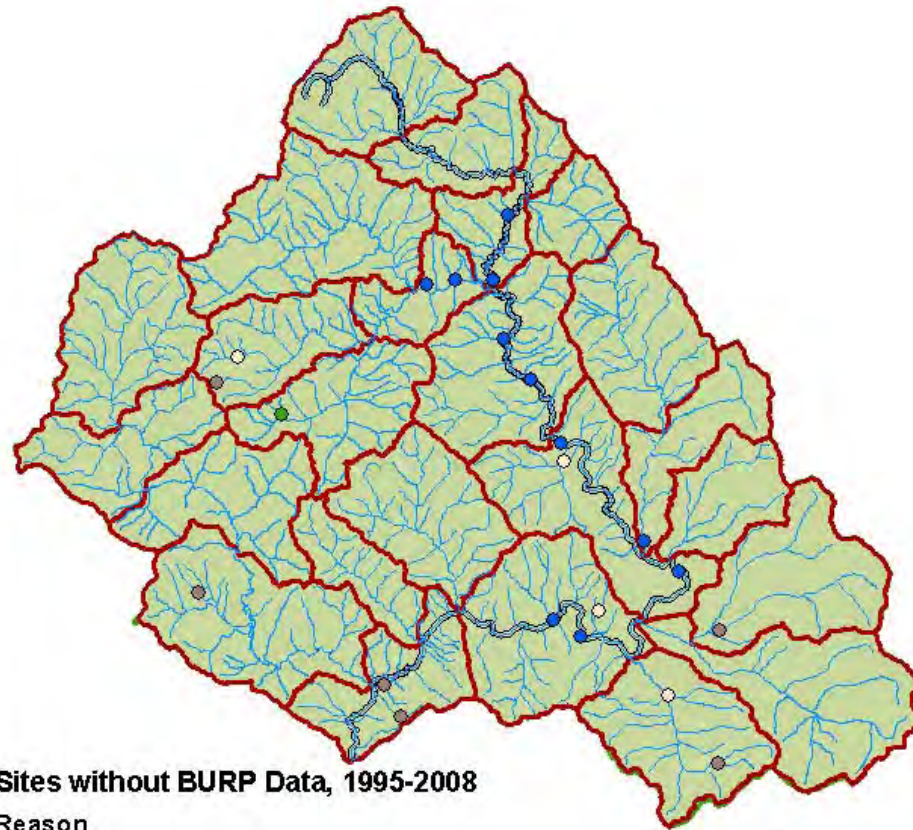
- ◇ Sites with BURP Data, 1995-2008
- ◆ Sites without BURP Data, 1995-2008

0 1.5 3 6 9 12  
Miles



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# North Fork Coeur d'Alene River BURP Sites Without Data 1995-2008

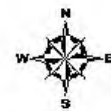


## Sites without BURP Data, 1995-2008

### Reason

- Low Flow
- No Access
- Repeat in Single Season
- Too Large for Wadeable Protocols

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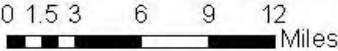


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North Fork Coeur d'Alene River  
BURP Sites With Data  
1995-2008



○ Sites with BURP Data, 1995-2008



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# Summary of BURP Data in Subbasin

- Draft report available on request.
- Preliminary assessments based on BURP data alone:
  - 22 sites (22%) could be considered impaired and not supporting beneficial uses.
  - 76 sites (78%) indicate full support of beneficial uses.
- Based on BURP scores alone, 18 assessment units could be considered impaired and 34 indicate full support.



North Fork Coeur d'Alene River  
BURP Sites (1995-2008)  
BURP Assessment Status



**Sites with BURP data, 1995-2008**

**Support Indication**

- Full Support
- Not Supporting

0 1.5 3 6 9 12  
Miles



8/4/2009



# Summary of BURP Data in Subbasin

- Interesting to look at patterns and trends over time and space.
- Some watersheds have BURP data all indicating full support.
- Older data may not be relevant.
- Other water quality data must be considered.
- Final summary report will be available soon.



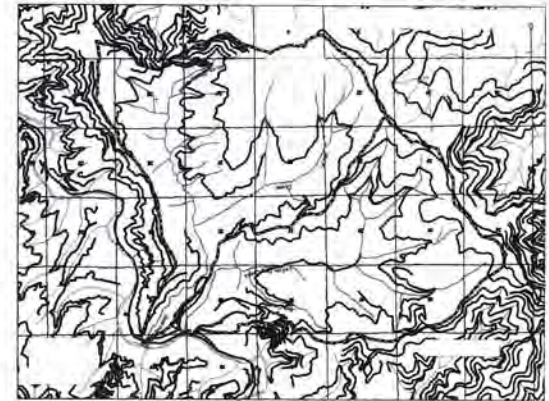
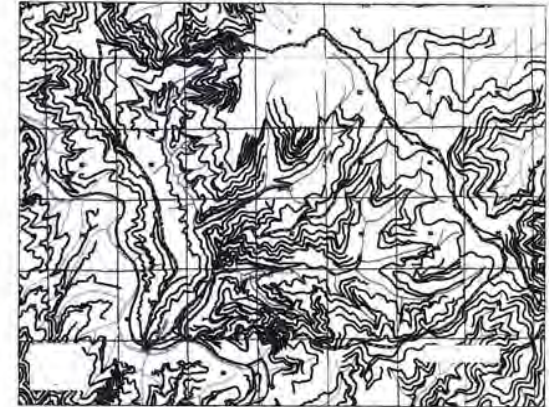
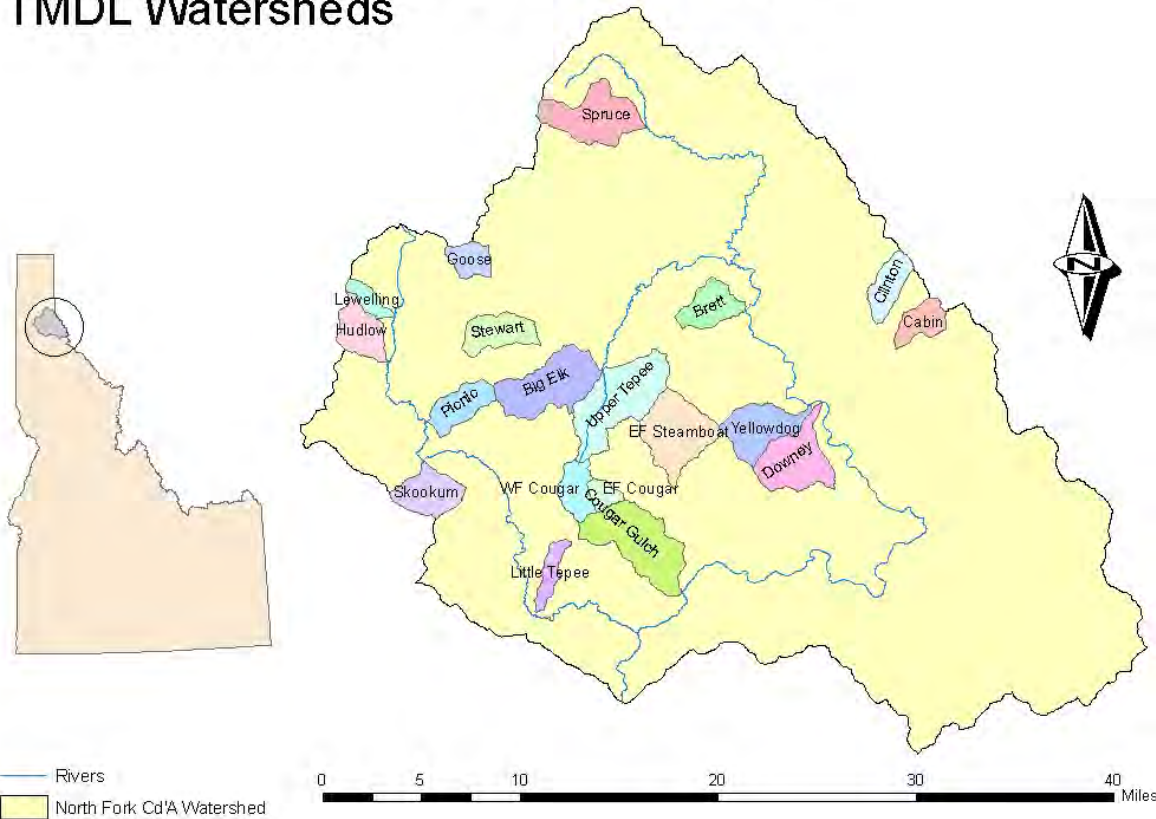
# 2009 BURP-PIBO Sampling

- Cooperative effort by DEQ, USFS and EPA.
- Crews conducted USFS monitoring according to PIBO (PACFISH/INFISH Biological Opinion) survey protocols on 8 sites.
- Crews now conducting monitoring according to DEQ BURP protocols on 6-8 sites.



# 2009 BURP-PIBO Sampling

## North Fork Coeur d'Alene River TMDL Watersheds



# 2009 BURP-PIBO Sampling

Watershed	Sediment Delivery (tons/year)		Change (%)	Natural Background (tons)	1.5 Times Background (tons)	Likely Meets TMDL?	2007 Factor Above Background
	1986	2007					
Big Elk Cr	437.64	315.47	-27.92%	170.79	256.19	No	1.85
Brett Cr	145.90	80.52	-44.81%	77.17	115.76	Yes	1.04
Cabin Cr	107.53	95.04	-11.61%	56.73	85.09	No	1.68
Clinton Cr	133.13	72.89	-45.25%	66.38	99.57	Yes	1.10
Cougar Gulch	929.64	460.99	-50.41%	284.71	427.07	No	1.62
Downey Cr	398.91	209.42	-47.50%	140.48	210.71	Yes	1.49
East Fork Cougar Gulch	72.01	33.77	-53.11%	27.88	41.82	Yes	1.21
East Fork Steamboat Cr	595.20	341.55	-42.62%	161.71	242.56	No	2.11
Goose Cr	94.80	63.84	-32.66%	47.40	71.09	Yes	1.35
Hudlow Cr	202.25	181.81	-10.11%	79.91	119.87	No	2.28
Lewelling Cr	60.72	59.99	-1.19%	30.98	46.47	No	1.94
Little Tepee Cr	70.94	54.05	-23.80%	39.66	59.50	Yes	1.36
Picnic Cr	202.89	106.90	-47.31%	75.57	113.36	Yes	1.41
Skookum Cr	257.04	221.29	-13.91%	91.42	137.13	No	2.42
Spruce Cr	248.31	167.22	-32.66%	148.57	222.86	Yes	1.13
Stewart Cr	239.10	174.42	-27.05%	84.58	126.87	No	2.06
Upper Tepee Cr	403.24	335.58	-16.78%	207.09	310.63	No	1.62
West Fork Cougar Gulch	242.24	104.16	-57.00%	60.49	90.74	No	1.72
Yellowdog Cr	323.88	183.13	-43.46%	114.26	171.39	No	1.60

# 2009 BURP-PIBO Sampling

- Goals:
  - Evaluate effectiveness of watershed restoration and resource management activities
  - Assess water quality and determine beneficial use support
  - Improve interagency cooperation and data sharing (e.g., can PIBO data be used for Idaho water quality assessments like BURP data?)



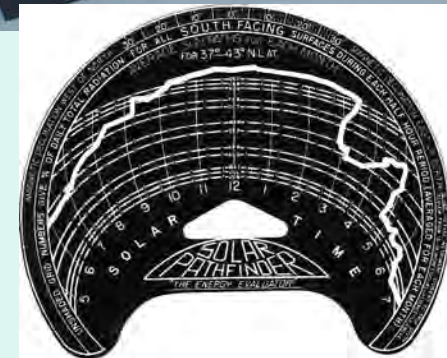
# 2009 BURP-PIBO Sampling

- East Fork Steamboat Cr.
- Cougar Gulch
- Big Elk Cr.
- Upper Tepee Cr.
- Yellowdog Cr.
- Picnic Cr.
- Stewart Cr.
- Skookum Cr.



# 2009 BURP-PIBO Sampling

- Added Solar Pathfinder shade measurements per WAG requests.



# 2009 BURP-PIBO Sampling





