Watershed Watch Data Summary
April 17, 2010

Flow

Flows during the sampling event in the Boise River were recorded at United States Geological Survey (USGS) gages. Data for the gage located at the Glenwood Bridge (Sampling Site 16) indicated that the mean daily discharge was reported to be 516 cfs on 4/17/10 using the USGS website. Data were also available for the USGS gage located on the Boise River South Channel at Eagle, ID near Sample Site 18. The daily average discharge was reported to be 393 cfs on 4/17/10 using the USGS website.

Temperature

The study sites along the Boise River are designated for cold water aquatic life (some include additional designations for salmonid spawning during appropriate time periods). Dry Creek is an undesignated waterbody, therefore cold water aquatic life and primary contact recreation standards apply. Lake Lowell is designated as a warmwater waterbody for aquatic life. Waters designated as cold water aquatic life are to have water temperatures of twenty-two (22) degrees C or less with a maximum daily average of no greater than nineteen (19) degrees C (IDAPA 58.01.250.02(b). Lake Lowell water temperature was well within the warm water aquatic life water temperature criteria of less than thirty-three (33) degrees C for instantaneous measurements (IDAPA 58.01.250.04(b)). Water temperature for the Boise River and associated lakes and ponds measured during the sampling event ranged from 8 to 13 degrees Celsius. The highest temperature was measured on a side channel behind the E. 52nd St greenbelt footbridge on the Boise River. The shallow and slow moving water at this sampling site may have contributed to warmer water temperatures.

pH

Averaged pH values for the sample locations fell between 7 at numerous locations to 9 at the Barber Park raft put-in ramp. Observed pH values are generally acceptable for the types of aquatic life and beneficial uses associated with each sampled water body. However, the value of 9 is on the high end of what can be tolerated by some forms of aquatic life.

Dissolved Oxygen

The range of dissolved oxygen values measured during the sampling event ranged from 7.5 mg/L to 22 mg/L. Waters designated for cold water aquatic life are to have dissolved oxygen concentrations above 6.0 mg/L, while waters designated for warm water aquatic life are to have dissolved oxygen concentrations exceeding 5.0 mg/L at all times. The spread of results was greater than the October 2009 event. While increased inter-site variability was to be expected in the fall vs. the spring, some of the increase may indicate that the revised DO methodology implemented during the fall 2009 sampling needs to be more clearly explained during the training sessions.

Turbidity

Turbidity values largely ranged from 0 to 40 JTU, with a high of 100 JTU at the lower Dry Creek site. Higher JTU values indicate poorer water clarity. State water quality standards dictate that turbidity levels in water bodies designated for cold water aquatic life in Idaho should not be greater than 50 NTU instantaneously or 25 NTU for more than 10 consecutive days. (IDAPA 58.01.02.250.02(e)).

Bacteria

E. coli bacteria counts ranged from >2 colonies to 300 colonies per 100 mL. The bacteria counts were generally low except for the lower Dry Creek site. While the bacteria at lower Dry Creek (300 CFU/100 mL) is notably higher than the downstream sites, it does not exceed the state WQS for instantaneous samples (406 CFU/100 ml for primary contact recreation). (IDAPA 58.01.02.251).

Macroinvertebrates

In general, a mix of pollution tolerant and somewhat pollution tolerant species were found at sites that surveyed for macroinvertebrates. There does not appear to be a trend in species composition as you travel from upstream to downstream in the Boise River watershed. Further refinement of the new biological indices framework is required.

Invasive Species

Eurasian Watermillfoil was reported at the Barber Park put-in and no other invasive species were reported observed.

Site Location	**Site #**	**# of vol's**	**Water Temp**	**DO**	**pH**	**Turbidity**	**E. Coli**	**Macro invertebrate**	**Invasive Species**
Upstream to Downstream			*(C)*	*(mg/L)*	*(SU)*	*(JTU)*	*ct / 100 mL*	*Stream Quality Assessment*	*Present / Absent*
Discovery Park	1	5	8	8	7	0	< 2	N/A	Absent
Barber Park Put-in	3	5	10 to 12	11.5 to 15	8 to 9	20 to 35	< 2	Fair	Eurasian Watermilfoil
Parkcenter Blvd Bridge, south bank	30	7	12	13	7	0	< 2	Excellent	Absent
Behind MK Nature Center	27	6	8 to 10	20 to 22	8	0 to 40	2	N/A	Absent
BSU Friendship Footbridge	31	6	10	13	7.3	20	20	Poor	Absent
Boise Public Library footbridge, upstream	32	10	7	8.5	7	0	< 2	Fair	Absent
Ann Morrison Park Raft takeout	7	6	8	N/A	N/A	20	< 2	N/A	Absent
Veteran's Parkway bridge	33	11	6 to 7	7.5 to 11	6.5 to 7.5	0	n/a	Excellent	Absent
E. 52nd St Greenbelt Footbridge	14	8	8 to 13	20 to 24	8 to 8.5	0	6	Fair	Absent
Glenwood Bridge	16	7	7.8 to 8	11 to 13	7 to 8.4	40	10	Fair	Absent
River Beach Lane along Greenbelt	34	6	8	12.5	7	0	2	Fair	Absent
Eagle Rd. bridge, upstream	35	12	10 to 12	11	7 to 8	0	6	Fair	Absent
Eagle Island Park, N channel	18	10	11	9.5 to 10	7	0	< 2	N/A	Absent
Linder St. Bridge	29	3	10	10	7 to 8	0 to 40	< 2	Good	Absent
Dry Creek @ Bogus Basin	23	11	7	N/A	7.5 to 8	30 to 40	8	Poor	N/A
Dry Creek @ Hidden Springs	28	11	8	9.5 to 10	6	40 to 100	300	Poor	Absent
Lake Lowell Boat Ramp area	24	11	12	9.5 to 11	7 to 7.5	0	6	N/A	N/A