

Gold King Mine Spill Update

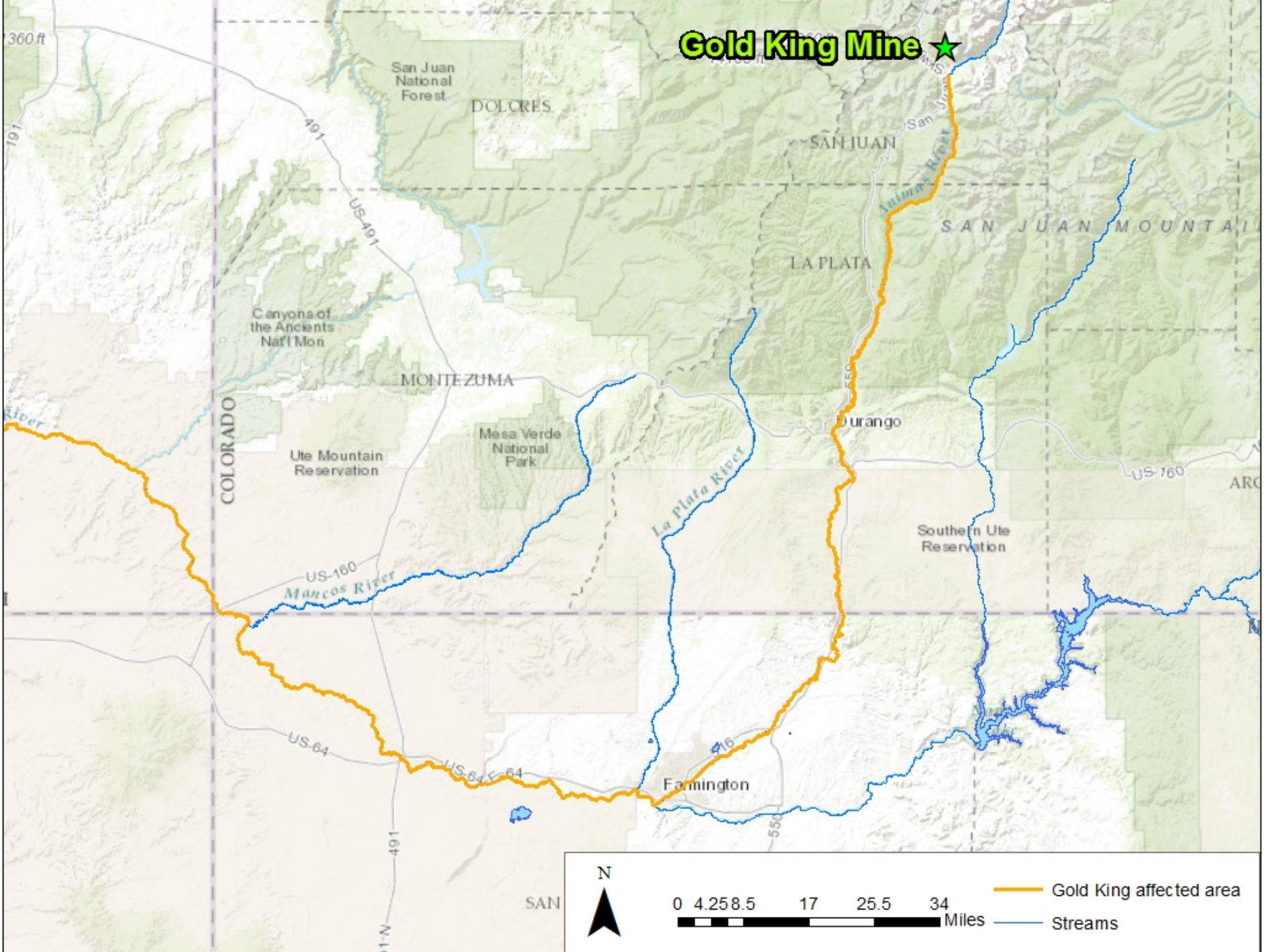


Presented by Eric Frey

Fisheries Division



Gold King Mine ★



0 4.25 8.5 17 25.5 34 Miles

Gold King affected area
Streams

Event Timeline

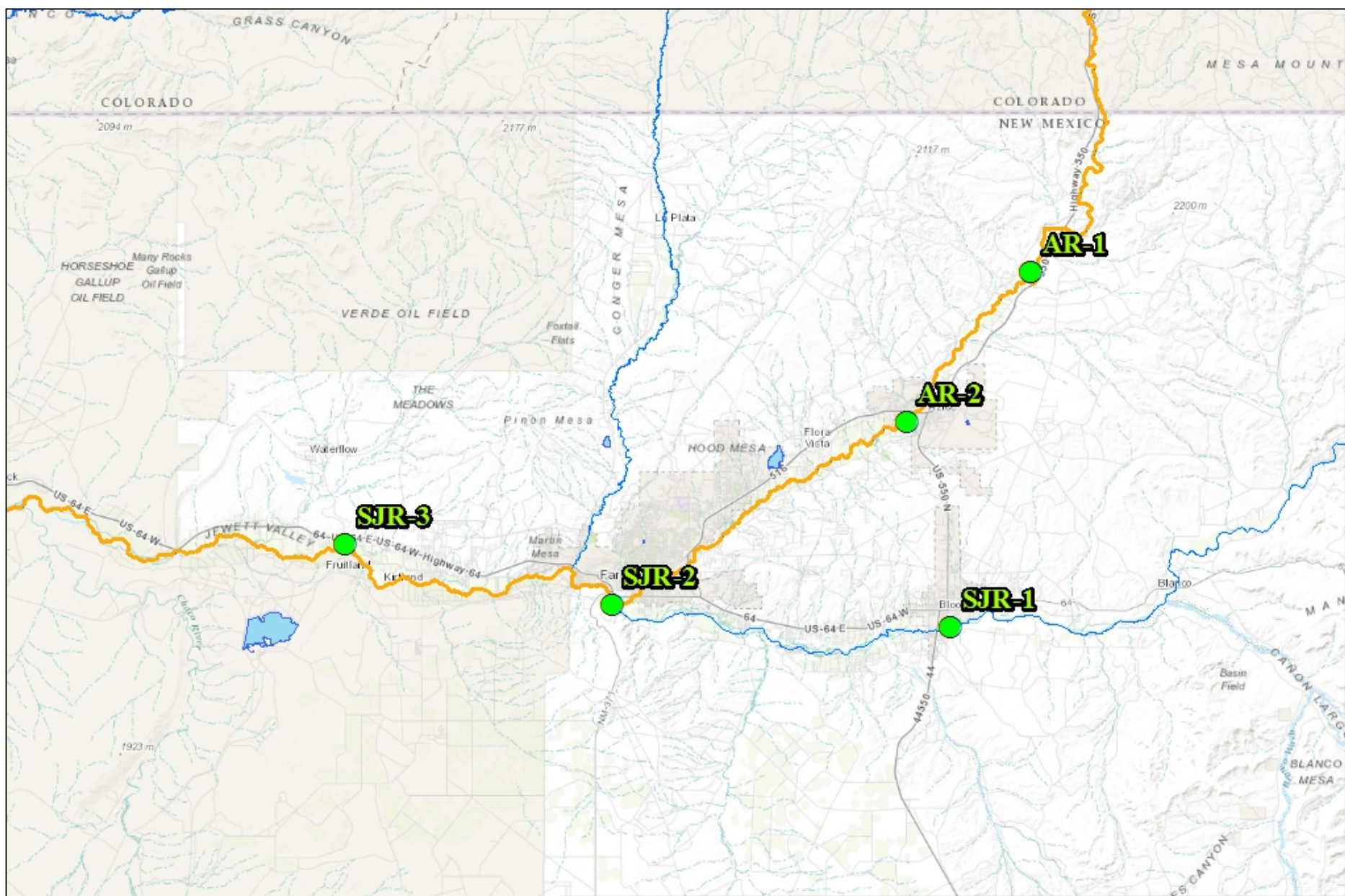
- August 5, 2015, Spilled occurred
- August 8, 2015, Catch and release recommendation issued
- August 14, 2015, “white paper” drafted to outline impacts to wildlife
- August 25, 2015, Fish and macroinvertebrate tissue collected for heavy metal analysis
- September 4, 2015, Catch and release recommendation lifted
- October 7, 2015, Rainbow trout stocking reinitiated in Animas River
- March 8, 2016, Six month post spill fish and macroinvertebrate tissue collected for heavy metal analysis
- June 1, 2016, Six month sampling results received from lab



Fish and Macroinvertebrate sampling

- 5 collection sites
- Collected muscle and liver tissue on fish
- 7 fish species, different trophic levels
- Macroinvertebrates





0 1.75 3.5 7 10.5 14 Miles

- Sample sites
- Gold King affected area
- Streams

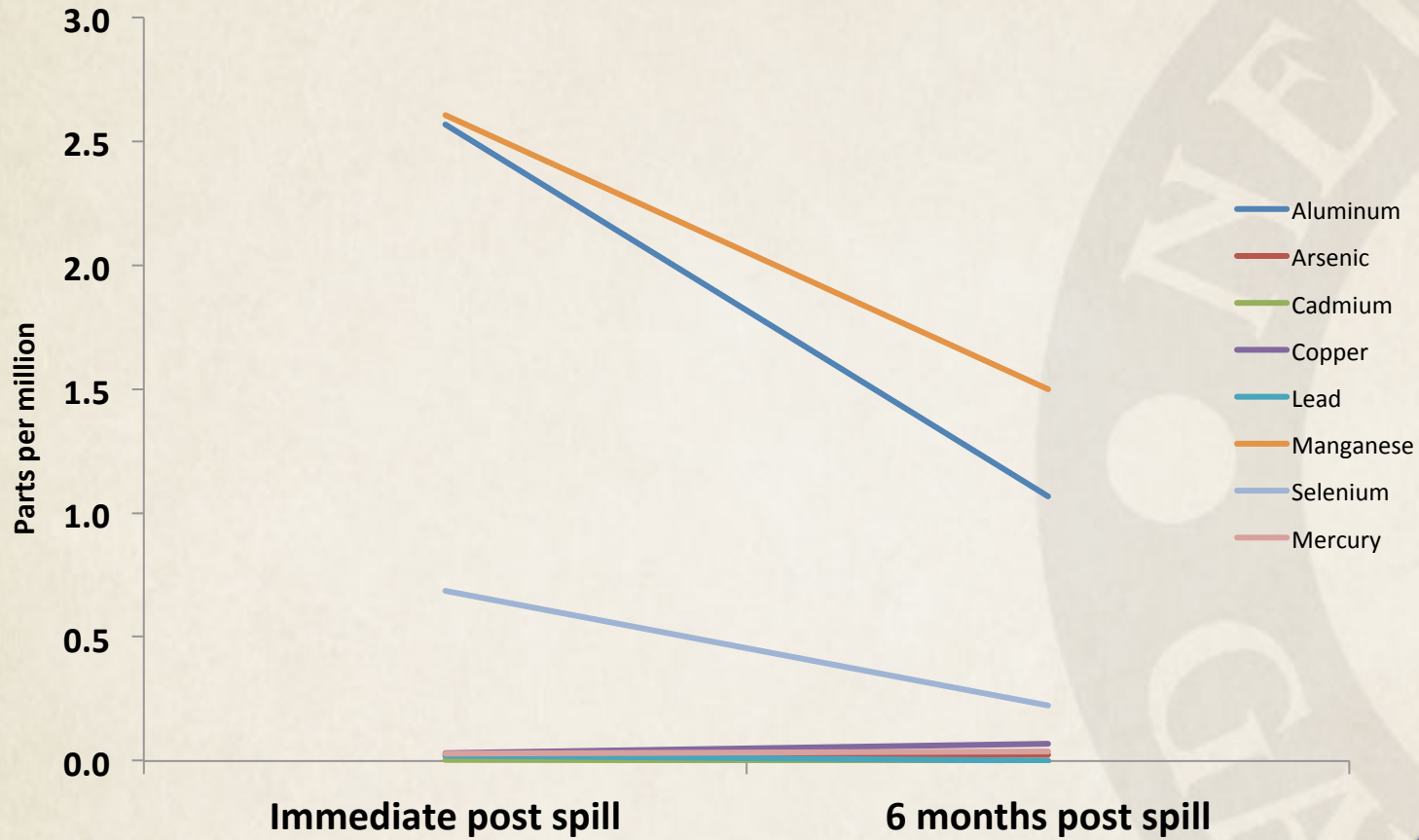
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Field
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Percentage of samples with Detected Metals Fish Muscle Tissue

Metal	Immediate Post Spill	6 Month Post Spill
Aluminum	7%	4%
Arsenic	16%	17%
Cadmium	9%	0%
Copper	2%	3%
Lead	31%	<1%
Manganese	89%	63%
Selenium	98%	18%
Mercury	86%	100%
Total detection	42%	18%



Average Heavy Metal Concentrations from Fish Muscle Tissue



Conclusions to date

- Heavy metals are below public health risk for fish consumption
- Fish and macroinvertebrate populations and biodiversity appear normal
- Fish condition and health appear normal
- Metal concentrations decreased 6 months post spill
- Long term effects still unknown...



Ongoing efforts

- 1 year post fish and macroinvertebrate sampling
- Continue to work with NMED, DOH, and other stakeholders
- Present findings to Gold King Citizens' Advisory Committee



QUESTIONS?



Fisheries Division

