Station	Date	Exceedance	Action Taken	Conclusions
HCSW-4	7/14/2003	Dissolved Iron	A special sampling program was carried out in August 2003 where samples were collected from three locations on Horse Creek and two tributaries, but flow conditions were very high. In October 2003, eleven stations were sampled while flow was closer to normal.	Readings appear normal for the basin, the lower trigger level at this location caused the exceedance due to differences in water class. The trigger value may be set too low at this location.
HCSW-2	8/28/2003	Dissolved Oxygen	A sampling program was attempted in August 2003 in the northern portion of the stream, but flow conditions were very high. Instead six locations including tributaries were sampled at the end of October 2003.	Low DO levels persisted at HCSW-2 due to generally low streamflow levels and a greater amount of organics than the other stations. The low levels are not due to mining upstream.
HCSW-2	4/14/2004	Chlorophyll a	A special sampling program was carried out in May 2004 where samples were taken from four upstream locations in Horse Creek (due to dry conditions of tributaries).	Elevated chlorophyll a concentrations were caused by low streamflow and the physical nature of the stream channel and not mining activities.
HCSW-4	6/29/2004	Sulfate	A special sampling program was carried out where samples were taken from nearby tributaries as well as the HCSP stations during July 2004.	Nearby tributary basins have high amounts of agricultural activity (requiring irrigation) and streamflow was very low at this time which led to the elevated sulfate concentration in June 2004.
HCSW-2	7/27/2004	Total Radium	None	Blank sample results had high values, making other values suspect. No impact assessment required for July 2004, but future results should be monitored.
HCSW-1	8/30/2004	Dissolved Oxygen	None	Impact assessment deferred until the streamflows in Horse Creek are near normal for the time period the exceedance occurred (multiple hurricanes passing through region dramatically increased streamflow).
HCSW-2	8/30/2004	Dissolved Oxygen	None	Impact assessment deferred until the streamflows in Horse Creek are near normal for the time period the exceedance occurred (multiple hurricanes passing through region dramatically increased streamflow).
HCSW-3	8/30/2004	Dissolved Oxygen	None	Impact assessment deferred until the streamflows in Horse Creek are near normal for the time period the exceedance occurred (multiple hurricanes passing through region dramatically increased streamflow).
HCSW-4	8/30/2004	Dissolved Oxygen	None	Impact assessment deferred until the streamflows in Horse Creek are near normal for the time period the exceedance occurred (multiple hurricanes passing through region dramatically increased streamflow).
HCSW-2	8/30/2004	Chlorophyll a	None	Impact assessment deferred until the streamflows in Horse Creek are near normal for the time period the exceedance occurred (multiple hurricanes passing through region dramatically increased streamflow).
HCSW-3	8/30/2004	Chlorophyll a	None	Impact assessment deferred until the streamflows in Horse Creek are near normal for the time period the exceedance occurred (multiple hurricanes passing through region dramatically increased streamflow).
HCSW-2	11/18/2004	Total Fatty Acids	A special sampling program was carried out in January 2005, where three Horse Creek locations and a tributary (Brushy Creek) were sampled.	Nearby Horse Creek Prairie is likely to contribute to the elevated levels since all other stations had undetected values for fatty acids. Low streamflow and high organics in this region, not mining, were likely contributing factors.
HCSW-2	4/27/2005	Total Fatty Acids	A special sampling program was carried out in June 2005, where three Horse Creek locations and a tributary were sampled.	The exceedance is most likely caused by the surrounding habitat conditions and not impacted by mining.

Station	Date	Exceedance	Action Taken	Conclusions
HCSW-1	1/23/2007	pH	Compared measurement to SWFWMD measurements for the months of January and February.	Not an actual exceedance but equipment malfunction
HCSW-4	1/23/2007	pH	Compared measurement to SWFWMD measurements for the months of January and February.	Not an actual exceedance but equipment malfunction
HCSW-1	4/25/2007	Alkalinity	Statistical analysis of HCSP alkalinity and SWFWMD measurements. When alkalinity compared to streamflow, there was a weak negative correlation between the two (high alkalinity during low flow).	No evidence that high alkalinity was caused by mining, but was rather a seasonal pattern caused by lower water levels and flow. Once those recovered during the wet season, the alkalinity values decreased.
HCSW-1	6/20/2007	Total Fatty Acids	Used conclusions from the FIPR on the rate of biodegradation and soil leaching of organic compounds in a controlled environment.	It was unlikely that fatty acids from mining process water are responsible for the elevated levels seen. Instead it represents the variation in naturally-occurring fatty acids in Horse Creek.
HCSW-2	6/20/2007	Total Fatty Acids	Used conclusions from the FIPR on the rate of biodegradation and soil leaching of organic compounds in a controlled environment.	It was unlikely that fatty acids from mining process water are responsible for the elevated levels seen. Instead it represents the variation in naturally-occurring fatty acids in Horse Creek.
HCSW-2-FD	6/20/2007	Total Nitrogen	Compared to nitrate+nitrate and TKN values from April 2003 through August at HCSP.	Elevated measurements most likely due to lab analyst or instrument error. The total nitrogen levels recorded are not corroborated by measurements taken before of after the exceedance.
HCSW-3	6/20/2007	Total Nitrogen	Compared to nitrate+nitrate and TKN values from April 2003 through August at HCSP.	Elevated measurements most likely due to lab analyst or instrument error. The total nitrogen levels recorded are not corroborated by measurements taken before of after the exceedance.
HCSW-2	7/31/2008	Ammonia	None	Elevated concentrations are either due to laboratory method change or a seasonal fluctuation in the nitrogen cycle.
HCSW-3	7/31/2008	Ammonia	None	Elevated concentrations are either due to laboratory method change or a seasonal fluctuation in the nitrogen cycle.
HCSW-4	7/31/2008	Ammonia	None	Elevated concentrations are either due to laboratory method change or a seasonal fluctuation in the nitrogen cycle.
HCSW-4	5/4/2009	Alkalinity	Statistical analysis of HCSP alkalinity and SWFWMD measurements. When alkalinity compared to rainfall, there was a strong negative correlation between the two (high alkalinity during low flow).	No evidence that high alkalinity was caused by mining, but was rather a seasonal pattern caused by lower water levels, flow, and rainfall. Once those recovered during the wet season, the alkalinity values decreased.