

Campus Watershed Water Quality Data Summary

Watershed-Wide Data Trends

- Dissolved oxygen levels were below the historical data for the most part, but still above the minimum criteria.
- Temperature was similar to historical data and is not a concern for the watersheds.
- pH levels were fluctuated to be either slightly above or below the historical dry mean and within the 6.00 – 8.50 range set forth in the criteria.
- Conductivity values were generally consistent with historical wet and dry means.
- Turbidity values were consistent with wet and dry historical means for Tanyard and MS4.
- Total suspended solids (TSS) values were generally consistent with the historical means.
- Total phosphorous levels were consistent with historical data for Tanyard and MS4.
- Total nitrogen levels were lower than historical levels for MS-4 and consistent otherwise.
- Lead and zinc values were improved over historical levels but detection of values exceeding standards keeps lead and zinc as constituents of concern for the watershed.

Specific Notes

Tanyard Creek

- (All) *Dissolved Oxygen*: Data indicates that DO is a minor constituent of concern for the watershed.
- (MP-1) *Turbidity*: An extremely high value of 107.70 recorded on 9-27-2012 that was related to a sanitary sewer link and was repaired.
- (MP-1) *Fecal Coliform*: Concentrations were improved, but still exceeded the limits.
- (MP-1, MP-6) *Copper*: Wet sampling values exceeded standards, indicating a possible need for investigation of the cause.
- (MP-1) *Volatile Organic Compounds*: PCE was detected, likely coming from two nearby dry cleaning businesses. Investigation into the source could be warranted.

Steam Plant Stream [MS4]

- (MS4-2, MS4-8) *Conductivity*: Higher than normal values indicate that ionic elements may be of concern in certain areas of this watershed.
- (MS4-2) *Fecal Coliform*: Values improved from the previous year's water sampling, indicating the reduction or elimination of a source in this watershed.
- (MS4-8, MS4-2) *Copper*: Dry sampling values at MS4-8 exceeded standards and investigation into the source may be warranted. Otherwise, dry and wet values were lower than the historical averages.

Lilly Branch

- (MP-8, MP-9) *pH*: The 2012/2013 wet mean improved from the historical wet mean that was below the standard at these two sites, averaging 5.71 and 5.79 respectively, to be within the criteria range at 6.37 and 6.72.
- (MP-10, MS4-3) *Conductivity*: Downstream higher values during wet sampling indicate that the cause could be originating between D.W. Brooks Drive and East Campus Road.
- (MP-8) *Turbidity*: Values higher than the wet historical mean indicate increased erosion in the watershed.
- (All) *Fecal Coliform*: Values were improved and lowered this year from last year and historically.
- (MP-8) *Total Phosphorous*: Values increased from the historical mean, indicating an increase in runoff loading of TP in the watershed.

- (All) *Copper*: Values were lower than the historical averages, but detection of values exceeding maximum criteria at MP-8 and MS4-3 mark copper as a constituent of concern for the watershed.