

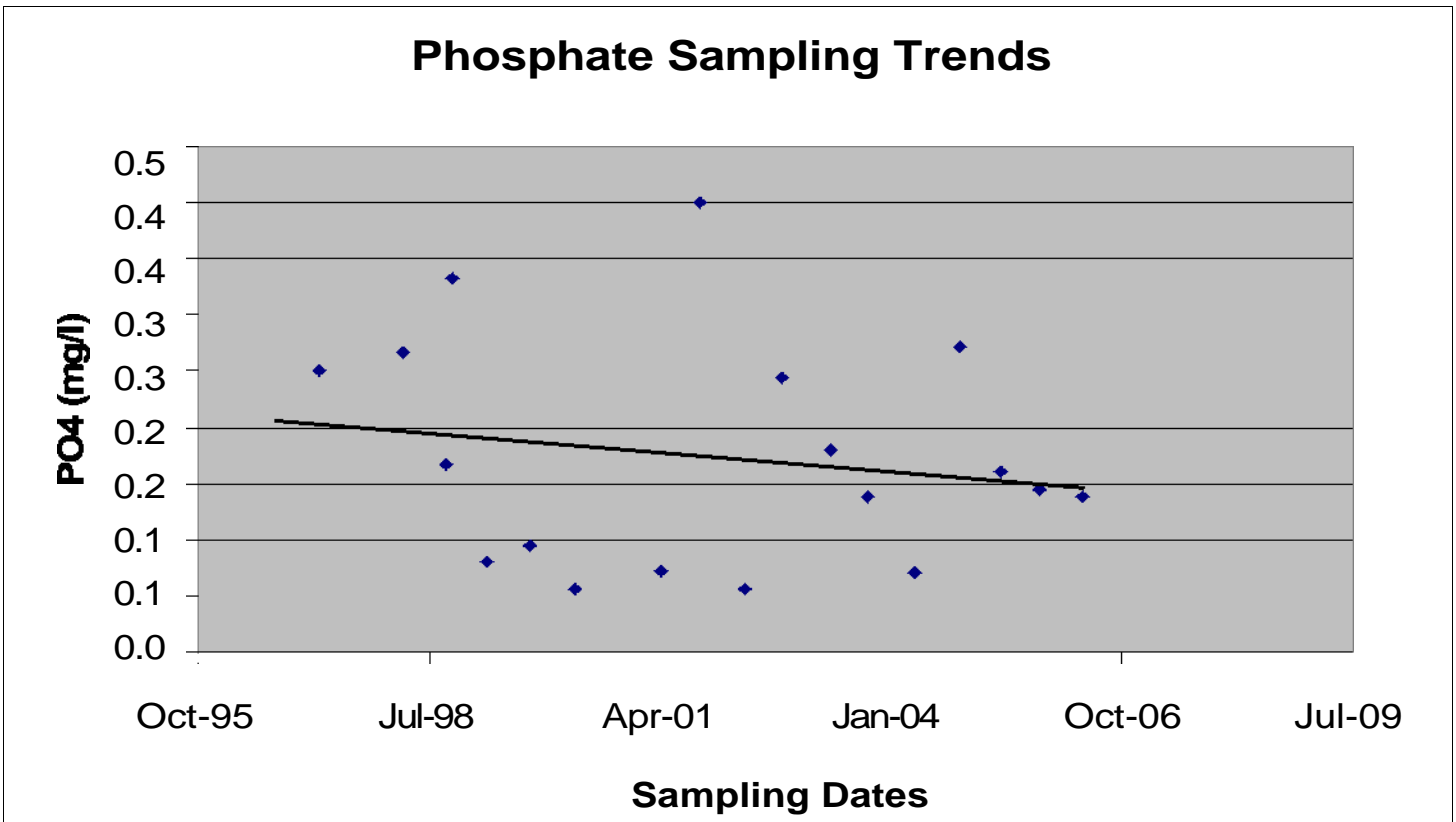
Lititz Run Watershed Alliance Monitoring Data

It is the contention of the Lititz Run Watershed Alliance, Warwick Township, and the Lancaster County Conservation District that significant water quality improvements have occurred within the Lititz Run Watershed over the last ten plus years. These improvements have come as the result of numerous stream restoration projects, various riparian buffer initiatives, countless agricultural best management practices, and several wetland rehabilitation projects. The water quality improvements can be seen in data gathered through biannual samples by the Lititz Run Watershed Alliance, Warwick High School students, and the County Conservation District. The Donegal Chapter of Trout Unlimited (DTU) monitored water temperature in Lititz Run from April 1, 2004 to November 1, 2004. [HOBO Water Temp Pro Loggers](#) were purchased from [Onset Computer Corporation](#) for this purpose. The specific results of the DTU monitoring, can be found by clicking [here](#).

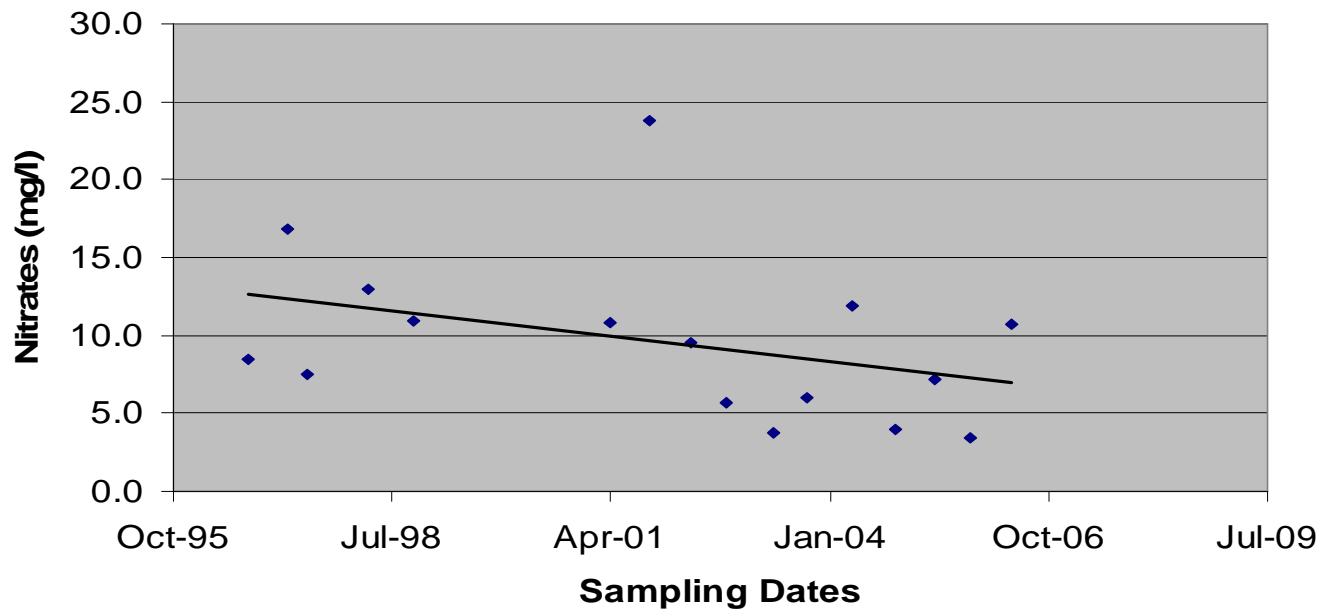
The following results were gathered using a compared analysis of the first 5 years (1996-2001) LRWA monitored compared to the last five years (2002-2006) of data gathered.

Lititz Run Proper

- **Phosphate** levels in Lititz Run proper have seen a **26% reduction** over the last 10 years. From the time period 1996-2001 the phosphate level was 0.21 mg/l and from the time period 2002-2006 the level had been reduced to 0.16 mg/l. This is a 3% reduction per year on average. Lititz Run is still slightly above the 0.1 mg/l phosphate level max for rivers and stream according to PA DEP. (Chapter 93)

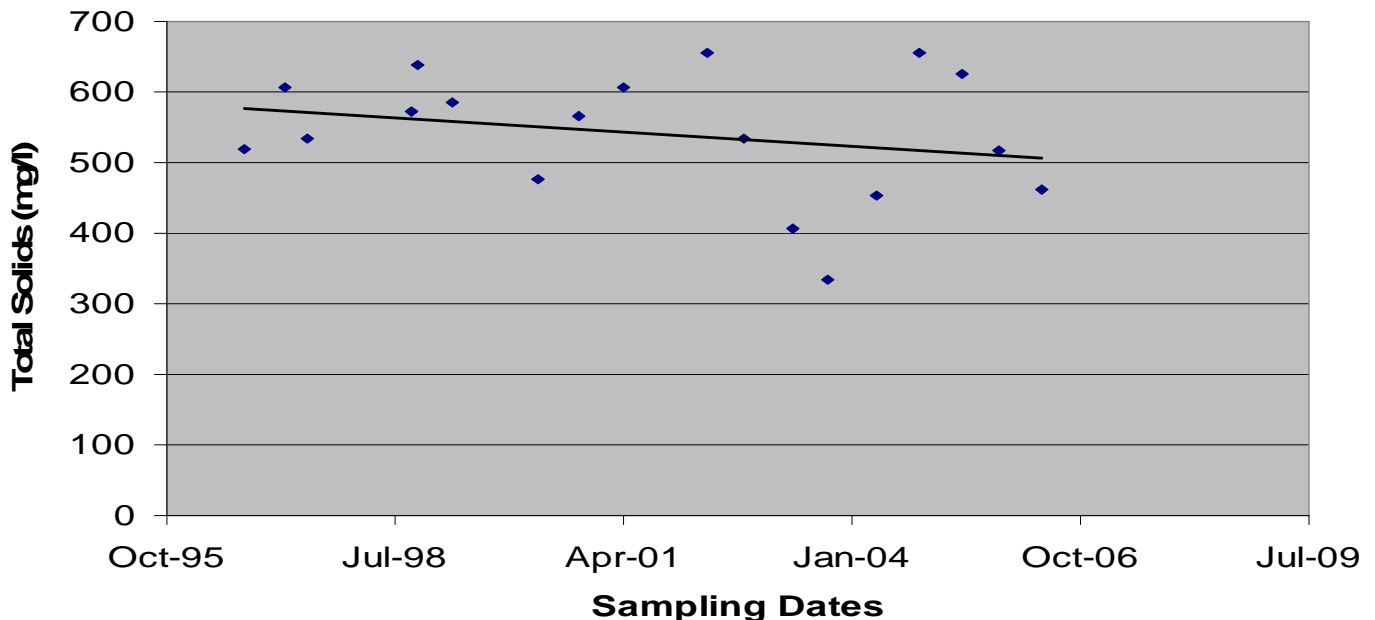


Nitrate Sampling Trends



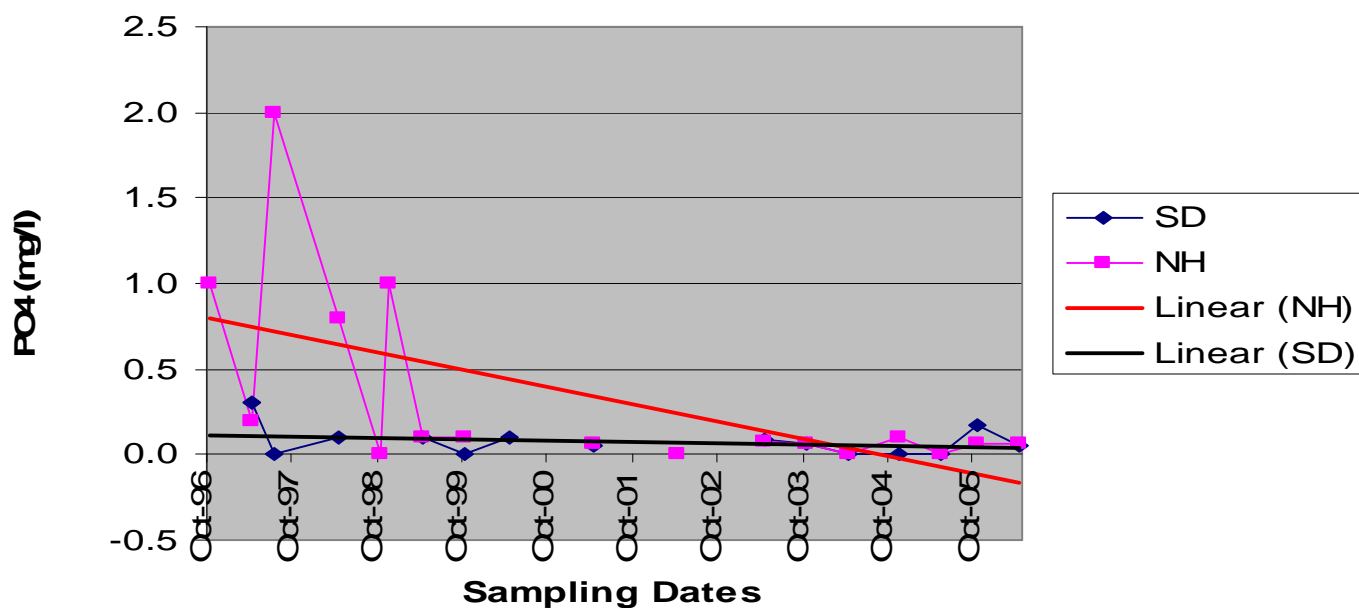
- Nitrate* levels in Lititz Run proper have seen a **47% reduction** over the last 10 years. From the time period 1996-2001 the nitrate level was 13 mg/l and from the time period 2002-2006 the level had been reduced to 6.9 mg/l. This is over a 5% reduction per year on average. The maximum amount allowed for nitrates in a stream for human consumption is 10 mg/l (PA DEP Chapter 93) which Lititz Run now is under.
- Total Solid* levels in Lititz Run proper have seen a **9% reduction** over the last 10 years. From the time period 1996-2001 turbidity levels averaged 567 mg/l and from the time period 2002-2006 levels average 516 mg/l. As the stream channel stabilizes from past stream restoration project these levels should be further reduced in the future.

Total Solids Sampling Trends



Lititz Run Tributary Streams

Lititz Run Tributary Phosphate Levels



- **Phosphate** levels in the Santo Domingo Cr. and “New Haven Run” also showed significant reductions over the last 10 years. In the Santo Domingo Cr. a **29% reduction** was achieved in 10 years from 0.10 mg/l to 0.07 mg/l. In “New Haven Run” an **89% reduction** was achieved in 10 years from 0.59 mg/l to 0.06 mg/l.
- **Nitrate** levels in the Santo Domingo Cr. and “New Haven Run” once again showed significant reductions over the last 10 years. In the Santo Domingo Cr. a **44% reduction** was achieved in 10 years from 9.2 mg/l to 5.1 mg/l. In “New Haven Run” a **73% reduction** was achieved in 10 years from 7.8 mg/l to 2.1 mg/l.

Lititz Run Tributary Nitrate Levels

