The Southwestern Pennsylvania Commission’s (SPC) Regional Traffic Signal Program was established to assist local municipalities with improving traffic signal operations by optimizing signal timings and upgrading existing signal equipment. The Bethel Park / Upper St. Clair Signals In Coordination with Equipment Upgrades (SINC-UP) Project is a traffic signal project with the goal of optimizing signal operations at intersections along the McMurray Rd corridor while considering all users of the intersections [See map below for project area].

Traffic Signal Coordination:
- Improves safety because vehicles stop less often, which reduces the probability for rear-end crashes
- Benefits the environment by reducing vehicle emissions
- Reduces travel costs by reducing the amount of time stopped at red lights
- Saves money at the gas station by reducing fuel consumption

As part of this project, Global Positioning Satellite antenna and receivers were installed at the intersections to allow for time-based coordination at all times. Coordination of traffic signal is one of the most cost effective ways of improving traffic flow along a corridor.
Travel Improvements:
The results showed that on average both travel time and stops improved over 30% during the weekday peaks.

Prior to this SINC-UP Project, motorists typically experienced frustration of consecutive stopping at traffic signals due to the uncoordinated signals. This retiming project coordinated the traffic patterns among these intersections which alleviated consecutive stopping and reduced the motorist’s frustration. This project also implemented shorter cycle lengths, reducing motorist wait times.

Summary of First Year Benefits

- **Reduced Vehicle Hours of Travel**: 16,832
- **Reduced Fuel Consumption**: 17,082 gallons
- **Reduced Total Pollutant Emissions**: 1,773 kg

**Total Benefit**: $356,028

**Benefit Cost Ratio**: 15:1

https://www.spcregion.org/trans_ops Traff_vids3.asp