

## Marlborough, Massachusetts

### Phosphorus Removal Pilot Study

September 2007



*Draft Report*

Figure 12 - Phosphorus Results for Typical Influent Conditions for BluePRO

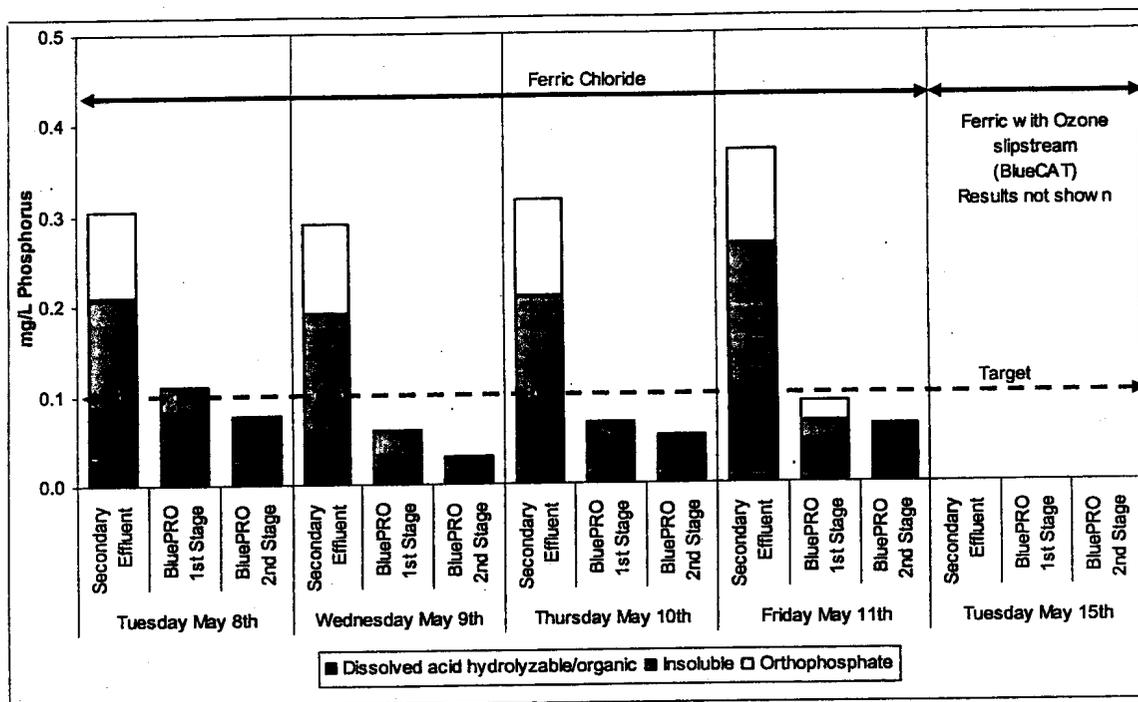


Table 8 - First Stage Percent Removal, Typical Influent Conditions

	Insoluble Phosphorus	Dissolved acid-hydrolyzable and organic Phosphorus	Orthophosphate
CoMag	94%	35%	100%
ACTIFLO	92%	37%	99%
BluePRO	82%	39%	95%

**Chemical Use**

Chemical use by the three pilot units during typical influent conditions is presented in Figure 13. CoMag and ACTIFLO used both ferric chloride and aluminum sulfate as a coagulant to make use of conventional coagulation chemistry. Both dosed only at a single location upstream of their mixing or maturation tanks, regardless of whether their second stage is online. BluePRO used only ferric chloride, but primarily to generate an iron oxide coating on the silica sand in their backwash filter to facilitate removal by adsorption. BluePRO dosed upstream of each stage. Again, it should be reiterated that the goal as presented to the manufacturers was only to achieve the target TP concentration by whatever means deemed necessary by the manufacturer.