

September 12, 2017
Report to SGWASA Board
Timeline of compliance with
Stage II Disinfection By-products Rule
Presented by Lindsay L. Mize, Executive Director

Dates	Issues/Concerns Identified	Action(s) taken for Resolution
October 1, 2013	Stage II of the Disinfection By-Products (DBP) Rule became effective. This changed the reporting requirements from a 4 quarter running average for all sites sampled to reporting each site as a compliance point over a 4 quarter running average. This rule is the rule governing Haloacetic acids (HAAs) and Trihalomethanes (THMs)	
2014	SGWASA conducted sampling and researched within the SGWASA Water Treatment Plant means of reducing the formation of Haloacetic acids (HAAs) and Trihalomethanes (THMs).	A proposal was presented to the North Carolina Public Water Supply Section (NC PWSS) for approval to relocate chemical application points to reduce the potential creation of DBPs. This recommendation was approved and implemented in early 2015
2015	Sampling showed that water quality improved in early 2015 but in August a HAA violation was reported. On November 3, 2015 SGWASA contracted with McKim & Creed, an engineering firm, to review the existing conditions at the SGWASA Water Treatment Plant and offer recommendations.	

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November 2015 to August 2016 (4 quarters)		SGWASA was compliant with the Stage II DBP rule.
February 2016	McKim & Creed submitted a report outlining existing conditions and recommending an investigation of Enhanced Coagulation.	In March 2016, SGWASA contracted with McKim & Creed to assist in implementing and permitting its recommendations of enhanced coagulation. .
June 2016		McKim & Creed issued a final engineering report to the NC PWSS recommending that dosages of currently used chemicals be raised to higher levels and that the coagulant be changed from Alum to Ferric (from aluminum based to iron based) in a procedure referred to as Enhanced Coagulation.
August 5, 2016	NC PWSS approved the implementation of the Enhanced Coagulation changes. SGWASA prepared for the implementation of the Enhanced Coagulation changes and on October 18-19 attempted to make the final adjustment which was to change the coagulant from Alum to Ferric.	
Late 2016-August 9, 2017	Mechanical failures inhibit SGWASA's ability to switch from alum to ferric.	Mechanical issues are addressed and the switch from alum to ferric is completed on August 9, 2017.
November 2016	SGWASA reported a HAA violation.	SGWASA began an internal review. The internal review found that standard operating procedures were not followed and that SGWASA management was not informed.

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<p>December 2016-January 2017</p>	<p>Internal review suggests operational errors at the water plant.</p>	<p>The operational management of the SGWASA Water Treatment Plant was changed. Preparations were made to finalize the conversion from Alum to Ferric. During these preparations, several internal operations experienced mechanical failures that hindered the conversion. The Water Treatment Plant was converted to ferric on August 9, 2017.</p>
<p>Summer 2017</p>	<p>Changes implemented at the water plant as described above are determined to be insufficient to ensure compliance with water quality standards.</p>	<p>SGWASA Board approves two contracts with Hazen and Sawyer to completely evaluate the SGWASA water treatment plant and to recommend preferred methods to permanently come into compliance with DBP regulations and to enhance the efficiencies of solids removal and handling at the water treatment facility. Hazen & Sawyer started investigations on August 28, 2017</p>