



Item: Administrative Order on Consent to Address Anticipated Future Violations of the Public Water Supply Laws (PWSL) for the Great Falls Public Water Supply System

From: Public Works Department

Initiated By: Public Works Department

Presented By: Jim Rearden, Public Works Director

Action Requested: Approval of Administrative Order on Consent

Suggested Motion:

1. Commissioner moves:

"I move the City Commission authorize the Mayor to enter into an Administrative Order on Consent between the State of Montana Department of Environmental Quality (DEQ) and the City of Great Falls."

2. Mayor calls for a second, discussion, public comment, and calls for the vote.

Staff Recommendation: Authorize the Mayor to Sign the Administrative Order on Consent.

Background: In 2006 the US Environmental Protection Agency (EPA) implemented the Long Term 2 Enhanced Surface Water Treatment Rule (LT2) in an attempt to improve drinking water quality by providing additional protection from illness associated with *Cryptosporidium* and other pathogenic microorganisms. The initial phase of the LT2 rule required two years of sampling source water for *Cryptosporidium* by the City of Great Falls Water Treatment Plant (WTP). *Cryptosporidium* was measured in the source water in high enough numbers to require a higher level of treatment. The increased treatment can be provided by enhanced operation or by addition of treatment processes (as described in EPA's "Microbial Toolbox"). Between 2009 and 2012, the City WTP staff attempted to meet the operational requirements needed to provide the enhanced treatment, including a study of the operation of the existing filter system to determine its capabilities. In September of 2012, the City concluded that improved filter operation would not reliably meet the LT2 rule. Of the remaining options, Ultraviolet (UV) treatment was determined to be the most viable option to achieve the *Cryptosporidium* reduction required by the rule. At this time, the City requested a two year extension from DEQ to comply with the LT2 rule (the rule allows for a single 2-year extension to allow for construction activities). This extended the compliance date from October of 2012 to October of 2014.

In July of 2012, the City entered into a Professional Services Agreement with Black and Veatch for the design of improvements to the WTP. The initial scope of this project included replacing aging electrical switch gear and pumps. The UV Treatment system was added to the

project scope in September of 2012 to provide a means of meeting the LT2 rule. The first detailed opinion of probable costs for the WTP improvements was provided to the City in October 2013 and was \$36 million for the project scope including the UV Treatment. The City had only scheduled \$23 million for this phase of construction at the WTP and the scope of the project was reduced at that time to include only the most critical electrical equipment. Other items were also listed as additive alternatives to reduce the base cost of the project. This scope change led to a nine month delay in the project as time was required to confirm that updating half of the electrical system would allow for compatible operation with the old system as well as confirming that the new configuration would meet the requirements of our utility provider (NorthWestern Energy).

With the project delays and change to the method of LT2 rule compliance, the City reached the extension date of October 1, 2014 without completing the construction of the UV Treatment Facility required to meet the LT2 requirements. At that time, the City contacted DEQ to update them on the delays experienced. DEQ indicated to the City that no further extensions were available to allow exemption from the LT2 Rule. DEQ did propose that the City enter into an Administrative Order on Consent acknowledging that the City Water Treatment Operations will potentially violate the LT2 rule during the time period it takes to complete construction of the UV treatment. DEQ verbally communicated to the City that they had no intent to seek fines from the City as long as the City progressed toward the completion of design and construction of the UV Treatment System. As part of this agreement, the City will provide quarterly reports to DEQ on the progress of the project. Final design is currently scheduled to be completed by the first quarter of 2016 with construction commencing in the second quarter of 2016 and continuing through to the first quarter of 2018.

With respect to the water quality that Great Falls residents receive, there have been no changes to the operation or the ability of the WTP to meet all other drinking water standards. With the completion of the new UV treatment system, the Great Falls WTP will comply with the LT2 rule and have an added layer of protection for the drinking water that it produces.

Fiscal Impact: While the Administrative Order on Consent does include fines for not providing final plans for review and completing construction by certain dates, DEQ has communicated to the City that the dates for compliance included in this Administrative Order can be extended if the City provides written notice informing DEQ of the schedule delay.

Alternatives: The City Commission could vote not to enter into the Administrative Order on Consent with DEQ.

Attachments/Exhibits:

1. Administrative Order on Consent (Not available online; on file in City Clerk's Office.)
2. Table 1. WTP LT2 Rule Timetable

Table 1. WTP LT2 Rule Timetable.

January of 2006	US Environmental Protection Agency (EPA) implemented the Long Term 2 Enhanced Surface Water Treatment Rule (LT2)
2005 to 2006	City Staff conducted required sampling of source water for <i>Cryptosporidium</i> . Sampling results place the City WTP in a higher bin, requiring additional treatment focused on removal of <i>Cryptosporidium</i> .
2009 to 2012	City Staff attempt to improve the operation of existing filters to meet the requirements of the LT2 rule. A filter operation study was also completed by a private engineering firm during this time.
September 2012	Filter study concluded that the existing filter system was not capable of meeting the new rule 100 percent of the time.
September 2012	UV treatment system added to WTP Improvements project to meet the requirements of the LT2 rule.
October of 2012	Deadline to meet new LT2 Rule requirements. City granted two year extension at this time.
October of 2013	City receives first cost opinion for WTP improvement project. Probable costs exceed the budget available and scope was adjusted to meet the budget. (9 month delay)
October of 2014	End of two year extension for meeting LT2 rule requirements. City contacts DEQ to determine next action. DEQ suggests Administrative Order on Consent agreement with the City.
First Quarter of 2016	Anticipated Bidding of WTP improvements construction project.
Summer of 2018	Anticipated Completion of WTP improvements construction. Expiration of the Administrative Order on Consent between the City and DEQ