Summary of Events leading to City of North Pole's Notice of Violation and Planned Resolution

May 2, 2012: When Utility Department staff went to collect mandated semi-annual sewer outfall samples, they found the channel where the Utility discharges treated wastewater had no river flow. The only water in the channel was treated wastewater. The Utility notified ADEC of the violation of its discharge permit. (The discharge permit requires there to be a mixing zone of river flow to dilute the treated wastewater.) On May 29, staff observed that river flow had returned to the channel.

October 9, 2013: When Utility staff went to collect mandated semi-annual sewer outfall samples, they found the channel where the Utility discharges treated wastewater had no river flow. The only water in the channel was treated wastewater. The Utility notified ADEC of the violation of its discharge permit. With winter conditions of snow and ice, it was not possible to tell if flow returned to the channel during the winter. In May 2014 when Utility staff went to collect semi-annual sewer outfall sample, they found that there was water flowing in the outfall channel. Utility staff observed river flow in the outfall channel during their periodic inspections of the sewer outfall in spring, summer and fall 2014.

November 2013: The Utility began discussions with engineering consultant—USKH (now Stantec) and wastewater consultant—NTL, Inc. of possible solutions to the loss of its mixing zone when there was no river flow. The discussion lead to a list of five possible solutions:

1. Extended sewer main to a more reliable channel of the Tanana River
2. Infiltration ponds (method used a Eielson AFB)
3. Large leach field
4. Deepen channel to promote river flow
5. Treat discharge channel as an open conveyance ditch for treated wastewater

December 2, 2013: Utility and ADEC arranged a meeting of parties to discuss sewer outfall issue:

City of North Pole	State of Alaska
Utility	ADEC-Compliance
USKH (wastewater engineer	ADEC Contaminated Sites
NTL, Inc. (wastewater consultant)	ADEC Division of Water, (grants)
	DNR

January 30, 2014: The Utility and ADEC had a meeting to begin discussing a Compliance Order by Consent (COBC) as a means to guide resolution of the loss of the mixing zone when there was no river flow at the sewer outfall.

February 27, 2014: ADEC was of the opinion with two permit violations due to loss of river flow at the sewer outfall there needed to be a long-term resolution to the issue. ADEC began formal discussions with the Utility about finding a resolution to the loss of river flow at the sewer outfall. ADEC asked the Utility to identify its preferred option. The Utility proposed

having a discharge permit with two operating conditions: (1) permit requirements when there was river flow and (2) permit requirements when there was no river flow.

April 10, 2014: Utility meet with ADEC and DNR to discuss options related to the periodic loss of its required mixing zone. The Utility was still interested in a discharge permit with two options. Construction of an extended sewer was also discussed at the meeting. DNR expressed an interest in the Utility implementing institutional controls to limit the public's exposure to the treated wastewater in the channel. The Utility sought feedback from ADEC and DNR about what information they needede from the Utility to proceed further. They requested the Utility to generate a variety of options for them to consider.

August 26, 2014: ADEC arranged a meeting to discuss moving forward with resolving the sewer outfall problem by issuing a NOV. The NOV would include a requirement to conduct a facility engineering analysis and an evaluation of alternative design options.

October 30, 2014: Notice of Violation issued to Utility.

March 6, 2015: Utility submitted preliminary NOV response report. The report reviewed five options to respond to the periodic loss of river flow at the sewer outfall and recommend two preferred options:

Recommendation	Option
Yes	Construct a new discharge sewer main to the Tanana River
Yes	Construct an infiltration pond
No	Modify the Utility's wastewater treatment process
No	Reestablish channel flow (dredge)
No	Modify the Utility's discharge permit

April 7, 2015: ADEC responded to the preliminary NOV report submitted on March 6 where they approved the two recommended alternatives—extended the sewer main and infiltration pond. The NOV also required the Utility to select a single option in the final report.

December 8, 2015: The Utility submitted the final NOV report on December 8, 2015. In the NOV report, the engineer assessed the two options. The recommended option was to construct an extended discharge sewer main. The original proposal was to construct a new sewer main from the wastewater treatment plant to a larger channel of the Tanana River. The existing sewer main is still operational and crosses the flood control levee. To reduce costs, the project was divided into two phases. Phase 1 was to continue to use the existing discharge sewer main to the point several hundred feet on the south side of the flood control levee. There would be no need to obtain a new permit to cross the levee and there will be a shorter distance of pipe to install. Phase 2 would be installation of new sewer main from the wastewater treatment plan, cross the levee at a new location and connect to the Phase 1 sewer main. Phase 2 may not need to be built for 20 or 30 years.