

2. In my role as Senior Vice-President for liquids projects, I am responsible for the overall planning and construction of the Keystone XL Pipeline Project (the “Project”). My responsibilities for the Project include general oversight of all development and implementation to bring the Project into operation. This includes acquiring the necessary property rights and securing all necessary permits to construct and operate the Project. I am also responsible for the Project’s engineering, procurement, construction, testing, commissioning and start-up.

3. I am offering this Declaration to update the status of the Keystone XL Project since entry of the injunction imposed by the Court in its November 8, 2018 and December 7, 2018 orders. This Declaration also supplements my declaration of November 15, 2018, in which I identified various harms that will flow from that injunction. This declaration provides a more detailed explanation of when those harms will occur. The facts I provide are within my personal knowledge.

4. As described in detail in my prior declaration, the Keystone XL Pipeline is being developed and will be constructed and operated by several companies that are wholly owned, directly or indirectly, by TransCanada Corporation, a company organized under the laws of Canada whose stock is publicly traded on the New York and Toronto Stock Exchanges. For ease of

reference in this declaration, references to “TransCanada” includes the subsidiaries that are developing, and will construct and operate, the Keystone XL Pipeline.

5. A pipeline project the size of the Keystone XL Pipeline requires significant advance planning and pre-construction activities that must be completed before any actual pipeline construction can begin. As described in my prior declaration, TransCanada began some of these activities before this Court issued its November 8, 2018 and December 7, 2018 orders.

6. Since that time, TransCanada has continued to conduct activities permitted by the December 7, 2018 Order. These activities fall into two basic categories:

a. Permitting and internal planning activities. Since the injunction, TransCanada has continued to perform internal office work and to revise and update its engineering plans and other plans required for the prudent, safe, timely, and environmentally sound construction of the Project.

b. Contracting, hiring, surveying, regulatory, and security activities. Since the injunction, TransCanada has also continued to conduct pre-construction activities that do not involve any field work, such as pursuing remaining outstanding permits; interfacing with landowners and acquiring necessary land rights; acquiring pipe, materials and equipment, and other long lead time items; inspecting and

refurbishing work force camp modules, pipe and associated materials and equipment previously purchased; engaging with communities – including indigenous communities – as well as federal, state, and local governmental entities, agencies, and other stakeholders; hiring additional Project staff; soliciting, engaging, and working towards contracting with potential construction contractors, specialty service providers and suppliers. Additionally, TransCanada has conducted limited field activities including civil surveys; maintaining security at Project sites to ensure public safety; and maintaining environmental protections as required by permits and best practices.

7. Prior to the entry of this Court's injunction, TransCanada also had engaged in additional pre-construction activities in the field such as the preparation of off-right-of-way pipe storage and contractor yards; transportation, receipt and off-loading of pipe at off-right-of-way storage yards; preparation of sites and transportation of camp modules for off-right-of-way worker camps; and mowing areas of the right-of-way to discourage migratory bird nesting. Before the Court's November 8, 2018 Order, TransCanada completed some of these activities, specifically: all mowing for the planned 2019 construction (a total of 1,500 acres); the grading and preparation of 11 of the 14 pipe yards needed to assist planned construction activities in 2019. In addition, TransCanada had begun preparing

three out of four total work camp and contractor yards to support planned 2019 construction. The injunction, however, prohibits TransCanada from completing the worker camps and pipe yards, all of which are necessary pre-construction activities. As a result of the December 7 Order, TransCanada had to lay off approximately 650 contract workers from pre-construction activities such as pipe yard and workforce camp site preparations and transportation, receipt and off-loading of pipe and camp modules.

8. Normal pipeline construction is constrained by winter weather. In the Project location, the construction season runs from spring through fall. As my prior declaration explained, TransCanada had been planning to construct the Keystone XL Pipeline over two construction seasons in 2019 and 2020. Under that schedule, construction would begin in June 2019, and is planned to be completed and tested in late 2020. The Project is scheduled to be commissioned and placed in service in early 2021. TransCanada needs to resume pre-construction activities before February 1, 2019, in order to commence actual construction by June 1, 2019, and thus to be certain of meeting its in-service arrangements and various contractual undertakings to shippers that are tied to that in-service date. Shippers, in turn, are planning activities to support their use of the pipeline both in Canada and in the United States and require certainty into the in-service date of the Project to support those activities.

9. If pre-construction activities resume after February 1st, but before March 15, 2019, TransCanada could complete pre-construction activities in time to begin construction by August 1, 2019. In those circumstances, TransCanada might be able to meet its scheduled in-service date, but timely completion of the Project would be seriously jeopardized. To attempt to meet the in-service date, TransCanada would have to increase the construction workforce (assuming additional workforce personnel are even available) and extend the construction season into the winter months, with attendant uncertainties. This effort would come at an increased cost of more than \$155 million.

10. Moreover, if pre-construction activities are delayed until March 15 and actual construction does not start until August 1st, TransCanada will be required to “carry” over 100 “idle” employees and contractors for several months, as it would not be possible to lay off and rehire those personnel.

11. If TransCanada cannot resume pre-construction activities before March 15, 2019, and cannot begin construction on August 1, 2019, then it will be unable to perform any construction in 2019. A one-year delay in the construction schedule would impose very significant financial consequences on TransCanada.

a. TransCanada estimates that a one-year delay would result in lost earnings before interest, taxes, depreciation, and amortization (EBITDA) of approximately \$949 million between March 2021 and

March 2022, based on the minimum take-or-pay shipper commitment. Even if TransCanada earned these revenues back at the end of the current 20-year shipper contract terms, the net EBITDA loss would be approximately \$708 million, assuming an 8% discount rate. This loss results because the net-present value of lost revenue TransCanada could earn in 2021 would be worth more than revenue received in the following years.

b. A delay in the construction schedule will impact more than just financial investments. Currently, there is strong demand for pipeline construction contractors that have the experience, capability, and capacity to execute major pipeline projects, with several oil and gas pipeline projects competing for a limited pool of experienced and capable contractors and associated labor. Next year, the available capacity of these contractors is projected to be further constrained, with an increase in the number of pipeline projects forecasted to be under construction at the same time. With constrained contractor capacity and a limited pool of qualified labor to execute this work, TransCanada will, at best, face higher costs due to supply and productivity constraints or, at worst, be unable to secure qualified contractors to meet our schedule.

12. In addition, a one-year delay in construction of the pipeline would cause very substantial harm to third parties, including United States workers and TransCanada's customers that are relying on the current in-service date of the project. The total financial harm to third-party construction contractors and U.S. workers would be approximately \$2.56 billion.

a. TransCanada would not be able to employ the approximately 6,600 workers who would otherwise go to work constructing the project in 2019.

b. TransCanada would not make a capital expenditure of approximately \$2.08 billion for construction contractor awards and wages in the United States in 2019,

c. TransCanada would have to idle many of the approximately 100 individuals in its Houston, Texas office that support the construction of the Keystone XL Pipeline.

13. Additionally, the Project supports hundreds of indirect jobs at suppliers, manufacturers, and vendors. Further, in the first year of operations, TransCanada plans to spend approximately \$488 million in payments for services and wages (\$28 million), power utilities (\$272 million), and taxes to State, county and municipal governments (\$189 million) in the United States. The impact to customers could be substantially higher than this amount due to crude oil discounts

or shut-in of production. A one-year delay would mean that these operating expenditures would not occur in that year.

14. Moreover, a one-year delay in the construction schedule and in-service date would delay the ability of TransCanada's customers to make use of the services for which they have contracted. The Project would connect one of the world's largest sources of heavy crude oil production with the world's largest refining complex capable of refining heavy crude oil. TransCanada has a significant interest in being able to satisfy market demand for transportation service on the Keystone XL Pipeline. Producers and refiners, as well as the Alberta government, have been evaluating greater investments in rail cars and longer-term commitments to railways as an alternative to pipeline capacity. Further delays to the Project would result in those investments taking place which would become unnecessary once the pipeline achieves in-service.

15. The pre-construction activities that TransCanada must resume by February 1, 2019 (or, at a minimum, March 15, 2019) in order to meet the Project's in-service date involve minimal, temporary impacts to private land that TransCanada has already leased to build pipe yards, worker camps, and contractor yards. The pre-construction activities will not require construction of new private roads, will not cross or be in proximity to water bodies, and will not involve removal of any trees or any application of pesticides or herbicides. These areas

have been surveyed for protected species and cultural resources, and none were found. TransCanada already has received all state and local permits to construct these sites, and it is required by its permits to fully restore and remediate these sites when the Project is built and they are no longer needed.

16. Pre-construction field work involves minimal, temporary impacts to the land. The minimal nature of the construction can be seen from the sites that were completed prior to the issuance of this Court's injunction, such as pipe yards 14 and 15 that are shown in the photographs included below.





17. When the pipe yards and worker camps are no longer needed, TransCanada will reclaim and restore the lands to their original condition. As detailed in the photographs below for the locations used for the Keystone Pipeline construction, reclamation of the sites restores the original condition of the land. The three photographs below were taken of the same site before site-preparation, after site-preparation, and after remediation.

Yankton South Pipe Yard

Picture taken 7/1/2007



Picture taken 8/1/2009



Picture taken 3/1/2015



I declare under penalty of perjury that the foregoing is true and correct.

Executed on this 7th day of January 2019.

Dr. Norrie Ramsay
Senior Vice President,
Technical Centre and Liquid Projects
TransCanada Corporation

[NOTARY]
David Kollerberg
Notary Public
Province of Alberta