sectors, such as tourism, resorts, and recreation, are also heavily dependent on water quality; thus with consideration toward potential impacts to the economic sectors that significantly depend on water quality, the MPCA scored the proposed system alternatives as follows:

- 5 points (small potential impact to criteria) SA-04, SA-05, SA-07
- 3 points (moderate potential impact to criteria) SA-03, SA-06, SA-08
- 1 point (stronger potential to impact criteria) Sandpiper

**Minnesota Rule 7852.1900 Subp. 3.E. Pipeline cost and accessibility.**

It was not clear whether this criterion applies to the Enbridge’s cost and accessibility to route locations, or to potential cost to the State of Minnesota to access the pipeline route, especially in sensitive areas. However, as accessibility to the proposed system alternatives was a major concern of the MPCA’s June 24, 2014 letter, it is worth reviewing the result of that analysis as it does apply to accessibility of the proposed Sandpiper route and two of the system alternatives.
As described in the MPCA’s June 24, 2014 letter, the MPCA studied the Sandpiper route proposal, SA-03, and SA-04 for accessibility downstream of water crossings. The criteria set for this study involved road access to water crossing areas within 250 feet of the center of a flowage or water body for a distance of 2,000 linear feet downstream of the crossing. One of the objectives of the analysis was to identify areas with poor or no access to water bodies being crossed by each of the proposed system alternatives, with the above described criteria used to measure this objective. The analysis indicated that SA-03 had seven water crossings with poor or no access as described, SA-04 had zero such access issues, and the proposed Sandpiper route has 28 water crossings with no access within 2000 linear feet.

Based simply on this data and without further analysis, the scoring for SA-03, SA-04 and the proposed Sandpiper route is as follows:

- 5 points (small potential impact to criteria) SA-04
- 3 points (moderate potential impact to criteria) SA-03
- 1 point (stronger potential to impact criteria) Sandpiper

*Minnesota Rule 7852.1900 Subp. 3.F. Use of existing rights-of-way and right-of-way sharing or paralleling.*

All of the system alternatives follow existing pipeline corridors except for one. The proposed Sandpiper route follows MinnCan pipeline from Clearbrook south, but does not follow any existing pipeline corridor (although some of it follows power line corridor) once it turns east near Park Rapids. Note the area circled on the following map, where the Sandpiper follows either power line corridor, or no corridor:
Through much of Aitkin County, and small areas of Carlton County, the Sandpiper proposal does not appear to follow any existing corridors at all. Thus, based on these criteria, the Sandpiper route and system alternatives would score as follows:

- 5 points (small or no variance from criteria) SA-03, SA-04, SA-05, SA-06, SA-07, SA-08
- 3 points- (moderate potential impact to criteria) Sandpiper
- 1 point (significant variance from criteria) not applicable

*Minnesota Rule 7852.1900 Subp. 3.G. Natural resources and features.*

The map below was put together by combined efforts of Minnesota State and federal agencies. It identifies groundwater susceptibility to contamination based on a number of criteria. On this map, the color red identifies the highest potential for groundwater contamination, dark orange is second highest, the lighter greens are low susceptibility, and the lightest green being the least susceptible. The dark greens represent lakes.
As seen on this map, the proposed Sandpiper route crosses some of the areas of the state that are most susceptible to contamination of groundwater, especially around the Park Rapids area. SA-03 also crosses significant sensitive areas, while the system alternative that crosses the least susceptible ground water is the SA-04 proposal. Of all the proposals, the Sandpiper route appears to cover the most linear miles of susceptible groundwater, from Red Lake Falls to Clearwater, then down to Park Rapids, and east to Fifty Lakes. SA-03 appears to be a close second in terms of potential to impact susceptible groundwater areas.

The map below identifies state surface waters, including lakes and wetlands. Although all of the proposed alternatives cross some water bodies, or encroach on some, the Sandpiper again crosses or encroaches on more surface waters than does any proposed system alternative. There is also more diversity of surface water types along the proposed Sandpiper route than any system alternative.
Although the proposed Sandpiper route was comparable to SA-03 with regard to potential for groundwater contamination, the Sandpiper route appears to encroach on a much higher density of surface waters. SA-07 and SA-08 also encroach on a significant concentration of surface water, although without as much diversity (i.e. rivers, lakes, streams, wetlands, etc.) as the Sandpiper route, nor as much overall surface water area. When combining the potential for impact to surface water and ground water, the proposed system alternatives average out in this manner:

- 5 points (small potential impact to criteria) SA-04, SA-05
- 3 points (moderate potential impact to criteria) SA-03, SA-06, SA-07, SA-08
- 1 point (stronger potential to impact criteria) Sandpiper
Minnesota Rule 7852.1900 Subp. 3.H. The extent to which human or environmental effects are subject to mitigation by regulatory control and by application of the permit conditions contained in 7852.3400 for pipeline right-of-way preparation, construction, cleanup, and restoration practices.

Although MPCA staff has not identified a GIS layer to correlate with these criteria, exposed sections of Enbridge pipeline in the Tamarac River have raised serious questions regarding regulatory authority to require re-burying of exposed pipe when erosion has uncovered existing infrastructure. Exposed pipe creates a greater risk of spills or injuries to people. The significant number of water crossings along the proposed Sandpiper route would appear to increase the likelihood that similar pipe exposures with their attendant risks will occur in the future.

Minnesota Rule 7852.1900 Subp. 3.l. Cumulative potential effects of related or anticipated future pipeline construction.

A significant component of the Sandpiper proposal is the construction of a new terminal at the Clearbrook location. MPCA has expressed concern that with each terminal constructed at Clearbrook, the likelihood of additional or future pipeline infrastructure that will be built will come through Clearbrook. This, in turn, increases the potential for new pipeline to impact the large concentration of sensitive surface and groundwater that lies immediately to the east of Clearbrook, as demonstrated in the map below. The blue color on the map typically identifies open water, with green and purple, etc. indicating various other types of wetlands. The brownish/pink octagons represent cities.

Due to the fact that pipelines are often placed in the same corridors, it is MPCA’s concern that by continuing to allow pipelines through Clearbrook, the state will enable expansion of future pipeline infrastructure expansion in areas of the state that will have an increasingly concentrated impact on the state’s most valuable surface and groundwater resources. This increases the potential for natural resource impacts and degradation due to spills or releases.

The MPCA believes that cumulative potential effects associated with high-risk crude oil routes can be reduced or avoided if future terminal facilities were constructed at a location west of Clearbrook. Such facilities could be constructed along the old line 3 corridor, or near Crookston as shown on the following map. The possible benefits to reducing potential impact to our state’s valuable resources are depicted below:
By relocating new terminal facilities west of Clearbrook, a corridor can be created in which potential resource impacts can be minimized, and a number of possibly less environmentally hazardous routes opened up. The Sandpiper route as currently proposed, as well as future pipelines that may use this same corridor, increase cumulative risk with consideration of most of the criteria from 7852.1900 as described above.

*Minnesota Rule 7852.1900 Subp. 3 J. The relevant applicable policies, rules, and regulations of other state and federal agencies, and local government land use laws including ordinances adopted under Minnesota Statutes, section 299F.05, relating to the location, design, construction, or operation of the proposed pipeline and associated facilities.*

Minnesota Statute 116.04D, Subd. 6 states: “No state action significantly affecting the quality of the environment shall be allowed, nor shall any permit for natural resources management and development be granted, where such action or permit has caused or is likely to cause pollution, impairment, or destruction of the air, water, land or other natural resources located within the state, so long as there is a feasible and prudent alternative consistent with the reasonable requirements of the public health, safety, and welfare and the state's paramount concern for the protection of its air, water, land and other natural resources from pollution, impairment, or destruction. Economic considerations alone shall not justify such conduct.”

In summary, all the currently proposed system alternatives evaluated by the MPCA here are worthy of further consideration, especially when compared with the Sandpiper proposal. The MPCA recommends that at a minimum, the Commission approve SA-03, SA-04, and SA-05 for further consideration in these proceedings. Further, the MPCA urges the Commission to gather additional environmental effects information on the system alternatives through preparation of an ER-like document and is willing to assist EERA by providing additional data, comments, and review for the document that both agencies recommend here.
The MPCA thanks the Commission for the opportunity to comment upon these issues. The agency continues to emphasize that the environmental effects of system alternatives need to be considered in the Certificate of Need process. System alternatives that will transport oil to an alternative terminal with significantly less environmental harm should be evaluated in these proceedings.

Sincerely,

[Signature]

Bill Sierks,
Manager, Environment and Energy Section
Minnesota Pollution Control Agency

BS:bt
cc: Deborah Pile, Department of Commerce
Larry Hartman, Department of Commerce
Sara Ploetz, Enbridge