

1. The evaluation shall be based on testing of the undiluted effluent of treatment plants and shall be compared with chemical elements being discharged as industrial wastes into the wastewater collection system; sampling of effluents shall be timed to include at least one seasonal period of high winter discharge volumes;
2. The evaluation shall address and report on the presence, origin, volume, toxicity, environmental fate, and impacts to the marine environment from toxics, including metals, volatile organic compounds, chemicals of emerging concern and other toxics in the undiluted effluent of treatment plants;
3. While the evaluation shall be as broad as possible within costs, to the extent necessary to narrow the scope of the evaluation, in light of the extensive range of potentially toxic elements, the focus shall be on:
 - a. those elements considered most toxic to the marine environment generally; and
 - b. those elements considered potentially toxic to Southern Resident Orcas and the hierarchy of marine species upon which the Southern Resident Orcas depend;
4. The evaluation shall assess whole effluent toxicity of the discharges, to assess the impact of the complex mix of toxic elements on marine species. The assessment shall be designed to indicate whether undiluted wastewater effluent represents a potential source of deleterious toxic influence to Puget Sound marine organisms, and to Southern Resident Orcas and the hierarchy of the particular marine species upon which they depend;
5. The evaluation shall include an assessment of the accumulation of those toxic elements in marine organisms, either directly or through bioaccumulation, and shall discuss potential impacts on metabolic processes, behavior and mortality. The assessment may be accomplished either through analysis of the tissue of selected species or through bioaccumulation modeling;
6. The evaluation shall describe potential wastewater treatment technologies that have the capacity, in part or in whole, to limit or control the discharge of toxics in wastewater effluents to a significantly greater extent than is currently being accomplished at King County treatment plants; and
7. The evaluation shall be contracted to an entity with the capacity to address the required elements of

the evaluation. Preference shall be given to entities with a demonstrated history of evaluating and reporting on the impacts of wastewater effluents on the marine environment, including impacts on Southern Resident Orcas or their prey species, and that have the capacity for modeling the bioaccumulation of toxics, and

WHEREAS, the executive is further required to submit a motion that acknowledges receipt by December 1, 2022;

NOW, THEREFORE, BE IT MOVED by the Council of King County:

The receipt of the report on toxics in King County wastewater effluent, evaluating the presence of toxics in the effluent of treatment plants, which is Attachment A to this motion, is hereby acknowledged.