H-0287.1

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**HOUSE BILL 1381**

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**State of Washington 68th Legislature 2023 Regular Session**

**By** Representatives Dye, Lekanoff, and Pollet

AN ACT Relating to salmon-safe communities; adding a new section to chapter 90.48 RCW; and creating a new section.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF WASHINGTON:

NEW SECTION. **Sec.**  (1) The legislature acknowledges the scientific consensus that there is a well-documented problem of urban heat islands. The buildings, roads, and infrastructure that make up urban environments make cities hotter than surrounding rural areas. The impervious surfaces used for roofs, streets, sidewalks, and parking lots can get much hotter than vegetated areas, causing surface temperatures in cities to be several degrees hotter in the midday than in rural areas. At night, these same materials release heat more slowly, keeping urban air temperatures higher than overnight temperatures in most rural areas.

(2) Cities tend to have fewer trees and less vegetation resulting in a deficit of shade to keep areas cool. Cities also have more industrial heat sources, including cars and air conditioners. Cities tend to have many more extremely hot days each year, on average, than nearby rural areas. According to one recent study, over the past 10 years, cities had an average of at least eight more days over 90 degrees Fahrenheit each summer, compared to nearby rural areas. The difference between urban and surrounding rural temperatures is also widening; temperatures have been rising in urban areas faster than in the surrounding rural areas since 1970.

(3) The legislature finds that the phenomenon of urban heat island impact is detrimental to several significant and long-standing state policy goals, including the promotion of human health, energy conservation, and the preservation of water quality that sustains salmon. It is well understood that higher urban summer temperatures pose serious human health risks, and these health risks are inequitably distributed. Hotter urban summers can lead to increased energy demands to cool buildings, which runs counter to long-standing state policy of promoting energy conservation. Studies have also documented the impact of urban heat island on the temperature of streams. Streams draining through urban heat islands tend to be hotter than rural and forested streams because of warmer urban air and ground temperatures, paved surfaces, and decreased riparian canopy. Urban infrastructure routes runoff over hot impervious surfaces and through storm drains directly into streams and can lead to rapid, dramatic increases in temperature, which can be lethal to aquatic life.

(4) The legislature recognizes that this problem poses a threat that impacts the environment of our state. The Pacific Northwest, with its reputation for rain, is not immune to the urban heat island effect. Seattle is among the top 10 cities for most intense urban heat island effect, with greater than four degrees Fahrenheit difference between the city and nearby rural areas. Portland, Oregon was among the top 10 cities with the most intense summer nighttime urban heat island over the past 10 years.

(5) Therefore, the legislature intends with this act to utilize the existing framework of general municipal stormwater permits to encourage a comprehensive strategy to measure and reduce the impact of urban heat island effect on salmon, with cobenefits of energy conservation and improved equity in human health.

NEW SECTION. **Sec.**  A new section is added to chapter 90.48 RCW to read as follows:

(1) The national pollutant discharge elimination system municipal stormwater general permit issued by the department to a permittee described in subsection (4) of this section must require the permittee subject to that permit to monitor and report annually on the impact of the urban heat island effect on the temperature of salmon-bearing streams, rivers, and waterbodies in the permit jurisdiction including, at a minimum, the following information as part of the permittee's ongoing reporting obligation under the permit:

(a) Using data obtained from the department of fish and wildlife, the amount of the land base within the permittee's jurisdiction, on both a percentage basis and an overall acreage basis, that is an impervious surface, and how that percentage and overall acreage has changed since the issuance of the previous permit;

(b) Using data obtained from the department of fish and wildlife, the amount of the land base within the permittee's jurisdiction, on both a percentage basis and an overall acreage basis, that is covered by tree or other vegetation canopy, and how that percentage and overall acreage has changed since the issuance of the previous permit;

(c) Using the formula developed by the department, which must be designed to cost-effectively capture a representative range of stream temperatures, the monthly median temperature of all waterbodies within the permittee's jurisdiction that have been designated as critical habitat under the federal endangered species act for salmon, steelhead, or bull trout, and how those monthly median temperatures have changed since the issuance of the previous permit;

(d) A narrative description of factors in addition to urban heat islands that may have had a measurable impact on the temperature of all waterbodies within the permittee's jurisdiction that have been designated as critical habitat under the federal endangered species act for salmon, steelhead, or bull trout in the report year; and

(e) A description of the permittee's approach to reducing the impact of the urban heat island effect on waterbodies within the permittee's jurisdiction.

(2) Within three months subsequent to an annual report submitted in compliance with this section, the department shall issue the following awards in recognition of the permittee or permittees whose work over the course of the year to address the urban heat island effect best demonstrates innovation and achievement in each of the individual award areas:

(a) An award for innovative urban forest conservation and sustainability programs designed to reduce power loads during peak heat and cold weather events, and documenting greenhouse gas emissions reductions, reduced stormwater runoff, and water quality improvements as a result of new urban forestry design and implemented practices;

(b) An award for the most effective vertical garden installation, or programs that produce significant adoption of vertical gardens, with focus on stormwater capture and use and the reduction of greenhouse gas emissions due to reduced power demand;

(c) An award to recognize the implementation of innovative green roof programs that increase the adoption of green roof technology emphasizing stormwater runoff reductions, stormwater reuse, and local and sustainable fresh produce and fruit production in the most impacted areas of urban heat islands;

(d) An award for the newest and most innovative development of reflective roof technology based on effectiveness of reducing stormwater runoff temperature and reductions in greenhouse gas emissions based on reduced energy usage;

(e) An award for the most innovative use of permeable pavement technology and adoption of permeable surfaces in locations most impactful to water quality improvements needed to improve salmon habitat; and

(f) An award for restoring streams from pipes and buried locations under the urban core to natural channels, restoring natural environments within urban canyons, and providing natural cooling and filtration of water within those streams.

(3) Beginning in 2027 and continuing every year thereafter, the department, in consultation with the department of fish and wildlife, may award one or more permittees with the designation of "salmon-safe community" for that year, based on the permittee's achievements within the following performance metrics:

(a) The permittee's reporting and monitoring comply with the letter and spirit of this section;

(b) The permittee has made objectively quantifiable progress with regard to implementing the urban heat island mitigation strategies identified in subsection (2) of this section; and

(c) The permittee has achieved measurable gains toward salmon recovery in the waterbodies within its jurisdiction.

(4) The requirements of this section apply to local governments operating under the national pollutant discharge elimination system phase I municipal stormwater permit administered by the department.

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