



Legislation Text

File #: 2007-0317, **Version:** 2

Clerk 7/13/2007

AN ORDINANCE approving the Seattle Public Utilities 2007 Water System Plan

Update as a comprehensive water system plan, with findings.

STATEMENT OF FACTS:

1. King County has adopted K.C.C. chapter 13.24 which requires approval of comprehensive plans for water and sewer utilities that distribute or obtain water, or provide sewer collection or treatment, in unincorporated King County as a prerequisite for operating in unincorporated King County, receiving approval for annexation proposals, being granted right-of-way franchises, and being given approval for right-of-way construction permits. K.C.C. 13.24.060 prescribes the requirements for approval of such plans, including consistency with state and local planning requirements.
2. RCW 43.20.260 requires that water system plans for any new industrial, commercial, or residential use are to be consistent with the requirements of any comprehensive plans or development regulations adopted under chapter 36.70A RCW or any other applicable comprehensive plan, land use plan, or development regulation adopted by a city, town or county for the service area. King County has adopted a Comprehensive Plan that includes Water Supply policies in its provisions for Facilities and Services (Policies F-225 through F-244) that, inter alia, call for consistency with other adopted plans, support for regional water supply planning, pursuit of reclaimed water and water conservation, and protection of water resources.
3. King County last approved Seattle's Water System Plan in November, 2001. Both state

Department of Health ("DOH") and King County regulations require water system plans to be updated every six years.

4. Seattle Public Utilities ("SPU") operates the largest water supply system in the state. It provides service to over six hundred twenty-eight thousand people in its retail service area within the Seattle city limits, and also provides water to twenty-one wholesale water utilities who depend, in whole or in part, on SPU supplies to serve another eight hundred fifty thousand customers in King and south Snohomish counties. The system's principal sources of supply are the Cedar river and Chester Morse lake, and the South Tolt river with the South Fork Tolt Dam and Reservoir, both of which are in unincorporated King County. The Cedar river facilities provide approximately seventy percent of the system's supplies and the Tolt river facilities provide approximately thirty percent of the system's supply. In addition, the city maintains the Seattle wellfields in the Highline area, which provides supplemental ground water during peak demands and in emergencies. The annual average day demand, which is water consumed, by system customers is approximately one hundred thirty-five million gallons per day ("mgd"); the peak day consumption, generally during the hottest summer/fall periods, is approximately two hundred fifty million gallons per day.

5. The physical system of SPU includes approximately one thousand eight hundred miles of transmission and distribution lines. In addition to the water storage reservoirs on the Cedar and Tolt rivers, SPU maintains a number of other storage reservoirs both inside and outside of Seattle, and associated facilities for treating, pumping, and delivering water. The recent completion of ozonation/ultraviolet light treatment for the Cedar supply, and ozonation/filtration for the Tolt supply, have both improved the water quality of those sources, and enabled the system to operate much more flexibly under a broader range of conditions.

6. The multiple objectives for operation of the system's facilities encompass not only the

delivery of water supplies to approximately two-thirds of the population of King County, but also storage and management of water on two major rivers for flood control purposes, management of flows on those same rivers for protection and enhancement of fish and wildlife habitat, management of the Cedar river watershed to benefit wildlife and protect water quality, and generation of electricity at hydropower facilities incorporated into its dams on both the Cedar and Tolt rivers. Among the investments in the system since 2001 are completion of a new fish ladder and fish passage facilities at Landsburg Dam, which have opened up seventeen miles of mainstream Cedar river habitat for Chinook and Coho salmon that had been blocked since the dam's construction in 1901.

7. Since the 1990s, SPU and its wholesale customers have invested major resources into developing and implementing a water conservation program that has become a national model. In part because of this conservation program, Seattle now serves roughly three hundred fifty thousand more people than it did in 1975, with the system's customers consuming approximately twenty million gallons per day less water than the system provided in 1975. While there are other factors that have been driving down system demand, it is clear that the SPU conservation program has made a major difference.

8. SPU operates both the Tolt and the Cedar river facilities within the parameters of existing federal orders and agreements issued by the Federal Energy Regulatory Commission ("FERC") and the National Marine Fisheries Service ("NMFS"). Seattle has a FERC license for operating its hydropower generating facility on the Tolt river, which includes a minimum flow regime and an oversight committee that includes the Tulalip Tribe. The license expires in 2029. For the Cedar facilities, NMFS has agreed to a Habitat Conservation Plan ("HCP") under the Endangered Species Act ("ESA"), which protects Seattle from any liability under the ESA for impacts to listed fish species, and which includes a flow regime for the Cedar river below

Landsburg Dam, as well as investments in facilities and resource management. The HCP agreement includes the formation and operation of an instream flow committee that monitors SPU's performance under the agreement, and provides real-time advice on flow management decisions. Seattle recently reached agreement with the Muckleshoot Indian Tribe ("MIT") to maintain the HCP's Cedar river flow regime into perpetuity, among other provisions, in exchange for settling some long-term claims of damage that MIT had asserted against Seattle for development and operation of the Cedar river system. The hydroelectric facilities that Seattle operates at Cedar Falls do not have a FERC license, and are not subject to any license conditions similar to those for the Tolt river.

9. DOH rules require a water system plan to include six-year and twenty-year planning horizons. The SPU Plan ("the plan") covers the period through 2030. The planning data have been reviewed by Growth Management Planning Council staff, and the utilities technical review committee ("UTRC"), and are consistent with population and employment forecasts developed by the Puget Sound Regional Council for Seattle. The planning data, reflecting forecasts for population and employment growth, provide the basis for the demand forecast in the plan. SPU does not rely on data provided by its wholesale customers with regard to demand forecasts for their service areas, which is described in each of those utilities' individual water system plans. King County reviews some, but not all, of those plans, and the planning data in those plans, which are developed and reviewed under different six-year schedules than the one for the SPU plan, may not completely track with the forecasts and land use projections in SPU's plan. According to SPU, they review individual water system plans of their wholesale customers to ensure that the plans' long-term planning assumptions and other provisions, such as conservation, are consistent with those in SPU's plan.

10. SPU predicts that its demand will be approximately one hundred thirty mgd in the year

2030. That figure includes two major assumptions: Cascade Water Alliance ("Cascade"), a current wholesale customer, will continue to reduce its consumption, under its existing contract with SPU, by five mgd every five years, starting in the year 2024; and SPU and its wholesale customers will achieve a fifteen-mgd reduction through a planned conservation program that would start in 2011 and run through 2030 (see below). Without these two assumptions in the forecast, SPU forecasts that the demand on the SPU system in 2030 would be approximately one hundred fifty mgd, and one hundred sixty mgd in 2060. Beyond 2030, SPU notes that there are major uncertainties that would affect demand. Neither the 2030 forecast nor the 2060 forecasts potential impacts on demand due to climate change. These could include either higher demands on the system due to higher summer/fall temperatures, or reduced demands if there is increased precipitation in the summer/fall. They could also include multiyear droughts, which could place stress on all regional water supply systems, including that of SPU, that rely on annual recharge for their water supply reservoirs.

11. The SPU Plan continues to assume that the system has a "firm yield" from its supplies of one hundred seventy-one million gallons per day, with ninety-eight percent reliability. This is based on the historic precipitation and snowpack record for the Tolt and Cedar river basins. Based on this assumption, and on the presumed demand forecast, the plan predicts that SPU will have enough supply for Seattle and its remaining wholesale customers, excluding the members of Cascade, at least until 2060. However, SPU is currently engaged in a robust review of both its firm yield, and its system operation, in light of potential implications of climate change. King County anticipates that with the next Water System Plan Update, SPU will describe the outcome of its evaluation of the impacts of climate change on both supply and demand, and its system management and operational options to address those impacts.

12. Seattle has a history of significant investment in conservation. Since 1990, SPU estimates

that its cumulative water savings through its conservation programs, system operations, and effects of pricing and plumbing code changes have reduced water demand by approximately twenty-two mgd. It currently operates a "1% per year" program, along with its wholesale customers, that is designed to achieve a one percent reduction in consumption each year. It includes both basic measures, such as retrofitting buildings with more water-efficient fixtures, and more-sophisticated analyses and approaches to water consumption. King County's public housing facilities have benefited from some of the retrofit work. The current program ends in 2010. Seattle has an ordinance that requires a "conservation potential assessment" be done by SPU every three years in order to identify conservation measures, and their costs, around which to develop future plans. In 2006, SPU and its operating board, a subset of its wholesale customers, agreed in concept to a target of fifteen mgd in water conservation between 2011 and 2030. The specific measures that will make up the fifteen mgd have not yet been agreed to. The SPU Plan recognizes that the new, proposed conservation measures will not be cost-effective, in that it is predicting that existing supplies are sufficient well into the future. However, SPU and the operating board have concluded that from a public policy perspective, they remain committed to a conservation ethic that warrants the continued investment.

13. SPU does not currently use reclaimed water to meet any of its demands within the city of Seattle. It has identified over forty potential reclaimed water projects within the city, all of which it has decided not to pursue in the foreseeable future because they have deemed such projects not cost effective. Because state law and existing wastewater contracts with King County require the city to deliver all its wastewater to the regional wastewater system operated by King County, the development of any reclaimed water projects within the city would require agreement by the county. In 2002, the Seattle City Council adopted a resolution (Resolution Number 30454) that set up a number of requirements for the use of reclaimed water within

Seattle. The resolution requires an extensive evaluation of any projects proposing use of reclaimed water for irrigation of parks or golf courses that contain salmon-bearing streams.

14. Seattle has participated in salmon recovery planning in all watersheds in King County. The city council has adopted a resolution committing the city to implementing the relevant provisions of the respective watershed plans. Seattle has committed to maintaining certain flows on the Cedar and Tolt rivers as part of its fifty-year HCP and FERC license conditions on those two rivers, respectively, and has invested in facilities and habitat improvement and restoration. In 2006, Seattle finalized an agreement with the MIT that will maintain the HCP instream flows on the Cedar in perpetuity. Seattle is also conducting additional studies on both rivers that either directly or indirectly should lead to better management of these resources for fish habitat and recovery purposes.

15. In 2005, King County initiated a regional water supply planning process with Cascade, consistent with the King County Comprehensive Plan. SPU has participated in that planning process since its inception, currently serving on both the executive committee and the coordinating committee. SPU has also provided staff resources and financial assistance to the work of the technical committees, and has supported the work of the two technical committees, on regional demand and supply options, that are managed by the Central Puget Sound Water Suppliers Forum.

16. The plan describes a current capital budget for 2007-2012 of approximately four hundred sixty-nine million dollars. Major projects include continued investments in water conservation; remedial work on the moraine at Chester Morse lake; flood passage improvements at Landsburg Dam; evaluation of dead storage options at Chester Morse; continuation of reservoir covering and replacement and recoating of some storage tanks; and replacement of many aging and leaking portions of the transmission and distribution system. Replacing leaking service

connections alone is budgeted at five million five hundred thousand dollars per year. In general, the proportionate share of capital investments in Seattle's retail facilities will increase, while the share of investments in its regional system will decline. Long-term capital facilities are budgeted at one billion one hundred million dollars through the year 2030.

17. The operating and maintenance ("O&M") budget of SPU through 2030 is expected to grow slightly faster than the rate of inflation. The plan projects that the O&M budget will grow from approximately sixty million dollars in 2006 to sixty-five million two hundred thousand dollars in 2030 (in 2006 dollars). This is a four-and-three-tenths-percent increase in real dollars over the twenty-four-year period. King County is the fifth-largest retail customer of the SPU system, with combined billings in 2005 of over six hundred thousand dollars. The financial strategy described in the 2007 Plan will be driving rate increases to King County as a result of the shift to revenue-financed capital projects, rather than debt, and a shift from investments in regional facilities to investments in retail facilities within the city.

18. K.C.C. chapter 13.24 requires review of water system plans by the UTRC, and a recommendation to the executive and council that the plan be approved as having met the requirements under K.C.C. chapter 13.24. The 2007 SPU Plan substantially meets the requirements of the King County Code, subject to the below finding. A detailed evaluation documenting these findings has been provided by the executive in the executive's transmittal of the proposed ordinance approving the plan.

19. SPU has requested that, through approval of the plan, as authorized in Section 5 of the Municipal Water Law ("MWL") of 2003, the current place of use of its Cedar river water right claim be expanded to include a wholesale "service area" described in the plan that would add some Snoqualmie Valley area water utilities to the areas already authorized to be provided water under the SPU Cedar river water right. Those utilities are not currently served by SPU. It does

not appear that there is any state definition of a wholesale "service area," including the MWL itself, that would authorize such an expansion of the Cedar river water right to cover an area where SPU does not currently provide service. Those Snoqualmie Valley water utilities are already within the authorized place of use under the SPU South Fork Tolt river water right, and could be provided water from that SPU supply. Most of those utilities have their own sources of supply and are not SPU customers. SPU's plan indicates an intent to possibly add the Ames lake system as a wholesale customer, with the supply most likely to be delivered from the SPU South Fork Tolt source.

The plan also indicates an interest by SPU in supplying water for the North Bend and Sallal water utilities, in addition to Ames lake. The potential demand from all three of these utilities has been included by SPU in its 2007 plan. These three utilities could potentially be served from SPU's Hobo springs source within the Cedar river water right, or from the South Fork Tolt supply. North Bend and Sallal are already within the authorized place of use for the Cedar river water right, and Sallal has in the past been an SPU customer. The water supplied by SPU could be used either as drinking water supply, or by North Bend as mitigation water for development by North Bend of its own water supply. Sallal has been involved in these discussions but is not seeking mitigation water from SPU at this time. SPU has indicated that its current intent is to provide either Cedar river or South Fork Tolt water for mitigation purposes to North Bend. On April 4, 2007, the Washington state Department of Ecology ("DOE") issued an order that specifically adds the Hobo springs source as a point of diversion under SPU's Cedar river water right claim.

Under Section 5 of the Municipal Water Law of 2003, modification of the place of use in the Cedar river water right claim requires a determination by the affected local governments that the expanded place of use is not inconsistent with any applicable comprehensive plans or

development regulations adopted under chapter 36.70A RCW (the Growth Management Act), or other applicable land use plans or development regulations. The King County Code, in K.C.C. chapter 13.28, incorporates the four Coordinated Water System Plans (CWSPs) adopted for King County into the county's water service requirements, particularly with regard to service areas and shared facilities. The King County Comprehensive Plan (Policy F-236) requires that the transfer of water via interties between systems be consistent with approved Coordinated Water System Plans. State law also requires that any proposed interconnections between water systems be included within proposed amendments to CWSPs, and forwarded to DOH and DOE for approval.

With the exception of a small area in the vicinity of Skyway, the city of Seattle does not lie within the geographic area covered by any of the four CWSPs within King County, but the North Bend, Ames lake and Sallal water systems, and the proposed Cedar river "service area," are within the area covered by the East King County CWSP. The CWSP was initially approved by the area's utilities, King County, and DOH, and adopted in 1990. It was updated in 1998. The use of Cedar river water within SPU's proposed expansion of its place of use to the Snoqualmie Valley is not included as a strategy within the East King County CWSP's regional water plan. The SPU "service area" within which the Cedar River water right would be used is not identified as a "future service area" or other service area in the East King County CWSP. The Hobo springs project is not identified in the East King County CWSP as a future source of drinking water supply for North Bend and Sallal. Accordingly, both the proposed expanded place of use of the SPU Cedar river water right to the Snoqualmie Valley area, and the possible use of the Hobo springs source as a drinking water supply for North Bend and Sallal, are inconsistent with the current East King County CWSP and the King County Comprehensive Plan. An update to the CWSP would be required to remedy the inconsistency. King County

would be willing to convene a process to consider such amendments. However, since the East King CWSP is not intended to address the use of water for mitigation purposes, the use of either the Hobo springs or the South Fork Tolt source simply to mitigate for other sources of drinking water supply, which is the current intent, would not require updating of the East King CWSP, and could move forward.

20. The DOH has not yet approved the SPU Plan. DOH sent a comment letter to SPU on February 9, 2007. The February 9 letter identified receipt of King County's approval of the plan as a requirement for DOH approval. DOH staff has indicated that they will approve the SPU Plan on receipt of the King County approval ordinance, and may approve the plan before the final King County approval, conditioned on the receipt of the King County approval and compliance with any conditions attached to the approval.

21. A determination of nonsignificance for the plan was issued by the city of Seattle on August 3, 2006, in accordance with the state Environmental Policy Act.

BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

SECTION 1. The City of Seattle 2007 Water System Plan Update, Attachment A to this ordinance, is hereby approved as a comprehensive water system plan, subject to the following finding:

The proposal to expand the place of use of the Cedar river water right claim, and any proposal to use SPU's Hobo springs source to provide drinking water to the North Bend or Sallal water systems, are inconsistent with the current East King County Coordinated Water System Plan, and therefore with the King County Comprehensive Plan. Both proposals, before use, require amendment of the East King County Coordinated Water System Plan. However, the use of the Hobo springs source as

mitigation for other sources of water would not be inconsistent with the East King County Coordinated Water Supply Plan, and would not require an amendment.

