



KING COUNTY

1200 King County Courthouse
516 Third Avenue
Seattle, WA 98104

Signature Report

April 28, 2008

Ordinance 16080

Proposed No. 2007-0317.2

Sponsors Phillips

1 AN ORDINANCE approving the Seattle Public Utilities
2 2007 Water System Plan Update as a comprehensive water
3 system plan, with findings.
4

5 **STATEMENT OF FACTS:**

- 6 1. King County has adopted K.C.C. chapter 13.24 which requires
7 approval of comprehensive plans for water and sewer utilities that
8 distribute or obtain water, or provide sewer collection or treatment, in
9 unincorporated King County as a prerequisite for operating in
10 unincorporated King County, receiving approval for annexation proposals,
11 being granted right-of-way franchises, and being given approval for right-
12 of-way construction permits. K.C.C. 13.24.060 prescribes the
13 requirements for approval of such plans, including consistency with state
14 and local planning requirements.
- 15 2. RCW 43.20.260 requires that water system plans for any new
16 industrial, commercial, or residential use are to be consistent with the
17 requirements of any comprehensive plans or development regulations

18 adopted under chapter 36.70A RCW or any other applicable
19 comprehensive plan, land use plan, or development regulation adopted by
20 a city, town or county for the service area. King County has adopted a
21 Comprehensive Plan that includes Water Supply policies in its provisions
22 for Facilities and Services (Policies F-225 through F-244) that, inter alia,
23 call for consistency with other adopted plans, support for regional water
24 supply planning, pursuit of reclaimed water and water conservation, and
25 protection of water resources.

26 3. King County last approved Seattle's Water System Plan in November,
27 2001. Both state Department of Health ("DOH") and King County
28 regulations require water system plans to be updated every six years.

29 4. Seattle Public Utilities ("SPU") operates the largest water supply
30 system in the state. It provides service to over six hundred twenty-eight
31 thousand people in its retail service area within the Seattle city limits, and
32 also provides water to twenty-one wholesale water utilities who depend, in
33 whole or in part, on SPU supplies to serve another eight hundred fifty
34 thousand customers in King and south Snohomish counties. The system's
35 principal sources of supply are the Cedar river and Chester Morse lake,
36 and the South Tolt river with the South Fork Tolt Dam and Reservoir, both
37 of which are in unincorporated King County. The Cedar river facilities
38 provide approximately seventy percent of the system's supplies and the
39 Tolt river facilities provide approximately thirty percent of the system's
40 supply. In addition, the city maintains the Seattle wellfields in the

41 Highline area, which provides supplemental ground water during peak
42 demands and in emergencies. The annual average day demand, which is
43 water consumed, by system customers is approximately one hundred
44 thirty-five million gallons per day ("mgd"); the peak day consumption,
45 generally during the hottest summer/fall periods, is approximately two
46 hundred fifty million gallons per day.

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

56 6. The multiple objectives for operation of the system's facilities
57 encompass not only the delivery of water supplies to approximately two-
58 thirds of the population of King County, but also storage and management
59 of water on two major rivers for flood control purposes, management of
60 flows on those same rivers for protection and enhancement of fish and
61 wildlife habitat, management of the Cedar river watershed to benefit
62 wildlife and protect water quality, and generation of electricity at
63 hydropower facilities incorporated into its dams on both the Cedar and

64 Tolt rivers. Among the investments in the system since 2001 are
65 completion of a new fish ladder and fish passage facilities at Landsburg
66 Dam, which have opened up seventeen miles of mainstream Cedar river
67 habitat for Chinook and Coho salmon that had been blocked since the
68 dam's construction in 1901.

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

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

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

100 9. DOH rules require a water system plan to include six-year and twenty-
101 year planning horizons. The SPU Plan ("the plan") covers the period
102 through 2030. The planning data have been reviewed by Growth
103 Management Planning Council staff, and the utilities technical review
104 committee ("UTRC"), and are consistent with population and employment
105 forecasts developed by the Puget Sound Regional Council for Seattle. The
106 planning data, reflecting forecasts for population and employment growth,
107 provide the basis for the demand forecast in the plan. SPU does not rely
108 on data provided by its wholesale customers with regard to demand
109 forecasts for their service areas, which is described in each of those

110 utilities' individual water system plans. King County reviews some, but
111 not all, of those plans, and the planning data in those plans, which are
112 developed and reviewed under different six-year schedules than the one
113 for the SPU plan, may not completely track with the forecasts and land use
114 projections in SPU's plan. According to SPU, they review individual
115 water system plans of their wholesale customers to ensure that the plans'
116 long-term planning assumptions and other provisions, such as
117 conservation, are consistent with those in SPU's plan.

118 10. SPU predicts that its demand will be approximately one hundred
119 thirty mgd in the year 2030. That figure includes two major assumptions:
120 Cascade Water Alliance ("Cascade"), a current wholesale customer, will
121 continue to reduce its consumption, under its existing contract with SPU,
122 by five mgd every five years, starting in the year 2024; and SPU and its
123 wholesale customers will achieve a fifteen-mgd reduction through a
124 planned conservation program that would start in 2011 and run through
125 2030 (see below). Without these two assumptions in the forecast, SPU
126 forecasts that the demand on the SPU system in 2030 would be
127 approximately one hundred fifty mgd, and one hundred sixty mgd in 2060.
128 Beyond 2030, SPU notes that there are major uncertainties that would
129 affect demand. Neither the 2030 forecast nor the 2060 forecasts potential
130 impacts on demand due to climate change. These could include either
131 higher demands on the system due to higher summer/fall temperatures, or
132 reduced demands if there is increased precipitation in the summer/fall.

133 They could also include multiyear droughts, which could place stress on
134 all regional water supply systems, including that of SPU, that rely on
135 annual recharge for their water supply reservoirs.

136 11. The SPU Plan continues to assume that the system has a "firm yield"
137 from its supplies of one hundred seventy-one million gallons per day, with
138 ninety-eight percent reliability. This is based on the historic precipitation
139 and snowpack record for the Tolt and Cedar river basins. Based on this
140 assumption, and on the presumed demand forecast, the plan predicts that
141 SPU will have enough supply for Seattle and its remaining wholesale
142 customers, excluding the members of Cascade, at least until 2060.

143 However, SPU is currently engaged in a robust review of both its firm
144 yield, and its system operation, in light of potential implications of climate
145 change. King County anticipates that with the next Water System Plan
146 Update, SPU will describe the outcome of its evaluation of the impacts of
147 climate change on both supply and demand, and its system management
148 and operational options to address those impacts.

149 12. Seattle has a history of significant investment in conservation. Since
150 1990, SPU estimates that its cumulative water savings through its
151 conservation programs, system operations, and effects of pricing and
152 plumbing code changes have reduced water demand by approximately
153 twenty-two mgd. It currently operates a "1% per year" program, along
154 with its wholesale customers, that is designed to achieve a one percent
155 reduction in consumption each year. It includes both basic measures, such

156 as retrofitting buildings with more water-efficient fixtures, and more-
157 sophisticated analyses and approaches to water consumption. King
158 County's public housing facilities have benefited from some of the retrofit
159 work. The current program ends in 2010. Seattle has an ordinance that
160 requires a "conservation potential assessment" be done by SPU every three
161 years in order to identify conservation measures, and their costs, around
162 which to develop future plans. In 2006, SPU and its operating board, a
163 subset of its wholesale customers, agreed in concept to a target of fifteen
164 mgd in water conservation between 2011 and 2030. The specific
165 measures that will make up the fifteen mgd have not yet been agreed to.
166 The SPU Plan recognizes that the new, proposed conservation measures
167 will not be cost-effective, in that it is predicting that existing supplies are
168 sufficient well into the future. However, SPU and the operating board
169 have concluded that from a public policy perspective, they remain
170 committed to a conservation ethic that warrants the continued investment.

171 13. SPU does not currently use reclaimed water to meet any of its
172 demands within the city of Seattle. It has identified over forty potential
173 reclaimed water projects within the city, all of which it has decided not to
174 pursue in the foreseeable future because they have deemed such projects
175 not cost effective. Because state law and existing wastewater contracts
176 with King County require the city to deliver all its wastewater to the
177 regional wastewater system operated by King County, the development of
178 any reclaimed water projects within the city would require agreement by

179 the county. In 2002, the Seattle City Council adopted a resolution
180 (Resolution Number 30454) that set up a number of requirements for the
181 use of reclaimed water within Seattle. The resolution requires an
182 extensive evaluation of any projects proposing use of reclaimed water for
183 irrigation of parks or golf courses that contain salmon-bearing streams.

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

195 15. In 2005, King County initiated a regional water supply planning
196 process with Cascade, consistent with the King County Comprehensive
197 Plan. SPU has participated in that planning process since its inception,
198 currently serving on both the executive committee and the coordinating
199 committee. SPU has also provided staff resources and financial assistance
200 to the work of the technical committees, and has supported the work of the

201 two technical committees, on regional demand and supply options, that are
202 managed by the Central Puget Sound Water Suppliers Forum.

203 16. The plan describes a current capital budget for 2007-2012 of
204 approximately four hundred sixty-nine million dollars. Major projects
205 include continued investments in water conservation; remedial work on
206 the moraine at Chester Morse lake; flood passage improvements at
207 Landsburg Dam; evaluation of dead storage options at Chester Morse;
208 continuation of reservoir covering and replacement and recoating of some
209 storage tanks; and replacement of many aging and leaking portions of the
210 transmission and distribution system. Replacing leaking service
211 connections alone is budgeted at five million five hundred thousand
212 dollars per year. In general, the proportionate share of capital investments
213 in Seattle's retail facilities will increase, while the share of investments in
214 its regional system will decline. Long-term capital facilities are budgeted
215 at one billion one hundred million dollars through the year 2030.

216 17. The operating and maintenance ("O&M") budget of SPU through
217 2030 is expected to grow slightly faster than the rate of inflation. The plan
218 projects that the O&M budget will grow from approximately sixty million
219 dollars in 2006 to sixty-five million two hundred thousand dollars in 2030
220 (in 2006 dollars). This is a four-and-three-tenths-percent increase in real
221 dollars over the twenty-four-year period. King County is the fifth-largest
222 retail customer of the SPU system, with combined billings in 2005 of over
223 six hundred thousand dollars. The financial strategy described in the 2007

224 Plan will be driving rate increases to King County as a result of the shift to
225 revenue-financed capital projects, rather than debt, and a shift from
226 investments in regional facilities to investments in retail facilities within
227 the city.

228 18. K.C.C. chapter 13.24 requires review of water system plans by the
229 UTRC, and a recommendation to the executive and council that the plan
230 be approved as having met the requirements under K.C.C. chapter 13.24.

231 The 2007 SPU Plan substantially meets the requirements of the King
232 County Code, subject to the below finding. A detailed evaluation
233 documenting these findings has been provided by the executive in the
234 executive's transmittal of the proposed ordinance approving the plan.

235 19. SPU has requested that, through approval of the plan, as authorized in
236 Section 5 of the Municipal Water Law ("MWL") of 2003, the current
237 place of use of its Cedar river water right claim be expanded to include a
238 wholesale "service area" described in the plan that would add some
239 Snoqualmie Valley area water utilities to the areas already authorized to
240 be provided water under the SPU Cedar river water right. Those utilities
241 are not currently served by SPU. It does not appear that there is any state
242 definition of a wholesale "service area," including the MWL itself, that
243 would authorize such an expansion of the Cedar river water right to cover
244 an area where SPU does not currently provide service. Those Snoqualmie
245 Valley water utilities are already within the authorized place of use under
246 the SPU South Fork Tolt river water right, and could be provided water

247 from that SPU supply. Most of those utilities have their own sources of
248 supply and are not SPU customers. SPU's plan indicates an intent to
249 possibly add the Ames lake system as a wholesale customer, with the
250 supply most likely to be delivered from the SPU South Fork Tolt source.
251 The plan also indicates an interest by SPU in supplying water for the
252 North Bend and Sallal water utilities, in addition to Ames lake. The
253 potential demand from all three of these utilities has been included by SPU
254 in its 2007 plan. These three utilities could potentially be served from
255 SPU's Hobo springs source within the Cedar river water right, or from the
256 South Fork Tolt supply. North Bend and Sallal are already within the
257 authorized place of use for the Cedar river water right, and Sallal has in
258 the past been an SPU customer. The water supplied by SPU could be used
259 either as drinking water supply, or by North Bend as mitigation water for
260 development by North Bend of its own water supply. Sallal has been
261 involved in these discussions but is not seeking mitigation water from
262 SPU at this time. SPU has indicated that its current intent is to provide
263 either Cedar river or South Fork Tolt water for mitigation purposes to
264 North Bend. On April 4, 2007, the Washington state Department of
265 Ecology ("DOE") issued an order that specifically adds the Hobo springs
266 source as a point of diversion under SPU's Cedar river water right claim.
267 Under Section 5 of the Municipal Water Law of 2003, modification of the
268 place of use in the Cedar river water right claim requires a determination
269 by the affected local governments that the expanded place of use is not

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

282 With the exception of a small area in the vicinity of Skyway, the city of
283 Seattle does not lie within the geographic area covered by any of the four
284 CWSPs within King County, but the North Bend, Ames lake and Sallal
285 water systems, and the proposed Cedar river "service area," are within the
286 area covered by the East King County CWSP. The CWSP was initially
287 approved by the area's utilities, King County, and DOH, and adopted in
288 1990. It was updated in 1998. The use of Cedar river water within SPU's
289 proposed expansion of its place of use to the Snoqualmie Valley is not
290 included as a strategy within the East King County CWSP's regional water
291 plan. The SPU "service area" within which the Cedar River water right
292 would be used is not identified as a "future service area" or other service

293 area in the East King County CWSP. The Hobo springs project is not
294 identified in the East King County CWSP as a future source of drinking
295 water supply for North Bend and Sallal. Accordingly, both the proposed
296 expanded place of use of the SPU Cedar river water right to the
297 Snoqualmie Valley area, and the possible use of the Hobo springs source
298 as a drinking water supply for North Bend and Sallal, are inconsistent with
299 the current East King County CWSP and the King County Comprehensive
300 Plan. An update to the CWSP would be required to remedy the
301 inconsistency. King County would be willing to convene a process to
302 consider such amendments. However, since the East King CWSP is not
303 intended to address the use of water for mitigation purposes, the use of
304 either the Hobo springs or the South Fork Tolt source simply to mitigate
305 for other sources of drinking water supply, which is the current intent,
306 would not require updating of the East King CWSP, and could move
307 forward.

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

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

318 BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

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

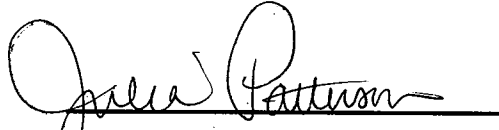
322 The proposal to expand the place of use of the Cedar river water right claim, and
323 any proposal to use SPU's Hobo springs source to provide drinking water to the North
324 Bend or Sallal water systems, are inconsistent with the current East King County
325 Coordinated Water System Plan, and therefore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

328 mitigation for other sources of water would not be inconsistent with the East King
329 County Coordinated Water Supply Plan, and would not require an amendment.
330


Ordinance 16080 was introduced on 5/29/2007 and passed by the Metropolitan King
County Council on 4/28/2008, by the following vote:

Yes: 8 - Ms. Patterson, Mr. Dunn, Ms. Lambert, Mr. von Reichbauer, Mr.
Ferguson, Mr. Gossett, Mr. Phillips and Ms. Hague
No: 0
Excused: 1 - Mr. Constantine


KING COUNTY COUNCIL
KING COUNTY, WASHINGTON


Julia Patterson, Chair

ATTEST:


Anne Noris, Clerk of the Council

APPROVED this 6 day of May, 2008.


Ron Sims, County Executive

RECEIVED
2008 MAY -8 AM 9:49
CLERK
KING COUNTY COUNCIL

Attachments A. 2007 Water System Plan-Our Water-Our Future-dated December, 2006--Volume 1
and Voume II: Appendices