



King County

**Department of Permitting
and Environmental Review**

35030 SE Douglas St., Ste. 210
Snoqualmie, WA 98065-9266
206-296-6600 TTY Relay: 711
www.kingcounty.gov

REGULATORY REVIEW COMMITTEE

- MINUTES -

MEETING DATE: June 27, 2013

TO: Jim Chan Randy Sandin
Chris Ricketts Steve Bottheim
Jarrod Lewis Molly Johnson
Sheryl Lux Kimberly Claussen
Steve Roberge Ty Perterson
Wally Archuleta

John Starbard, Director
Harry Reinert, Special Projects Manager and RRC Chair
Devon Shannon, Prosecuting Attorney's Office

FM: Harry Reinert, Chair

Present: Randy Sandin, Steve Bottheim, Devon Shannon, Janne Kaje (DNRP), and Harry Reinert

- 1. In application of K.C.C. 21A.08.100B.14.d to a run-of-the-river hydroelectric project on a tributary, does the exceedance flow requirement apply within a tributary that is not a "main stem" river, or is it applied at the confluence of the tributary on which the project is located and the river into which the tributary feeds?**

Background

Snohomish County Public Utility District (SnoPUD) is seeking permits for two small hydroelectric facilities located on Hancock and Calligan Creeks, tributaries of the North Fork Snoqualmie River.

K.C.C. 21A.08.100 allows hydroelectric projects as a conditional use if specified conditions are met. If the conditions are not satisfied, they are allowed as a special use. Condition 14(d) requires that "[a]n exceedance flow of no greater than fifty percent in mainstream reach shall be maintained."

In a memorandum to the Department dated March 14, 2013, SnoPUD reviewed each of the requirements for a conditional use permit. With respect to condition 14.d., the memorandum provided the following description and discussion:

[T]he Projects would operate as run-of-the-river facilities, and have no active storage (outflow from the facility is equal to inflow to the pond when the projects are in operation). This mode of operation is proposed as part of the FERC licensing for the Projects, and has been approved by State Department of Ecology as reflected in the non-consumptive water right permits which have been issued for the Projects. This mode of operation was also approved by the State Department of Fish and Wildlife for the Projects to follow previously licensed conditions.

Because there will be no active storage, the existing flow regimes of the creeks at the point of confluence with the mainstream North Fork Snoqualmie River, would be unchanged from pre-existing conditions. This means that there will be no effect on flows (volume or duration) in the mainstream reach from project operations. Because the exceedance flow of the mainstream would be unchanged, the Projects meet the criteria of K.C.C. 21A.08.100[B.](14)d.

The question here is whether the exceedance flow requirement for the “mainstream reach” applies to the tributaries on which the proposed dams would be located. If the latter, the SnoPUD dams would be unable to meet the exceedance flow requirements and could only be approved as a special use.

Discussion

K.C.C. 21A.08.100B.14.d requires that for a hydroelectric project to be reviewed as a conditional use, “An exceedance flow of no greater than fifty percent in mainstream reach shall be maintained.” The difficulty with this requirement is that the term “mainstream reach” is not a conventional way to describe a stream or river. For example, the Merriam-Webster Online Dictionary includes only one definition as an adjective: a prevailing current or direction of activity or influence.

The common term when referring to a river or stream is “main stem.” NOAA’s National Weather Service defines the “main stem” as “the reach of a river/stream formed by the tributaries that flow into it.”

In a run-of-the-river project, water is generally diverted from the river at the dam and returned at a point farther down the river. The area between the dam and the point where flows are returned is often referred to as a “bypass reach.”

The conditions included in K.C.C. 21A.08.100 relating to hydroelectric facilities were included in Title 21A when it was adopted in 1993. The prior code allowed hydroelectric facilities in the Forest Zone as a conditional use under the following conditions:

D. Hydroelectric projects as follows:

1. Hydroelectric projects which address the environmental concerns expressed in subsection E.2. of this section shall be permitted. For hydroelectric projects which are subject to licensing by the Federal Energy Regulatory Commission, the county shall conduct a thorough evaluation with regard to the standards set forth in subsection E.2. and the standards set forth in K.C.C. 21.44 and 21.58, and shall provide its evaluation to the commission for the purpose of advising the commission of the county's conclusion.

2. Project Development Standards:

a. The project will not substantially adversely affect unique and significant wildlife habitat and anadromous and resident fish species, as demonstrated by project approval from the Washington State Departments of Fisheries and Game, National Marine Fisheries Service, U.S. Fish and Wildlife Service and tribes on the Federal Energy Regulatory Commission's service list;

b. will not create an erosion hazard;

c. will mitigate any on-site and off-site visual impacts through the use of landscape and distance buffers;

d. the hydrologic, ecological, and aesthetic functions of natural stream corridors will be preserved, protected, or enhanced;

e. will preserve or enhance multiple use of the site including, but not limited to, public access, fishing, and recreational uses; and

f. the applicant shall provide to the county those supporting documents needed by the county in making a timely decision on intervention in the federal energy regulatory commission licensing decision and shall fully cooperate with the county during pre-licensing study and consultation periods.

Former K.C.C. 21.37.050 (1993). In contrast with the standards in K.C.C. 21A.08.100, there were no limits on the size of a project that could be permitted as a conditional use. The focus was on the impacts of the project on a variety of environmental concerns. Projects that could not meet these standards were not allowed.

The Council's adoption of K.C.C. 21A.08.100 distinguishes two different types of hydroelectric projects. Those that meet certain conditions, which include a limit on the size of the pool created and amount of flow diverted from the river are allowed as a conditional use. Projects that do not meet those conditions may be approved as a special use, which requires County Council approval. It is therefore likely that K.C.C. 21A.08.100 was intended to retain a simplified approval process for smaller projects that less likely to have significant impacts.

In furtherance of this intent, KCC 21A.08.100 should be interpreted to distinguish small-scale and large-scale projects. This includes reading condition 14d to require maintenance of an "exceedance flow of no greater than fifty percent" in a *mainstream* or *main stem*, but not necessarily in the tributary where the project is located. It is conceivable that through a spelling error or a misunderstanding on the part of code writers or editors, the term "main stem" was turned into "mainstream."¹ If the Council had intended to apply the exceedance flow requirement to a tributary, the proper term would have been to refer to the "bypass reach." That

¹ For example, the only other instance where the term "mainstream" appears is in K.C.C. 21A.24.045D.45.b.(2) where it used in the context of a tree's diameter. This is an obvious spelling error. The term should be "main stem."

term was not used. Instead, the Council used the term “mainstream”, which is reasonably interpreted to mean a “main stem” of the river.

Based on the forgoing, a reasonable interpretation of the requirement in K.C.C. 21A.08.100B.14.d. is that the exceedance flow requirement applies at the confluence of a the main stem river and the tributary on which a hydroelectric facility is located. I.e., the exceedance flow standard does not apply within the tributary, but is applied where the tributary meets the main stem.

One difficulty this interpretation presents is that the very nature of rivers is that most river reaches are generally tributary to another river reach. For example, Hancock and Calligan Creeks are tributary to the North Fork Snoqualmie River, which is tributary to the Snoqualmie River. If the provision meant that in each instance, the exceedance requirement only applies at the confluence of that reach with the next order stream, there would be no meaning to the provision, since it would apply in nearly every instance. Just as applying the provision to effectively preclude any hydroelectric facility from taking advantage of the conditional use process would frustrate what appears to have been the County Council’s intent, so would applying a standard that effectively allows any hydroelectric facility to meet the standard. Therefore, it also seems that a reasonable interpretation of the provision is that it applies to small tributaries of larger rivers. The North Fork Snoqualmie River, for example, is indisputably a “main” or principal reach that drains a large watershed.. This is in contrast to Hancock and Calligan Creeks, which are tributaries that drain small watersheds, not the larger watersheds drained by main stem rivers.

This approach furthers the Council’s apparent objective to facilitate siting of small hydroelectric projects while maintaining the Council’s goal of participating in the decision making process on larger projects through the special use permit requirement.

Conclusion

K.C.C. 21A.08.100B.14.d. requires that in order for a hydroelectric project to be approved as a conditional use, the project must maintain “[a]n exceedance flow of no greater than fifty percent in mainstream reach.” The term “mainstream reach” is undefined in the zoning code and is a term that is not generally used in hydrological settings. The more common term is “main stem reach.” In order to implement the County Council’s goal of facilitating the siting of smaller hydroelectric projects, the exceedance flow requirement should be applied within the “main stem” associated with the project. If a project is located on a tributary, the exceedance flow requirement should be evaluated at the confluence of a main stem river and the tributary on which the project is located. If the project is located on a main stem river, which may also be a tributary to another larger body of water, the exceedance flow requirement would be evaluated along the main stem of the river on which the project is located.

The Regulatory Review Committee recommends that the Department, in consultation with the Department of Natural Resources and Parks, propose a code amendment that clarifies this provision. Options that might be considered include a limit on the size of project, the drainage

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area for the tributary, or other limitations that would provide clear guidance on which projects may be approved as a conditional use.