CLEAN, FLOWING WATERS FOR THE WEST

The Center for Environmental Law & Policy

April 8, 2011

SEPA Responsible Official
Okanogan County
Office of Planning and Development
123 - 5th Ave. N. Suite 130
Okanogan, WA 98840

Via e-mail to planning@co.okanogan.wa.us

Re: Okanogan County Comprehensive Plan SEPA Addendum A

Dear Sir or Madam:

Thank you for the opportunity to comment on Okanogan County's update of the 2009 *Environmental Impact Statement: Addendum A: Revisions to the Okanogan County Comprehensive Plan* (hereafter Addendum A), listed in the Department of Ecology's SEPA register as open to public comment until April 8, 2011. The Center for Environmental Law & Policy (CELP), is a non-profit organization with members throughout Okanogan County and Washington State. Our mission is to protect and restore freshwater resources, including rivers and drinking water aquifers, in order to promote public values. We have longstanding interests in the rivers and aquifers of Okanogan County. Our comments here are confined to Addendum A; we will file separate comments directly related to the proposed comprehensive plan later this month.

Addendum A is inadequate for SEPA purposes and CELP urges the County to withdraw and re-issue an environmental impact statement for the reasons set forth below. This letter attaches two documents and provides links to many other documents that should have been but were not used as baseline information or otherwise discussed in Addendum A. These documents are incorporated by reference. Please advise if hard copies are required.

Addendum A does not properly tier to the EIS. The original March 11, 2009 Environmental Impact Statement to which Addendum A tiers provides environmental analysis for an earlier version of the draft Okanogan County comprehensive plan that is far different than the version currently circulating for public review. When Okanogan County made the decision to significantly revise the draft Comprehensive Plan, it should have prepared a new or supplemental environmental impact statement that addresses the adverse impacts associated with new and significant land use designations in the new draft plan. "SEPA authorizes the use of addendums to add nonsignificant new information on a proposal that has already undergone EIS review." *Thornton Creek Legal Defense Fund v. City of Seattle,* 113 Wash. App. 34, 45 at n.7 (2002). The version of the comprehensive plan now circulating is not the same proposal that was the subject of the 2009 EIS, and the impacts associated with the new draft comp plan are not non-significant. In fact, as

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discussed below, the water resource impacts of the draft comp plan would be substantial and adverse.

Moreover, SEPA regulations require preparation of a new threshold determination or supplemental EIS when an agency makes substantial changes to a new document that will cause significant adverse impacts. WAC 197-11-600(3) states:

> (3) Any agency acting on the same proposal shall use an environmental document unchanged, except in the following cases:
>
> . . .
>
> (b) For DNSs and EISs, preparation of a new threshold determination or supplemental EIS is required if there are:
>
> (i) Substantial changes to a proposal so that the proposal is likely to have significant adverse environmental impacts (or lack of significant adverse impacts, if a DS is being withdrawn) . . .

Addendum A is not timely. The purpose of SEPA review is to provide analysis of environmental impacts concomitant with the proposal that will cause those impacts. Addendum A, even if it were adequate in its discussion of impacts, is late. The County has held several public meetings without making Addendum A available for public review. Moreover, the County proposes to issue additional environmental addenda relating to the County shoreline master plan and critical areas ordinance at a later date. The impacts associated with designations under these provisions are key to understanding the significance of changes in designations and densities in the draft comp plan. None of this information is available to the reader. Okanogan County's piecemeal approach to analyzing impacts of its land use planning process is confusing and untimely.

Addendum A does not sufficiently assess the water resource impacts of the draft comprehensive Plan. Most importantly, Addendum A does not provide adequate information to assess the impacts of the draft comprehensive plan on the Okanogan County environment. This critique limits itself to water resources impacts.

To understand the inadequacy of Addendum A, once must first look to the draft comp plan proposal (12/27/10) and accompanying map. The proposed comp plan would amend land use designations and densities throughout the County into four main categories: resource lands (agriculture, timber, mining), rural high density (1-acre parcels), rural low density (5-acre parcels) and the Methow District. While the draft comp plan identifies current conditions and land use, see table p. 11, it does not explicitly quantify the development that associated with these land designations and densities. Lacking this information in the draft comp plan, it is difficult if not impossible to understand environmental and water resource impacts associated with the proposal.

It is apparent, however, that many areas of Okanogan County will be divided into 1 and 5-acre parcels. This is an extraordinary level of development given the status of water resources in Okanogan County watersheds. It does not matter, for purposes of SEPA analysis, whether the prior land use allowed similar densities in growth. What does matter is that Addendum A does not provide to the public or decision makers adequate analysis of impacts on rivers, aquifers and associated resources that would occur if built-out in the County occurs at the level contemplated in the draft comp plan.
Okanogan County crosses or touches on multiple watersheds, including the Similkameen, Methow (Water Resource Inventory Area or WRIA 48), Okanogan (WRIA 49), and Kettle

River (WRIA 60) watersheds, where active watershed planning has occurred. Despite the fact that Okanogan County has accepted nearly $2 million in publicly-funded grants in support of watershed planning, Addendum A contains no information developed from those processes and reports.

- For the Okanogan River: http://www.okanogancd.org/Ok%20Watershed%20Plan.html
- For the Methow River: http://okanogancounty.org/water/watershed%20planning;%20methow.htm
- For the Kettle River: http://www.ecy.wa.gov/programs/eap/wrias/Planning/60.html

Nor does Addendum A contain any scientific information about Okanogan County water resources, such as that developed through U.S. Geologic Survey (USGS) studies. For example, USGS has prepared several detailed studies on Methow River basin water resources, which may be viewed at http://wa.water.usgs.gov/projects/methow/publications.htm. With respect to developing concerns about the effects of climate change on water supply, USGS has prepared a report of particular interest titled "Future Runoff Scenarios for decision makers for the Methow River, Washington," (http://wa.water.usgs.gov/projects/methow/cc.htm). This report is directly designed for local planning processes that involve water resources.

USGS has also issued recent studies relating to Tunk, Bonaparte, Tonasket and Antoine Creeks (http://pubs.usgs.gov/sir/2009/5143/) and Salmon Creek, as well as older studies relating to the Similkameen and Okanogan Rivers. See http://wa.water.usgs.gov/cgi/proj-search.cgi?Okanogan.

Addendum A contains no flow monitoring data from the several regional instream flow gages, including the following:

- https://fortress.wa.gov/ecy/wrx/wrx/flows/station.asp?wria=49
- http://www.ecy.wa.gov/apps/watersheds/streambio/station.asp?wria=48).
- http://wa.water.usgs.gov/cgi/realtime.data.cgi?basin=okanogan
- http://wa.water.usgs.gov/cgi/realtime.data.cgi?basin=chelan

Water resource regulations provide a legal and policy context that establishes an environmental baseline against which the proposed comp plan should be compared. The Okanogan, Methow and Kettle River basins all have instream flows either set by rule or by restrictions imposed via Surface Water Source Limitations established by the Dept. of Fish & Wildlife and implemented by the Dept. of Ecology Water Resources Program. See WAC Chs. 173-548, 173-549. These rules effectively close the Methow and Okanogan Rivers to new water rights.

Ecology has not issued new, unmitigated surface water rights in any of the basins for many years. See http://www.ecy.wa.gov/programs/wr/rights/tracking-apps.html (click on "Okanogan") (Water Rights Application Tracking System Report for Okanogan County (Dept. of Ecology, 4/4/11). Existing water rights are frequently regulated in both the Okanogan and Methow River basins and Meyers Creek, both in favor of minimum instream flows and as between existing water right holders. In other words, the streams and rivers of Okanogan County are over-appropriated. Litigation over water rights and resources has occurred from one end of Okanogan County to the other (e.g., from the proposed Early Winters resort in the upper Methow to the Buckhorn Mountain goldmine in the Okanogan Highlands).

Water resource scarcity extends to groundwater resources. The Okanogan River rule was the subject of litigation in the matter *Hubbard v. Dept. of Ecology*, 86 Wash.App 11 (1997) (copy attached). That case determined that water permits that pump groundwater that is hydraulically connected to the Okanogan River must be conditioned to allow interruption when Okanogan River instream flows are not met. While agricultural enterprise may be able to function with seasonally limited permits, households cannot. Indeed, the Department of Health will not certify small public water systems if the water permits are interruptible.

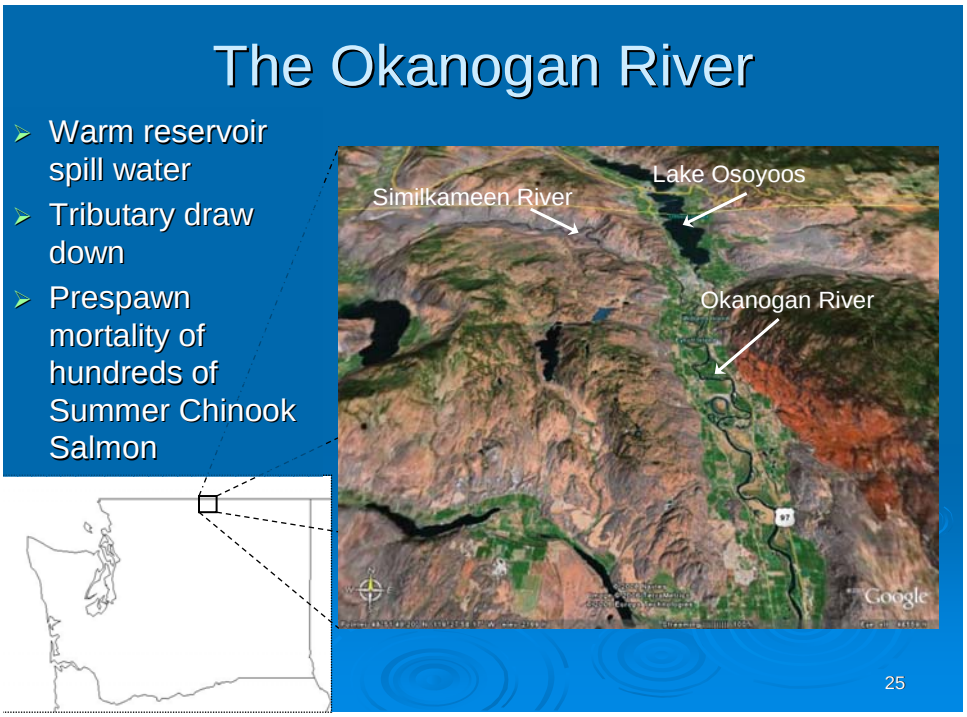
Although the Methow Rule does provide for domestic well development in a few tributaries, a 1990 review indicated that several of these reserves were likely fully utilized by that time. See attached report, "Methow Watershed Rules and Exempt Well Case Study," (CELP 2008). Growth in permit-exempt well usage has not stopped, however, and it seems possible that no reserve water remains. This should be studied and such information incorporated into land use planning.

Even where permit-exempt wells are allowed, they may not be utilized to provide water to group subdivisions. *Ecology v. Campbell & Gwinn LLC*, 146 Wn.2d 1 (2002). Misuse of the permit-exemption has been a continuing problem in Okanogan County. Moreover, there are

many sensitive areas that cannot support further groundwater development at all, including for example, Tunk Valley, where riparian habitat that supports rare sharp-tailed grouse species would be wiped out by the proposed comp plan densities. See http://wdfw.wa.gov/publications/pub.php?id=00408 (discussing re-establishment of sharp-tailed grouse populations in Tunk Valley and other locales, including habitat requirements). Likewise, water flows have been identified as a limiting factor for threatened and endangered salmonid species in both the Methow and Okanogan basins, including Upper Columbia River Spring-Run Chinook and Upper Columbia Steelhead. See http://www.nwr.noaa.gov/Salmon-Recovery-Planning/Recovery-Domains/Interior-Columbia/Upper-Columbia/Index.cfm for various federal documents relating to listing and protection of these species.

Okanogan County water resources are also affected by international water policy and management issues relating to the Similkameen River, Lake Osoyoos and Kettle River and tributaries. Water demand in Canada has an affect on what is available in the United States. See, e.g., International Lake Osoyoos Board of Control publications at: http://www.ijc.org/conseil_board/osoyoos/osoyoos_pub.php?language=english#reports. See also the Okanagan Water Supply & Demand Project at http://www.obwb.ca/wsd/.

Finally, climate change is already occurring in Washington, with increased ambient air temperatures that affect snowpack, instream flows and seasonal water availability. In 2009, the University of Washington Climate Impacts Group (CIG) issued the Washington Climate Change Impacts Assessment, which provides both baseline data and scenario projections about impacts of changing climate on hydrology. This report is essential reading for planners. http://cses.washington.edu/cig/res/ia/waccia.shtml. The picture below is taken from a 2009 CIG powerpoint that explains how climate change is already impacting water resources in Washington, including in Okanogan County.



What happens in the Canadian Okanagan is likely to have a major impact on water resources in the downstream U.S. end of the basin. See attached article (Chris Wood, Drying Up the Okanagan (The Tyee 8-17-06)).

Although a wealth of science and policy information and documents describe the present status of water resources in Okanogan County, Addendum A does not utilize or reference any of it. Instead, Addendum A contains brief, conclusory statements about groundwater and surface water that are entirely inadequate for the purpose of understanding and making decisions about the draft comp plan. Whether the new comp plan densities are greater or less than what is contemplated in the 1964 comprehensive plan is irrelevant (to state the obvious, SEPA analysis was not conducted in 1964 when that plan was adopted). The purpose of SEPA is not to compare relative impacts, but to describe the actual impacts associated with the proposed action.

The status of water resources, the availability of water, and the impacts of water supply development are all topics that should be fully analyzed and considered in the SEPA documents that support land use planning in Okanogan County. CELP requests that the County Planning Department withdraw Addendum A and return to the task of preparing a new or supplemental environmental impact statement that fully evaluates the environmental impacts of the County's proposed comprehensive plan.

Thank you again for the opportunity to provide comments. Please do not hesitate to contact our offices if you have any questions.

Sincerely,

Rachael Paschal Osborn, Executive Director
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Attachments:

- Hubbard v. Ecology (Washington state court decision)
- Methow Watershed Rule & Exempt Well Case Study (CELP 2008)
- Chris Wood, Drying Up the Okanagan (The Tyee 8-17-06

James D. Hubbard, et al., Appellants,
v.
The Department of Ecology, Respondent.

15227-8-III

Court of Appeals of Washington, Division Three

May 01, 1997

HEADNOTES

Environment--Administrative Law--Pollution Control Hearings Board--Judicial Review--Administrative Procedure Act.
(1) Judicial review of an adjudicative decision made by the Pollution Control Hearings Board is governed by the Administrative Procedure Act (RCW 34.05).

Administrative Law--Judicial Review--Findings of Fact--Arbitrary and Capricious.
(2) An administrative finding of fact satisfies the arbitrary and capricious standard of RCW 34.05.570(3)(i) if it is supported by evidence in the administrative record.

Administrative Law--Judicial Review--Deference to Agency--Conclusions of Law.
(3) Although the conclusions of law made by an administrative agency having expertise in the affected area are not controlling on a court, they are entitled to due deference.

Waters--Groundwater--Permit--Determination of Senior Rights--Scope.
(4) For purposes of determining if a proposed use of groundwater will impair an existing right, the Department of Ecology is authorized to tentatively determine the existence of any senior water rights.

Waters--Water Rights--Appropriation--Duration--In General.
(5) Once a given quantity of water has been appropriated, the right to that water becomes appurtenant to the land and continues in perpetuity to the exclusion of all subsequent claims.

Waters--Water Rights--Priority--Surface and Ground Water.
(6) Under RCW 90.44.030, the rights of a surface water appropriator are superior to subsequently acquired rights to groundwater that are tributary to the source of the surface water or that may affect the flow of the surface water.

Waters--Water Rights--Priority--Minimum Instream Flow.
(7) Under RCW 90.03.345, a minimum instream flow established ***120** by rule promulgated pursuant to RCW 90.22.010 and RCW 90.54.040 is an appropriation of surface water with a priority date as of the effective date of its establishment.

Waters--Groundwater--Permit--Minimum Instream Flows--Effect.
(8) Once a minimum instream flow has been established for a river or stream, any permit issued for withdrawals of groundwater from a groundwater source that has a 'significant hydraulic continuity' with the river or stream may be restricted in a way that protects the minimum instream flow. Any effect on the river or stream during the period it is below the minimum instream flow level constitutes a conflict with the existing senior right of the minimum instream flow and may reasonably be considered detrimental to the public interest.

Waters--Groundwater--Permit--Minimum Instream Flows--Protection--Restrictions.
(9) Under the Water Resources Act of 1971 (RCW 90.54), the Water Code of 1917 (RCW 90.03), and WAC 173-549-060, the Department of Ecology is authorized to determine if a 'significant hydraulic continuity' exists between an underground water source and a river or stream, and the Department may protect the minimum instream flow of a river or stream by restricting groundwater withdrawals having significant hydraulic continuity with the river or stream. The hydraulic continuity between an underground water source and a river or stream is 'significant' if the water source ultimately drains into the river or stream.

Administrative Law--Rules--Construction--Meaning of Words--Ordinary Meaning-- Resort to Dictionary.
(10) An undefined term in an administrative regulation is given its ordinary meaning as may be found in a dictionary.

Waters--Groundwater--Permit--Review--Standard of Review.
(11) A decision by the Department of Ecology to approve a permit for the withdrawal of groundwater from an aquifer is reviewed for an abuse of discretion.

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Nature of Action: Irrigation farmers sought judicial review of a groundwater withdrawal permit issued by the State that prohibited them from withdrawing water from their wells whenever a local river fell below minimum instream flows.

Superior Court: The Superior Court for Okanogan County, No. 94-2-00205-0, John G. Burchard, Jr., J., on September 14, 1995, entered a judgment upholding the permit.

Court of Appeals: Holding that the State's determination ***121** of a 'significant hydraulic continuity' between the farmers' underground water source and the river was neither contrary to law nor unreasonable and that the groundwater withdrawal permit was properly conditioned on maintenance of the river's minimum instream flows, the court affirms the judgment.

W. Scott Detro and Callaway, Howe & Detro, P.L.L.C., for appellants.

Christine O. Gregoire, Attorney General, and Martha J. Casey, Assistant, for respondent.

Rachael Paschal on behalf of Center for Environmental Law & Policy, amicus curiae.

Research References
Am Jur 2d, Waters § § 3, 146, 148, 182.

ALR Index, Waters and Watercourses.

Schultheis, J.

Permits to draw water from wells in the Okanogan River Basin must be conditioned on maintenance of the Okanogan River's minimum flow rates if the Department of Ecology decides the local groundwater source is significantly connected with the river.WAC 173-549-027; 173-549-060. Brothers John and James Hubbard [FN1] were granted permits that indicated they would have to cease irrigating from their wells whenever the Okanogan River was below minimum instream flows. Their appeals to the Pollution Control Hearings Board and the superior court were unsuccessful. On appeal here, they contend the Board erred in finding there is significant continuity between their underground water source and the river. We affirm.

FN1. James Hubbard is now represented by his widow and successor in interest, Denise Hubbard.

In 1987, James Hubbard bought 180 acres on the south end of the Wagonroad Coulee, a valley near the Okanogan ***122** River. He drilled and capped a test well about 4,000 feet from the river in 1988 or 1989 and then applied for a water rights permit in 1990. Assured he would probably receive a permit within a year, he began planting a fruit orchard in 1992 and obtained a temporary permit for irrigation and frost protection. John Hubbard owned land south of his brother's. In 1979, John obtained an unconditional permit to draw water from a well he dug about 5,700 feet from the river, and he began planting an orchard in 1980. After he determined he needed more water for irrigation and frost protection, he applied to Ecology for an increase. Like his brother, he drew water from his well pursuant to a temporary permit while he awaited the outcome of his application.

Ecology began an investigation into the Hubbards' applications in 1992. After examining the hydrogeology of the Wagonroad Coulee and the adjacent Okanogan River, the logs of local well levels, and the schematics of the aquifers underlying Wagonroad Coulee andthe river, Ecology concluded there was significant continuity (i.e., a significant connection) between the coulee's groundwater and the river. Groundwater use must be conditioned on maintenance of minimum instream flows of local rivers whenever Ecology determines there is 'significant hydraulic continuity' between the groundwater source and surface water. WAC 173-549-060. Accordingly, Ecology issued reports approving a specified amount of withdrawal for irrigation and frost protection, but conditioning the use on the maintenance of minimum river instream flow levels. The Hubbards would be required to cease pumping whenever the river fell below minimum flow.

The Hubbards consolidated their appeals to the Pollution Control Hearings Board. Their key contention was that there is no significant hydraulic continuity between their wells and the river. After hearing the testimony of witnesses and examining the data, the Board found significant continuity and denied their appeals in April 1994. Pursuant to RCW 34.05.570, the Hubbards appealed the ***123** Board's decision to the Okanogan County Superior Court. The court remanded for more detailed findings and

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conclusions. In April 1995, the Board issued revised findings and conclusions and the Hubbards again appealed. This time, the trial court affirmed the Board and denied the Hubbards' petition for review. This appeal followed.

The Hubbards contend the Board erred in concluding that the Okanogan River's minimum instream flow is senior to their rights, and that a significant continuity exists between the underground water source of their wells and the river. At issue is the scope of the Board's authority and the meaning of the term 'significant' in relation to WAC 173-549-060 and the Water Resources Act of 1971, RCW 90.54.

(1-3)We review Board adjudicative decisions pursuant to the Administrative Procedure Act, RCW 34.05. Department of Ecology v. PUD No. 1, 121 Wn.2d 179, 200-01, 849 P.2d 646 (1993), aff'd, 511 U.S. 700, 114 S. Ct. 1900, 128 L. Ed. 2d 716 (1994). Our review is confined to the record before the Board. RCW 34.05.558; Waste Management of Seattle, Inc. v. Utilities & Transp. Comm'n, 123 Wn.2d 621, 632, 869 P.2d 1034 (1994). On factual matters, the Board's decision may be reversed only if we find it to be arbitrary or capricious, or if the order is not supported by substantial evidence. RCW 34.05.570(3)(e), (i); Batchelder v. City of Seattle, 77 Wn. App. 154, 158, 890 P.2d 25, review denied, 127 Wn.2d 1022 (1995). A finding is arbitrary or capricious if there is no support for it in the record. Stempel v. Department of Water Resources, 82 Wn.2d 109, 114, 508 P.2d 166 (1973). Legal determinations may be overturned only if the Board engaged in unlawful procedure, failed to follow a prescribed procedure or erroneously interpreted or applied the law. RCW 34.05.570(3)(c), (d); Batchelder, 77 Wn. App. at 158. Ecology's conclusions, while not controlling, are entitled to great weight due to its expertise. PUD No. 1, 121 Wn.2d at 201; Neubert v. Yakima- Tieton Irrigation Dist., 117 Wn.2d 232, 240, 814 P.2d 199 (1991). ***124**

Under the Water Resources Act of 1971, Ecology was directed to develop a comprehensive statewide water resources program. RCW 90.54.040. Pursuant to this directive, Ecology is required to investigate, process and rule on all applications to divert public water. RCW 90.03.110. Ecology must reject an application and refuse to issue a permit if there is no unappropriated water available, withdrawal will conflict with existing rights, or withdrawal will detrimentally affect public welfare. RCW 90.03.290; Jensen v. Department of Ecology, 102 Wn.2d 109, 112-13, 685 P.2d 1068 (1984); Stempel, 82 Wn.2d at 115.

(4, 5)To determine whether a proposed use will impair existing rights, Ecology is authorized to tentatively determine the existence of senior water rights. Rettkowski v. Department of Ecology, 122 Wn.2d 219, 228, 858 P.2d 232 (1993). One of the fundamental principles of irrigation water law is that first in time is first in right. Neubert, 117 Wn.2d at 240; see RCW 90.03.010. An appropriated water right is perpetual and operates to the exclusion of all subsequent claims. Neubert, 117 Wn.2d at 240-41.

(6)Two aspects of water rights seniority are important to this case. First, the rights of surface water appropriators are superior to those subsequently acquired of underground water that is tributary to the source of the surface water or that may affect the flow of the surface water. RCW 90.44.030; Rettkowski, 122 Wn.2d at 226 n.1. The Hubbards applied for rights to withdraw water from the Wagonroad Coulee aquifer, a body of water that drains into the Okanogan aquifer, which in turn feeds the Okanogan River. Evidence supports a finding that the coulee aquifer is tributary to the Okanogan aquifer and affects, even if minutely, the river's flow. Accordingly, all senior rights to the river are superior to the Hubbards' subsequent rights to groundwater drawn from the Wagonroad Coulee aquifer.

(7, 8)Second, the minimum flows established by rule pursuant to RCW 90.22.010 and RCW 90.54.040 are treated as appropriations with priority dates as of the effective ***125** dates of their establishment. RCW 90.03.345. As a result, the minimum instream flow established in 1976 for the Okanogan River, WAC 173-549-020(2), has priority over subsequent water rights appropriators, such as the Hubbards. Additionally, any permit for beneficial use of surface waters must be conditioned to protect the minimum levels established by code for each river basin. RCW 90.03.247. See, e.g., WAC 173-549- 020(4). If Ecology finds that there is 'significant hydraulic continuity' between surface water and the proposed underground water source, the groundwater rights permit must be subject to the same conditions, i.e., restrictions on withdrawal, as the affected surface water.WAC 173-549- 060.

Both parties agree that the aquifer under the Wagonroad Coulee is available for appropriation, and that irrigation and frost prevention are beneficial

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uses. See Neubert, 117 Wn.2d at 238-39 (frost prevention and irrigation are beneficial uses). The expert witnesses of both parties testified that the Hubbards' withdrawal of water from the coulee aquifer would affect the flow rate of the river during low flow periods, although the Hubbards' experts testified the effect would be negligible. Any effect on the river during the period it is below the minimum instream flow level conflicts with existing senior rights (such as the minimum flow level itself) and may be reasonably considered detrimental to the public interest. [FN2] In such cases, Ecology is directed to reject the applications and refuse to issue ***126** permits. RCW 90.03.290; Rettkowski, 122 Wn.2d at 228; Jensen, 102 Wn.2d at 112-13.

FN2. The public interest in the use of public waters is best expressed in RCW 90.03.005:'It is the policy of the state to promote the use of the public waters in a fashion which provides for obtaining maximum net benefits arising from both diversionary uses of the state's public waters and the retention of waters within streams and lakes in sufficient quantity and quality to protect instream and natural values and rights.'

Protection of instream values is established in RCW 90.22, wherein the Legislature directs Ecology to 'establish minimum water flows or levels for streams, lakes or other public waters for the purposes of protecting fish, game, birds or other wildlife resources, or recreational or aesthetic values of said public waters whenever it appears to be in the public interest to establish the same.' RCW 90.22.010.

(9, 10)Rather than reject the Hubbards' applications out of hand, however, Ecology chose to follow the course of action allowed by WAC 173- 549-060, which authorizes the granting of conditional permits when there is significant hydraulic continuity between the surface water and the proposed groundwater source. The Board concluded that the Hubbards' proposed withdrawals would not impair existing water rights and that granting permits would not be contrary to the public welfare, provided the permits were conditioned on the minimum instream flows established by WAC 173-549. Key to this conclusion is the Board's finding that the Wagonroad Coulee aquifer has 'significant hydraulic continuity' with the Okanogan River.

The term 'significant' is not defined in WAC 173-549; therefore, it should be given its ordinary meaning. City of Sunnyside v. Fernandez, 59 Wn. App. 578, 581, 799 P.2d 753 (1990). We may resort to dictionaries to determine the common meaning of code terms. Id. According to the Random House Dictionary 1779 (2d ed. 1987), significant means 'important; of consequence.' The Hubbards argue that the effect of water withdrawal from their wells, calculated by their hydrogeologist to be a .004 percent reduction in the river's flow during low flow, is so minuscule that it cannot be considered important or of consequence, thus not significant to the aquifer's connection with the river. They misunderstand the application of the test for significance.

WAC 173-549-060 does not ask whether the proposed use will be significant, but whether there is a significant connection (hydraulic continuity) between the proposed groundwater source and the river. Although the Hubbards' experts testified that the aquifers under the Wagonroad Coulee and the Okanogan River served as 'buffers,' delaying the effects of water withdrawal from the coulee, they admitted the effects would eventually reach ***127** the river in the form of reduced flow. The record supports the Board's conclusion that the Wagonroad Coulee aquifer drains entirely into the Okanogan River or its aquifer, and from there into the river. The river's connection to the coulee aquifer supports a finding of 'significant hydraulic continuity.'

(11)Ecology's decision to approve water permits is discretionary, and will not be set aside absent a clear showing of abuse of discretion. Schuh v. Department of Ecology, 100 Wn.2d 180, 186, 667 P.2d 64 (1983). In light of the record before the Board, we find that Ecology's decision to grant conditional permits was not manifestly unreasonable.

Affirmed.

Sweeney, C.J., and Brown, J., concur.

Wn. App.,1997.

Hubbard v. Department of Ecology

END OF DOCUMENT

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The Center for Environmental Law & Policy

METHOW WATERSHED RULE & EXEMPT WELLS CASE STUDY
May 2008

I. Methow WRIA Rules

The Methow watershed rule, including instream flows and water reservations, was adopted in 1976.[1] The rule exempts specified quantities of future water use from regulation or curtailment under the newly adopted instream flow levels. This "reservation" of water was to be used for continued future growth of single domestic residences and stockwatering. Meanwhile, the instream flows set by rule are not being met in many years, and Ecology routinely issues curtailment orders to water users holding rights that are junior to the instream flows.

The watershed rules divide the basin into seven sub-basins.[2] Each sub-basin is given a 2 CFS reservation to "grow into."[3] While the rule specifically addresses surface water allocations, it also requires that ground water in hydraulic continuity with surface water be subject to the same conditions and limitations as those for surface water.[4] Single domestic use is often supplied by an exempt well. Exempt wells, of course, do not require a permit from Ecology and therefore are difficult to track in terms of location, total number, or amount of water being withdrawn and used.

These flaws make a proper accounting of water use from the reservation nearly impossible. However, in 1990 Ecology performed an analysis of domestic water use in the basin.

II. *Methow River Basin Single Domestic Instantaneous Water Use Estimate*

In 1990, Ecology conducted a study and published a report establishing an estimate of water use from the reserve. The report was quick to note the enormous problem associated with the creation of the reservation. The problem was that "no mechanism for tracking single domestic appropriation of this water reservation was developed, and therefore, the amount of water withdrawn from the 2 CFS since 1976, is unknown." Since basic well information and metering data were nonexistent for exempt wells, the authors relied on well

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[1] The Rule was amended in 1988 and 1991, but the reservation and instream flows established in the 1976 rule were not altered.
[2] The seven sub-basins are the Upper Methow, Middle Methow, Lower Methow, Methow Headwaters, Early Winters Creek, Chewack River, and Twisp River
[3] WAC 173-548-030 (2007)
[4] WAC 173-548-060 (2007)

logs of wells drilled within the basin, and on Okanogan County building permits and assessor tax rolls.

The report found that 352 well logs had been submitted to Ecology for wells that were drilled in the basin between 1976 and 1990. However, the authors note that this number is probably lower than the actual number of wells drilled during this time due to the non-compliance with well log requirements by well drillers. The study found that, between 1976 and 1990, approximately 800 Methow Basin permits were issued by the County for construction of single domestic residences or recreational cabins. Okanogan County Health Department records were analyzed to determine if some of the new construction would be served by existing community water systems, or by private exempt wells. From this process, the authors determined there were 942 single domestic system data entries in areas with hydraulic continuity with the Methow River or its tributaries.

The authors attempted to verify the information found in the records analysis through site visits. The authors found "a significant number of post-1976 wells and buildings" had not been recorded by either a building permit or well log. The range of unaccounted for wells and/or buildings varied anywhere from 4% to 41% depending on the subbasin. This "ground truth" examination led the authors to conclude that the records survey underestimated the number of single domestic users by an average of 22%.

In order to estimate instantaneous and annual water use, the study used numbers typical for single domestic use. These numbers were then reduced to reflect seasonal and temporary vacation use associated with many of the residences. The instantaneous quantity was 0.015 CFS.[5] The authors then applied this instantaneous rate to the number of single domestic residences they found in each subbasin. The result of this analysis found that three of the seven subbasins had likely already exceeded the 2 CFS reservation. Usage from the Lower Methow was estimated at 6 CFS, while the Middle Methow and Chewack were estimated just over 3 CFS. The Twisp River and Upper Methow both were estimated at approximately 1.5 CFS.

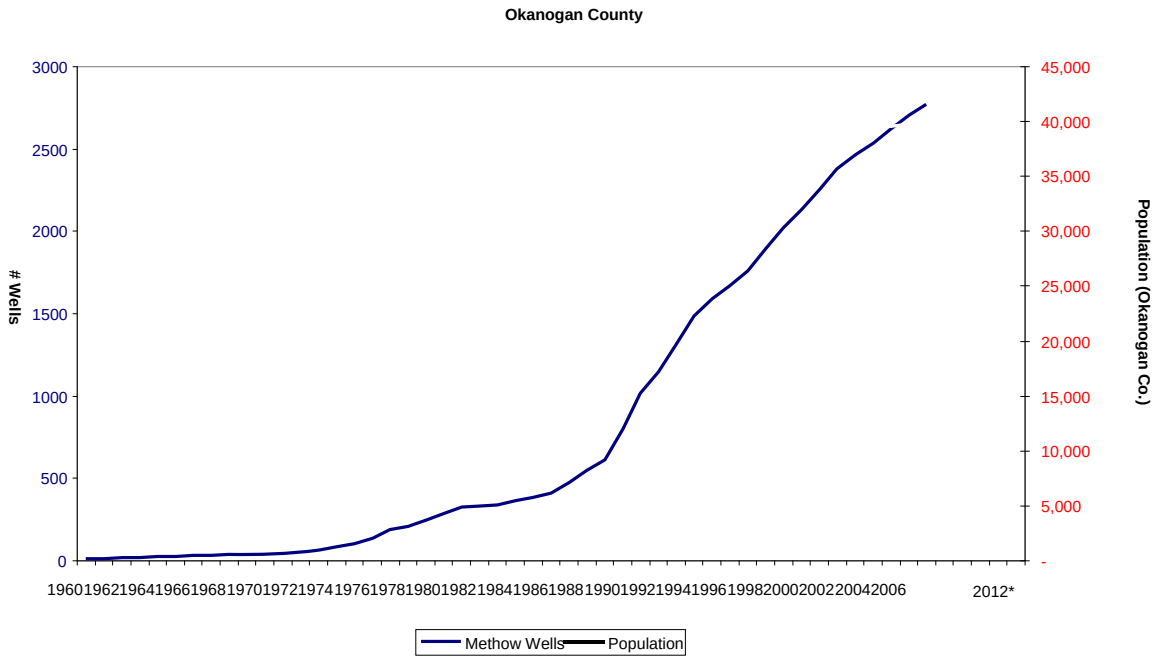
The report's assumptions could overestimate or underestimate use associated with single domestic wells. However, the report did not include stockwater use, multiple domestic use, and the Lower Methow was not field inspected due to time constraints.[6] Moreover, the report listed the number of platted lots (both developed and undeveloped) as well as undeveloped parcels by subbasin. The authors noted that the number of single domestic wells was quite small compared to potential future appropriations based on the number of platted lots and undeveloped parcels in the basin.

Ecology has not analyzed Methow use since 1990. The question now is: what has changed in the basin since 1990 and what conclusions can be drawn from them?

[5] The study elected to measure ground water withdrawals in CFS rather than GPM.
[6] An estimate for the Lower Methow was included and was based upon the 22% underestimation average found for the other subbasins.

III. Increase in Population and Wells

Okanogan County has grown in population since 1990. In fact, between 1990 and 2007 the population of Okanogan County increased by 6,450 people.[7] During this same time period 1,964 well logs were submitted to Ecology.



Between 2000 and 2007 the increase in one-unit houses built in unincorporated Okanogan County was 949.[8] However, the subbasins with the highest number of developed platted lots, as found in the 1990 Ecology report, were the Middle Methow with 151, Lower Methow with 102 and Chewack with 77. It is likely that these developed platted lots were developed first. Therefore, the growth in population and wells in Okanogan County since 1990, have likely been concentrated in the Lower and Middle Methow and the Chewack subbasins; all of which were found to have already exceed their 2 CFS reservation.

IV. Watershed Planning Process

Watershed planning in the Methow basin has been controversial. The basin was selected as a "pilot" watershed under the Water Resources Act's original watershed planning process. That plan was never adopted. In the late 1990's, a new Methow Basin Watershed Planning Unit created a new watershed plan. The resulting watershed plan proposes to change how exempt wells may be used in the basin. The current rule only allows exempt wells for single

[7] State of Washington Office of Financial Management: 2007 Population Trends, p. 36, available at http://www.ofm.wa.gov/pop/poptrends/poptrends_07.pdf (last visited May 27, 2008).
[8] Id.

domestic use. The new Watershed Plan would allow for a greater number of uses including larger commercial developments.

Ecology has balked at amending the Methow rule based on the new watershed plan, for two reasons. First, the plan asserts that water lost during conveyance through leaky irrigation canals is a beneficial use of water. This proposal has been rejected in legal proceedings. Ecology cannot approve the plan as long the plan states that waste of water is a beneficial use. Second, Ecology will not amend the Methow rule until there is a proper accounting of how much water has been used from the reserve and elsewhere in the basin.

V. County Codes Relating to Water Availability

As elsewhere in the state of Washington, Okanogan County has the duty to determine that proposed subdivisions and new construction have adequate water supply.[9] Since the water reservations have been exhausted in at least three Methow subbasins, there is a question as to whether the County has the authority to authorize use of new exempt wells in these subbasins until it is determined that water is available.

The Okanogan County Codes for subdivision approval are based upon RCW 58.17.110, which forbids approval of a subdivision unless the county can make a written finding that "appropriate provisions" are made for potable water supplies. OCC 17.19.060 requires that all planned development applications be submitted with "appropriate certification to show that adequate water exists to support the proposed development, and shall be compatible with water priority uses contained in any applicable river basin studies prepared and adopted by the Washington State Department of Ecology." Finally, the Okanogan County Health Department must certify that all proposed short plats and subdivisions are served by "adequate water supply."[10]

The language in the county code does not appear to require much from an applicant in order for the commissioners to determine whether "appropriate provisions" or "appropriate certifications" are made for water supplies for the plat or subdivision. Based on population and well log data, Okanogan County does not appear to be considering the possibility that the water reservations are exhausted for some subbasins and that new water supply is not available.

VI. Conclusion

In 1990, Ecology determined it was probable that at least three of the seven subbasins in the Methow watershed had already exceeded their reservation. Since that time both population and new wells have increased in Okanogan County. It is likely that there are many newer wells using water that, by law, should be regulated during times when instream flows are not being met and "in-between" water rights, those that are junior to the instream flow but senior to new exempt wells, are curtailed. Until Ecology analyzes the current status of the reservations in WRIA 48 and forbids new well construction, permit-exempt wells will continue to impact instream flows and senior water rights.

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[9] Okanogan County Code 16.20.080: "The board shall determine if appropriate provisions are made for, but not limited to, the public health, safety and general welfare, for open spaces, drainageways, streets, alleys, other public ways, water supplies, sanitary wastes…"
[10] OCC 16.12.040 and 16.20.010 (2007).

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Drying up the Okanagan

Thirsty region is 'canary in coal mine' for BC and water.

By Chris Wood, 17 Aug 2006, TheTyee.ca

Mud pond near Kelowna, B.C.

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[Editor's note: "Rough Weather Ahead," Chris Wood's series on what British Columbians can expect from global warming, is funded by a Tyee Investigative Reporting Fellowship. Today we publish the third of his reports, with two more to appear on consecutive Thursdays. To learn more about Wood, his series and Tyee fellowships, go here.]

On the hottest day of the year, Deana Machin meets me in the welcome air-conditioned coolness of a converted house in Westbank that serves as an office for the Okanagan Nation Alliance. Deana is fisheries program manager for the Alliance, which represents seven First Nations bands whose traditional territories stretch from

north of Vernon, south to the U.S. border and west into the Similkameen Valley. If the beleaguered native coho, kokanee, cutthroat trout and other species struggling to survive in this interior Eden have a voice, Deana is it. And she is worried.

"We've been here forever," Deana says, leaning forward across a dark wooden table. "We'll be here forever. You hear elders speak about our 'grand-children's children.' And I'm very concerned about how rapidly development is happening. People aren't thinking very far ahead. Water is one of the big issues: water for food, water for people, water for fish, and fish seem to be on the losing end."

There are competing views of course. Orchardists and vineyard owners have their own feelings of entitlement: it was their predecessors who turned much of the arid Okanagan green, damming small lakes above the valley and piping water down to irrigate the lower benches and flatlands. An expanding high-tech sector asserts its importance to the region's prosperity. Then there all those active retirees, for whom a condo near the golf course represents the "golden years" dream come true. To say nothing of vacationers who annually flock to hotels and campgrounds to soak up sun, sip the local vintages and frolic in the lakes that lace the 180 km valley.

The Okanagan, in short, is a microcosm of British Columbia: lovely, productive, a magnet to immigrants, hedonistic -- and heedless of the climate threat hanging over its lifestyle.

"We're in a crisis," says Kim Stephens. "That hasn't sunk in yet." A second-generation water engineer and self-described "son of a dam builder," Kim now spends his days as sustainability coordinator for the B.C. Water and Waste Association trying to undo the myth of the "wet coast."

"We all think we're water rich," he observes. "But it's all time and place." Last winter's record stretch of rainy days, that is, does not rule out water shortages during this hot, dry summer -- or outright droughts next year.

Shrinking snowpacks

The reason, Stephens explains, is that here in British Columbia, "we're snowpack dependent." It is the water captured in snow on our fabled white-capped peaks that keeps our rivers flowing and valleys green through July, August and September. But even as our enviable environment attracts more and more people, and British Columbians waste more water per capita than almost anyone else on the planet, a warming climate is tending to deliver less and less winter snow. As a result, Kim says, "The safety factor now is pretty thin."

And, he adds, "The Okanagan is the canary in the coal mine for British Columbia and water." Nowhere are explosive growth and soaring water use in the face of higher temperatures on a more direct collision course with vanishing snow.

That's something Bob Campbell understands well. He's another water engineer, with the particular task of keeping the water flowing in Vernon. He manages a century-old water system that collects each spring's snowmelt in a series of artificial lakes above the town, then distributes it to homes, businesses and a few remaining farms. Two dates dominate his calendar: the last day in spring when melting snow overflows the dams on Aberdeen, Haddo and Grizzly lakes, and the day the first autumn rain arrives. Between those two dates, whatever is in the reservoirs when the dams stop "spilling" is all there is to maintain the wildlife in downstream creeks, satisfy lowland farmers and ensure that Vernon's taps and fire hydrants don't run dry. "Our money in the bank," Bob calls it.

Each year, it seems the first date comes sooner -- three weeks earlier than it did in the 1950s -- and the second later. That means Bob's water "in the bank" has to last longer too. And that's not all: as early summers get warmer, farmers and lawn-owners turn their sprinklers on earlier.

"That goes with what the climatologists are telling us," Bob tells me, as we bump down the rugged track back from Aberdeen Lake in his Jeep. "They're telling us to expect longer growing seasons. You're looking at the demand for water starting earlier and extending later into the fall. So when you start taking [water] out earlier, and your users are wanting it longer, you've got a real potential for shortages."

Thirsty developments

Meanwhile, developments marketed under names meant to evoke the region's natural beauty keep popping up. "Lakeshore Gardens," "Pinnacle Point" and "Greata Ranch Vineyard Estates" are among those currently signing up new residents. "Housing starts in Kelowna have more than doubled this year from the same seven-month period last year," the city's real-estate board boasted on Aug. 2. The valley's population of 300,000 is predicted to grow by a third by 2020.

Deana Machin isn't the only one worried about where the water will come from for all the new en-suites, gardens and golf courses to keep the condo-dwellers occupied. "It's a horror show," snorts Lorraine Bennest. Petite, grey-haired and salty in speech, Lorraine's a second-generation orchardist whose lovingly tended high-end apple trees occupy a hillside overlooking Summerland. She's proud of the computer in her small barn and the pipes buried along each tree row that dispense programmed sips

of water and fertilizer, making the most of each litre. "We're spoon-feeding our plants," she says.

That parsimony didn't stop her from taking sides in the dry summer of 2003. That was the year fire crested Okanagan Mountain and destroyed more than 200 Kelowna homes. As Summerland's upland reservoir neared the bone-dry stage, growers like Lorraine faced off with federal biologists and First Nations over whether to save the last water for fish or keep crops alive. Acrimonious bargaining hammered out a tense compromise then.

Ten years to 'tipping point'?

Lorraine believes it's only a matter of time before the next crisis. Summer is getting longer and hotter; as temperatures rise, crops demand more water. And Summerland, like everywhere else in the valley, is adding homes. "My community has added users in anticipation of more water being available. Now they're looking at a golf course. The thinking is, 'It'll all be OK in the future.' Why will it be OK in the future? It's not OK now. I don't know what we're going to do. The areas that irrigate are in trouble."

Experts agree. Geographer Stewart Cohen is one of North America's top climate scientists -- a lead researcher for Environment Canada's Adaptation and Impacts Research Group and an adjunct professor at UBC. His *latest study of the Okanagan's water future* may be the most thorough look at how climate change will affect any region in Canada.

The bottom line? "If we don't do anything, demand will outstrip supply by the 2050s." That's in normal years and across the entire Okanagan. For individual communities, or for the whole valley in dry years, "that tipping point would happen a lot sooner. We could be passing that balance in the next ten years."

'We're in trouble'

The water that flows through Lorraine's orchard, like that spilled from Vernon's reservoir and flushing Kelowna toilets, ends up eventually in Okanagan Lake. A hundred kilometres long and 250 metres deep, it constitutes the region's ultimate reservoir. That makes Brian Symonds, a provincial Environment Ministry employee based in Penticton, Bob Campbell's counterpart for the whole valley. "I'm the guy with his hand on the tap," he jokes when we meet. Make that several "taps" -- there are control structures at the exit of each of the valley's five lakes, although the last is south of the 49th parallel and under U.S. control.

"A system like this is managed for multiple objectives," Symonds explains. The first is to contain flooding. But he also answers to agricultural users and municipal utilities, like Kelowna's, that draw water from the lakes. Owners of expensive shorefront property, meanwhile, want the lake level kept within steps of their docks. Looming behind all of these is the likelihood that the Okanagan Alliance or its member bands will increasingly assert title to a larger share of the water originating on their territories.

Those diverse demands "are often in competition with each other," Symonds says. It's hard to keep everyone happy all the time. And if the critical upland snowpacks continue to shrink, as Bob Campbell has observed them doing, as Lorraine Bennest fears and as Stewart Cohen predicts? "We're in trouble."

Hard choices

The Okanagan, Symonds and others believe, faces some hard choices. A few long-time residents would like to "close the door" -- stop development in its tracks. Most accept that's not in the cards. But other measures may be. They include:

- Stricter control on who can build what, and where.
- Universal water metering -- for agriculture as well as homes and businesses, within and beyond municipal limits.
- Separated water systems, so that only drinking water gets fully disinfected, and so "grey" water (waste that doesn't include human waste) can be recycled for irrigation, a technique already practiced in Vernon and Oliver.
- Penalties for planting certain kinds of thirsty shrubbery.
- At the extreme, augmenting the Okanagan system with water diverted from neighbouring watersheds.

The valley has already taken a cautious but promising first step. Earlier this year, its three municipal districts augmented the resources of the Okanagan Basin Water Board, a hitherto rather toothless vestige of a campaign to rid the lakes of a nuisance milfoil infestation in the 1980s. They also established a new Water Stewardship Council, to consult widely with residents, farmers, experts and other interests and advise the board. The council's objective, says its chairman, former federal cabinet minister and now Okanagan retiree Tom Siddon, is to determine, "How can we sustain this paradise?" All options, he says, are on the table.

Deana Machin is encouraged -- up to a point. The new council, on which she sits, reflects a dawning awareness that things must change and those changes must involve the whole valley. "Everybody's really talking a good game," she says. "But

we still don't get any consensus. People are still coming to the table with positions rather than solutions."

I ask for hers. She's silent a while. "It's tough," she says at last. "Let me think."

At least in the Okanagan, thinking has begun. That is more than is true for most British Columbians. And even thinking must not be an excuse for inaction. The weather is changing -- on a timetable that cannot be entirely predicted, but that also will not be stayed merely by our wish to avoid hard choices.

Veteran journalist Chris Wood is recipient of a Tyee Fellowship for Investigative Reporting, which provided the funds necessary to do the in-depth reporting in this series. Tyee Fellowships for Investigative and Solutions-oriented Reporting are supported by donations from Tyee readers and intended to support independent journalism to educate the public about critical issues facing British Columbia. If you are interested in making a tax-deductible donation, please go here. If you are interested in applying for a fellowship, please go here. Wood is working on a book, Dry Spring: When the Water Runs Out*, forthcoming from Raincoast Books.*