

WHATCOM COUNTY

Planning & Development Services
5280 Northwest Drive
Bellingham, WA 98226-9097
360-676-6907, TTY 800-833-6384
360-738-2525 Fax



J.E. "Sam" Ryan
Director

Memorandum

TO: The Honorable County Council
Jack Louws, County Executive

FROM: Cliff Strong, Senior Planner *CS*

THROUGH: Mark Personius, Asst. Director *MP*

DATE: June 20, 2017

SUBJECT: 2016 Critical Areas Ordinance Update
County Council Review Workshop on June 27, 2017

On June 27th, the Council will continue its review of the 2016 Critical Areas Ordinance Update. Topics to be covered include:

- Review of certain questions, comments, and suggestions by Council members related to:
 - Article 8, Conservation Program on Agriculture Lands
 - Article 9, Definitions
 - Article 5, Critical Aquifer Recharge Areas

To prepare for this meeting, please review this memo. In it, I have removed the issues you've already covered; however, I have retained the original Issue numbers in order to keep track of them (even though they're out of order now). Yellow highlighting in the text indicates a Councilperson's proposed amendments.

Questions, Comments, and Suggestions by Council Members

Article 8. Conservation Program on Agriculture Lands

ISSUE 152. (Brenner)

16.16.830 Conservation Farm Plans – General Standards.

- B. A conservation farm plan ~~shall~~may not authorize filling, draining, grading, or clearing activities within critical areas or buffers;
- ~~1. except Only on existing ongoing agricultural land where such activities are an demonstrated to be an integral essential part of the ongoing agricultural use or part of routine maintenance; and,~~

Staff Response: At your workshop on 6/13/17 Council rejected the above proposal. CM Browne started to propose some alternative language but the meeting ended prior to Council resolving it. That proposal was:

16.16.830 Conservation Farm Plans – General Standards.

- B. A conservation farm plan ~~shall~~may not authorize filling, draining, grading, or clearing activities within critical areas or buffers;
- ~~1. except Only on existing ongoing agricultural land with a history of legal agricultural uses and where such activities are an demonstrated essential part of the ongoing agricultural use or part of routine maintenance; and,~~

Again, staff does not recommend these changes. As explained previously, the CPAL program is intended to only apply to ongoing agriculture; new agriculture must protect the functions and values of critical areas. This section is basically saying that certain activities (filling, draining, grading, or clearing activities within critical areas or buffers), where those activities have already been historically and legally been performed, may continue to do so via a Conservation Farm Plan. New ag should not be allowed to do these things in new areas.

ISSUE 153. (Brenner)

16.16.830 Conservation Farm Plans – General Standards.

- ~~C. The A conservation farm plan shall not may authorize:~~
- ~~1. The construction of new structures. New structures shall be constructed in compliance with the applicable provisions standard requirements of this chapter and the Whatcom County Code. landowner shall ensure that all of the following are met:
— Siting of structures shall not result in surface or groundwater contamination.
— Dust, odor, and noise concerns attendant to the use of the improvement shall be mitigated.
— Impermeable surfaces such as building roofs, roads, and yards shall not change the flow, volume, and/or direction of runoff, or cause erosion or downstream flooding.~~
 - ~~2. New or expanded drainage systems. (Routine maintenance of existing drainage systems may be allowed but only in compliance with the Washington State hydraulic code (WAC 220-660) and the Best Management Practices found in the “Drainage Management Guide for Whatcom County Drainage Improvement Districts.”)~~
 - ~~3. The conversion of land to agricultural use.~~

Staff Response: Staff does not recommend this change. By definition, all of these items would expand agricultural uses into areas where previously not done, and therefore not considered ongoing agriculture. Amending the language as proposed would explicitly say that a farm plan—again, intended to apply only to areas already impacted—could be done. Farm plans *cannot* apply to activities that *cause additional harm* to critical areas.

ISSUE 154. (Brenner)

16.16.840 Conservation Farm Plan Requirements.

- A. **Type 1 (Standard) Conservation Farm Plans.** Owners of ~~Type 1 low impact livestock~~ operations have limited options to control animal waste because their operations are small. The required conservation farm plan can be prepared by the landowner and include a simple map of the property, a standard checklist designed to protect water quality, and the following additional components:
1. System Siting and Design. Barns, corrals, paddocks, or lots are to be sited to avoid runoff directly into critical areas.
 - a. Where structures exist in critical areas or buffers and cannot be relocated, corrective measures must be taken if necessary to avoid runoff of pollutants and bacteria to critical areas.

Staff Response: Staff is neutral.

ISSUE 131. (Donovan)

16.16.840 Conservation Farm Plan Requirements

Need clarification for why deletions in A.1.b.

Staff Response: In subsection A.1.b and A.1.b.i, words were just moved around for grammatical clarity. In subsection A.1.b.ii, the TAC recommended that all streams lacking vegetation be planted to the standard found in that subsection to address temperature impairment. However, the CAC recommended not adopting this, as the cost of installing hedgerows might keep people from participating in the CPAL program. The P/C agreed with the CAC and deleted the proposed TAC addition.

ISSUE 155. (Brenner)

16.16.840 Conservation Farm Plan Requirements.

- A. **Type 1 (Standard) Conservation Farm Plans.** Owners of ~~Type 1 low impact livestock~~ operations have limited options to control animal waste because their operations are small. The required conservation farm plan can be prepared by the landowner and include a simple map of the property, a standard checklist designed to protect water quality, and the following additional components:
1. System Siting and Design. Barns, corrals, paddocks, or lots are to be sited to avoid runoff directly into critical areas.
 - b. ~~Where trees and shrubs exist a~~Along regulated astreams⁺, lakes, ponds, or wetlands:
 - i. Where trees and shrubs already exist, they shall be retained and managed to preserve the existing functions of the buffer pursuant to the NRCS Conservation Practice 391, “Riparian Forest Buffer.”

⁺ Note that ditched channels may or may not meet the definition of a stream. See Article 9, Definitions.

Staff Response: Staff does not recommend either the removal of the footnote or the deletion of “retained.” Though the footnote contains no regulation, it was added as a reminder to the reader to review the definitions of “stream” and “ditch,” since there’s always been confusion. Removing the word “retained” in reference to existing trees and shrubs goes against the BMP recommended by the NRCS.

ISSUE 133. (Weimer)

16.16.840 Conservation Farm Plan Requirements

Subsection (A)(4): How is this section on Exercise or Barn Lots protective of CARAs?

Staff Response: According to George Boggs, Exercise/Barn Lots are typically found on small operations (hobby/few animals). They are confined in wet season and then turned out to pasture. Solids would be picked up and moved to covered storage. Because surface runoff would be directed to a vegetative area the dissolved nutrients (N and P) would be used by the vegetation that is required to be established. NOTE: Nitrates are not shed in urine or feces. Mineralization is temperature dependent. If soil is cold there is little/no conversion. When the soil warms, mineralization occurs but the grass is growing to take up the nutrients.

ISSUE 156. (Brenner)

16.16.840 Conservation Farm Plan Requirements.

- A. **Type 1 (Standard) Conservation Farm Plans.** Owners of Type 1 low impact livestock operations have limited options to control animal waste because their operations are small. The required conservation farm plan can be prepared by the landowner and include a simple map of the property, a standard checklist designed to protect water quality, and the following additional components:
- Existing native vegetation within critical areas and their buffers shall be retained to the extent practicable ~~to the extent practicable~~.

Staff Response: Staff does not recommend this change. The phrase was stricken because the definition of ongoing ag says that no new area will be cleared per 16.16.290.B.1. Reintroducing it would allow some clearing of existing vegetation.

ISSUE 132. (Weimer)

16.16.840 Conservation Farm Plan Requirements

- A. **Type 1 (Standard) Conservation Farm Plans.** Owners of Type 1 operations have limited options to control animal waste because their operations are small. The required conservation farm plan can be prepared by the landowner and include a simple map of the property, a standard checklist designed to assess risk to protect water quality, and the following additional components:
- Fertilizers. The rate and timing of fertilizer application shall not exceed crop requirements, or cause surface or groundwater quality degradation.

Staff Response: This seems like a better way to do what CM Weimer’s trying to do in Issue 118, though we might want to say “Fertilizers other than manure,” since manure is already addressed in (2).

That said, Natural Resources staff says that though a farm plan might address fertilizer application rates, tracking actual application is not feasible given we only have one staff member who does this, and he’s not in the field all the time. PDS believes helping farmers manage this would best be done through the Whatcom Conservation District’s education & outreach program. Also, the Washington Department of

Agricultural has programmed public outreach activities in 2017-2018 to the berry-growing community in Whatcom County specifically addressing BMPs for application of fertilizers, including manure.

ISSUE 134. (Weimer)

16.16.840 Conservation Farm Plan Requirements

Subsection (B)(2): This section says that “benchmark conditions are to be captured and described in the plan.” How is this done for CARAs?

Staff Response: Benchmark groundwater conditions are not currently assessed through farm plans. One approach to address this would be to coordinate the activities of the Washington State Departments of Ecology and Health and the Whatcom County Health Department, all of whom already test and/or monitor wells in some manner.

ISSUE 157. (Brenner)

16.16.840 Conservation Farm Plan Requirements.

B. Type 2 (Custom) Conservation Farm Plans. In addition to the elements of a Type 1 conservation farm plan, Type 2 plans must address the following:

3. ~~Treatment of Wetlands.~~ Except for impacts allowed by this Title, Wwetlands shall be conserved pursuant to the provisions of Title 180 – National Food Security Act Manual (see <http://www.nrcs.usda.gov/programs/wetlands/index.html>).

Staff Response: Staff does not recommend this change. Title 180 is already more lenient than the CAO.

ISSUE 135. (Weimer)

16.16.840 Conservation Farm Plan Requirements

Subsection (B)(5): This section says that “Where potential significant impacts to critical areas are identified through a risk assessment, then plans shall be prepared to prevent same.” Where in the chapter is a “risk assessment” required, and how is that defined?

Staff Response: The risk assessment is part of the farm plan application/workbook one uses to apply for farm plan approval. By definition one cannot develop a farm plan (regardless of the type 1, 2, or 3) without an inventory and risk assessment. Attached is a checklist (jointly developed by PDS, the Department of Ecology, and the Whatcom County Health Department) on grazing & manure management for developing that component of the plan. For the purposes of CPAL, CARA's, streams, riparian, and wetlands are the resource concern. Potential impacts are: Nutrients, Pathogens, Sediment, Plant Damage and Bank erosion. These are addressed through the various practices the selection of which is tailored to the specific farming activities. Pesticides applications are regulated by EPA and WSDA.

ISSUE 158. (Brenner)

16.16.840 Conservation Farm Plan Requirements.

B. Type 2 (Custom) Conservation Farm Plans. In addition to the elements of a Type 1 conservation farm plan, Type 2 plans must address the following:

5. Where potential significant impacts to critical areas are identified through a risk assessment, then plans shall be prepared to ~~mitigate~~ mitigate and/or prevent same by:

- a. A planning advisor; or
- b. Through the USDA Natural Resources Conservation Service; or
- c. The Whatcom conservation district; or
- d. An eligible farmer or rancher, who participates in this program by:
 - Attending a County-sponsored or approved workshop, and
 - Conducting a risk assessment of their farm or ranch, alone or with a planning advisor’s assistance, and
 - Developing a plan to mitigate and/or prevent ~~mitigate~~ any identified risks, and
 - Having the plan approved pursuant to WCC [16.16.290](#).

Staff Response: Staff is neutral.

ISSUE 159. (Brenner)

16.16.850 Preparation and Approval of Conservation Farm Plans.

Table 1. Who May Prepare Conservation Farm Plans

<u>Who May Prepare</u>	<u>Type 1 Operations</u>	<u>Type 2 and 3 Operations</u>
<u>The farm operator</u>	<u>X</u>	
<u>Whatcom County Planning and Development Services</u>	<u>X</u>	<u>X</u>
<u>A Qualified Consultant</u>	<u>X</u>	<u>X</u>
<u>A Watershed Improvement District (for a farm or ranch that is within its boundaries)</u>	<u>X</u>	
<u>The Whatcom Conservation District</u>	<u>X</u>	<u>X</u>
<u>A Planning Advisor</u>	<u>X</u>	<u>X</u>

Staff Response: Staff does not recommend this change. Currently there are no qualified consultants to prepare even Type 1 Conservation Farm Plans in Whatcom County (though there is one Planning Advisor). Staff added the ability for someone to become qualified, but only for the simpler Type 1 farm plans. In order to be qualified to prepare Type 2 or 3 farm plans, one must go through Federal training, by which one becomes a Planning Advisor.

ISSUE 136. (Weimer)

16.16.860 Monitoring and Compliance

Is all the language in here about the timing related to “reasonable notice” and “receiving confirmation and scheduling” a site visit up to the County or is some of this state law?

Staff Response: All the language in this section was developed by Whatcom County. The non-underlined text is in the existing code. Most of the new, underlined text is from PDS Policy PL1-85-003Z.

ISSUE 137. (Weimer)

16.16.860 Monitoring and Compliance

What about site visits if there are imminent threats to health or the environment?

Staff Response: The same policy, proposed to be incorporated in the code, would apply as written. 16.16.860(C) allows for enforcement pursuant to WCC 16.16.285.

ISSUE 138. (Weimer)

16.16.860 Monitoring and Compliance

What occurs if a landowner does not respond to a request for a site visit?

Staff Response: Then the farm plan would be considered noncompliant and it would become an enforcement issue.

From George Boggs: The Whatcom Conservation District is considering moving to a paradigm that requires a written agreement whereby the farm operator agrees to work in good faith. If not, we terminate our assistance. If the matter had been referred to the District for technical assistance, then that agency would be told that the relationship had ended. See attached draft agreement.

ISSUE 160. (Brenner)

16.16.860 Monitoring and Compliance.

Define "Monitoring"

Staff Response: Staff does not recommend this change. There are too many types of monitoring within the CAO to have just one definition, and frankly, each section where monitoring is mentioned appear to self-define what it is. Staff doesn't think it necessary.

ISSUE 161. (Brenner)

16.16.860 Monitoring and Compliance.

- A. The technical administrator and/or the farm operator shall periodically monitor plan implementation and compliance beginning one year after plan approval and every two years thereafter, through the life of the plan, or more frequently at the Technical Administrator's discretion. The monitoring may include periodic site inspections, self-assessment by the farm operator, or other appropriate actions. For a time period of up to every 5 years, self-certification is allowed for Type 1 conservation farm plans, or if thefor any plan that is prepared by the Whatcom Conservation District or Planning Advisor and approved by the department. If a sufficient self-certification monitoring report (must include photos and implemented Best Management Practices) is not submitted within 30 days of request, County staff may make a site visit. Site visits will be coordinated with the landowner/farm operator. Prior to carrying out a site inspection, the technical administrator shall provide reasonable notice to the owner or manager of the property as to the purpose or need for the entry, receive confirmation, and afford at least two weeks in selecting a date and time for the visit. At the landowner's/farm operator's discretion, staff may be accompanied by the planning advisor or Whatcom Conservation District planner.

Staff Response: Staff does not recommend this change. Changing the language to "any plan prepared by the WCD or PA" would allow all Type 2 and 3 farm plans to be self-certified. Allowing self-certification of Type 1 farm plans was intended to assist the small farm operators. However, allowing larger operations to self-certify would go against the standard practices of the WCD, the Department of Ecology, and other regulatory agencies. The language was incorporated from PDS Policy PL1-85-003Z.

ISSUE 162. (Brenner)

Define "imminent threat."

16.16.860 Monitoring and Compliance.

- B. Where the planning advisor has reason to believe that there is an imminent threat to public health or significant pollution with major consequences occurring as a result of the agricultural operations, ~~a~~the planning advisor will advise the agricultural operator of his or her concerns in writing. While the planning advisor may provide suggestions for resolving the issue, the responsibility for compliance and resolution of issues rests solely with the farm operator. If compliance issues are not promptly resolved, the planning advisor shall promptly withdraw from representing the farm operator, notify the Technical Administrator of such, and may report such situations to the Technical Administrator for subsequent action and enforcement in accordance with WCC 16.16.285.

Staff Response: Staff does not recommend this change. We feel that there are too many types of potential imminent threats and too many agencies potentially involved (health, agriculture, ecology, etc.) to classify. We feel it would be better for the various departments' directors to have the discretion to determine what constitutes an "imminent threat."

ISSUE 139. (Donovan)

16.16.860 Monitoring and Compliance

Subsection (C): Why delete "If the conservation farm plan is found not to be protective of critical areas in the approved farm plan..." and where is the original language that concluded after this deletion?

Staff Response: The condition of finding a farm plan to not be protective of critical areas, and the original language that concluded after this deletion became subsection (D) because (C) had addressed two different concepts.

ISSUE 140. (Donovan)

16.16.860 Monitoring and Compliance

Subsection (C): What are the consequences of a plan being found to be not protective of critical areas? (Is this covered in PL1-85-003Z, point 7?)

Staff Response: The consequences of a plan being found to be not protective of critical areas are found in subsection (D), into which PL1-85-003Z was incorporated, which requires that a new farm plan be developed to address the changed conditions.

ISSUE 141. (Donovan)

16.16.860 Monitoring and Compliance

Subsection (D): Does "ineffective" mean plan is null and void, and then what?

Staff Response: Any one of the 6 conditions listed under subsection (D), including it becoming ineffective due to substantial changes in agricultural activities, is cause for a new plan to be developed.

ISSUE 142. (Donovan)

16.16.860 Monitoring and Compliance

Related to monitoring and compliance, PL1-85-003Z May 6, 2010 states: "a self-certification is allowed." Does this present problems similar to the OSS self-certification program?

Staff Response: Self-certification of monitoring and compliance efforts under the CPAL program differs from the OSS self-certification program. Under CPAL, implementation/installation of BMPs is first verified by staff through a site visit; photos showing that the measures are still present are allowed in subsequent years. On the fifth year, staff performs another site visit.

ISSUE 163. (Brenner)

16.16.860 Monitoring and Compliance.

- D. Agricultural operations shall cease to be in compliance with this [Article, and a new or revised conservation farm plan will be required, section](#) when the technical administrator determines [with detailed written findings](#) that any of the following has occurred:
3. When substantial changes in the agricultural activities of the farm or livestock operation have occurred that render the current conservation farm plan ineffective. [Substantial changes that render a conservation farm plan ineffective are those that:](#)
 - a. [Degrade baseline critical area conditions for riparian and wetland areas that existed when the plan was approved; or,](#)
 - b. [Result either in an increased a direct discharge or substantial potential discharge of pollution to surface or ground water; or,-](#)
 - c. [The type of agricultural practices change from Type 1 to Type 2, Type 2 to Type 3, or Type 1 to Type 3 operations.](#)

Staff Response: Staff does not recommend adding "with detailed written findings" as Council has declined this suggestion in other areas. Staff also doesn't recommend adding "an increased" as direct discharges of pollution are never "grandfathered;" each discharge is a separate and illegal activity under the federal Clean Water Act.

ISSUE 164. (Brenner)

16.16.860 Monitoring and Compliance.

- E. [With one exception, Whatcom County will not use conservation farm plans \(standard or custom\) as an admission by the landowner that s/he or she has violated this Chapter. Disclosure of current farm practices, structures on conservation farm plan documents, or observations made through monitoring inspections or conservation farm plan approval, will not be used to bring other enforcement actions against a farm operator. ~~W~~ The exception is that when matters of major life, health, environment, or safety issues, as determined \[with detailed written findings\]\(#\) by the Technical Administrator are observed and the landowner fails to immediately and permanently remediate, then the observations may be used in an enforcement action.](#)

Staff Response: Staff does not recommend adding "with detailed written findings" as Council has declined this suggestion in other areas.

ISSUE 143. (Weimer)

16.16.870 Limited Public Disclosure

Is it our decision regarding disclosure of farm plans or is that state law. If it is state law please describe exactly what the state protects from disclosure.

Staff Response: Under state law (see below) PDS considers very little to be disclosable, as most Conservation Farm Plans are prepared by the Whatcom Conservation District, and all dairies, CAFOs, and AFOs need to apply for a Clean Water permit. The only farm plans we believe are disclosable are those used for the application or issuance of a building permit, which we estimate to be about 10% of all the farm plans we have in the county.

Attached to this memo is PDS Policy PL1-85-002Z, which implements RCW 42.56.270.

The state laws regarding the nondisclosure of farm plans follow:

RCW Chapter 42.56 PUBLIC RECORDS ACT

RCW 42.56.270. Financial, commercial, and proprietary information.

The following financial, commercial, and proprietary information is exempt from disclosure under this chapter:

(17)(a) Farm plans developed by conservation districts, unless permission to release the farm plan is granted by the landowner or operator who requested the plan, or the farm plan is used for the application or issuance of a permit;

(b) Farm plans developed under chapter 90.48 RCW and not under the federal clean water act, 33 U.S.C. Sec. 1251 et seq., are subject to RCW 42.56.610 and 90.64.190;

RCW 42.56.610. Certain information from dairies and feedlots limited—Rules.

The following information in plans, records, and reports obtained by state and local agencies from dairies, animal feeding operations, and concentrated animal feeding operations, not required to apply for a national pollutant discharge elimination system permit is disclosable only in ranges that provide meaningful information to the public while ensuring confidentiality of business information regarding: (1) Number of animals; (2) volume of livestock nutrients generated; (3) number of acres covered by the plan or used for land application of livestock nutrients; (4) livestock nutrients transferred to other persons; and (5) crop yields. The department of agriculture shall adopt rules to implement this section in consultation with affected state and local agencies.

Chapter 90.64 RCW DAIRY NUTRIENT MANAGEMENT

RCW 90.64.190. Information subject to public records disclosure—Rules.

This section applies to dairies, AFOs, and CAFOs, not required to apply for a permit. Information in plans, records, and reports obtained by state and local agencies from livestock producers under chapter 510, Laws of 2005 regarding (1) number of animals; (2) volume of livestock nutrients generated; (3) number of acres covered by the plan or used for land application of livestock nutrients; (4) livestock nutrients transferred to other persons; and (5) crop yields shall be disclosable in response to a request for public records under chapter [42.56](#) RCW only in ranges that provide meaningful information to the public while ensuring confidentiality of business information. The department of agriculture shall adopt rules to implement this section in consultation with affected state and local agencies.

WAC 16-06-210 Exemptions (to the Public Disclosure rules).

(29) Under RCW 42.56.610 and 90.64.190, information identifying the number of animals; volume of livestock nutrients generated; number of acres covered by the plan or used for land application of livestock nutrients; livestock nutrients transferred to other persons; and crop yields in plans, records, and reports obtained by state and local agencies from dairies, animal feeding operations, and concentrated animal feeding operations not required to apply for a National Pollutant Discharge Elimination System permit is disclosable in the following ranges:

(a) Number of animals: Beef cattle

<ul style="list-style-type: none"> • 1 to 19 • 20 to 159 • 160 to 299 • 300 to 999 • 1,000 to 5,999 		<ul style="list-style-type: none"> • 6,000 to 10,999 • 11,000 to 15,999 • 16,000 to 20,999 • 21,000 to 25,999 • 26,000 to 31,199 		<ul style="list-style-type: none"> • 31,200 to 37,439 • 37,440 to 44,999 • 45,000 and above
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(b) Number of animals: Mature dairy cattle

<ul style="list-style-type: none"> • 1 to 37 • 38 to 199 • 200 to 699 • 700 to 1,699 		<ul style="list-style-type: none"> • 1,700 to 2,699 • 2,700 to 3,699 • 3,700 to 4,699 • 4,700 to 5,699 		<ul style="list-style-type: none"> • 5,700 to 6,839 • 6,840 and above
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(c) Number of animals: Dairy heifers

<ul style="list-style-type: none"> • 1 to 49 • 50 to 149 • 150 to 299 		<ul style="list-style-type: none"> • 300 to 999 • 1,000 to 1,999 • 2,000 to 2,999 		<ul style="list-style-type: none"> • 3,000 to 3,999 • 4,000 and above
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(d) Number of animals: Swine (fifty-five pounds or greater)

<ul style="list-style-type: none"> • 1 to 19 • 20 to 159 • 160 to 399 		<ul style="list-style-type: none"> • 400 to 749 • 750 to 2,499 • 2,500 to 4,249 		<ul style="list-style-type: none"> • 4,250 to 5,999 • 6,000 to 7,749 • 7,750 and above
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(e) Number of animals: Swine (less than fifty-five pounds)

<ul style="list-style-type: none"> • 1 to 99 • 100 to 499 • 500 to 1,099 • 1,100 to 1,999 		<ul style="list-style-type: none"> • 2,000 to 2,999 • 3,000 to 9,999 • 10,000 to 16,999 • 17,000 to 23,999 		<ul style="list-style-type: none"> • 24,000 to 30,999 • 31,000 and above
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(f) Number of animals: Layers (all ages)

<ul style="list-style-type: none"> • 1 to 199 • 200 to 999 • 1,000 to 10,999 • 11,000 to 24,999 • 25,000 to 81,999 • 82,000 to 138,999 • 139,000 to 195,999 		<ul style="list-style-type: none"> • 196,000 to 252,999 • 253,000 to 309,999 • 310,000 to 371,999 • 372,000 to 446,399 • 446,400 to 535,679 • 535,680 to 642,815 • 642,816 to 771,379 		<ul style="list-style-type: none"> • 771,380 to 925,655 • 925,656 to 1,110,787 • 1,110,788 to 1,332,945 • 1,332,946 and above
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(g) Number of animals: Broilers (all ages)

<ul style="list-style-type: none"> • 1 to 199 • 200 to 999 • 1,000 to 17,999 • 18,000 to 37,499 • 37,500 to 124,999 • 125,000 to 212,499 		<ul style="list-style-type: none"> • 212,500 to 299,999 • 300,000 and above 		<ul style="list-style-type: none"> • 150 to 499 • 500 to 849 • 850 to 1,199 • 1,200 to 1,549 • 1,550 and above
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(h) Number of animals: Horses

<ul style="list-style-type: none"> • 1 to 19 • 20 to 79 • 80 to 149 			
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(i) Livestock nutrients generated or exported by volume (ft3/day)

<ul style="list-style-type: none"> • 1 to 74 • 75 to 134 • 135 to 299 • 300 to 449 		<ul style="list-style-type: none"> • 450 to 749 • 750 to 1,499 • 1,500 to 2,499 • 2,500 to 4,999 		<ul style="list-style-type: none"> • 5,000 to 8,499 • 8,500 to 11,999 • 12,000 to 15,999 • 16,000 and above
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(j) Livestock nutrients generated or exported by weight (tons/year)			
<ul style="list-style-type: none"> • 1 to 5,256 • 5,257 to 10,512 • 10,513 to 21,024 • 21,025 to 42,048 • 42,049 to 84,096 		<ul style="list-style-type: none"> • 84,097 to 164,184 • 164,185 to 262,734 • 262,735 to 394,200 • 394,201 to 558,384 • 558,385 to 722,634 	<ul style="list-style-type: none"> • 722,635 to 919,734 • 919,735 to 1,051,134 • 1,051,135 and above
(k) Number of acres covered by the plan or used for land application of livestock nutrients			
<ul style="list-style-type: none"> • 0 to 25 • 26 to 65 • 66 to 120 • 121 to 300 • 301 to 550 • 551 to 900 		<ul style="list-style-type: none"> • 901 to 1,300 • 1,301 to 1,800 • 1,801 to 2,500 • 2,501 to 3,200 • 3,201 to 4,000 • 4,001 to 6,000 	<ul style="list-style-type: none"> • 6,001 to 9,000 • 9,001 to 11,500 • 11,501 to 14,000 • 14,001 and above
(l) Crop yields - tons/acre			
<ul style="list-style-type: none"> • 0 to 1 • 1.1 to 2 • 2.1 to 3.5 • 3.6 to 5 • 5.1 to 7 		<ul style="list-style-type: none"> • 7.1 to 9 • 9.1 to 12 • 12.1 to 14.5 • 14.6 to 17 • 17.1 to 19.5 	<ul style="list-style-type: none"> • 19.6 to 22 • 22.1 to 26 • 26.1 and above

ISSUE 144. (Weimer)

16.16.870 Limited Public Disclosure

Is the “general summary information” mentioned regarding farm plans available on the county’s website? What does it include?

Staff Response: No, PDS has never compiled such information. However, staff has been talking with the Whatcom Conservation District about obtaining general summary information on a watershed level, which could be compiled and posted on our website.

From George Boggs: I believe the County has lacked the resources to capture and make this information available. We can work with the County to do this going forward. From the summary info, one could not deduce from exempt information the identity of the operation. It could provide information such as acreage/animal units/types of operations/BMPs recommended/status of the farms without plans/have plans/implemented plans. NOTE: The County can disclose all elements of the plans obtained as a condition for obtaining permits. There are a number of these.

ISSUE 145. (Weimer)

16.16.870 Limited Public Disclosure

Subsection (A): Reinsert “will” – Conservation farm plans will not be subject to public disclosure unless required by law;

Staff Response: Good catch.

ISSUE 146. (Weimer)

16.16.870 Limited Public Disclosure

Amend subsection (B) to read:

- B. Provided, that the County will collect summary information related to the address and parcel numbers general location of a farming enterprise covered by the farm plan, the nature of the farming activity, ~~and~~ the specific best management practices to be implemented during the conservation farm plan review process, the number of acres included, and the date of the last compliance review. This information, along with a map that shows parcels covered by approved farm plans, will be made easily and publicly available on the county's website. The summary information shall be provided by the farm operator or his/her designee and shall be used to document the basis for the County's approval of the plan. Plans shall also be subject to disclosure if required by a court of competent jurisdiction. Upon request, the County may provide a sample conservation farm plan, exclusive of site- or property-specific information, to give general guidance on the development of a conservation farm plan.

Staff Response: Staff strongly recommends against this. If we require this, it would probably end peoples' participation in CPAL. We can do a summary of CFPs by watershed in the Whatcom Conservation District.

Article 9. Definitions

ISSUE 165. (Brenner)

16.16.900 Definitions.

"Actively farmed" means land that has a documented history of ongoing agricultural use and that is currently used primarily for the production of crops and/or raising or keeping livestock.

Staff Response: Staff recommends deleting this entire definition, as we find now that the term isn't used anywhere in the CAO.

ISSUE 166. (Brenner)

16.16.900 Definitions.

"Agricultural activities" means those activities directly pertaining to the production of crops or livestock including, but not limited to: cultivation; harvest; grazing; animal waste storage and disposal; fertilization; the operation and maintenance of farm and stock ponds or drainage ditches, irrigation systems, and canals; and normal maintenance, repair, or operation of existing serviceable structures, facilities, or improved areas. Neither the construction of new structures nor Activities that bring a new, non-ongoing agricultural area into agricultural use are not considered agricultural activities.

Staff Response: Staff does not recommend this change. Where this term is used in the code it is in reference to exempting standard farming practices from some of the rules. However, both constructing new buildings and bringing new areas into agricultural use are supposed to always fall under the standard rules.

ISSUE 167. (Brenner)

Change, "Aquifer susceptibility" and "Aquifer vulnerability" to one definition that uses both terms since they are really the same. (p.86, ln 3-8)

16.16.900 Definitions.

"Aquifer susceptibility" means the ease with which contaminants can move from the land surface to the aquifer based solely on the types of surface and subsurface materials in the area. Susceptibility usually defines the rate at which a contaminant will reach an aquifer unimpeded by chemical interactions with the vadose zone media.

"Aquifer vulnerability" is the combined effect of susceptibility to contamination and the presence of potential contaminants.

Staff Response: Staff does not recommend this change. Though related, these words are not the same. Susceptibility how easily a particular aquifer may be contaminated. Its vulnerability is a measure of both its susceptibility and its likelihood of being contaminated given what types of uses are located above it.

ISSUE 168. (Brenner)

16.16.900 Definitions.

"Cumulative Impact" means effects on the environment that are caused by the combined results of past, current and reasonably foreseeable future activities. Evaluation of such cumulative impacts should consider: (i) current circumstances affecting the critical area and relevant natural processes; (ii) reasonably foreseeable future development that may affect the critical area; and (iii) beneficial effects of any established regulatory programs under other local, state, and federal laws.

Staff Response: Staff does not recommend this change. The term "cumulative impact" is used in 6 instances in the code and it would be best to define it. This definition is paraphrased from WAC 173-26-186(8)(d) of the Shoreline Management Act.

ISSUE 169. (Brenner)

16.16.900 Definitions.

"Debris flow," also called "lahar," means a moving mass of rock fragments, soil, and mud, more than half of the particles being larger than sand size; a general term that describes a mass movement of sediment mixed with water and air that flows readily on low slopes.

Staff Response: Staff does not recommend this change. Though all lahars are a type of debris flow, not all debris flows are lahars. Some can be non-volcanic in nature.

ISSUE 147. (Weimer)

16.16.900 Definitions.

Amend the definition of "development" to read:

"Development" means any activity that requires federal, state, or local approval for the use or modification of land or its resources. These activities include, but are not limited to: subdivision and short subdivisions; binding site plans; planned unit developments; variances; shoreline substantial development and exemptions; clearing activity; fill and grade work; activity conditionally allowed; building or construction; revocable encroachment permits; ~~and~~ septic approval, and agricultural activities requiring a conservation farm plan.

Staff Response: Staff does not recommend defining agriculture as development. Putting one cow on one acre, plowing, or irrigating a crop would then be considered development for which permits, including SEPA review, would be required.

ISSUE 170. (Brenner)

16.16.900 Definitions.

“Geologically hazardous areas” means areas that, because of their susceptibility to erosion, sliding, earthquake, or other geological events, ~~pose unacceptable risks to public health and safety and may~~ are may not ~~be~~ be suited to the siting of commercial, residential, or industrial development consistent with public health or safety concerns.

Staff Response: Staff does not recommend this change. This definition is straight out of RCW 36.70A.030(9).

ISSUE 171. (Brenner)

16.16.900 Definitions.

~~“Ongoing agriculture” means those activities conducted on lands defined in RCW 84.34.020(2), and those activities involved in the production of crops and livestock, including, but not limited to, operation and maintenance of existing farm and stock ponds or drainage ditches, irrigation systems, changes between agricultural activities, and maintenance or repair of existing serviceable structures and facilities. Activities that bring an area into agricultural use are not part of an ongoing activity. An operation ceases to be ongoing when the area on which it was conducted has been converted to a nonagricultural use, or has lain idle for more than five consecutive years unless that idle land is registered in a federal or state soils conservation program. Forest practices are not included in this definition.~~

Staff Response: Staff does not recommend this change. We realize that several amendments have been proposed that would open up the CPAL program to all farming (both new and existing, or ongoing), but that was never the intent of this program. To do so may make us vulnerable to appeals, since treating new ag as old and allowing new impacts could be construed as violating the GMA.

ISSUE 172. (Brenner)

Under "Reasonable Use" Change "2,500 square feet" to "3,000 square feet"

16.16.900 Definitions.

~~“Reasonable Use” means a property that is deprived of all reasonable use when the owner can realize no reasonable return on the property or make any productive use of the property. Reasonable return does not mean a reduction in value of the land, or a lack of a profit on the purchase and sale of the property, but rather, where there can be no beneficial use of the property; and which is attributable to the implementation of the Critical Areas Ordinance. means any one of the uses allowed within a given zone that has the least impact on the critical areas found on the subject property. For zones that allow single family residential uses, this typically would mean a house that has a development footprint (including all appurtenances except drainfields) and landscaping of 2,500 square feet or less.~~

Staff Response: The section of this definition that refers to the square feet is already proposed for deletion so changing the number wouldn't do any good. And Council has already changed this number to 4,000 in 16.16.270.

ISSUE 148. (Weimer)

During the CAO review both the TAC and CAC raised issues regarding the lack of baseline data to allow the County to know whether our CAO is working to protect critical areas. During the CompPlan review the Council built some of this concern into it, and during the Planning Commission review of the CAO they included a finding of fact where they would not agree that the CAO was GMA compliant because of lack of baseline information:

The proposed regulations for critical areas are ~~sufficient and appropriate to protect the functions and values of those areas~~ consistent with the Whatcom Comprehensive Plan and Growth Management Act.

I am assuming that none of us want a similar finding of fact in what the Council ultimately produces. To avoid that, or in at least my case a no vote on the entire CAO, I would request that PDS brings us a plan to address this lack of baseline information. At a minimum the plan should include plans to address obtaining baseline info for wetlands, wildlife, and CARAs, and include an implementation timeline, specifics about what is needed (staffing/consultants/funding), and a proposed funding mechanism/source.

Staff Response: There is no requirement in the GMA to do jurisdiction-wide, long-term monitoring of the CAO's effectiveness, though the Growth Management Hearings Board in several of their decisions have indicated that doing so would be valuable. That said, staff could only find two jurisdictions (King and Snohomish counties) that have performed such a task. Both were done only once, and both received EPA grants to do so. Nonetheless, over the ensuing months after adoption of the CAO, if Council so desires, staff could develop a monitoring plan proposal (see Table 2, below). (This, along with other issues, was actually raised back in September at your first workshop as a potential follow-up issue that the Wildlife Advisory Committee could oversee.)

Just because the P/C struck the referenced words (above) from the proposed finding doesn't mean the Council can't reinsert them if they believe the practices contained within the CAO protect critical areas' functions and values. Staff believes that it does and we urge you to do so, as it would greatly assist in any future appeals.

Table 2. Existing & Potential Mitigation Monitoring Programs

Tasks	Subtasks	Supports C/P Policies	Est. Add'l FTEs	Est. Cost (\$)
Development Permit Mitigation Monitoring Program	<ul style="list-style-type: none"> Continuation of our current 5-year mitigation monitoring program for individual development projects 	10A-2, 10K-15, 10M-4, 10L-17	0.25	
Development Permit Mitigation Monitoring Program Review (adaptive management, on-going review every 2 years)	<ul style="list-style-type: none"> Internal assessment of program consistency (Permit issuance + Mitigation) Review WDFW High Resolution Change Detection data 	10A-2, 10K-15, 10M-4, 10L-17		
Countywide Ecosystem Functions and Values Study (initial study)	<ul style="list-style-type: none"> Hire a consultant to design the baseline analysis, develop data architecture, develop assessment data forms, and train field crew (WC staff). The baseline analysis is an on-the-ground rapid assessment to ground truth GIS data sets for ecosystem health. Create working relationship with Western University and citizen science community Use a stratified random sampling analysis for site selection in order to maintain statistical integrity. PDS would recommend 7 sites for each unique ecosystem (nearshore/offshore/sand spit, marine riparian, wetland, fresh water stream/ river, fresh water lake, grassland/prairie/AG, upland forest,); for a total of 49 sites. The Wildlife Committee has established 5 habitat categories for their report to Council; the study design would use these categories as one of the stratification levels. Complete Rapid Habitat Assessments for various habitats and wildlife (bird, amphibian, upland vegetation (grassland, forest (secession type), bald), streams, marine riparian, riparian, wetlands, lakes, nearshore GIS Vegetation Change Analysis (WDFW High Resolution Change Detection) Water quality conventional sampling at each site as applicable Wetland Prediction Model (work with Snohomish County and Skagit County) GIS Analysis Laboratory Analysis Citizen Scientist Workshops 	10A-2, 10K-15, 10K-16, 10M-4, 10L-17, 10L-18	0.25	\$250,000 – \$400,000
Countywide Baseline Ecosystem Functions and Values Monitoring Program (adaptive management, on-going review every 5-years)	<ul style="list-style-type: none"> Complete Rapid Habitat Assessments Laboratory Analysis Internal assessment of program consistency (Permit issuance + Mitigation) Wetland Prediction Model Maintenance Citizen Scientist Workshops 	10A-2, 10K-15, 10K-16, 10M-4, 10L-17, 10L-18	0.25	\$100,000 (data management and consultant)
Additional (potential) Programs	<ul style="list-style-type: none"> If we start a mitigation bank If we start/participate in an in-lieu fee program 		.75	

Article 5. Critical Aquifer Recharge Areas

Is Having High Concentrations of Nitrates in Groundwater a Significant Health Issue?

According to the literature, having high concentrations of nitrates in drinking water (primarily from groundwater and wells in rural areas) *may* cause methemoglobinemia², generally in infants under 6 months old. We say “may” because more current studies call in to question whether it is caused by high nitrate concentrations or bacteria:

“The link between nitrate and the occurrence of methaemoglobinaemia was based on studies conducted in the 1940s in the midwest of the USA. In part, these studies related the incidence of methaemoglobinaemia in babies to nitrate concentrations in rural well water used for making up formula milk replacement. Comly (1945), who first investigated what he called “well-water methaemoglobinaemia,” found that the wells that provided water for bottle feeding infants contained bacteria as well as nitrate. He also noted that ‘In every one of the instances in which cyanosis (the clinical symptom of methaemoglobinaemia) developed in infants, the wells were situated near barnyards and pit privies.’ There was an absence of methaemoglobinaemia when formula milk replacements were made with tap water. Re-evaluation of these original studies indicate that cases of methaemoglobinaemia always occurred when wells were contaminated with human or animal excrement and that the well water contained appreciable numbers of bacteria and high concentrations of nitrate (Avery, 1999). This strongly suggests that methaemoglobinaemia, induced by well water, resulted from the presence of bacteria in the water rather than nitrate per se. A recent interpretation of these early studies is that gastroenteritis resulting from bacteria in the well water stimulated nitric oxide production in the gut and that this reacted with oxyhaemoglobin in blood, converting it into methaemoglobin (Addiscott, 2005).”

Regardless of whether methemoglobinemia is caused by bacteria or nitrates, treatment of infant cyanosis is simple once the condition has been recognized. If the patient is mildly affected, then he/she must simply refrain from drinking from the contaminated well for a few days and the body will replenish the hemoglobin by itself in a few days. However, if the patient is severely cyanotic, methylene blue must be administered intravenously in a dosage of 1-2 mg/kg of body weight for a ten-minute period and improvement should be prompt.

Additionally there are simple methods to prevent this syndrome. Residents of rural areas should have their wells tested³, especially if pregnant women or infants³ are consumers of the well water. If the well is contaminated, other water source alternatives are other safe wells, bottled water, a new, deeper well, or a water purification system⁴ which is capable of removing the nitrates. It’s also suggested that because cyanotic babies usually contract methemoglobinemia from the water used to prepare their formulas, formulas which use diluted whole milk are less risky than those prepared from powdered or evaporated milk which require large amounts of water

² AKA “blue baby syndrome,” a condition wherein nitrates alter a blood protein, which prevents the blood cells from absorbing oxygen and can lead to slow suffocation and death. Since 1945, there have been over 2,000 cases of infant methemoglobinemia reported in Europe and North America with 7 to 8 percent of the afflicted infants dying. **The WC Health Department is unaware of any known cases of methemoglobinemia in Whatcom County.**

³ Always recommended by the WCHD

⁴ Also recommended by the WCHD

in preparation. Breast feeding or the use of bottled water in formula preparation offers the safest solution, especially if the groundwater quality is unknown.

Response to Council's Motion of June 13, 2017

At your direction, PDS staff met with John Wolpers (WCHD) and George Boggs (WCD) to address your request for additional information and methods of protecting groundwater from nitrate contamination. In your last workshop we heard broad support, if not unanimity, for an approach that incorporated the following elements:

- Raising awareness and recruiting adoption of groundwater protective measures through education and outreach,
- Afford the opportunity for landowners to take initiative in identifying and implementing protective measures,
- Should be some sort of a self-administered pollution prevention checklist and self-reporting with a feedback loop similar to how the WC Health Dept. addresses failing septic systems,
- Incorporate community and stakeholder in identifying additional measures, and
- Focus efforts, at least initially, to obtain the greatest benefit in the shortest possible time.

Current Efforts

In thinking about next steps, we should look at current efforts to protect groundwater in order to identify potential gaps that could be filled by early actions. In your memo for your 5/30/17 workshop we provided you Table 1, Agencies with Roles in Minimizing Agricultural Impacts on the Environment, which outlined everything all the agencies are doing. Specifically in regard to protecting the aquifer against nitrates, we offer the following details of our local agencies' efforts.

Whatcom Conservation District

While there are some qualified professionals that can develop farm plans, the majority are produced by the WCD.

Conservation Farm Plans

Type 1 (small/low intensity farms) Groundwater is protected in these types of operations because this relatively simple plan is limited to less than 1 animal unit/acre) and the operation may not collect and apply liquid manure. In a low productivity pasture, one horse would meet from 30 to 61% of the nitrogen needed by the crop. One beef cow would meet from 35% to 84% of nitrogen needed by the crop. So, if the animals are grazed and the solid manure spread evenly across the field the grass is sure to consume all available nitrogen. None remains to be converted to nitrate and lost to the aquifer with fall and winter rains. Liquid manure requires special management in terms of capturing, storing and applying in order to avoid environmental impacts to surface and ground water. If the operator desires to do this for his/her operation then they must obtain a Type 2 custom plan.

Type 3 (Dairies/Other livestock operations put under a National Pollution Discharge Elimination System Permit). The appropriate capture, storage, and application of manure are central to these types of plans. In the case of dairies, the WA State Dept. of Agriculture (WSDA) inspects the dairy at least every other year. It monitors nutrient management records to ensure that they reflect that the manure applications have been applied at

“agronomic” rates. This means that the amount and timing of the applications are to meet reasonably attained crop yields. It is estimated that as much of 70% of the dairies/large livestock operations (>200 animal units) are subject to the new Confined Animal Feeding Operation (CAFO) Permit. There are mandatory provisions of the CAFO Permit that impose additional manure management including monitoring, storage, and application. These plans can be very detailed and complex given the nature of the respective operations. There are annual reporting requirements. The WA Dept. of Ecology provides oversight along with WSDA.

Type 2 (All other farming operations not either a Type 1 or 3). It is the policy of the WCD to write all plans in a manner to protect critical areas. Nutrient management to protect groundwater is necessarily included in every plan, and the most current applicable guidance relative to fertilization is included. This is often drawn from Oregon and Washington Extension and the Agriculture Canada experiment station in Agassiz, BC.

Education & Outreach

With the funding made available through its Pollution Identification and Control (PIC) and Birch Bay Interlocal agreements with the County, the WCD developed and is maintain a robust education and outreach program for livestock operations of all sizes and berry growers.

Please see the attached WCD 2016 report of accomplishments (Attachment A). It describes the breadth of activities taken to protect surface and groundwater.

Whatcom County Health Department

The Whatcom County Health department provides review of water availability for those seeking to develop property. When an individual well is drilled, they require testing to assure that the property will be served with safe and reliable potable water. If a contaminant level is detected above the MCL (nitrate), they require mitigation. If a maximum contaminant level is detected (nitrate for instance), they require technology mitigation. The Health department also provides education to property owners on proper operation and maintenance of the technology.

The Group B regulations (those public water systems serving less than 15 connections) now require all proposed new systems developed to not exceed primary contaminant levels or they cannot be developed for use and must find an alternate source for potable water. Systems already in existence with high levels of nitrates require mitigation that can either be at the source or point of use.

The Washington State Department of Health requires Group A public water systems (greater than 15 connections) to submit sampling on a scheduled basis. If a maximum contaminant is found, there are options to address through blending sources or technology treatment.

Additional Background Information

There is a multitude of potential sources of nitrate in addition to agriculture. These include onsite septic systems, residential lawn fertilizers, and the natural environment. A onsite septic system (OSS) can generate between 6 and 17 grams of total nitrogen per person per day. (2002 EPA study). The calculated loss of N for residences in the Yakima Ground Water Management Area ranged from 195 to 225 lbs. of nitrogen per year. Soils greatly affect the rate of nitrogen loss. There is an estimated 27,000 OSS in rural Whatcom County. In a 2010 study EPA identified Red Alder as a significant source of nitrate in two Oregon coastal river systems. (See https://cfpub.epa.gov/si/si_public_record_report.cfm?dirEntryId=230765). These are mentioned to perhaps

temper the expectation that we can be successful in achieving the desired quality of groundwater in a piecemeal manner.

Additionally, it is important to note that the overall trend well data from 2010 (31 wells) to 2016 (20 wells) monitored by Ecology has dropped and remained below 10ppm, though some individual wells are still of concern. Of the 2016 data, 5 of 20 wells are above 10 ppm and trending up. Four additional wells are barely below 10 ppm. (See Attachment B)

Two conclusions flow from this. First, the current program of education, outreach, and technical assistance must have some palpable efficacy to see this kind of improvement. Second, there is opportunity for improvement but over a smaller geographic area than the entire County. Accordingly, a focused response as appears contemplated by the Council rather than one of general application (like requiring all farms to have a farm plan) is justified.

Options for the Future

Near Term

The County could:

- **Conduct a targeted education and outreach program.** The twenty wells that Ecology has and continues to monitor could serve as a basis for identifying affected landowners. Messaging could be tailored to generators of nitrogen and consumers of private wells. The WCD, WC Health Dept., and WSU Extension could coordinate and collaborate on messaging. Goals would be to reduce nitrogen contribution to groundwater and ensure that those whose source of potable water is from private wells regularly test their water to avoid potential adverse health impacts.
- **Improve coordination of groundwater quality monitoring** and remediation strategies among the Department of Ecology, Department of Health, Whatcom Conservation District, WC Health Department, and WC Planning and Development Services.

Intermediate Term

The County could:

- **Support the Nooksack-Abbotsford-Sumas Transboundary Study.** Nearly 30 organizations are collaborating on a nitrogen assessment for the Lower Fraser River Valley and Whatcom County. This is one of six multi-national pilots in the World that is looking at managing nitrogen more effectively to avoid environmental impacts such as too much nitrate in groundwater. Ostensibly, the assessment and solution development will include the community, stakeholders, and agencies. (See Attachment C). One recommendation could be to evaluate whether or not the County should form a Ground Water Management Area (GWMA) and/or Aquifer Protection Area (APA) as provided under State law.
- **Conduct/seek an assessment of potable water wells** that could inform the delineation of boundaries for a future groundwater management area.

Longer Term

The County could:

- **Create a Ground Water Management Area** pursuant RCW 90.44.400 and WAC 173-100⁵. This statute lays out a process for publicly delineating boundaries then studying the aquifer using an advisory committee made up of stakeholders, the County, and the Department of Ecology. From this would be the development of a groundwater management plan that could identify solutions and funding sources, which can then be used by agencies with jurisdiction (i.e., the County) to develop the appropriate remedies and regulations. For information on the Yakima GWMA see <http://www.yakimacounty.us/541/Groundwater-Management-Area>.
- **Create an Aquifer Protection Area** pursuant to RCW Chapter 36.36. This statute allows for the creation of aquifer protection areas to finance the protection, preservation, and rehabilitation of subterranean water and to reduce special assessments imposed upon households to finance facilities for such purposes. Revenue is collected from fees assessed for withdrawals from the aquifer.

Using either or both of these mechanisms seems to address the key components of a desired program that Council addressed in their motion.

⁵ See Attachment D – *State Mechanisms for Groundwater Protection*